A HISTORY OF COTTON-GROWING IN EAST AND CENTRAL AFRICA: BRITISH DEMAND, AFRICAN SUPPLY

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ABSTRACT

Based on extensive UK and African archival research and a wide survey of secondary sources, this thesis examines various aspects of African cotton production from prehistoric to modern times. Its main emphasis is on the interaction of British demand and African supply during the twentieth century colonial period. The British Cotton Growing Association (BCGA), Empire Cotton Growing Corporation (ECGC), Malawi and Tanzania are studied in detail to observe the means by which the BCGA and ECGC articulated British needs and nurtured the African cotton industry and the extent to which East and Central African cotton-growing was directed by external wants, supported by outside input and met local desires. Also examined are the dynamics of competition, control and occasional cooperation between European planters, African smallholders, metropolitan government, various levels of local government administration, large-scale merchants, small traders, Departments of Agriculture and the Colonial Office (CO). Background data is provided in technical appendices and over fifty statistical tables, graphs and maps.

Starting with a discussion on the origins of cultivated cottons, the first chapter describes the rise of the Lancashire cotton industry and its search for a regular, secure supply of raw cotton. The second chapter narrates the history of the BCGA, inaugurated in 1902 to meet British cotton requirements, and assesses its success, its inherent dichotomy as "semi-philanthropic, semi-commercial" and its relationships with the CO, overseas governments and trading firms. It also introduces the ECGC, chartered in 1921, the main subject of the third chapter which spotlights the varied areas of ECGC activity and its role in agricultural research. Chapter 4 bridges the metropolitan-colonial divide with an examination of economics, agriculture and cotton in British territories in Africa, with specific sections on Zimbabwe, Zambia, Kenya and Uganda. Chapters 5 and 6 present overviews of cotton-growing in Malawi and Tanzania, touching on regional variations, constraints on expansion, means of encouragement, ecological effect and economic and production results.

The final, summarising chapter assesses common technical, ecological and political themes in East and Central African cotton-growing and briefly appraises the vital roles and rationale of past and present African producers, BCGA and ECGC in ensuring cotton demand was met.

In accordance with Edinburgh University Regulation 3.4.7, I declare that this thesis has been composed by myself and is my own work.

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NOTE ON REFERENCE SYSTEM

Working from two premises - that citations should be relatively easily and precisely checkable, and that the awkward strings of codes needed by my word-processing programme for superscripting and footnoting should not be overstretched - the reference system used in this thesis is an adaptation of the Harvard system, redesigned to allow distinction to be made between different types of source material.

The bibliography at the end of the work is divided into:
I Archival Sources, with eleven main headings;
II Newspapers and Periodicals;
III Unpublished Theses, Dissertations, Papers, Interviews;
IV Books, Pamphlets and Articles.
Bibliographical entries in Sections III and IV are listed alphabetically and, if necessary, subdivided chronologically with the latest work noted first. If two or more works by the same author have the same publication year, they are distinguished by adding a letter after the date.

In the text, references to Archival sources always start with "I", followed by qualifiers to indicate the sub-section in which the document cited will be found. For example, "(I(i)(c): CGA 3/1/6)" will be found to be COLONIAL OFFICE 'Draft Memorandum', dated 31st March 1909, in the British Cotton Growing Association archive in Birmingham University Library; and "(I(v)(b): MNA A/3/2/76)" will be seen to be a file called 'Cotton Markets' in the Malawi National Archives' Department of Agriculture holdings. Where further detail is deemed necessary in the text, for instance when a particular letter in a file is being referred to, the reference is generally given in a footnote.

Newspapers and periodicals are cited by title in the text and are listed alphabetically in Bibliography II. Unpublished theses and dissertations are referred to in the text in the following manner: "(Malima, Ph.D., 1971)", or "(Minde, M.Sc. 1979)" and full details will be found in Bibliography III. Other unpublished items are cited in the text in the form "(III, Green, 1984)", thus indicating by the III that the work is not published and that the full reference should be sought in Section III of the Bibliography.

References to secondary sources follow the standard Harvard system "(Alexander, 1969)", or "As Alexander (1969) notes..." - with full bibliographical details in Section IV of the Bibliography.

NOTES ON TERMINOLOGY

(1) 'East and Central Africa'

The geographical area of 'East Africa' creates no problem: most would agree it includes Kenya, Uganda and Tanzania. However, 'Central Africa' is more problematic and has given rise to considerable discussion. Thus, Lord Salisbury observed of the name 'British Central Africa Protectorate', chosen by H.H. Johnston: "The region it indicates is anywhere but in the centre of Africa: but that again is a British habit. The Middle Temple is not in the middle" (Hanna, 1956, p. 186). Much later, Lewis H. Gann, for example, in Central Africa. The Former British States (Spectrum, 1971), speaks of the indiscriminate use of 'Central Africa' which may refer to the Central African Republic of West Africa, to Zambia and Malawi, to Malawi or Nyasaland as the British Central Africa Protectorate, or to the Federation of Rhodesia and Nyasaland (or British Central Africa Federation). Congo or Zaire are also on occasion the object of the name.

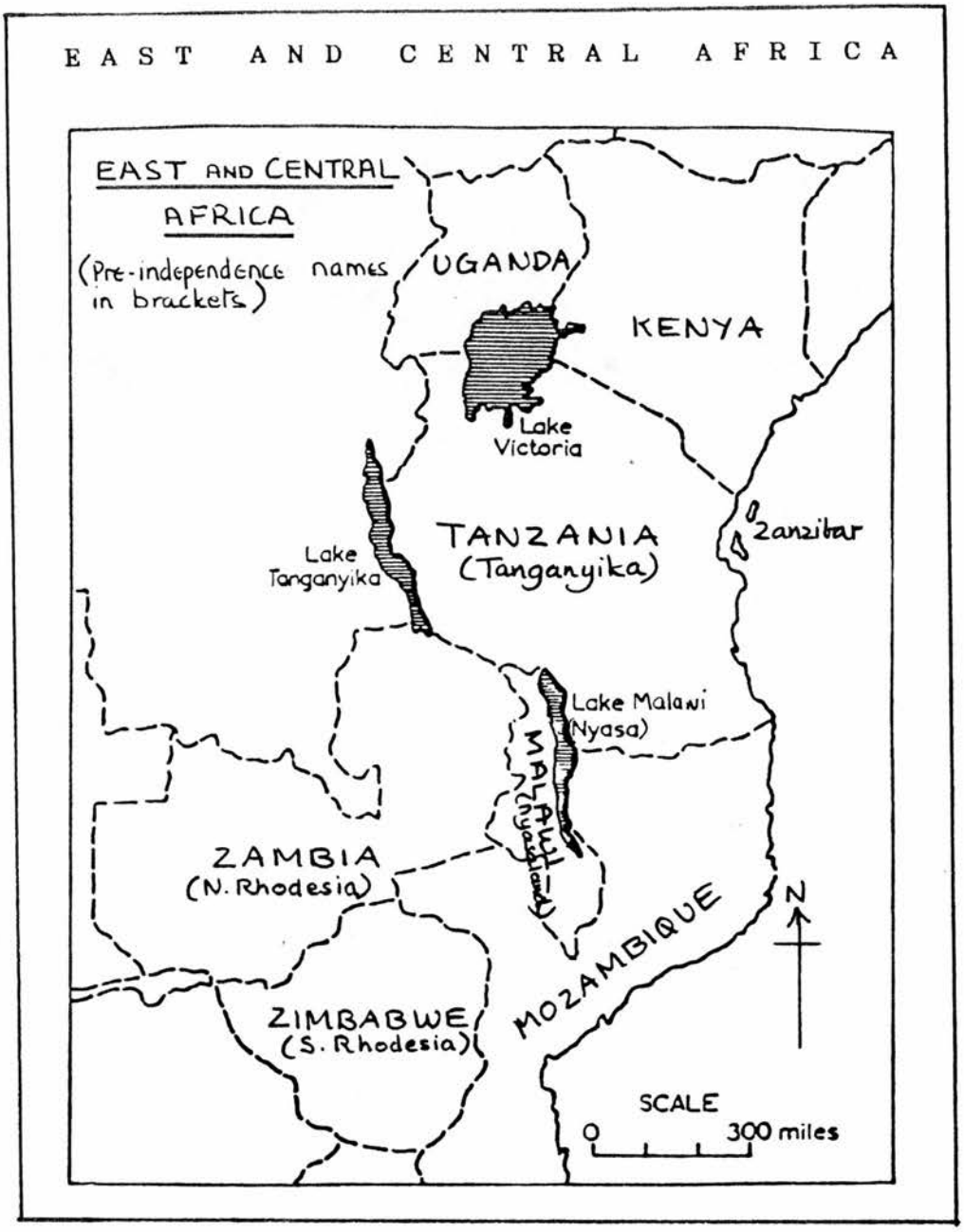
For the purposes of this thesis, East and Central Africa includes Kenya, Uganda, Tanzania, Malawi, Zambia and Zimbabwe (all discussed) and Mozambique (not discussed).

(2) Placenames

Names assigned are generally those in use at the time, unless continuity demands other treatment. Appendix VII (ii) lists some Nyasaland-Malawi placename changes.

(3) "Smallholder", "peasant" etc.

Terms such as smallholder, small farmer, local farmer, African farmer, peasant, indigenous cultivator and native grower have been used synonymously in this thesis and with no derogatory connotations attached to any of them. The term 'peasant' has become somewhat contentious since the "rediscovery of peasants" as an analytical category in the late 1960s (Shanin, 1971, p.11) and has become tainted with a Marxist class analysis approach which implies that peasants are always oppressed, exploited, generally powerless producers. Pages of discussion in Cooper (1981) and Shanin (1971) come to no constant definition, but the closest description of the type of cultivator written about here is that of Shanin (1971) which Cooper (1981, p. 284) also accepts: "...small agricultural producers who, with the help of simple equipment and the labour of their families, produce mainly for their own consumption and for the fulfilment of obligations to the holders of political and economic power."


EAST AND CENTRAL AFRICA
EAST AND CENTRAL AFRICA
(Pre-independence names in brackets)
UGANDA
KENYA
Lake Victoria
TANZANIA (Tanganyika)
Zanzibar
Lake Tanganyika
Lake Malawi (Nyasa)
MALAWI (Nyasaland)
ZAMBIA (N. Rhodesia)
MOZAMBIQUE
ZIMBABWE (S. Rhodesia)
N
SCALE
0
300 miles

MAP 1

ABBREVIATIONS

ALC	African Lakes Company/Corporation
AR	Annual Report
BCA	British Central Africa
BCAC	British Central Africa Company
BCAP	British Central Africa Protectorate
BCGA	British Cotton Growing Association
BEAC	British East Africa Corporation
CAT	Central African Times
CCDP	Chikwawa Cotton Development Project
CCL	Chancellor College Library
CO	Colonial Office
CR	Colonial Report
CRC	Cotton Research Corporation
CSA	Cotton Supply Association
CSMA	Cotton Spinners' and Manufacturers' Association
DA	Director of Agriculture
DAO	District Agricultural Officer
DB	District Book
DO	District Officer
ECGC	Empire Cotton Growing Corporation
ECGR	Empire Cotton Growing Review
EUL	Edinburgh University Library
FMCSA	Federation of Master Cotton Spinners' Associations
FO	Foreign Office
IRDP	Integrated Rural Development Project
KWK	Kolonial Wirtschaftliches Komitee
LCA	Liverpool Cotton Association
LSMB	Lint and Seed Marketing Board
LUC	Liverpool Uganda Company
MCA	Manchester Cotton Association
MCC	Manchester Chamber of Commerce
MCP	Malawi Congress Party
MNA	Malawi National Archives
PC	Provincial Commissioner
PRO	Public Records Office
RHL	Rhodes House Library
SDS	Sukumaland Development Scheme
SSC	Secretary of State for the Colonies
SVACP	Shire Valley Agricultural Consolidation Project
SVADP	Shire Valley Agricultural Development Project
TANU	Tanganyika African National Union
TCA	Tanzania Cotton Authority
TNA	Tanzania National Archives
USSC	Under-Secretary of State for the Colonies
WNLA	Witwatersrand Native Labour Association (Wenela)

PREFACE

Probably derived from a perennial shrub with ancient origins in Africa, cotton is the world's most important vegetable fibre. Despite a decline in exports relative to production, because of the growth in textile manufacturing capacity in producing countries,[1] it remains the most important non-food agricultural commodity in world trade.[2] Cotton has been of vital importance to the rural development and economies of many African countries for much of this century and continues to be now that competition from synthetics has proved much weaker than feared a few decades ago.[3] [4] Cotton still features prominently in the raw materials used in the textile and clothing industry which accounts for 10% of manufacturing employment in the UK (TGWU, 1991, p.1).

Fourteen years living in the major cotton-growing areas of Tanzania (Sukumaland) and Malawi (Lower Shire Valley), working for much of that time on the periphery of agricultural research and information work, give me no unchallengeable credentials for writing about cotton but have made me very conscious of its importance and of the need to attempt to take into account a wide range of historical, technical, agronomic, ecological and social factors when examining cotton-growing in Africa. Tosh remarked that "... most historical discussion is conducted in a kind of ecological vacuum" (1980, p.80).[5] Equally so, my own observations and experience suggest that much

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[1] The first local spinning and weaving mills in West and East Africa were set up in Ivory Coast in 1921 and at Jinja, Uganda, in 1955.

[2] Export data can be found in FAO Production Year Books and Trade Year Books and in UN Yearbooks of International Trade Statistics.

[3] The idea of an artificial fibre was first mooted by an English scientist, Robert Hooke, in Microphagia (1665). Watts, writing on cotton in 1871, was certain that, "It may be fairly concluded that neither nature nor the genius of man is ever likely to supply a substitute" (p.114). This has not proved to be entirely true to date, but synthetics have not managed to replace cotton, which is still a competitive fibre on its own or blended with man-made fibres.

[4] See Appendix VI, Table 1, for cotton's lead in the world's per capita consumption of apparel fibres.

[5] Notable exceptions to this include Beinart (1985), Hopkins (1973), Iliffe (1979), Kjekshus (1977), McCracken (1987; III, 1985), Mandala (Ph.D., 1983) and Vaughan (1981; 1984).

agricultural and ecological discussion is conducted, if not in an historical vacuum, then without adequate awareness of the past.

Despite the importance of cotton in Africa, there has been little written on the history of the crop or its growers. One of the objects of this work is to try to rectify this for a significant region of Africa. The topic is immense, as the bibliography may suggest, and many aspects demand more detailed treatment than space permits here; but this thesis has two central aims. One is to cast some light on the background to the formation of the British Cotton Growing Association (BCGA) and the Empire Cotton Growing Corporation (ECGC) and to examine their origins, structure and impact in East and Central Africa; the other is to analyse the history of cotton-growing in East and Central Africa, with special attention to Malawi and Tanzania, from pre-colonial to modern times.

The BCGA and ECGC were both initially set up to increase the supply of "Empire" cotton to keep the Lancashire mills rolling. The success of both organisations must be measured by the extent to which they managed to augment the supply of raw material imports and the manner in which they tackled the multitude of constraints they faced. The voluminous, largely unknown BCGA and ECGC archives,[1] to which I was given generous access in Birmingham, Liverpool and Nottingham, form the basis of this part of the thesis.

To chronicle some of the many facets of cotton-growing in Malawi and Tanzania, extensive use was made of Agriculture, Secretariat and District records held by Malawi National Archives and Tanzania National Archives. It is readily acknowledged that the main omission has been "the voice of the people", especially that of African

[1]The BCGA archive in Birmingham has been utilised by a handful of people; and I was informed that I was the second researcher to have sought access to the BCGA Liverpool holdings and the first to have made extensive use of the ECGC Nottingham materials.

growers at the core of it all. Surveys and interviews conducted for other more general historical, economic or sociological purposes are no substitute for directed questioning within a structure allowing for expanded discussion to obtain a genuine, local perspective.[1] Despite this limitation, it has been possible to touch on salient features common to cotton-growing in different regions of the area - the interaction, alliances and feuds between European settlers, plantation companies, African leaders, African growers, British Government, local governments, Agriculture Departments, District Agricultural Officers, cooperative societies, Marketing Boards, District and Provincial officials, Legislative Councils, missions, the Colonial Office, the Foreign Office, Asian traders, Lancashire millowners and factory operatives, competing Japanese and Indian buyers, African spinning and weaving operations, BCGA, ECGC, Chambers of Commerce, trading companies, shipping magnates, railway boards, ginners, and World Bank and IMF advisers. Over all of these, mocking efforts, is the climate which has shaped the land and limited the choices. A host of permutations of interaction exist, many deserving fuller analysis.

This thesis addresses only some aspects of the history of the crop with special reference to the BCGA, ECGC, Malawi and Tanzania. If anything should be gleaned from it of relevance to the agricultural problems facing African producers and governments today, I hope it would be reinforcement of Anderson and Grove's comment: "There exists an absolute necessity for scientists, social scientists, historians, development planners and the governments and agencies they advise, to begin to learn to speak to each other, and to become mutually aware of the full complexity of the social dynamics that operate in rural Africa" (1987, p.10).

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[1]The worst of the oral records used took the form: "Question: Did you ever grow cotton ? Answer: Yes." Full stop. End of questioning. (I(v)(f): MNA, DAOR).

THE COTTON PLANT

opened cotton boll

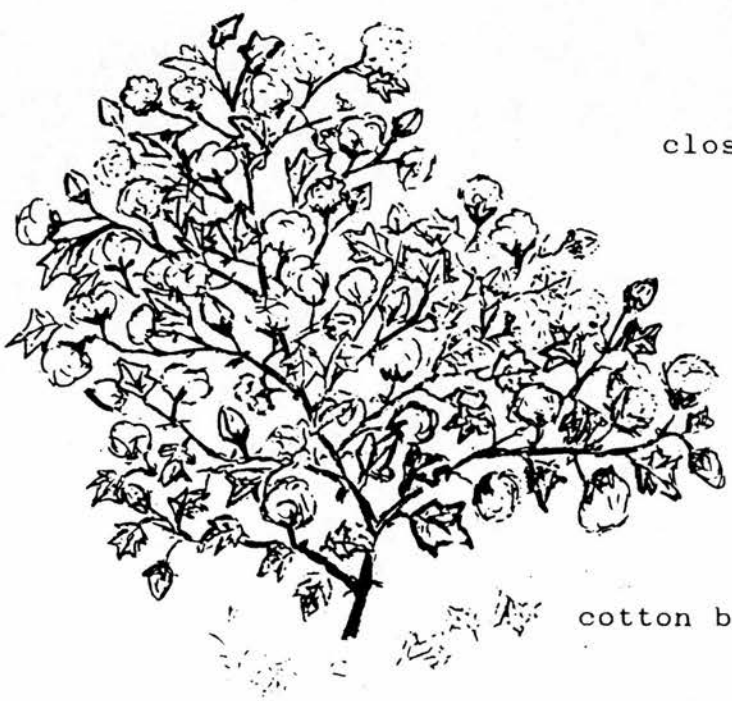




cotton flower and leaves



closed cotton boll



cotton bush

Seal of the British Cotton Growing Association, chartered in 1904.

Seal of the Empire Cotton Growing Corporation, chartered in 1921.



Part of the renovated New Lanark cotton mill complex in the central belt of Scotland.

CHAPTER 1

THE RISE OF KING COTTON

1.1 THE ORIGINS, DOMESTICATION AND EARLY HISTORY OF CULTIVATION OF COTTON (*Gossypium* species)

> "And certain wild trees there bear wool instead of fruit, that in beauty and quality excels that of sheep..."
> (Cary's 1891 translation of Herodotus III, 106.)

Wild, usually lintless, species of the genus *Gossypium*[1] have been discovered in the four tropical and sub-tropical continents of Africa, Asia, Australia and America (Hutchinson, Silow and Stephens, 1947, pp.53-55). Five arid areas of origin have been postulated - the Arabian desert area, south-eastern Asia, the Australian desert, the drier parts of Central America and the fringes of North and South Africa (Cobley,1956, pp.45-46; Purseglove, 1968, pp.335-41). There is no consensus, however, on the origins of the Old World and New World linted cottons of commerce (those *Gossypium* species with seeds bearing convoluted, spinnable lint hairs, rather than the unconvoluted, simple seed hairs of wild species). Today, these supply not only the most important of the world's vegetable fibres but also edible and industrial oil, livestock feed, gossypol,[2] and other subsidiary products for which Soviet scientists have claimed over a thousand uses (Wiseman, 1985).[3]

Lint-bearing has no obvious natural selective value to a cotton plant (Hutchinson, Silow and Stephens, 1947, p.68)

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[1] See Appendix I for taxonomy of *Gossypium*.

[2] Gossypol, found in cotton seed, has contraceptive, anti-parasitic, immuno-suppressive and anti-viral properties. See Appendix III, Note 11, for further information.

[3] Silage additives, oxydization inhibitors and plasticisers for the process of toughening ferrocconcrete components are amongst the uses to which cotton by-products have been put.

and the plant, particularly in annual forms, is not especially well adapted to competition for survival in the wild (Prentice, 1972, p.1). This and the fact that truly wild linted cottons are probably not found at the centres of diversity[1] of cultivated cottons but are found in a secondarily wild form where cotton is, or has been, cultivated, suggests to botanists that utilization, primarily for textiles, by people already familiar with the spinning of other easier fibres, may have been the key factor in the origin, distribution and development of the four species of *Gossypium* - Old World *G. herbaceum* and *G. arboreum*, and New World *G. hirsutum* and *G. barbadense* - which have contributed to the great diversity of modern short-term, annual,commercial cottons derived from earlier perennial shrubs with their first origins in Africa (Hutchinson, 1962).[2]

Diverse dates - based on a wide range of taxonomic, cytological, morphological, archaeological, ecological, ethnographic, linguistic and textual studies - have been put forward for the first use of cotton plants as a cultivated source of textile fibres. However, as Higgs and Jarman (1969, p.32) observe, there is a problem of differentiation between "wild" and "domestic" where "a clear cut taxonomic line does not necessarily correspond to a clear cut line in nature".[3] There is also a tendency to draw hasty conclusions. For example, Murdock (1959, p.70), eager to support his contention that African agriculture began in the Western Sudan and that its antiquity was much greater than then accepted by archaeologists, cryptically pronounced on cotton: "Originally ennobled in

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[1] See Appendix III, Note 2, for N.I. Vavilov's 1926 concept that crop plants were taken into cultivation in regions where the modern plant displays maximum variation.

[2] See Appendix II for notes on cotton cultivated for lint production.

[3] Harlan and De Wet (1973, pp.51-55), commenting on the importance of plant and animal domestication in the story of mankind, warn of the "flimsy theories, unlikely explanations, naive interpretations, and outright errors" that occur in the attempt to reconstruct the past. Modern botanical work on the topic begins with Harland's analysis of species, published in 1936; but others previously, such as Alphonse de Candolle (1855 and subsequently) and Watt (1907), had tried to make sense of the conflicting, imperfect knowledge of their times.

the Western Sudan from the indigenous wild *G. anomalum*, this textile plant was transmitted very early to India but did not reach Egypt until the sixth century B.C." What is meant by "ennobled" is not clear, particularly in relation to *G. anomalum* which most botanists regard as a wild ancestor of true cottons unlikely to have given rise directly to a domesticated cotton. However, there is certainly written evidence that cotton was used in India many centuries B.C.

In Cotton, from the Pod.... (1842, p.6), it is claimed that the earliest mention of the plant is by Herodotus.[1] However, Handy (1896), referring to India's central position in the cotton industry from 1,500 B.C. to 1,500 A.D., comments on Manu's 800 B.C. laws digest, which frequently mentions cotton;[2] and an even earlier Hindu Rigveda hymn of 1,500 B.C. alludes to the cotton plant (Encyclopaedia Britannica, 1964 edition, Vol. 6, p.613; Brown, 1938, p.1; Mann, 1860, p.1).[3] That there are not more references to cotton fabrication in early Indian literature is attributed by Schlingloff (1974, p.85) to the fact that "classical Sanskrit authors, devoted to higher education, did not take interest in the vulgar occupations of the housekeepers". When the topic is raised, later, it is by Jain and Buddhist alms-gatherers forced into closer contact with domestic work. Regarding export, Arrian, Greek historian and philosopher of c.96 - c.180, reports

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[1] Herodotus III, 47, describes a corselet which Amasi, King of Egypt, sent to the Lacedaemonians (569 B.C.), "..made of linen .. adorned with gold and cotton-wool..." (Cary trans., 1891, p. 190). Herodotus III, 106, claimed by How and Wells (1912, p. 290) to be "the first Western mention of cotton", reports on the products of India around 521 B.C.: "And certain wild trees there bear wool instead of fruit, that in beauty and quality excels that of sheep, and the Indians make their clothing from these trees" (Cary trans., 1891, p.215). Herodotus VII, 61-69, catalogues the national contingents in Xerxe's army and fleet around 485 B.C., commenting, "The Indians wore garments of tree-wool", with a footnote translating "tree-wool" as "cotton" (Godley trans., 1922, p.379). "Tree wool" was a common early description of cotton, and is a direct translation of modern German "baumwolle" (cotton).

[2] Referred to as "karpasi", says Handy (1896); as "kurpas" or "kupas", according to Brooks (1898). Earlier, De Candolle (1882), on the basis of Bengali "kapase" and Hindustani "kapas", had expressed his belief that Sanskrit "karpassi" or "karpasam" was indeed cotton.

[3] Though A.A. Macdonell (1917, p. xxvii), maintains that the clothing referred to in the hymns "consisted usually of an upper and a lower garment, which were made of sheep's wool."

that Indian cottons were carried to Red Sea ports by Arab traders.

Theophrastus records cotton cultivation in 350 B.C. in the land between India and Africa in Historiae Plantarum, IV, when he describes the "wool-bearing" tree of Tylos (now Bahrein) on the Persian Gulf. This is later reported by Pliny the Elder in Historiae Naturalis Book XII, 38.[1] There is also an intriguing account in Goossens (1953) of cotton grown by Assyrians during the reign of Sennacherib (705 - 681 B.C.) - text dates suggest that it must have been introduced after 699 B.C. Luckenbill (1926, Vol.II, p.170) quotes from a prism dated 694 B.C.: "A great park, like unto Mount Amanus, wherein all kinds of herbs and fruit trees, trees, such as grow on the mountains and in Chaldea, as well as trees bearing wool, were set out ... The wool-bearing trees they sheared and wove (the wool) into garments." The collapse of Tigris Valley agriculture with the dramatic fall of Assyria meant that by 331 B.C., when Alexander's army crossed the land where Sennacherib's fields had flourished, there was no sign of cotton.

Written evidence of cotton cultivation on the African continent is found in Pliny the Elder's 1st century A.D. Historiae Naturalis XIII, 90, and XIX, 14-15: "The upper part of Egypt, lying in the direction of Arabia, grows a bush which some people call cotton [in Latin text: "gossypion"], but more often it is called by a Greek word [in Latin text: "xylon"] meaning 'wood': hence the name xylina given to linens made of it. It is a small shrub, and from it hangs a fruit resembling a bearded nut, with an inner silky fibre from the down of which thread is spun. No kinds of thread are more brilliantly white or make a smoother fabric than this. Garments made of it are very popular with the priests of Egypt" (Rackham

[1] "L'île de Tylos ... A l'étage supérieur de cette même île sont des arbres à laine ... Ils portent des courges de la grosseur d'un coing, qui, se rompant à maturité, libèrent des pelotes laineuses, dont on fait des vêtements d'un tissu précieux ... On appelle cet arbre gossypinum .." (Ernout tr., 1949).

trans. of Book XIX, 1950, pp.428-29).

By the 7th century, cotton was well established in Egypt as a plant with spinnable fibres.[1] Muslim Arabs probably first entered Egypt in 639 A.D. and Muslim commercial and religious activity is credited with creating a demand for woven cloth and thus with spreading cotton cultivation[2] to other parts of Africa e.g. into Kanem Bornu between the 10th and 16th centuries.[3] Indeed, by the 12th century, Europe was already familiar with Western Sudanese cotton goods. During Vasco da Gama's 1497-99 voyage up the East African coast to India and back, he observed that Africans knew how to cultivate and spin cotton - knowledge he attributed to the teaching of Arab traders many centuries previously. Duarte Barbosa, in 1514, described white cotton cloth made in Sofala region: "The Moors have now recently begun to produce much fine cotton in this country..." (Stanley trans., 1866, p.6). And De Barros, about 1560, gave an account of the household of the Monomotapa of Zimbabwe: "..the greatest ornaments of his house are cotton cloths made in the country with much labour".[4]

This literary evidence of the status of cotton in early times is enhanced by linguistic and archaeological findings, the former generally frailer and assigning earlier dates for domestication.[5] Armstrong (1964, p.136), for example, argues flimsily, on the basis of words in common or cognate in the Yoruba and Idoma languages, that cotton was cultivated in Southern Nigeria 6,000 years ago when the two language groups separated.

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[1] See below for comments on the earlier Meroe kingdom cotton.

[2] The English "cotton" and French "coton" derive from Arabic "qutn".

[3] Urvoy's Histoire de l'empire de Bournou (1949), cited by David (1976, p. 254).

[4] From Kenyon (1931), in Hutchinson, Silow and Stephens (1947, p.90). An account of the 1569 conquest of Monomotapa in Theal (1899) speaks of "cotton cloth ... made on the other side of the river [Zambesi], ... woven on low looms, very slowly."

[5] The archaeological base for dating is by no means flawless, with Davies (1968, pp. 479-82), amongst others, pointing out that few plants, other than grain cereals, leave much archaeological evidence.

Archaeological evidence of fibres, fragments and woven textile impressions from the ruins of Mohenjodaro and Harajpa in the Indus Valley in what is now modern Pakistan (where the Greeks in 326 B.C. were "astonished to discover wool-bearing trees", according to Goossens, 1953) demonstrates indisputably that *Gossypium* fibres, with a similar structure of flattened, twisted tubes as the lints of modern cottons, were in use there as far back as 3,000 B.C. (Allchin, 1969, pp. 323-25; Hutchinson, Silow and Stephens, 1947, p. 69; Wrigley, 1960, p. 192).[1]

Wrigley (1960, p. 193) maintains that cotton genetics and Indian archaeology prove that cotton was cultivated in Ethiopia prior to 3,000 B.C. However, there is no satisfactory proof that this African cotton was used to make textiles at such an early date.[2] Chowdhury and Butt (1970, pp.85-86) contend that cotton seeds found during excavations at Afyeh in Egyptian Nubia in 1962, and cotton hairs found in sheep and goat dung at the same site, demonstrate that the plant was at that time (Carbon-14 dating of 2,600 - 2,400 B.C.) at an early stage of evolution from wild lintless to true linted cotton (hairs convoluted in the middle and fully thickened and unconvoluted at the ends) and that "cotton seeds were collected and fed to livestock before cotton lint was used for making textiles." The first clear archaeological evidence of spinning and weaving in Africa is that of the Meroe people who flourished from 650 B.C. to 350 A.D. in the Nubian region of the Nile valley.

However, there is a more ancient connection with Africa. Cyto-genetic investigations suggest that the progenitors of the early Indus Valley domesticated cottons came from

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[1]Hutchinson, Silow and Stephens (1947, p. 69) report that Sir John Marshall (quoted by Gulati and Turner, 1928) believed that "the Babylonian and Greek names for cotton (Sindhu and Sindon respectively) have always pointed to the Indus valley as the home of cotton growing."

[2]On the other hand, excavations on the American continent have yielded cotton fibre remains which can be dated to 2,500 B.C. in central-coastal Peru and to 3,500 B.C. in south-central Mexico (Phillips, 1976, p. 198).

Africa from the Anomala section of *Gossypium*. This grew in unusual, discontinuous distribution on the southern borders of the Sahara and in dry areas of South-West Africa. The change from simple cylindrical seed hair to flattened convoluted lint hair is genetically and physiologically uncomplicated, based on a reduction in secondary thickening of seed coat hairs. This supports the contention (as in Purseglove, 1968) that mutation in wild *G. herbaceum* race *africanum* is the key to the origins of the progenitors of cultivated cottons.

Theories of exact manner of evolution to domestication for lint production have proliferated;[1] but there is no irrefutable evidence to support any of the African, Arabian or Indian site claims for domestication of Old World cotton. However, sifting through the clues offered by many disciplines, it seems plausible that *G. herbaceum* race *africanum*, at an early, but noticeable, stage of evolution from lintless to linted (chance mutation probably the explanation for the change),[2] was taken by merchant seafarers from Africa to Southern Arabia, Persia or India, most probably using the ancient trade route from the north-eastern African coast to north-western India. There its value was appreciated, it was taken into cultivation and, by human selection, *G. herbaceum* was developed for its fibres, later giving rise by differentiation to *G. arboreum* races. *G. arboreum* almost certainly arose under cultivation on the Indian subcontinent, there being no good evidence that it was ever truly wild.

The history of the New World species, *G. barbadense* and *G. hirsutum*, both in cultivation long before Columban times in America, is even more complicated and has led to

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[1] See Appendix II, Section I, for details of some of the theories and postulations.

[2] Sauer (1952, p.78) suggests that *Gossypium* may have been "first taken under the care of man in Africa for some unknown purpose " (perhaps livestock feed ?) and thus, presumably, would have been brought to the attention of travellers.

considerable, often wild, speculation on origins.[1] Skovsted[2] demonstrated that the chromosome complement of these cottons is composed of one set homologous with the New World D genome species (wild, lintless Erioxyla, Klotzchiana and Thurberana Sections) and one set homologous with Old World A genome species (wild and cultivated, linted Herbacea Section).[3] In simple terms, New World cottons derive from a cross of Old World and original New World cottons. Later studies showed that *G. herbaceum*, the more primitive of the Asiatic species, seems the most likely Old World parent species.[4] It seems probable that the cross (or crosses) occurred on the eastern coast of northern South America,[5] with the resulting hybrid type being domesticated during the 3rd millenium B.C. Further development of both species, through selection for particular properties, has resulted in New World varieties being introduced to most cotton-growing parts of the world, where they have been further improved. *G. hirsutum* cultivars now produce about 80% of the world's cotton; *G. barbadense* about 15%.

1.2 KNOWLEDGE AND USE OF THE COTTON PLANT IN EUROPE.

> "The seed of cotton is hot and moist."
> (John Gerard's Herbal (1597), II, cccxxxv, 900.)

Appreciation of the textile plant in Europe can be dated from about the 8th or 9th century when Arabs brought cotton to Spain (Wood and Wilmore, 1927, p.246), where it was grown and manufactured from the 10th century under Abderahman the Great (Wood and Wilmore, 1927, p.26). Cotton goods from the Western Sudan were known to Europe

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[1] See Appendix II, Section II for further detail.
[2] In 1937, quoted in Hutchinson (1959, p.21).
[3] See Appendix I and Appendix II, Section II.
[4] In studies such as those of Beasley (1942), Stephens (1947), Gerstel (1953; 1956).
[5] "The principal aboriginal marine ports of entry may have been about the Peruvian-Ecuadorean border...", suggests Sauer (1952, p.61).

in the 12th century;[1] and lists of commodities and customs dues show "saccus de cotun" with a duty of "ii d" coming in to Ipswich port in 1303 (Gras, 1918, p.161). In 1304 the "usual round of commodities, such as cotton" reached Sandwich port (Gras, 1918, p.167). The 1443-1444 customs and subsidies due at Southampton Port included imports of cotton (Gras, 1918, p.635) with "textiles such as linen cloth, Normandy canvas, painted cloth, and cotton" among the more common goods passing into Lynn port in 1503-04 (Gras, 1918, p. 647). Local cotton cloth was taken to London from Benin in 1558 (Hogendorn, 1975, p.288) and in 1590 (Cotton, from the pod ....., 1842, p.9). Nevertheless, Brooks (1898, pp.92-98) argues that in 15th and 16th century Europe so little known was cotton fibre that it was thought to be the wool of lambs that grew attached to the branches of trees. However, the concomitant belief that cotton seed oil was a cure-all[2] was perhaps not so misplaced in the light of modern medical and pharmacological research.[3]

Concerning British manufacture of cotton goods, there is a semantic problem. Garnett (1908, pp.23-24) illustrates it thus: "English cotton goods were spoken of as early as the sixteenth century but these were not in reality cotton goods at all, but were made of wool", though he accepts that by 1640 Manchester was producing "real" cotton goods. The earliest reference the Oxford English Dictionary gives for "cotton" is dated 1290 and describes the fibre used for the wick of candles: "In sapo et Cotoun ad Candelam", quoted from Compotus Bolton Abbey in Whitaker's History of Craven, though whether the fibre was imported in spun or raw form is not known. Mann's 1860 history of the British cotton trade gives 1298 as the date for first raw

[1] Conversely, Sundstrom (1974, p.155) says there is evidence of European textiles entering Africa as early as the 11th century. Most, but not all, European textile goods were linen or woollen until the early 19th century.

[2] The Oxford English Dictionary quotes a reference to cotton in Turner's Herbal of 1562. John Gerard's Herbal (1597, II, cccxxxv, 900) has this description: "The seed of cotton is hot and moist."

[3] See page 1, footnote 2, and Appendix III, Note 11.

cotton import, probably from Portugal.[1] But many early references to "cotton goods" may actually refer to woollen fabrics which were "cottoned or frizzed" (Vale, 1951, p.21), a process popular in 16th and 17th century Lancashire, Westmoreland and Wales (Oxford English Dictionary).

Late 16th century or early 17th century Flanders artisans probably introduced cotton manufacture to England (Handy, 1896, pp.28-29; Wadsworth and Mann, 1931, p.19; Wood and Wilmore, 1927, p.246). Most early imported cotton wool was used for stuffing, quilting and padding, not for yarns, with only a few examples of its use in manufacture in the early 17th century. In 1601, George Arnould, described as "a fustian weaver" of Bolton, appears in the Quarter Sessions Records and from a 1621 petition it is clear that cotton fibre had been utilised for about twenty years in making fustians: ".. the trade of making of other Fustians, made of a kind of Bombast or Downe, being a fruit of the earth growing upon little shrubs or bushes, brought into this Kingdome by the Turkie merchants ... but commonly called Cotton Wooll .."(Wadsworth and Mann, 1931, p.15). In 1605, records show that cotton was used in some textile manufactures in Norwich (Wood and Wilmore, 1927, p.34).[2] A house in Bolton, condemned and demolished in 1927, was found to contain two cops of cotton yarn and a piece of cotton cloth which has been claimed as the earliest known warp and weft fine calico in Britain. It could have been imported but a scrap of paper with the cloth, dated 1607, suggests otherwise (Vale, 1951, pp.21-23; Wadsworth and Mann, 1931, p.112). A final early example of the use of cotton in textile manufacture comes from 1609 when nine fustian weavers were taken to court for not paying a Blackburn chapman for "fustian wool or cotton wool."

[1] This is also the date given for the first use of cotton in England for candlewick in The Manchester City News, 8/10/21, p.35 (in I(ii)(c)).

[2] In 1571, Norwich's population included 3,925 persons of Dutch or Walloon origin.

By 1640, when its cotton buyers were in the Levant,[1] Manchester was certainly producing "real" cotton goods, and Roberts' Treasure of Traffic (1641) refers to authentic cotton manufacture in England. Although Switzerland produced pure cotton goods in the late 15th century (Wadsworth and Mann, 1931, p.111), and certain 16th and 17th century French fustians were pure, very few English cotton goods were made of cotton alone before the 18th century.

A hostile woollen industry lobbied for protective Acts of Parliament. Following the 1700 Act prohibiting dyed or printed calico imports, Acts in 1719-21 prevented the use of printed calicoes whether printed in England or elsewhere. However, the 1735 "Manchester Act" allowed the printing of cloth with cotton weft, provided the warp was of wool, linen or silk. John Dyer commemorates in The Fleece (1757) that wool was:

> "... now taught to link
> With flax, or cotton, or the silk-worm's thread
> And gain the graces of variety",

and later writes of,

> ".. wool-resembling cotton, shorn from trees,
> Not to the fleece unfriendly; whether mixt
> In warp or woof, or with the line of flax,
> Or softer silk's material: though its aid
> To vulgar eyes appears not."

The Rochdale County Borough arms also reflected the combination of materials, with a woolpack encircled by two branches of cotton.

Demand, particularly for imitations of the fine muslins imported by the East India Company, increased dramatically from the end of the Seven Years War in 1763. Wadsworth and Mann (1931, p.191) comment that, considering this growth in the use of cotton in the

[1]The first specimen of raw cotton from the Levant entered England in the 15th century via Genoa merchants (Hose, Ph.D. 1970, Introduction). It was not until the 18th century that the Levant and West Indies replaced the East India Company as the main sources of supply of raw cotton (Wadsworth and Mann, 1931, p.183).

textile industry, it is remarkable that, with the exception of a few years before 1750, there is no evidence, before the late 1760s, of any strain on the raw cotton supply. There were worries about price, however. Lord Strange's Report of 26th April 1751 (I(x)(a): GB, Strange), for which various people involved in linen manufacture were questioned,[1] gives vent to financial fears "That the Price of Cotton was considerable advanced of late Years". This was attributed to "the French and Dutch buying up great Quantities of that Commodity in the Plantations...", to monopoly, to hoarding and to the fact that cotton production "in America has not been equal to what it was formerly, the Planters having turned their cotton into Sugar Plantations."

1.3 THE EFFECT OF THE INDUSTRIAL REVOLUTION ON COTTON TEXTILE MANUFACTURING.

> "Cotton has shaped and determined the destiny of England."
> (W.H. Mills, Sir Charles W. Macara, 1917, p.129.)

The major role that cotton was to acquire in the British economy began with the mid to late 18th century replacement of hand methods of production with machinery. "Whoever says Industrial Revolution says cotton", wrote Hobsbawm (1968, p.56). The list of inventions is certainly impressive: Hargreaves' 'Spinning Jenny' of 1764, Arkwright's Waterframe of 1769, Crompton's Mule of 1779, Cartwright's 'power loom' of 1785, Arkwright's steam power loom of 1790 and Whitney's saw-gin of 1793. The cotton manufacturing industry grew quicker than any

[1] The cotton-linen branch was one of three main lines of the Lancashire textile industry by 1750. The ease with which flax could be obtained from Ireland for the warp was a vital factor.

other major industry (Wrigley, 1962, p.12) with raw cotton imports increasing by 319.5% between 1781 and 1791 (Wood and Wilmore (1927, p.138) and showing a massive increase from 5.10 million lbs consumed in 1781 to 976.60 million lbs in 1859,[1] despite its relatively high price for most of that period.[2] Production was centred in South Lancashire because of its port capacity, local coal supplies, skilled labour, water power, soft water supplies, iron mines and works and humid climate. Spinning was concentrated in the damper Manchester, Oldham and Bolton; and weaving in Burnley, Blackburn and Preston.

The importance of cotton as the pivot of the Industrial Revolution, as a haven for capital and as a provider of employment and growth opportunities in the British economy has sometimes been exaggerated, particularly in the "heroic" or "romantic" literature of the 19th century. But, by 1803, cotton had supplanted wool textiles as Britain's top export (Saul, 1960, p.8-9). Cotton peaked as Britain's premier industry in 1850-73 (Silver, 1966, Chap.1) and in the century up to World War I contributed between a quarter and a half of total British exports (Sandberg, 1974, p.16).

Although Lancashire overshadowed other British cotton manufacturing districts, there was a very productive cotton industry in Scotland for many decades. Raw cotton was first sold at public auction in Glasgow in 1765; and the first Scottish mills were set up in Penicuik in 1778 and Rothesay in 1779. A large scale spinning industry began with the New Lanark Mills commencing production in 1786.[3] The availability of water-power and a regular labour supply from the Highlands and Ireland led to

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[1] See Appendix VI, Table 4, 'British Cotton Industry 1781-1859: Raw Cotton imported into and consumed in the UK/GB'.

[2] See Appendix VI, Table 11, 'British Raw Cotton Prices, 1790-1945'.

[3] New Lanark village, founded in 1784 by David Dale, merchant, and Richard Arkwright, pioneer spinner, became the scene from 1800-25 for Robert Owen's social experiments in better living to produce better output. Recently restored, a photograph of the mill complex can be seen on the page preceding this chapter.

concentration in Lanarkshire, Renfrewshire and Ayrshire, with a power loom installed at Pollokshaws in 1801. At the close of the eighteenth century cotton was Scotland's largest and most highly mechanised manufacturing industry (Hamilton, 1963, p.184). In 1826, Sir John Sinclair estimated that about five times as many folk worked in the cotton trade in the Scottish Lowlands as did in non-textile manufacturing (Smout, 1972, p.368); and in the 1830s, cotton manufacture "was regarded as undoubtedly the most important" Scottish industry (Henderson, 1951, pp.154-55). However, success was relatively short-lived with Scottish firms unable to recover from the mid 19th century depression and crises.

The relationship between Britain, particularly England, and cotton attracted eulogies from many commentators. For example, J. Baynes, in The Cotton Trade. 2 Lectures (1857, pp.56-57), extolled : "THE MISSION OF THE COTTON TRADE is, to develop the resources of the nation __ ... to encourage art and science __ ... to secure civil liberty __ ... to check immorality ... to foster probity and honour __ to discountenance war __ to extinguish slavery ...". Four years later, "the wags of the Northern Circuit" declared that no Manchester jury would ever acquit one accused of stealing cotton: "To a Manchester mind no figure is so beautiful ... as that metal-bound cube, no rose so fragrant as a cotton pod, no flower so fascinating as that soft, elastic cushion, in which the seed of the cotton plant is housed" (The Times, 29/1/1861, p.8). W.H. Mills, in his 1917 biography of Sir Charles Macara, exhorts us to believe "Cotton has shaped and determined the destiny of England ... like Palestine, Lancashire belongs to everybody" (pp.129-30). Even D.A. Farnie, who has done much to demolish the

myth of the omnipotence of cotton[1] - its "mythopoeic power", as he calls it (1979, p.4), claims of Lancashire cotton manufacturing that "No other industry has so impressed the imagination of the world ..." (1979, p.6). Fewer observers dwelt on the less happy side: William Blake's "dark Satanic Mills";[2] De Quincy's lowly paid cotton workers, addicted to opium;[3] and William Wordsworth's child in The Excursion (1814),

> "His raiment whitened o'er with cotton-flakes
> Or locks of wool, announces whence he comes.
> Creeping his gait and cowering, his lips pale,
> His respiration quick and audible;
> And scarcely could you fancy that a gleam
> Could break from out those languid eyes, or a blush
> Mantle upon his cheek."[4]

There can be no doubt that the cotton manufacturing trade was immensely important. Britain remained a net exporter of yarn and cloth from the beginning of the 18th century until 1958 when it became a net importer for the first time.[5] Production was massively oriented towards an overseas, not a domestic, market; and, particularly from about 1825, mostly towards less developed parts of the world.[6] Formal and informal empire were prime targets for exports, with Latin American (especially in the first half of the 19th century), Indian (especially after the East India Company lost its monopoly in 1813) and African

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[1]For example, by pointing out that although cotton gave direct employment to one third of Lancashire's population in the years 1800 to 1830 this was to less than 6% of the total working population in the UK (1979, p.24); and by remarking that "Its fragile dependence upon free trade, free ports and universal peace and its essentially, nomadic, and ephemeral nature were concealed from all but the most percipient observers" (1979, p.325).

[2]Verse 2 of Jerusalem, from Milton.

[3]Unable to afford ale or spirits, De Quincy reports that cotton factory workers, according to cotton manufacturers, "were rapidly getting into the practice of opium-eating; so much so, that on a Saturday afternoon the counters of druggists were strewed with pills ... in preparation for the known demand of the evening" (Thomas De Quincy, Confessions of an English Opium-Eater, 1st published 1821; Penguin Classics edition, 1986, pp.31-32).

[4]Book VIII, 309-15.

[5]See Appendix VI, Table 12, 'UK Cotton Yarn and Cloth Export Trade, 1913-61' to get an indication of the value, particularly up to 1939-40.

[6]See Appendix VI, Table 2, 'Destination of Exports of Cotton Piece Goods from Britain'. See Appendix VI, Table 13, for percentage of goods sent to British East Africa and British West Africa, 1937-53.

markets all sought, and won, at different times.[1] India, for example, was the largest single consumer of British cotton textiles from 1870-95, despite the production capacity of Indian mills (Hynes, 1979, p.27).

1.4 THE BRITISH IMPORT TRADE IN RAW COTTON AND THE SEARCH FOR SUPPLIES TO THE END OF THE 19th CENTURY

> "The one great service which the world demands from the negro race is the production of cotton."
> (The Times leader, 18th December, 1856.)

Much has been written about British manufactures and export trade. However, historians and economists have paid less attention to raw cotton imports, necessary to support the vast manufacturing industry, for which Liverpool took over from London as the main British entry port about 1795.

Pre-Industrial Revolution, the main cotton consumers were India, China, Brazil, Turkey and the Near East (Robson, 1957, p.1). However, British cotton consumption increased fifteen times between 1760 and 1800 (Sandberg, 1974, p.5). By the mid 1830s, raw cotton accounted for 20% of total net imports (Hobsbawm, 1969, p.69). By 1820 Britain was the largest single consumer or raw cotton in the world, remaining so until 1897 when it was overtaken by the USA (Farnie, 1979, p.12). From 1825 to 1873, the value of raw cotton imports was higher than any other import (Farnie, 1979, pp.12-13). Naturally, there was concern about the supply from an early date.

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[1]Not always easy - *vide* 'Northern Nigeria Annual Report, 1906-07', p.24: "... the Native cloth, though less showy than the English cloth, is more durable and better value" (quoted in Geary, 1965, p.237); and the Federation of British Industry 1961 survey which estimated that about 13% of the total cotton textile consumption in Nigeria was still being woven on local hand looms (Johnson, 1974, p.186).

Before the invention of Whitney's saw gin in 1793,[1] which eased the separation of seeds from fibre and led to an enormous increase in US cotton exports, most of Britain's supplies came from the Eastern Mediterranean and from West Indian slave plantations (Christy, 1856, p.287; Wadsworth and Mann, 1931, p.183; Parliamentary Debates, 3rd Series, Vol. 92, 6th May 1847, p.478). In the period 1786-90 the West Indies provided 70% of Britain's cotton imports; fifty years later, it was less than 2%.

Lord Strange's Report of 1751 noted the increased price of cotton;[2] and, in 1774, one of the main objects of the formation of the Manchester Committee for the Protection and Encouragement of Trade was to facilitate the import of the fibre (Redford, 1934, p.217; Hose, Ph.D., 1971). In the 1780s, fustian and muslin manufacturers were unhappy about the quantity and quality of their raw materials.[3] In February 1786 fustian makers asked the Board of Trade for help in improving West Indian supplies, which led to a circular being despatched to island governors;[4] and, in June 1786, two London muslin merchants gave £300 to the Committee for Relief of Black Poor in the hope of a return in cotton from Henry Smeathman's doomed scheme for black settlement in Sierra Leone (PRO T1/632 No.1513 in Edwards, 1967, Ch.5; Fyfe, 1962, p.15).

Early 18th century interest in African cotton growing was dampened by the jealous British West India lobby whose discouragement of alternative sources led to the 1711 Draft Bill for Settlement of the African Company forbidding the cultivation of cotton and the 1751 Cape Coast Castle plantation plan being barred by the Board of Trade. However, in the late 18th and early 19th centuries, Sierra Leone attracted the attention of

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[1] See Appendix III, Item 10, for description of cotton gins.
[2] See page 12 for earlier mention.
[3] Fustian makers wanted better quality staples for velverets, while muslin makers needed finer staples. (See Appendix III, Item 14(a), for discussion of staples.)
[4] PRO, BT 6/103(f92) and Edwards, 1967, Chapter 5, for discussion.

philanthropists and businessmen as a potentially fine cotton prospect. In 1791 the Sierra Leone Company took over the abandoned territory with schemes for large plantations, cotton being named in the Report of the Court of Directors as a particularly favourable item of native produce (Newbury, 1965, p.99; Fyfe, 1980, pp.7-11). But, eight years later, the Company reported severe insect problems and failure of the cotton plantation scheme. This tale was repeated. In 1808 the 2nd Report of the Committee of the African Institution, formed in 1807 with aims including to secure the abolition of the slave trade throughout all European nations and "to promote the cultivation of the African soil", stressed the importance of having alternative sources of cotton (Fyfe, 1980, p.8; Newbury, 1965, p.103). Georgian and Brazilian cotton seed was sent to Sierra Leone (Wickins, 1981, p.268) but met with singular lack of success. The West African potential remained unfulfilled.

Cotton had been grown on the American continent for thousands of years.[1] In post-Columban times, it is reported as a cultivated crop in Virginia in 1621 and in South Carolina and Georgia in 1733 (Todd, 1915, Chapter 7). Although eight bags of cotton from South Carolina were seized by Liverpool customs officials in 1784 on the grounds that it was not a product of America (The Cotton Crisis...., 1857, p.4; Mann, 1860, p.44), by 1802 imports from America exceeded those from the West Indies (Edwards, 1967, Chapter 5). By 1811, America produced 40% of England's imports for the year and, by mid 19th century, at a time when British exports of cotton manufactures were in excess of £35 million a year, America was supplying over 80% of Lancashire's needs.[2] The British cotton manufacturing industry became dependent on the US harvest

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[1] See page 6, footnote 2; page 8; and Appendix II, Section II.

[2] America produced the medium stapled cotton which Lancashire could use in almost unlimited amounts for both warp and weft. There were limits to the quantities of long staple (for warps, especially for finer cotton) and short staple (for wefts for coarser fabrics) that could be consumed (Economist, Vol. XV, No. 717, 23rd May 1857, pp.559-60).

which fluctuated unpredictably according to flood, drought, disease, war, speculation, disturbance of international relations, competition from other countries, America's own domestic needs and the limitations of slave labour.[1]

Before the first great "Cotton Famine", during the 1861-65 American Civil War, American monopoly had created erratic supplies. Egypt, where high quality long staple cotton was introduced as a cash crop in 1820, and India, which exported a first small raw cotton consignment in 1783, were both regarded, with hopes destined to be unrealised, as alternative sources of supply in the 1820s and 1830s. Although the Egyptian crop expanded,[2] there were irritating trade restrictions which limited free export; and, despite high expectations, the quality of the Indian crop told against it, especially when ryots added leaves, salt and dirt to increase the weight (Silver, 1966, p.32). In June 1828 a Liverpool correspondent of the Board of Trade wrote of "the precarious situation of the cotton trade of this country from our too great dependence upon the United States for the supply of the raw material" (Brit. Mus., Add. MS. 38756(255)),[3] his fears borne out in 1845 and 1846 when short crops in the US meant low imports and increased prices. These, coupled with the Irish potato famine and bad harvests in England, led to financial panic, "short time" working and mill closures. Yet, two years later, the American cotton price was at an all-time low. The 1854 US cotton crop was 1,600 million lbs; the next year it had dropped to 1,138 million lbs (Christy, 1856, p.283). Although the American cotton crop increased by 100% between 1840 and 1860, spindles in Britain and the Continent increased by 150% (Wood and Wilmore, 1927, p.214), so there was always the possibility of a shortfall in supply.

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[1] Appendix VI, Table 14, shows US's increasing percentage of world cotton production in 19th century.
[2] For example, the crop increased dramatically from 60 bags in 1821 to 140,000 bags in 1824 (Redford, 1934, p.218).
[3] Quoted in Henderson, 1934, p.35.

In January 1850, at a Manchester Chamber of Commerce meeting to consider enlarging supplies from India, it was reported that "general apathy reigned supreme" (Watts, 1871, p.11), as it had at Parliamentary level, on 6th May 1847, when John Bright's motion for a Select Committee to inquire into cotton cultivation in India was rejected. In the same year an ambitious agricultural scheme was launched in West Africa. John Bright had rejected Africa as a cotton source, describing it as "... a land of savages, and with its climate so much against European constitutions..." (Rogers, Speeches..., 1868, p.209), but the Church Missionary Society thought otherwise. Its intention was to destroy the slave trade and develop Christianity among African natives through their own "Native Agency".

The relationship between slavery and cotton was close.[1] Without going too deeply into Williams' and Drescher's arguments about the economics of slavery,[2] Drescher reckons that, contrary to Williams' conclusion that the new age of cotton produced hostility to slavery, Britain's cotton industry became more dependent on slavery and the slave trade between 1792 and 1805, so that by 1805 92.3% of Britain's raw cotton imports were based on slavery (Drescher, 1977, p.86). By 1850, almost 60% of all slaves in the US were cultivating cotton (Longmate, 1978, p.21), so the British cotton supply became an obvious target for the few humanitarians who reckoned a competitive free-grown supply would diminish the slave trade. That they stood alone is echoed in Christy's comment in Cotton is King (1856, p.253) that, "the people of England are boundless in their denunciation of American slavery, while not a single remonstrance goes up to the throne, against

[1]For example, Karl Marx, in The Poverty of Philosophy (1847; 1956 translation, p.124), contends "Without slavery you have no cotton; without cotton you have no modern industry."
[2]As set out, for example, in Drescher's Econocide (1977) and Williams' Capitalism and Slavery (1944).

the importation of American cotton".[1]

However, Buxton's (1840) philosophy - that the "Bible and the Plough", with cotton as a specially suitable crop for West Africa, would deliver Africa - was staunchly followed by Henry Venn, Church Missionary Society secretary from 1841. Thomas Clegg, Manchester manufacturer and relatively rare "benevolent businessman", helped finance the Church Missionary Society's Sierra Leone undertaking. But, once more, West Africa failed to live up to expectations. An Industrial School was established, some cotton exported to England, but, eventually, the experiment provided neither finance for the Church nor competition for slave trafficking. Mismanagement, apathy and inadequate backing meant cotton failed to provide the "gold-diggings" Venn (1852) had desired. However, Venn's ideas were more successful at Abeokuta, as detailed in his 1856 'Memorandum on the Encouragement of Native Agriculture, especially Cotton, on the West Coast of Africa'. He believed that with instruction, machinery and the encouragement of direct trade in small quantities with English markets, cotton cultivation "might be enlarged to any extent" (Venn, 1856, p.4).[2]

That cotton could be grown successfully in West Africa was seen clearly in the native spinning and weaving industry. For example, Barth (1857; 1965 ed. Vol I, pp.510-11) estimated that Kano in 1852 was exporting 300 camel loads (100 tons) of cotton cloth annually to Timbuktu alone, with total export estimated at five times that amount.[3]

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[1]Longmate (1978), in his conclusion, draws attention to the abundance of legend and myth surrounding "the noble cotton worker ready to go hungry that others might be free" and to the falsity of the claim made by Marx (1862) that the English working classes had not forsaken the downtrodden slaves (pp.244-46).

[2]Many of Venn's contemporaries had considerably less faith in African abilities - for example, Philip Meadows Taylor (1862, p.482) wrote that it was futile to expect too much of Africans: "the proper cultivation of cotton demands a higher intelligence, and more practical description of agriculture, than are possessed by, or known to, the negroes in their present condition".

[3]On the eve of colonial rule, it was reckoned that Kano cottons clothed two thirds of Western Sudan (Hogendorn, 1975, p.287). Because it was far enough from the coast, indigenous cotton weaving was not undermined by cheap imports.

This statistic was probably known to and would certainly have delighted, Benjamin Coates, author of an anti-slavery pamphlet (1858) promoting an African Civilization Society of "enterprising coloured men of the US" (p.8) who had a vision of a confederacy of African republics controlling the interior's commerce and supplying free-grown cheap "cotton sufficient for the wants of the world" (p.20-21).

The 1856 price rise in American cotton[1] led to renewed interest in other areas. Clegg's 'Report on a Journey to the East ...' suggested the suitability of Algiers, Malta, Morocco, Egypt, Palestine, Sicily, Italy and Spain. Finally, in an atmosphere of increasing worries about the stability and morality of an industry resting on a slave labour foundation and the fact that "our attitude of abject dependence on her [US] markets exposes us to degradation and insults of the most galling character" (The Cotton Crisis..., 1857), Thomas Bazley, President of Manchester Chamber of Commerce, suggested in February 1857 that a 'Cotton League' be formed to promote cotton growing all over the world (Redford, 1934, p.227). On April 21st 1857 the Manchester Cotton Supply Association was inaugurated, under the chairmanship of John Cheetham, to enthusiastic accolades from The Economist (25th April 1857, p.445). Its first aim was "to obtain as full and reliable information as possible respecting the extent and capabilities of cotton cultivation in every country where it could be grown." But, from the beginning, its members complained of indifference or overt opposition from others in the trade, giving it a meagre budget and limited effect as a propaganda body.[2]

Its major effort was in India, which many believed had unmatched potential in land, soil, climate, labour (regarded as much higher in the human hierarchy than

[1] Appendix VI, Table 11, shows raw cotton price rise in the 1850-60 period and the dramatic increase in 1855-65.

[2] Manchester merchants were primarily concerned with the export of cotton piece goods and yarns, not with their source of raw material supply.

that of Africa !), government and transport. For example, Geo. Buist, a Bombay physician, assured the Cotton Supply Association that India could produce three times as much as the spinners and weavers of England required (Logan, 1958, pp.473-4). Newspapers,[1] cotton merchants, Bombay Chamber of Commerce, the Agricultural and Horticultural Society of India and the Governor-General all responded. Some commentators, such as Matthew Curtis, Mayor of Manchester, were concerned to right past wrongs to India: "We owe her a debt for the misgovernment which this country has so long inflicted upon her" (22/1/1861 meeting of the cotton trade, to support a Joint Stock Limited Liability Company, reported in Cotton Supply Reporter, 59, 1/2/1861, pp.388-95).

In the 1840s, the East India Company had made expensive efforts to improve Indian cotton exports, abetted by the desire of Lancashire manufacturers to have a moneyed peasantry to whom to sell goods.[2] The Cotton Supply Association's main aim there was to improve the quality of cotton and to increase transport and shipment facilities. "Surats" had become a byword and term of reproach for dirty, adulterated, short staple cotton. Indeed, the Indian "Surat" cotton was considered so inferior that the term came to be applied to anything of poor quality - there is a case on record of a Lancashire brewer taking action against a customer who described his product as "Surat" beer (Lloyd, 1975, p.350). In the 1860s there was a great extension of cotton cultivation, particularly in Western India. Reports of disturbing socio-economic effects followed: with the proceeds of cotton sales, growers bought solid silver cart tyres and ploughshares and a Bombay correspondent wrote to The Times (24th January 1865, p.9) that "in a festive idolatrous procession lately a worthy farmer - he can no

[1] The Times, July 21st 1960, acknowledged the "duty of the public press to take every opportunity of urging the culture of the cotton plant in our possessions".

[2] See Harnetty (1970) for information on failed East India Company and Cotton Supply Association schemes in India.

longer be called a peasant - thought he could not better show his wealth than by carrying enormous bags of rupees at the end of poles".[1]

The Cotton Supply Association did not limit its activities to India. It turned elsewhere, including to Australia, where cotton experiments had begun in New South Wales in 1807 and which it described in 1862 as suffering from labour shortage but with the "advantage of Anglo-Saxon character". Notwithstanding earlier ill-fated attempts at plantation grown cotton in West Africa - including the French 1817-31 Senegal scheme, as well as British ones - travellers, consuls, merchants and missionaries all seemed to confirm the Cotton Supply Association's faith in Africa. Energy and finance were directed towards West Africa (Niger and the Gold Coast), Cape Colony and Natal in the belief that, "Cotton will yet come in abundance from Africa, there are immense districts that could supply all that Lancashire requires.." (Watts, 1871, p.100). The Cotton Supply Association reiterated the naive faith of earlier proponents that mere enthusiasm could overcome the climate, transport, insect and labour problems. Because the plant was indigenous, there was a simplistic belief that cotton would be easy to grow in bulk. As one later critic put it, "Any traveller who thought he'd seen cotton growing wild a thousand miles from a proper road was listened to with rapt attention" (Henderson,1932a, p.135). Local difficulties and crop preferences were ignored in favour of a myth of tropical exuberance in which a band of natives awaited both deliverance from insecurity and a supply of cheap manufactured cotton goods. Consul

[1]Exaggerated response to financial well-being continued to dog Indian agricultural history. Sir J. Miller, writing in the Journal of the Royal Society of Arts, Vol. CX, 1912, p.624, mentioned that in the Central Provinces, during the then recent cotton prosperity, "it has been officially reported that a number of suicides were committed 'in a delirium of joy at the extraordinary profits of agriculture'." Nearly a century later, expatriate officials were making similar comments on the apparent improvidence of the African e.g. in BCGC correspondence, it is noted of the Gezira Scheme in the Sudan: "Some cultivators, not knowing what to do with the money, hired taxis to drive them from their villages to their cotton lands..." (I(iv)(f): CRC/F2/62, 4/10/55). Ostentatious displays of wealth are not the prerogative of cotton-growers or peasants, of course.

Campbell's report on the trade of the Bight of Benin for 1856, transmitted to the Earl of Clarendon on 5th January 1857, explains: "all that is required is, to offer them a market for the sale of as much as they can cultivate, and, by preventing the export of slaves from the seaboard, render some security to life, freedom, property, and labour."[1]

The Cotton Supply Association's methods included influencing governments to remove restrictive duties, circulating instructions, giving grants, sending teachers and agents, offering prizes and distributing seed and cotton gins. In its first five years it distributed over 6,000 cwt. of seed, 642 cotton gins and 62 ploughs. Its official publication - the Cotton Supply Reporter (fortnightly, until 1st April 1863 when it became a monthly)[2] - first appeared in August 1858 with the expectation that both philanthropists and men of science would be interested in its communications. Typical of the journal's enthusiastic generalisations are the sentiments expressed on 15th January 1861: "The sun never sets upon the cotton soils of British territory ! During every hour of the day the sun is shining upon vast cotton fields within our own dominions which lie neglected, awaiting only the fostering hand of British capital and labour to teem with plentiful and permanent supplies."

The duties of the Association were taken over by the Manchester Chamber of Commerce in 1872. It had not achieved the immense regular Indian supplies hoped for but had helped Britain through a crisis and focused interest on cotton.[3] The last issue of the Cotton Supply Reporter (No. 219, April 1st, 1872) carried a letter commending the Association for making "cotton growing, and cotton growing

[1] I(x)(a): GB, Foreign Office, 'Papers relating to the Cultivation of Cotton in Africa', 1857.
[2] "Cotton knows no Politics" was the CSR motto from issue 33, 2/1/1860.
[3] The CSA's efforts in India were hampered by insufficient botanical knowledge, lack of understanding of the social and economic forces in society and half-hearted administrative and financial support from the Government.

knowledge, the fashion".

Joint-stock companies, such as the Natal Cotton Growing Company founded in 1847, were also created to improve the raw cotton supply. In 1860, the ambitious Manchester Cotton Company Ltd. was formed as a business venture with initial plans for Brazil, Egypt, West Africa, West Indies, Fiji, China and India. In practice, most of its operations were in Dharwar and the port of Karwar in India (Silver, 1966, p.191), the chief aim being to bring Indian cotton to Lancashire in a cleaner and more workable state. The Glasgow Mercantile Advertiser of 30th October 1860 commended to the provisionally-formed Manchester Cotton Company a scheme of Dr. Delany, described as "a physician of colour" just returned from exploring whether Africa had "a tract of country favourable to the growth of cotton in large quantities, and suitable for the residence of a colony of intelligent blacks who intend emigrating from Canada..."[1]

James Mann, in 1860, worried about future supplies from the United States being dependent on precarious labour, cost, competition and consumption factors, looked at alternative countries. He concluded (p.85): "There is no question but that Africa is the most hopeful source of future supply ...", with West Africa promising the most immediate results. At much the same time, Rev. Richard Greswell, disliking the fact that Manchester's prosperity was based on a raw material of which five-sevenths came from the southern United States, was suggesting the suitability of the East African coast as a cotton growing land with abundant labour, which, if Christianised, would have an increased demand for clothing and so provide an export market too.[2] This optimism was not universal, as shown in the Examiner a few months previously: "the mere

[1]Reprinted in Cotton Supply Reporter, No. 53, November 2nd 1860, p.299.
[2]Mission to Central Africa meeting, reported in Cotton Supply Reporter, No.45, 2nd July 1860, pp. 172-3.

savages of Africa have not the capacity of producing cotton in quantity and quality fit for the looms of England".[1,2] And Mr. J. Crawfurd, FRGS, disregarding Baines' optimistic Zambezi expedition notes about the commercial potential of East and Central Africa, remarked that African cotton would not suit British manufacturers, "and those who expected to get a supply of cotton from thence would be wholly disappointed" (Baines, 1869).

The American Civil War, 1861-65, created a major crisis in the British cotton industry.[3] Despite the foresight of some in looking for other sources, Britain was by now dependent on American cotton.[4] Attempts to substitute Indian Surat cotton were neither very successful nor welcomed by weavers, as illustrated in Samuel Laycock's 'Surat Weavers' Song':-

> "Oh dear! iv yon' Yankees could only just see
> Heaw they're clemmin' an' starvin' poor wayvers like me,
> Aw think they'd soon settle ther' bother an strive
> For't send us some cotton, to keep us alive .."

In the year before the blockade 1,841,600 bales (i.e. 80% of raw cotton imports) had come in from America. In the next three years only 401,466 arrived (Henderson, 1932, p.53).[5] By October, 1861, the mills were on short-time as the North blockaded the Southern cotton-exporting ports in the belief that England could be controlled if King Cotton was in their power.[6] There were attempts to run the blockade with the Confederate Government setting up a 'Cotton Loan', borrowing money from Lancashire manufactur-

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[1] In Cotton Supply Reporter, March 1st 1860, p.35.

[2] See also, for example, Philip Meadows Taylor - page 21, footnote 2.

[3] Unexpected, too, in that there was a strong feeling among the English that the Americans would not fight and that the South would continue selling cotton.

[4] While not denying the extent of Lancashire's dependence on the US, Brady (1963) suggests that the crisis was the result of over-production in 1858-61, unprofitability of cotton textile manufacturing and price increases because of the expectation of future input shortage.

[5] See Appendix VI, Table 14, for drop in US production and drop in US percentage of total between 1851-60 and 1861-70; and Appendix VI, Table 11, for raw cotton price increases 1855-65 and 1860-70.

[6] "You dare not make war on cotton ...Cotton is King." (Speech by Senator Hammond of South Carolina in the US Senate, 4th March 1858, quoted in Longmate, 1978, p.15; and on p.27 of the novel, King Cotton, by Thomas Armstrong, (Collins, 1947).

ers payable in cotton at 5d a lb. But the workers in many towns suffered. Mills closed through lack of raw cotton and operatives fell from "real comfort to absolute grinding poverty" (The Cotton Famine, 1863), though it has been suggested by Henderson (1934), Hose (Ph.D., 1970, Chapter 4), Pelzer (1990, p.52) and Watts (1866, p.449) that the industry ultimately gained through enforced reorganisation, more efficient machinery which could use previously rejected grades, and by the Public Works Act and Union Chargeability Act. Literacy also improved with cash inducements and midday meals at unemployed men's schools and elementary instruction at unemployed women's sewing classes (Longmate, 1978, p.177-82).

London Quarterly Review, January 1865, commented, "The Cotton Famine is an event that has burnt itself into the history of Lancashire" (p.313). Even more so did it leave its mark on Scotland, where workers were worse off than their Lancashire counterparts in that no relief could be given "to an unemployed able-bodied man until he had gone without food long enough to be no longer able-bodied" (Henderson, 1951, p.160). The numbers involved were fairly high: Henderson estimates that by 1861 there were over 40,000 operatives employed in 163 cotton factories. The Scottish industry never recovered from the 1861-65 cotton famine.

By 1866 depletion had given way to plethora, though the Cotton Supply Reporter stressed that the industry should not neglect the search for permanent supplies from other countries. The urgency had gone out of the quest with the quick recovery of American cotton but the volatility of the situation meant that the Cotton Supply Reporter leader for January 1st 1870 began, "Seldom has the cotton trade had to pass through a more disastrous year" (p.2537). Complacency soon returned, as indicated in the Cotton Supply Reporter ".. all's well" lead article on May 1st 1871 (pp.2793-4). However, Hynes (1979, pp.24-25)

highlights an 1870s' slump which affected the Lancashire towns unevenly, with the coarse plain piece goods branch of the industry thriving because of a large increase in Indian consumption in 1874-78, while the effects were at their worst in Preston in 1879.[1]

A huge American crop in 1882 led to overproduction in Lancashire, followed by 50-60,000 looms idle by the end of the next year. In general, though, for much of the last quarter of the 19th century cotton was both cheap[2] and abundant; and supply worries were seldom raised. There was little concern about British dependence on the United States for three-quarters of its raw cotton. Although trade conditions were not always good, almost the only questions on cotton to come before the Manchester Chamber of Commerce during this time were on adulteration of Indian cotton (Redford and Clapp, 1956, p.20. footnote 1). In the last decade of the century, although regular mention was made of cotton samples forwarded from various parts, the Manchester Chamber of Commerce Monthly Record was more interested in the possibilities of opening up Africa to trade, through railway construction, than it was in Africa as a source of raw cotton.

But disaster was waiting in the wings. The 29th September 1900 Central African Times carried a verse, 'The Seamy Side', which told of the changed situation after a quarter century of relative ease in Lancashire:

"It makes the stoutest heart dismayed
To hear it sadly said,
The future of the cotton trade
Is hanging on a thread;
Though all things fail and fall, we feel
'Tis strange that cotton's on the reel!"

Poor crops (*Anthonomus grandis*, the Mexican boll weevil,

[1] The Liverpool Cotton Brokers Alphabet (1873), the profits of which were to go to a broker in ill-health and reduced circumstances, confirms that all was not well in its verses about speculators and crop-consuming caterpillars.

[2] Appendix VI, Tables 10 and 11, 'UK Cotton Prices 1871-1913' and 'British Raw Cotton Prices 1790-1945', both illustrate the cheapness, particularly for the last 15 years of the century. Appendix VI, Tables 14 and 15 indicate the percentage of cotton which originated in the USA.

had first entered the United States in 1892 and spread widely between 1894 and 1922); speculation (of which Sully's "corner" became the best known when he forced the price from 5.75d/lb in November 1903 to 9d/lb in January 1904); the competing demands for cotton of the Continent, Asia and the US manufacturing industry;[1] competition from other crops; and a shortage of plantation labour in the US,[2] with a drift to towns and northern industrial districts, all led to higher prices and insufficient supplies. This created renewed interest in other sources at a time when there was a rising demand for manufactured cotton for new uses,[3] and when very little cotton was grown in the British Empire outside India and the West Indies.

It was also a time of change in the British Government's attitude towards Chamberlain's "undeveloped estates"[4] - the legacy of the scramble for territory in Africa, which had been spurred on by economic, political, strategic, commercial and nationalistic factors, fuelled by genuine or hypocritical feelings of humanitarianism and superiority. Many mid-Victorians had objected to the mercantilist relationship between Britain and her colonies but Britain's supremacy in the world had been severely challenged during the 1870s to 1890s by the political and economic development of the new European nations, which meant that by 1900 Britain's trade increases were being outrun by those of Germany and the Netherlands. Unrest in the workplace, coupled with the international isolation of Britain, opened the way for the 'new imperialism' of those such as Chamberlain, Roseberry, Milner and Rhodes,

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[1] See Appendix VI, Table 3, 'Rise in American Domestic Consumption of Cotton', for the steady rise in American local demand from 31.2% in 1890-95 to 58% in 1917-18.

[2] Labour discontent had been poignantly expressed in a song printed by Joel Chandler Harris in 1880: "De ole bee make de honey-comb,/De young bee make de honey,/De niggers make de cotton en co'n,/En de w'ite folks gits de money." (Levine, 1977, p.249)

[3] Todd, writing in 1915, mentions tyre webbing (Knowles, 1924, p.31, comments that the finest counts were used for motor tyres) and typewriter ribbons; Macara says cotton is "an indispensable ingredient in the manufacture of explosives (1921, p.234).

[4] Described thus in a speech on August 22nd, 1895 (quoted in Geary, 1927, pp.5-6).

who viewed the imperial estates as a potential source of national wealth and economic security, capable of preserving Britain's faltering capacity to trade and invest. Thus, such legislation as the 1899 Imperial Colonial Loans Act was passed to make available low-interest loans for public works in Crown colonies, which opened the way to further development. With Chamberlain as Secretary of State for the Colonies from 1895 to 1903, a new era of British Imperial Government in partnership with private enterprise was opened.

So, at the turn of the century, attention drifted once more towards Africa. Typical of the generalisations on potential supply was R.B. Handy's (1896, p.65), published by the US Department of Agriculture:

> "Excluding Egypt....the continent of Africa produces a considerable amount of cotton on both the eastern and western coasts, as well as in the central part; in fact, the whole population is clothed in cotton, the greater part of which is home grown and manufactured. Cotton is indigenous to Senegambia, Liberia, the Congo States, and Soudan, and under proper cultivation these districts are capable of producing more cotton than is now raised in the US, but such a condition of things is too remote a possibility to awaken any interest among cotton raisers or manufacturers at the present time, and only mentioned to indicate a section where cotton might be abundantly and cheaply produced."

Handy was echoing the conclusions of many travellers and naturalists of the last few decades of the nineteenth century that cotton manufacture was widespread in Africa[1] and that it was a continent of immense potential, even if not quite as full of "unspeakable riches" as some previous visitors had asserted, but which needed some inducement and better transport if commercial enterprise was to be maintained.[2]

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[1] e.g. Cameron, 1877, pp.275-81, has descriptions of cotton plants, clothing and spinning in East Africa.

[2] Thomson (1881, Vol.2, Chapter VI) is more cautious than many of his peers in his belief that, apart from the coastal lowlands, East Central Africa "is doubtless ready enough to take whatever England likes to send in calicoes or beads, but she has nothing to give in return" (pp.284-5).

John Ruskin had written in 1882: "I hope that cotton will eventually be spun and woven where it is grown - or at least by races capable of no manlier business."[1] Indeed, cotton had been spun and woven in most parts of Africa where the crop was extensively grown, but it was to be many decades before competitive, mechanised industries were to be set up there. In the meantime, Lancashire needed raw cotton and Africa was regarded as a potential source of supply.

[1] 'General Statement explaining the Nature and Purposes of St. George's Guild' [1882] in Vol.XXX, 'The Guild and Museum of St. George' (p.52 of E.T. Cook and A. Wedderburn edition of The Complete Works of John Ruskin, London, 1907).

CHAPTER 2

THE BRITISH COTTON GROWING ASSOCIATION

2.1 EMERGENCE OF INTEREST IN AFRICA

"So Geographers, in Afric-maps,
With Savage-Pictures fill their Gaps;
And o'er unhabitable Downs
Place Elephants for want of Towns."
(from Jonathan Swift, 'On Poetry: A Rapsody', 1733.)

"Oh Africa, mysterious land !
Surrounded by a lot of sand..."
(from Hillaire Belloc, 'The Modern Traveller', 1898.)

All but 300,000 square miles of Britain's two million square mile early twentieth century colonial empire was in Africa.[1] Missionaries, explorers and traders had begun to fill Swift's "gaps" long before the relatively brief period of British imperial rule over much of Africa which began in the latter part of the nineteenth century. But there was a great deal to be learned of the lands and of Kipling's "new-caught, sullen peoples,/Half-devil and half-child" ('The White Man's Burden', 1899).

Not until the twentieth century were sustained European efforts made to build up and utilise a body of knowledge about the "dark continent". The notion of the African as a lazy, ignorant, backward, "savage" inhabitant of a continent with no meaningful past, unable to work his own land in an effective and rational way, was hard to eradicate from the minds of many expatriate officials. Indeed, even in the 1980s, development planners still had to be reminded to take into account "the accumulated knowledge and traditional skills and technology of the people among whom they work" (Brokensha *et al*, 1980, p.1). And many a red-faced official in a foundering, heavily

[1] Rough figures, from Anthony Kirk-Greene in his introduction (p. xiii) to Allen (1979).

financed international agricultural project, confronted with crop failures and apparently intractable environmental problems, has been forced to agree "that the peasants were right all along" (Harrison, 1987, p.39).[1]

During the last half of the nineteenth century and the early years of the twentieth century, many political, intellectual, territorial and economic groupings emerged with a particular interest in Africa.[2] The Royal Colonial Institute, the Royal Geographical Society, the Royal African Society with its journal "widely found on the tea tables of intellectually active colonial officials" (Gann & Duignan, 1978, p.27)[3] and Christian-inspired commercial organisations, such as the African Lakes Company,[4] were amongst those with some influence on imperial development and with an interest, albeit peripheral in many cases, in an African cotton supply.

Before 1930, several organisations had been founded, or extended, to serve the needs of the Lancashire cotton trade. The International Federation of Master Cotton Spinners' and Manufacturers' Associations (IFMCSMA),[5] set up in 1904 under Charles Macara's presidency, described by him as "the birth of a League of Nations" (Macara, 1921, p.42) because of the support it gained from every cotton using country,[6] was noted by another as "the first successful attempt to organise short time on an international basis" (Todd, 1915, p.161). IFMCSMA was an inter-

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[1] In the particular instance to which this quote refers, Harrison was discussing the African intercropping practice which has been proved by recent research to give higher, more stable yields and provide better soil conservation cover than introduced monocropping techniques. Belshaw (1980) gives a good exposition of the advantages and disadvantages of orthodox European pure stand and indigenous inter-cropping.

[2] Well documented in Gann & Duignan, 1978.

[3] The journal was known as Journal of the Royal African Society until issue 42 in 1943; then as African Affairs from no. 43, 1944.

[4] Described in Macmillan, Ph.D., 1970, 'The Origins and Development of the African Lakes Company: 1878-1908'. Known locally as Mandala, the company began in 1878 as Livingstonia Central Africa Company.

[5] Name changed to International Federation of Cotton and Allied Textile Industries (IFCATI) in 1954.

[6] The ten founder members were Austria, Belgium, France, Germany, Italy, Netherlands, Portugal, Spain, Switzerland, and the UK.

national movement able to act in British cotton industry interests in the face of Governments dismissed by Macara as "insensitive to the vital needs of our staple industries" (1921, p.41). Macara believed that India held the best hope for relieving Lancashire's supply problems but the International Cotton Congresses under IFMCSMA's auspices, held almost annually from 1904 to 1914 and less frequently thereafter, included many papers on the prospects and results of cotton cultivation in African colonies.[1]

On the technical side, Kew Royal Botanic Gardens had performed a useful function for agriculture since the mid nineteenth century, particularly through its Bulletin and correspondence on crop queries.[2] The Imperial Institute founded in 1887, became an important source of advice on cotton-growing, especially under the directorship of Wyndham R. Dunstan, author of such papers as 'Memorandum on Cotton Cultivation', 1904 (in Bib.I(ii)(c)). Cotton sample analysis was undertaken by the Imperial Insitute until the Shirley Institute, set up in 1929, took over this essential service to breeders, officials and growers.

The two most important organisations for this study were both inaugurated this century: the British Cotton Growing Association, known as the BCGA or the Association, and the Empire Cotton Growing Corporation, known as the ECGC or the Corporation, chartered in 1904 and 1921 respectively. Both bodies had similar structures of a policy-making Council, from whom was elected an Executive Committee supported by committees and sub-committees to deal with particular areas and interests. Both organisations encouraged cotton-growing in almost every British Empire country where there seemed a reasonable prospect of

[1] A useful synopsis of the conference proceedings and other aspects of IFMCSMA can be found in IFCATI (c.1960).

[2] Kew Gardens began in the late 1600s as Lord Capel's botanical collection. It was later extended and developed, particularly by Sir Joseph Banks, and was handed to the nation in 1841. With Sir William Hooker as director, Kew became an increasingly vital institution.

producing good quality cotton on a commercial scale.

The BCGA still exists, as part of the Ralli Group, which it joined in 1972, with its ultimate parent company in Cargill Incorporated of Minneapolis, USA. It has subsidiary and associated companies involved in ginning and seed processing in Nigeria, Malawi and Pakistan and offers various services to the international community, including consultancies,[1] engineering and design work, personnel training and supply of cotton ginners and seed crushers. The ECGC, known as the Cotton Research Corporation (CRC) from 5th July 1966, was wound up in 1976 and surrendered its charter in October 1977. There was then an as yet unfulfilled hope among many ECGC ex-employees that the European Economic Commission might set up a comparable body or research centre. Indeed, within a few years of the ECGC's disbandment, the International Centre for Research in the Semi-Arid Tropics (ICRISAT) and others were asking for a Cotton Research Station, but by then, in the words of one the ECGC's most famous employees, "it was too late": personnel, libraries, stock and structure had gone.[2]

Without the guidance and assistance of the British Cotton Growing Association and the Empire Cotton Growing Corporation, it is debatable whether cotton would have attained such importance in many countries of Africa. The two organisations provided the technical, commercial and scientific knowledge and the encouragement and lobbying necessary for the growth of the industry. The two remained distinct entities throughout their years of work in Africa, despite editorial misnomers of "British Cotton Corporation", "Empire Cotton Growing Association" and

[1]Such as 'Rehabilitation of Cotton Industry, Uganda', 1979, and 'Tanzania Cotton Industry Rehabilitation Survey', 1982.

[2]Personal interview with the late Sir Joseph Hutchinson, eminent geneticist and one of ECGC's longest-standing employees (1926-57), having been one of the earliest ECGC Junior Studentship holders in 1923-24. He expressed the view that the Corporation felt badly let down by Britain's Ministry of Overseas Development which encouraged them to use up their grant and then said it did not want to support them after all - to the great loss of all countries growing cotton.

other variants which reflect the confusion and misconceptions they appear to have aroused.[1] The nature, role and relationships of the two bodies were constantly misunderstood, with, for example, many colonial officials and historians erroneously believing that the BCGA was subsumed by the ECGC in 1921.[2]

2.2 ALL THINGS TO ALL MEN ? OPINIONS OF A FEW COMMENTATORS ON THE BRITISH COTTON GROWING ASSOCIATION

"If pens impartial active annals trace,
Others, with secret hist'ry, truth deface"
(Richard Savage (?1697-1743), 'The Authors of the Town')

Apart from its own publications and contemporary accounts in newspapers and journals, such as the Cotton Year Book, Manchester Chamber of Commerce Monthly Record and the Journal of the Royal African Society, little has been written on the British Cotton Growing Association. What there is tends to concentrate on the BCGA's role in West Africa. Amongst those who make brief mention of the BCGA in various African countries are Barthwell (Ph.D., 1978), Bartlett (Ph.D., 1974), Davies (1973), Ehrlich (Ph.D., 1958), Gann & Duignan (1978), Hatton (Ph.D., 1971), Munro (1976), Pedler (1975), Prentice (1972), Reed (Ph.D.,1975), Taylor (Ph.D., 1981) and Yudelman (1975). Most remark upon the close governmental collaboration and Colonial Office support the BCGA is reputed to have enjoyed - so close that "many believed it to be an official organisation" (Pedler, 1975, p.104) or "virtually a public utility corporation backed by the Lancashire cotton

[1]The names consistently gave trouble, even to their own members. For example, Lord Stanley wrote to Sir William Himbury in 1946, expressing his delight at being asked to be President of the British Cotton Growers Association (I(ii)(b): BCGA/EM, insert 427, 3/4/46). Modern historians continue to distort the names with Elias Mandala (Ph.D., 1983) and William Beinart (1985), for example, miscalling the BCGA and ECGC respectively.

[2]For example, Yudelman (1975, p.341) writes: "In 1921 the Association was superseded by the Empire Cotton Growing Corporation".

industry" (Prentice, 1972, Chapter 9). Four authors - Anjorin (Ph.D., 1966), Hose (Ph.D., 1970), Nworah (1971) and Wardle (Ph.D., 1980) - all writing primarily on West Africa, devote more attention to the BCGA. However, even Wardle's thesis, with its emphasis on BCGA operations in Northern Nigeria and written under the tutelage of Hopkins, does not provide the comprehensive account which Hopkins (1976a) hoped would soon be written.[1]

Anjorin, Hose, Nworah and Wardle emphasise different aspects. Anjorin's interest is mainly in BCGA as a railway lobbying body. But he also contends that, learning from French and German West African cotton experts and using cooperative political officers, BCGA, against indigenous buying competition and growers' preference for groundnuts, raised cotton to an export commodity and Northern Nigeria to a valuable commercial territory (Anjorin, Ph.D., 1966, Chapter 4). Hose (Ph.D., 1970), acknowledges BCGA difficulties in British West Africa, many of which "stemmed from the failure of those responsible for the Association's methods and direction to comprehend the agricultural situation in West Africa as it truly existed"(p.250). A low ginning rate and competition from local weavers exacerbated the BCGA's financial insecurity (pp.277-78). Hose plays down the British Government's role in BCGA's decision-making, reserving the status of "very nearly a branch of the government" for the Empire Cotton Growing Corporation (p.280). Nworah (1971) more harshly maintains that the BCGA quickly "earned a reputation for maltreating and exploiting West Africans" (p.321), suffered from its failure to attract private capital and commercial support, was undermined by a "lack of indigenous confidence due to the brazen methods of its agents in the field and the low prices it paid for labor

[1]It is worth noting that Hopkins states, "The Association's extensive records, covering the period 1906-66, have been deposited in the University of Birmingham Library" (1976a, p.37, footnote 39). There is a selection of BCGA records in the Heslop Room at Birmingham University, but by no means a full collection. Vital Minute Books are held by BCGA at Ralli House, Liverpool (see Bibliography I(ii)).

and cotton ..." (p.329) and held a "confused attitude towards plantation economy and peasant cultivation". The latter was certainly true but Nworah produces little evidence for his other contentions. He finally condemns the BCGA as being "like the Crown Agents, ... a conduit pipe through which the imperial treasury passed patronage money into privileged hands" (p.330), though this takes little account of the reality of the BCGA's battle for funds.

Wardle (Ph.D., 1980) is the most recent to investigate the organisation at all thoroughly. However, his assiduous reading of BCGA archival material was not matched by comprehension of the realities of African cotton-growing. While not wishing to minimise his contribution, particularly to discussion on the intricacies of BCGA finances and relationship with the CO, the BCGA of his thesis might as well be the British Conglomerated Granite Artisans or British Calor Gas Association, so little is there of cotton in it.[1] Wardle treats BCGA sympathetically and, based mainly on the BCGA's own statements on the matter, is convinced that "... cotton export development was not pursued through coercion of African producers" (thesis synopsis) and that, until the late 1920s, the BCGA was a philanthropic body, not a business. Wardle argues that Hose exaggerated the degree of BCGA-CO cooperation and, more strangely, appears to discard Hose's suggestion that the BCGA received financial backing of "several tens of thousands of pounds" from the British, colonial and protectorate governments (p.44). However, Wardle's own writing confirms the close relationship with the Colonial Office and his own figures show that the BCGA had received £42,000 in Colonial Grants-in-Aid by their termination date in 1909 and Imperial Grants of £61,000 by 1917.

[1]Lest the same criticism be directed at this work, the reader should refer immediately to Appendices I-V: 'Taxonomy of Cotton', 'Notes on Lint-Producing Cottons of Relevance to Africa', 'Technical Terms', 'Cotton Botany and Husbandry'and 'Diseases and Pests of Cotton'.

Just as there is no consensus of later opinion on the BCGA, so contemporary judgements diverged. The BCGA was not quite "all things to all men"; but, it did appear in slightly different guises at different times in different countries. It attracted both compliments and criticism from the CO, Chambers of Commerce, commercial rivals, colonial governors, Departments of Agriculture and the cotton industry over many matters. Controversy surrounded its role as a buying agent in Uganda and Nyasaland, alleged "interference" in native agriculture in Nyasaland, comments on the deterioration of Ugandan cotton, pressure for improved steamer and railway services and inconsistent stance on the peasant *versus* plantation agriculture argument. Just over a month after the BCGA's formal inauguration, Manchester Chamber of Commerce's President was explaining, in what was to be one of many attempts, that people had a wrong impression of the Associations's objects (MCC MR, XIII, 1902, p.178).

Finance was often to the fore in discussions on and within the BCGA, particularly in 1909, 1912 and 1915-16 when new funding arrangements were under consideration. However, the most controversial matter was the extent to which the Association was a commercial body and the extent to which it was a philanthropic body. The BCGA often claimed its aims and methods were misunderstood - not too surprising given its own lack of clarity about its role and how it could achieve its objectives. Its attitudes and actions were often contradictory, sometimes claiming it wanted profits and refusing non-commercial openings, at other times taking extreme financial risks for apparently altruistic reasons. The BCGA was variously referred to as "a semi-philanthropic body", but with the ability to increase mercantile profits; or as "a semi-commercial body", but with the interests of cotton-growing natives or the British cotton industry at heart, giving the best possible prices to the former and an unbeatable supply

to the latter.[1] Not unexpectedly, these dichotomies became the target of critics and rivals.

Its own indecision about the way it should develop, or the difficulty it faced in turning ideas into reality, is apparent from a cursory glance at BCGA papers. For example, the 1909 Fifth Annual Report records that the recent successful financial appeal should be definitely the last "to be made on a more or less philanthropic basis" and should be sufficient to enable the Council to further its future work on sound commercial lines (p.9). Twenty two years later, after continued controversy over "commercial" *versus* "philanthropic" approaches, the Finance Committee discussed a letter from Oldham Chamber of Commerce which asked, "What about a dividend, now that you are definitely established on a commercial basis ?" The Association replied that Oldham misunderstood the position: the BCGA was not yet a commercial concern but was "run as far as possible on business lines, leavened with a fair amount of philanthropy".[2]

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[1]It is debatable whether an organisation desperately seeking essential agricultural supplies to support a manufacturing industry in a country which cannot grow the needed commodity can ever be described honestly as wholeheartedly philanthropic; but its members liked to assign such descriptions to it. And perhaps the difficulty in accepting such epithets today stems from modern images of big business and industry, which, tinged by a profit-making, non-benevolent economic view, seem to put the interests of the people and the wider community last, often creating extreme tension between the worlds of wealth and ethics. It is also worth commenting that any "philanthropy" was towards Lancashire industry not towards African growers, despite occasional claims of benevolence to the latter. Such benevolence was motivated by self-interest.

[2]Minuted in I(ii)(b): BCGA/CM Vol.III, 309th Council meeting, 6th January 1931.

2.3 THE BIRTH OF THE BRITISH COTTON GROWING ASSOCIATION[1]

> "... it can be said without fear of contradiction that the movement now started is one of the most important in the world's history."
>
> (J. Arthur Hutton, 'The Work of the British Cotton Growing Association',p.17)[2]

With the Cotton Supply Association's demise in 1872, there was a hiatus in formal efforts to increase the cotton supply to Lancashire. In the early years of the 20th century, however, the situation changed. Dependency on the United States and supply worries were sufficiently serious to warrant action once more.[3] The Empire in 1900 provided little more of Britain's imports than it had in 1870 (Saul, 1960, p.222). It was to this under-utilised Empire that Lancashire now looked for salvation.

The BCGA's conception can be traced to the January 1901 Annual Dinner of Oldham Chamber of Commerce when Benjamin Crapper "expressed a thought that for a long time had been in the minds of millowners" (I(i)(b): CGA 2/1/2, Tewson, 1954, p.2). This led to lively discussion on the need for securing increased supplies of cotton for Lancashire spinners. What might have ended as little more than sterile debate, bore fruit. J. Arthur Hutton, Chairman of the African Section of Manchester Chamber of Commerce, who became BCGA's Vice-Chairman in 1904 and Chairman in 1908, wrote in 1904 that "all who are under the sway of King Cotton owe the very greatest debt of gratitude to Oldham Chamber of Commerce for being farsighted enough to see three years ago what some of us are only beginning to see today" (I(ii)(c): Hutton, 10th February 1904, p.17).

That foresight led to the decision at a later Oldham Chamber of Commerce Council meeting to appoint a special

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[1] For a comprehensive list of sources used for this chapter, see Bibliography I(i) - I(iii).

[2] Paper read before the Manchester Statistical Society, 10th February, 1904 (I(ii)(c)).

[3] See Chapter 1, pp.29-30, for a synopsis of reasons for renewed interest.

"Committee on Increased Growth of Cotton", under the chairmanship of J.E. Newton, to investigate cotton growing possibilities in the British Empire. John Edward Newton, Senior Vice-President of Oldham Chamber of Commerce, was much admired for his integrity and hard work. Indeed, Hutton regretted that Newton "devoted himself so arduously to the work of the Association that his health suffered" (I(ii)(c): Hutton, 10th February 1904, pp.17-18). E.D. Morel, who later became less than enamoured with what he saw as the BCGA's non-humanitarian activities in Southern Nigeria, complimented Newton on doing more than anyone else to make the BCGA "a powerful, corporate organisation" (I(ii)(c): Morel, 3rd April 1903, p.5).[1]

Newton's Special Committee devised a questionnaire, sent to the Board of Trade and Colonial Office for onward transmission to relevant respondents. The questions, designed to assess the current situation and future possibilities for cotton-growing, were straightforward. Can the growth of cotton in Egypt be materially increased ? Can anything be done to increase and improve East Indian cotton ? Can cotton be profitably grown in Sudan or in Central and South Africa ? Can cotton growth be encouraged in the West Indies ?

The replies were reported to Oldham Incorporated Chamber of Commerce on 18th November 1901.[2] Egypt and India had little hope of increased production; Sudan suffered from transport difficulties; but the majority of African responses were much more optimistic. The Secretary of

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[1]Morel was proprietor and publisher of The West African Mail, which he described as "the Official Organ for West Africa of the British Cotton Growing Association, and the Official Organ for West African Sanitation of the Liverpool School of Tropical Medicine". Morel's early enthusiasm for the BCGA was fuelled by his belief that West Africa was the most promising cotton-growing prospect because of its history of cotton production and because representatives of its race had made America the greatest cotton producer on the globe: "What the West African Negro has done in a land of exile as a slave, or hired servant, he can accomplish in his own land, as a free man, and landowner in his right" (I(ii)(c), Morel, 17th April 1903, p.22).

[2]Published as 'Report of Committee on Increased Growth of Cotton', Oldham, 1901 (I(ii)(c)), cited as Oldham Report, 1901. Also reported in I(ii)(c): Morel, 10th April, 1903 and in I(iii), Vol.I. Pamphlet 1, 'The Growth of Cotton. Can it be increased - especially within the British Empire ?'

the British Central Africa Chamber of Agriculture and Commerce wrote that land and labour were admirably suited to cotton growth and, despite a question mark over freight, "there would seem to be every prospect in favour of a vigorous industry in cotton if a company could be induced to take up the matter from a commercial standpoint" (I(ii)(c): Oldham Report, 1901, p.5). The South African reply mentioned an unreliable labour supply but believed this might be offset by a good financial return on cotton which grew luxuriantly in Natal (I(ii)(c): Oldham Report, 1901, p.6). The Special Committee jubilantly announced, "Cotton of usable qualities can be grown in various parts of the Empire" and particularly suggested that the Colonial Secretary be asked to test the suitability of Central Africa as a cotton producing country (pp.7-8). Most importantly, it was agreed to forward a report to other Chambers of Commerce and Associations interested in the cotton trade. Their favourable response led to a meeting in Manchester Chamber of Commerce on 18th February 1902 where it was agreed that a representative Committee be appointed to further growing of cotton, especially within the Empire (I(ii)(b): BCGA/M, 18/2/1902 Minute). This committee, appointed on 9th April 1902, with sub-committees for geographical areas, marked formal widening of interest in improvement of Lancashire cotton supplies.

The movement's original impetus had come from Oldham Chamber of Commerce but, while Oldham's Special Committee was conducting its preliminary investigation, Sir Alfred Jones, shipping magnate of Elder, Dempster, & Co. of Liverpool, was taking practical steps to encourage cotton-growing.[1] Peter Davies claims that Jones was "largely responsible for the founding of the British Cotton Growing Association" (1973, p.123). This diminishes Oldham's

[1]Sir Alfred's rise from cabin boy to senior partner of companies controlling over 100 ships has been well documented by P.N. Davies (1973 and 1978). In addition to shipping and trade interests, he was Chairman of the Bank of British West Africa, President of Liverpool Chamber of Commerce, and founder of Liverpool School of Tropical Medicine (Gann & Duignan, 1978, p.31).

input and gives Jones rather more than his due, but he did offer free cotton seed to anyone in the British West African colonies willing to cultivate cotton, sent 10 tons of American seed to the colonies in May 1901, acquired a New Orleans expert to give cotton production instruction and impressed upon the Colonies' Governors and the CO the crop's importance (I(ii)(c): Hutton, 10th February, 1904, p.18; and Davies, 1973, p.123). Jones was driven by a heady mixture of altruism and imperialism, tinged with a strong streak of profit-seeking. He believed that it must be to the ultimate benefit of his freight ships if West African exports, and demand for imports, increased.[1]

Hutton enthused that "All those who have come across Sir Alfred Jones cannot fail to appreciate the unselfish manner in which he has given up time and money for the good of the cause" (I(ii)(c): Hutton, 10th February 1904, p.18). Morel more humorously commented that Jones was a "firm believer in the capacity of West Africa to produce anything - from cotton to malaria" (I(ii)(c): 3/4/1903, p.5). On the other hand, John Holt, of the Liverpool trading firm of that name, distrusted the self-aggrandizement of Jones and his "Band-waggon of flashy imperial patriots" (Nworah, 1971, p.322). But, there is little doubt that Jones was a man of substantial wealth and energy, which he was prepared to devote to the cotton supply problem.[2]

The African Committee of the Manchester Chamber of Commerce set up a momentous meeting at the Albion Hotel, Manchester, on 7th May 1902. Believing that the continued

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[1]Cotton was not destined to fill the holds of Jones' ships in any great quantity. In 1884, of items exported from British West Africa to the UK, 1.3% was cotton; in 1913, this proportion had risen to only 3.3% (Davies, 1977, Appendix Table 1, p.15).

[2]If Sir Alfred had energy at the start of the century, he had even more in the last few years of his life. In the reminiscences of Harry Cotterell, a long-standing, close friend of Sir Alfred Jones, he tells of an earthquake in Kingston, Jamaica, which Sir Alfred was visiting under the auspices of the BCGA, and remarks: "Sir Alfred Jones was never in my opinion the same man after the earthquake as before; he seemed to be impelled forward to such activity and restlessness as to make it impossible for him to recuperate his wasted energies..." (in Davies, 1976, p.18).

prosperity of the British cotton industry depended on a concerted effort to increase the supply of the raw material, John Newton and Alfred Jones decided to join forces: the result was the formal inauguration of the British Cotton Growing Association on 12th June 1902 at the Manchester Chamber of Commerce. The minutes of that meeting record the adoption of nine resolutions prepared by the participants of the 7th May gathering (I(ii)(b): BCGA/M). The principal object of the organisation was defined in the third clause: "the extension of the growth and cultivation of cotton in British Colonies, Dependencies, and protectorates". The finance was to come from a £50,000 guarantee fund, spread over five years, a sum soon found inadequate. It was authorised under resolution 8 that the Executive Committee, appointed from the General Council:

> "shall immediately collect all the available information on the subject, and despatch expert expeditions to report on the best methods of procedure, and shall have power to (a) acquire land on which to make experiments and to establish plantations; (b) distribute seed among the natives, to encourage them by advice and assistance to grow cotton on their own land, and to engage experts for this purpose if necessary; (c) establish stations to buy and sell cotton, or any of its by-products, animals, implements, or any other articles or goods necessary for the expeditions; (d) to adopt any other means that may suggest themselves from time to time to attain the object in view."

2.4 LONGEVITY OF THE BRITISH COTTON GROWING ASSOCIATION *versus* EARLY DEATH OF THE COTTON SUPPLY ASSOCIATION

"Few are wholly dead:
Blow on a dead man's embers
And a live flame will start."
(Robert Graves, 'To Bring the Dead to Life')[1]

The Cotton Supply Association (CSA) of 1857-72, at a time when intervention into the workings of the laws of supply and demand was more unusual, had attempted a very similar

[1]Reprinted in Faber Book of Modern Verse (1960).

approach to that laid down by the BCGA for improving supplies.[1] The CSA lasted only fifteen years, whereas the BCGA has continued, in one form or another, to the present day. In what way did the BCGA differ ? The answer has to be that it did not differ a great deal: the BCGA was not a direct descendant of the CSA but it was kindled by the same hopes and fears. The CSA's founding resolutions were almost identical to those of the BCGA, with the exception of the CSA's emphasis on "removal of governmental and other obstacles" to the growing of cotton, stress on India as the most worthwhile area and omission of any specific power to acquire land.[2] The CSA was less well financed, though securing adequate funding was an almost permanent bugbear to the BCGA during its first two decades; the CSA was less willing than the BCGA to undertake agricultural work itself, preferring to rely on leaflets to convert and explain; and the CSA put most of its effort into India, whereas the BCGA spread itself widely but concentrated on Africa. Otherwise, the two organisations were remarkably similar in aims and methods. The main difference between them lies in the amount of governmental and Lancashire support they attracted. This depended on the perceived need of the Lancashire cotton industry and the British Government for an organisation devoted to producing raw cotton in British colonies and dependencies. The CSA was not needed as such; and so never progressed much beyond being a Manchester-based propaganda body, modelled along the lines of the Anti-Corn Law League, pleading for cooperation from foreign governments, British colonial governments and especially from the Government of India. It failed to get this support, leading a later proponent of Empire intervention for Empire-grown cotton to suggest: "... if the men of those days had dealt *Imperially* with the question, the whole

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[1] See Chapter 1, pp.22-26. A full contemporary account of the CSA, by Isaac Watts, Secretary of the CSA, can be found in I(ii)(c): Watts, 1871. Henderson (1932a), Hose (Ph.D., 1970) and Silver (1966) all make interesting reference to the CSA.

[2] From an advertisement in Manchester Examiner and Times, 22/4/1857, in Silver, 1966, Appendix D, pp.301-2.

political aspect of the Cotton Trade would have changed; and probably America and the Continent would not have become the formidable rivals they now are" (I(ii)(c): Thompson, 1917, p.5).

Although new supply sources became irrelevant as Manchester's interest dwindled when the "famine" eased, the CSA was formed at a time of serious crisis in raw cotton supply, as was the BCGA. Alfred Jones (President), John Newton (Chairman) and John C. Atkins (Secretary), in a 1903 appeal for the BCGA's Guarantee Fund, reminded prospective donors of the national and industrial problems caused by a three year cotton scarcity and rapidly increasing American consumption (60.75% up in the last ten years, as against a 3.6% rise in British consumption) (I(iii): Vol.I, Pamphlet 2). However, the immediate position soon improved. In 1904-05 there was a large increase in the US crop[1] and the comparative cotton price in 1905 was down on the previous two years.[2] The situation fluctuated subsequently, but the immediate panic had dissolved. The BCGA, however, did not quietly collapse as the CSA had done.

There are three particularly plausible reasons for the BCGA's apparent stamina. Firstly, although the spinners of Oldham 'medium counts' yarn were most affected by the shortage of American cotton and Oldham Chamber of Commerce was the driving force behind the initial moves to create the BCGA, it soon attracted a much wider base of support from within and outside Lancashire. It was a much stabler movement than the CSA, with backing at mill operative level, from factory and mill owners, amongst Members of Parliament, within the Colonial Office and from officials in British colonies.[3] The CSA was unable to draw on the

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[1] See Appendix VI, Table 15.

[2] See Appendix VI, Table 10.

[3] Clarke (1971) draws attention to the divisions within Lancashire, including the religious and social differences within the working class, which made unanimous support on any matter by no means a foregone conclusion.

support of even a cross-section of Manchester's population, let alone from a wider Lancashire or British sphere.[1] Secondly, the prevailing economic and political philosophy had changed from the free trade, *laissez-faire* view of competing, isolated members of the state pursuing self-interest, at the time of the CSA's creation, towards an atmosphere which encouraged a more active imperial development policy and more vigorous participation by various interests and governments in increasing the cotton supply from the Empire. The CSA had to combat the accepted law of supply and demand behind the prevalent attitude that, if the price was right, adequate cotton would always land in Lancashire without intervention. Thirdly, the BCGA involved prospective cotton-growing colonies and dependencies much more closely, at both metropolitan and local levels (for example, in discussions with planters, Governors, CO officials and local trading companies), than the CSA which never overcame Indian Government opposition. Strong economic links were forged between the BCGA and its prospective sources of supply. Lancashire's needs were seen to relate positively to colonies' revenue requirements and local populations' aspirations.

E.D.Morel eulogized in 1903 that the BCGA was not a money-making syndicate, that:

> "its motives are of the highest; its ambitions are national... Its aims are Imperial in the best and widest sense... The entire forces of Lancashire Industrialism are at its back."
> (I(ii)(c), 3/4/1903, p.3).

This neatly encapsulates the notion of a broad base, the wider imperial motives and the economic and political philosophy which helped the BCGA to survive . It also coincides with the image the BCGA nurtured for prospective financiers, the CO and competing buyers. It did not tell the whole tale.

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[1]This is not to discount the pre-eminence of Manchester in the cotton trade. It was the commercial, credit, warehouse and spinning "capital", contemptuously called the "Cottonopolis" by the London Times (Silver, 1966, p.5).

2.5 THE EARLY YEARS OF THE BRITISH COTTON GROWING ASSOCIATION, 1902-1904.[1]

> "The insufficiency of the supply of the raw material upon which the great cotton industry of this country depends has inspired me with deep concern. I trust that the efforts which are being made in various parts of my Empire to increase the area under cultivation may be attended with a large measure of success."
>
> (King's Speech from the Throne at the Opening of Parliament, 2nd February 1904.)[2]

The initial, primary interest of the BCGA was in increasing and widening the basis of supply of all grades of cotton, reducing dependence on America to ensure cotton spinners' and manufacturers' prosperity. Incidental gains from this were claimed early on in BCGA publications: British colonies benefited from increased revenue,[3] commerce found new markets[4] and "every industry throughout the Kingdom, not excluding the farmers, who grow so much of our food" profited.[5] Despite such an appeal to self-interest in many quarters, the Association did not quickly gain the finance or widespread support essential for its survival, though confirmation of the urgency of the need for action was provided by Washington Census Bulletin, on 28th June 1902, when it reported: "At the present rate of progress it will not be long before the *entire cotton supply of the States on the Atlantic sea-board will be taken at home*" (I(ii)(c): 'BCGA Correspondence', Oldham, 1902).

From BCGA's formal inauguration on 12th June 1902 until receipt of Royal Charter of Incorporation on 27th August

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[1] This section and the remainder of this chapter deals with the general workings of the BCGA. More specific detail on its relationship with Malawi and Tanzania follows in Chapters 5 and 6.

[2] Quoted on the cover pages of J. Arthur Hutton, 'The Work of the British Cotton Growing Association', read before Manchester Statistical Society, 10th February 1904 (I(ii)(c)) and of Professor Wyndham R. Dunstan, 'Memorandum on Cotton Cultivation', laid before the British Association at Cambridge, 22nd August 1904 (I(ii)(c)).

[3] I(iii): Vol.I, Pamphlet No.2, 1903, p.42.

[4] I(iii): Vol.I, Pamphlet 4, 9/10/1903 meeting, p.6.

[5] I(ii)(c): Hutton, 10/2/1904, p.16.

1904, the Council's committees met regularly to fulfill their remits. The Council, the policy-making body which decided the overall plan and presented the BCGA's case to other organisations and to the CO, included M.P.s, mill-owners, operatives' representatives and manufacturers. The Executive Committee, advised by various sub-committees, dealt with daily operations at home and abroad. All were kept busy in the first two years with continuing investigations into overseas cotton production possibilities and in answering masses of letters on the topic.

Sir Alfred Jones, BCGA's first President, was a frequent correspondent of the CO regarding his West African trade and shipping interests. Liverpool and Manchester Chambers of Commerce had also established regular links with government offices.[1] BCGA followed suit, resulting in massive volumes of correspondence and regular conferences with the CO on shared concerns.[2] An early CO approach in August 1902 asked how the BCGA proposed encouraging the extension of cotton growing. John Atkins, Secretary, quickly responded that the intention was to work as far as possible through Government representatives on the spot, relying on Governors and District Commissioners to interest Chiefs and to undertake seed distribution and crop buying on behalf of the BCGA. Atkins acknowledged that experts and instructional experimental farms were needed. Plantations were not planned at this stage, native interests being considered paramount: the BCGA "desires that cotton cultivation should become a native industry, and will do all it can to assist and encourage the natives to take up, and will undertake to purchase

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[1] For example, Manchester Chamber of Commerce (MCC) Monthly Record regularly reported on meetings and correspondence with the CO and FO. In MCC Annual Report for 1902 (in MR, 31/1/1903, pp.4-9), it is recorded that the African Section had invited the BCGA to their meetings with West African Governors.

[2] Labour problems, transport facilities, land acquisition, the employment of experts and discussions on cotton-growing territories (Gambia, Sierra Leone, Lagos, Southern Nigeria, Northern Nigeria, West Indies, British North Borneo, British Central Africa, Cyprus, British East Africa and British Honduras were early candidates) all featured in correspondence and conferences. The BCGA representatives usually well outnumbered the CO at these meetings.

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any cotton grown, and may also offer prizes to cultivators for successful results".[1] James Mann's 1860 assertion that Africa was the cotton industry's "promised land" appeared to have been confirmed by replies to Oldham Special Committee's 1901 questionnaire;[2] and it was to West Africa as the most suitable location for expansion, with Sierra Leone, Yorubaland, Lagos and possibly Southern Nigeria as prime targets, that Atkins reported the BCGA was directing early attention.

Other parts of Africa were not neglected, as shown in correspondence[3] and discussion[4] with William Ewing, of the African Lakes Corporation Ltd., on cotton as a British Central African planters' crop to replace coffee; with Robert Scott of The Christian about the Zambesi Industrial Mission's 100 acres under cotton; with F. Sandbach Baker, planter, soliciting BCGA interest in British East Africa, and Sir Charles Eliot, speaking hopefully of prospects in the same territory; with Mr. Gordon W. Huntly, Resident Commissioner of Victoria, Rhodesia; with the British South Africa Company in Rhodesia; with the Blantyre and East Africa Company; with Lord Cromer on Egypt and Sudan; and with Sir Rudolf Slatin, suggesting BCGA should cultivate in the Sudan to set an example to "the natives who are by nature more or less indolent" (1902, p.35). The wider world was not forgotten. There was, for example, correspondence from S.M. Johnson of Muir Mills, Cawnpore, India, on his experiments to improve Indian cotton; with Emil Stark about cooperation with Berlin's Kolonial Wirtschaftliches Komitee (KWK) and an invitation to Mullendorf, German cotton expert, to lecture in Manchester;[5] and with

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[1] Atkins to CO, 23/8/1902, in I(ii)(c): BCGA 'Correspondence etc', Oldham 1902.

[2] See Chapter 1, p.26, for reference to Mann; and Chapter 2, pp.43-44 for responses to the Oldham questionnaire.

[3] In I(ii)(c): BCGA, 'Correspondence etc.', Oldham, 1902 and I(ii)(c): BCGA, 'Correspondence etc. No.2. March 1903', Oldham, 1903.

[4] Minuted in I(ii)(b): BCGA Minute Book, 18/2/1902 - 13/10/1903.

[5] Formed in Dresden in 1896 to promote agricultural development in the colonies, at the behest of German textile mill owners, KWK devoted attention to the promotion of cotton-growing in German colonies from early 1900.

similar cotton growing associations in France and Italy. There was practical advice offered too, such as the September 1902 report on Zambesi cotton samples, described as "useful stuff ... seems well grown and well ginned...", likely to be competitive with the lower grades of Egyptian if it was a little stronger.[1]

On 28th January 1903, the BCGA arranged an 'Important Meeting in Manchester'.[2] The strong relationship already forged with the CO is indicated in the letter of apology for absence from R.L. Antrobus, head of the West Africa section of the CO: "As you know, Mr. Chamberlain is anxious that we should do everything in our power to assist the Association in promoting the growth of cotton in the British possessions" (p.44). Sir Alfred Jones' imperial bonhomie is equally clear in his opening remarks as Chairman, minuted as "He hoped this movement would succeed, and that it would lead to the natives of Africa being employed in their own land instead of in America... He is a Britisher as we are Britishers... not so shrewd perhaps as a man from Manchester, but he is a Britisher, and it is our place to make him successful if we can" (p.46).

The 'First Annual Report' of the unincorporated BCGA was presented at a subscribers' meeting and dinner on 9th October 1903.[3] The Executive Committee reported that they were satisfied with future prospects, although, of the £50,000 Guarantee Fund sought, only £31,198-1s-0d had so far been raised. The Executive stressed that widespread large cultivation would only occur if it was profitable for the grower - an obvious point, but one which was often overlooked in the desperation to bring cotton to Lancashire. The Executive remarked that consultation with the CO and Governors had resulted in the BCGA engaging

[1] I(iii): Vol.I, Pamphlet 2, 'Reports on Cotton Samples', 18/9/1902.
[2] Report in 'Correspondence etc. No.2. March 1903' (I(ii)(c): BCGA, Oldham, 1903), to which page references in this paragraph refer.
[3] Copy contained in I(ii)(c) and I(iii): Pamphlet 4.

experts, with salaries paid from colonial revenues, to visit, examine capabilities, conduct experiments, encourage native cotton-growing, instruct in improved methods and generally further the industry. Gambia, Sierra Leone, Gold Coast, Lagos and Southern Nigeria had received the first BCGA experts, while the Foreign Office, at BCGA's request, had sent an expert to British East Africa. In British Central Africa, the BCGA had helped by supplying seeds, gins, and presses to Industrial Missions and trading companies; but it was felt that profitability would be limited until the Zambesi-Nyasa Railway was built. In addition, the Sudan, India, West Indies, Australia, Ceylon, Burma and Borneo had all received BCGA attention. The report ended with an appeal for more support for an Association not just of local interest but dealing with a national and imperial issue which could benefit the Mother Country, colonies and dependencies.

Never a man to minimise future prospects, Sir Alfred Jones, in moving the adoption of the report and accounts, stressed the importance of developing Africa as a new market and hinted at the prospective revenue if Africa was capable of supplying America, not just England.[1] Equally at ease with a wider vision, J.A. Hutton, Treasurer, emphasised that, despite the BCGA's work not being immediately profitable, money was sought as an insurance, not charity. It would finance scientific experts wherever cotton might be grown, crop advances, and possibly buying agencies all over the world, rather than leave this vital aspect in the hands of mercantile interests. Alfred Emmott, M.P.,[2] confirmed the need for more money to carry out the BCGA's sterling work of attempting to compensate for raw cotton shortage; A.A. Paton, cotton spinner, drew attention to the need for transport systems to cope with exports; while Sir. F. Lugard extolled Northern Nigeria's

[1] In I(ii)(c): BCGA, 'Report of Annual Meeting and Dinner', held on 9/10/1903.

[2] Emmott, who came from a mill-owning family, was M.P. for Oldham from 1899 to 1911 and Parliamentary Under-Secretary of state for the Colonies from 1911 to 1914. He was one of several BCGA supporters in a relatively influential position, able to oil the BCGA's relationship with the Colonial Office.

wonderful cotton cultivation prospects and the immense market for Lancashire goods that the country would provide, neither of which came to fruition.

Thus, this first report and annual meeting raised many issues which were to remain prominent in the BCGA's early history: the need for adequate funding; the necessity for unprofitable pioneering and experimental work and the provision of buying facilities; close cooperation with the CO and Governors; the transport problem; the wider appeal of the BCGA as an imperial organisation; and what proved to be the fallacy, originally fuelled by Lugard's reports,[1] that Northern Nigeria would produce large quantities of cotton for export and a vast market for Lancashire manufacturers.[2] Labour supply problems in colonies and protectorates were often on the agenda too, particularly in relation to European planters who might be encouraged to grow cotton. E.D. Morel caught the dilemma neatly:

> "But if it be the intention of His Majesty's present Government, and of its successors, to allow the British Central and British East Africa Protectorates to be drained of the pick of their able-bodied labour in order to feed the Rand, as the South African magnates desire, then goodbye to the development of a cotton export industry in both Protectorates. Park Lane is the greatest enemy to the promotion of cotton growing in a goodly portion of our African Empire." (I(ii)(c): Morel, 17/4/1903, pp.20-21).

During 1904, J. Arthur Hutton succintly described the circumstances which led to the BCGA's formation and the extent of its early work in 'The Work of the British Cotton Growing Association' and 'The Cotton Crisis'.[3] In the first paper, Hutton, lavish in his praise of British

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[1] Later Governors, especially Bell, disagreed with Lugard's optimism.

[2] It was not until 1938 that the BCGA, after 34 years of involvement in Northern Nigeria, suggested that cotton exporting would never be a commercial proposition, mainly because of the strength of the indigenous textile industry (I(ii)(a):BCGA/AR 1938). However, in 1929, Himbury, disgruntled at the lack of return, had declared it "the worst place the Association had" (I(ii)(b): BCGA/BM, 2/7/29).

[3] The first paper, read before Manchester Statistical Society on 10/2/1904, and the second, read before the Economic Section of the British Association on 22/8/1904, are both in I(ii)(c) and already referred to in passing, but worthy of greater attention here.

cotton trade as the world's most organised and needing less cotton per spindle than others,[1] admitted his disappointment at the industry's initial lack of response to BCGA financial appeals. Looking to the future, Hutton was cautious about Uganda and Rhodesia, looking forward to some contribution of long-stapled cotton from the former and fearful about the latter's labour supply. Hutton's optimism about Nyasaland was more wholehearted, recommending advances to planters and that local M.P.s should pressurise the House of Commons into progressing with the projected railway to enable suitable land and cheap labour to be used for cotton cultivation. After all the hysteria about shortages for the past two to three years, Hutton raised an interesting spectre of over-abundance if the BCGA was eminently successful. This could lead to a disastrously low price for producers, but Hutton believed the cheaper inputs in Africa would mean African cotton growers would thrive while Americans would suffer. Hutton completed his vision of "a Lancashire practically growing her own cotton, and having it brought straight from the producer to the doors of her mills" (p.39), by citing practical future plans: large model plantations in West Africa; advances to planters at 20/- an acre, and other assistance, in Nyasaland, where 100,000 acres could be cultivated; and about £20,000 to be used to set up ginning and buying centres in other parts of the world. To beget these schemes would require Lancashire's moral and financial backing of the BCGA in a world free of speculators and gamblers.

Hutton's second paper recited the causes and effects of the cotton shortage which meant that consumption had overtaken production for the past four years. Inelasticity of the American crop and the increase in world consumption, especially in the southern United States,

[1]Lancashire used 34 lbs per spindle, compared to America's 90 lbs and the Continent's 70 lbs, the reason being that the British industry was more labour-intensive and spun finer counts. The Cotton Year Book (1909, p.27) quoted IFMCSA figures showing Japan used 672.4 bales per 1,000 spindles, equivalent to a very high 269lbs/spindle.

had led to short-time working in some mills in 1901-02 becoming very severe in the majority in 1903.[1] Speculators forced the price up from 5.75d/lb in November 1903 to 9d/lb in January 1904, which added to mill-owners' difficulties. Indeed, price speculation and fluctuation were of more concern than supply at many times in the ensuing years. Hutton noted that short-time working had cumulative effects on dyers, printers, finishers, banks, colliery owners, railway companies,[2] distributing houses, property owners,[3] shop-keepers and farmers (pp.9-10). As the largest manufacturing industry, "knock on" effects meant that about a third of the UK population depended directly or indirectly on cotton (I(ii)(c): Atkins, 1906). Hutton reported the BCGA had increased its Guarantee Fund from £50,000 to £100,000 in October 1903. However, speculators were causing such chaos within the industry that, in January 1904,[4] it had been found necessary to raise the the fund to £500,000 and to apply to legally constitute the Association by royal charter.[5]

The last report of the unincorporated Association (to 31/8/1904) showed clearly the BCGA's extensive work in India, West Indies, West Africa, Gambia, Sierra Leone, Gold Coast, Lagos, Southern Nigeria, Northern Nigeria, British Central Africa, British East Africa and Rhodesia, despite limited expenditure. The report stressed "the cultivation of cotton will be encouraged in every promising district apart from all question of possible return in the future" (p.14) and that the new charter would not mean subordination to dividend earning. The balance sheet was acceptable, despite the apparent reticence of the trade to contribute magnanimously enough

[1] Instead of 55.5 hours a week, the majority of mills were forced to reduce to 40 hours a week during June to September 1903.

[2] Lancashire & Yorkshire Railway Company receipts were down £44,000 in the six months to June 1904, compared to the six months to June 1903.

[3] To save rent, two families would squeeze in where one had lived before.

[4] Date from I(ii)(a): 'Report of the Work of the Unincorporated Association for the Year ending August 31st, 1904'.

[5] This is the most common type of company incorporation for nonprofit-making groups.

to the Guarantee Fund.[1] Expenditure to date was reckoned at £18,704-7s-1d; the 1903-04 season had seen £100,000 of cotton produced under the BCGA's auspices, with £250,000 expected the next season; and subscribers at the end of seven years "may expect to reap the benefit of their self-denial" (p.14). The BCGA had established that it was not looking for immediate commercial profits to recompense subscribers, but neither was it a purely altruistic concern.

During the final phase of its life as an unincorporated association, the BCGA sought CO assistance to keep its case for a Royal Charter to the fore.[2] The item appeared on the agenda at many of the regular conferences in 1904: on 12th May, the BCGA urged that its new constitution be expeditiously dealt with by the Privy Council because intending subscribers were hesitant to give funds to the unincorporated BCGA (I(i)(a): CGA 1/1/2); and on 9th June and 21st July, the BCGA stressed continuing urgency but expressed satisfaction at the CO's efforts on its behalf (I(i)(a): CGA 1/1/3-4). Alfred Lyttelton and the Duke of Marlborough were noted as having been particularly helpful (I(i)(b): Tewson, 1954).

Finally, on 27th August 1904, the BCGA was granted its Royal Charter of Incorporation with a fairly unremarkable set of bye-laws on meetings, proceedings, committees, members of council, minutes, accounts and the other dry but necessary constitutional components. The most vital feature was that, although shareholders would be sought, any profits accruing were not to be distributed as dividends to shareholders for seven years. The first monthly meeting of the new Council, held on 27th September

[1] That the trade was not too slow at coming forward with promises of finance can be seen from a meeting in Manchester, reported in The Times (20/2/1904, p.10), at which pledges of about £50,000 were made.

[2] Cotton-growing was debated in the House of Commons on many occasions. On 27th April 1904, when the sitting lasted until past midnight, the Government resolved to encourage African cottongrowing. The MP for Lancashire, Darwen, set the tone by informing the House that Britain would fall in the commercial world if the cotton industry languished or decayed.

1904, resolved that 6 committees be appointed - Finance; Organisation; West Africa; Egypt, Sudan and East Africa; India and the East; and West Indies. In the ensuing years there were about seventy committee meetings each year. The President's and Council's services were given voluntarily; while the Executive of paid Chairman and four other Council members, appointed in 1907, were paid a small annual fee of £100 (I(ii)(a): BCGA/AR, 1907).

It seems likely that the move from an unincorporated organisation to a chartered association was taken primarily to enhance the Association's credibility and to heighten its appeal to potential subscribers. Having Lancashire MPs as Vice-Presidents did not give enough official status to attract the necessary funding. Although it had moral support in Lancashire,[1] London and overseas territories, the BCGA seemed to feel that it needed security and formal status to encourage investment in it. Wardle (Ph.D.,1980, p.53) also postulates that the move was made to protect it "against criticism of its mode of operations which some felt was sometimes not in the best interests of Africans", but it seems unlikely that chartered status would prevent such criticism.

The Glasgow Herald (quoted in Central African Times, 8/10/1904, p.10) summed up the more positive feelings of many as the Association embarked on its new life:

> "No one need despair of the future of Great Britain, or dread the consequence of hastening slowly, so long as the country yields men so independent and so self-helpful as the members of the British Cotton Growing Association."

[1]Manchester Chamber of Commerce President, William Fogg, was an ardent supporter, who commended the Association in that, "the prime movers are not actuated by a desire to earn a dividend on the money subscribed, but are endeavouring voluntarily to increase the production of cotton, and so to arrest a threatened national calamity" (MCC MR, 30/5/1903, p.134).

2.6 THE BRITISH COTTON GROWING ASSOCIATION ESTABLISHES ITSELF, 1904-10

'LANCASHIRE'S GREAT NEED - MORE COTTON'
(Headline of notice to be posted in mills, February 1910)[1]

Information on how the BCGA set about its primary purpose of filling, as cheaply as it could, Lancashire's great need for more cotton is found in the Association's Annual Reports, Council minutes, Executive and other committee minutes, minutes of conferences held at the CO, correspondence with the CO, reports of meetings and correspondence with Colonial Governors and other officials, correspondence with various trading companies and a vast miscellany of reports, briefings, papers, articles and pamphlets written by BCGA members or supporters.[2]

At one of its earliest reported activities - a celebratory banquet in Manchester on 12th November 1904 - the extent of the newly incorporated BCGA's appeal beyond the mills, factories and trading concerns of Lancashire was indicated. Alfred Lyttelton (Colonial Secretary), the Earl of Hardwicke (Under Secretary of State for India), Sir Frank Forbes Adam (President of Manchester Chamber of Commerce) and Sir Alfred Jones addressed the three hundred guests; and the German Colonial Committee sent a telegram of support.[3]

Lyttelton spoke of the large number of people dependent on a cotton industry which frequently faltered because of lack of supplies. It was gratifying to the BCGA that the CO recognised the problem because, over the ensuing years, an important feature of the BCGA's business was the amount and quality of interaction with the CO, and, usually

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[1] I(i)(a): CGA 1/5/8, 'Copy of the Notice drafted by the Management Sub-Committee for posting in the Mills', 25th February 1910. The aim was to persuade mill-workers to pay one penny each per month to generate a large supply of Empire cotton.

[2] See Bibliography I(i) - I(iii) for full details.

[3] Proceedings reported in I(iii), Vol.I, Pamphlet 17.

through it, with Colonial Governors and other officials.[1] The BCGA used the CO as an "information bank" for news of land availability, the labour situation and transport facilities. It also sought to pressurise the CO to improve steamer and railway services, to remedy labour shortages, to obtain its backing for an Imperial Grant and to provide experts and agricultural support. In the early stages, colonial grants-in-aid were discussed at CO meetings and colonial administrators were petitioned through the CO regarding mooted legislation. Though close, the relationship was not one in which the BCGA could always rely on the CO's thought and action being in the same vein as its own and it constantly sought reassurances of support.[2] To reinforce points made at conferences, or to introduce them informally before such meetings, there were many private discussions as well. For example, on 9th February 1905, it was reported that J.A. Hutton of the BCGA had a very satisfactory interview with the Duke of Marlborough, at which Hutton was assured "the Authorities will do everything in their power to assist the Association" (I(i)(a): CGA 1/1/7).[3]

After its first year as a Chartered Association, the BCGA published a fairly satisfactory Annual Report.[4] Substantial increases in cotton "grown more or less directly under the auspices of the Association" were

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[1]Minutes, correspondence and reports on these meetings are to be found in I(i)(a): CGA 1/1/-, CGA 1/2/-, CGA 1/9/-, CGA 1/10/-, CGA 1/11/-, CGA 1/12/-, CGA 1/13/-, CGA 2/2/54, CGA 2/2/90, CGA 3/1/4, CGA 3/2 and in PRO territory files, e.g. CO 536/- for Uganda and CO 446/- for Northern Nigeria. It is worth noting that, until 10th November 1910, the BCGA 'Reports of Deputations to London and Meetings at the CO' (CGA 1/2/-) often differ in detail from the CO minutes of these meetings (CGA 1/1/-). Sometimes the emphasis is different; usually CGA 1/2/- expands.

[2]A useful overview of Colonial Office operations and policies in the early twentieth century can be found in Hatton, Ph.D., 1971.

[3]Until 16th May 1906, when the Duke of Marlborough started to appear at CO/BCGA conferences as the BCGA Vice-President, he took part as Under-Secretary of State for the Colonies.

[4]I(ii)(a): BCGA/AR, First Annual Report, for year ending August 31st, 1905.

recorded.[1] Northern Nigeria, where, at the request of the CO authorities, the BCGA had entered into a controversial working agreement with the Niger Company, was singled out as the territory most likely to break America's monopoly hold over Lancashire (First Annual Report, pp.34-35). Despite serious transport and labour problems, upon which the BCGA had made urgent representations to the Government, and the lack of an expert, which the CO had ultimately agreed was necessary but for which they were unable to find a suitable appointee, considerable funds had been advanced to planters in British Central Africa.[2] Disappointing failure to raise adequate finance for its activities meant the BCGA had been unable to take an active part in British East Africa or Rhodesia and had been limited in its effect in British Central Africa where it recognised it was "quite possible that better results might be obtained by endeavouring to establish cotton-growing as a native industry" (First Annual Report, p.37), a theme to which the BCGA returned many times. Recognising that it required perseverance, persuasion and funding, Hutton, in a 1905 International Cotton Congress paper, nevertheless concluded, "Generally speaking it may be said that cotton is essentially a black man's crop".[3] At the same meeting, Alfred Emmott, M.P. for Oldham, spoke of the humanitarian, sentimental, economic, critical question of labour, stressing that he thought the black population should grow cotton as farmers, not labourers.[4] The disconcerting ambiguity between current philanthropy and

[1] Appendix B of the First Annual Report gives the following approximate figures, which do not agree exactly with later Annual Report statistics, but give an indication of the expansion of cotton growth:

	Cotton produced in 400 lb bales.		
	1903	1904	1905
East Africa	300	1,500	4,000
West Africa	600	2,500	6,200
West Indies	1,000	2,000	4,000
Approximate Value	£29,000	£80,000	£190,000

[2] I(i)(b): CGA 2/2/1, Hutton, 'Cotton Growing in British Colonies', 1905.

[3] Ibid, p.15.

[4] Ibid, p.22.

future commercialism, which was to plague the history of the Association, was already present: "Whilst, so far as is compatible with the capital available, no possible source of cotton supply is being neglected - apart from all question of immediate profit or loss - at the same time the work is being developed on "commercial" lines as fully as circumstances will permit" (1st AR, p.11). Shareholders were promised a future return on capital.

Amongst other early activities, the BCGA collaborated with the Imperial Institute in June and July 1905 to produce an exhibition of photographs, soil samples, raw cotton samples, spun yarn and machinery to illustrate the extent of British cotton cultivation (I(iii): Vol.I, Pamphlet 19). Although Wyndham Dunstan of the Imperial Institute favoured India as the principal prospect in the search for raw cotton, the BCGA put most of its effort into Africa. The main constraint on the BCGA in Africa and elsewhere was lack of capital, not lack of vision. Thus, two committees were formed with financial remits - the Organisation Committee and the Manchester Sub-Committee. The Guarantee Fund of the unincorporated BCGA had never been fully raised and it was hoped that it would be easier to secure subscriptions when the BCGA sealed its charter.[1] However, not surprisingly, the clause in the BCGA's charter which stated that profits could not be paid as dividends before seven years had elapsed proved a disincentive to potential capital investors.

The Organisation Committee met on 13th December 1904 to discuss soliciting subscriptions, with wry comments from one participant that he thought "it would be necessary for representatives of the Association to canvass the Bolton Spinners separately as he did not think that a Circular would have any effect with them" (I(i)(a): CGA 1/3/5); and, indeed, past experience had shown a differential

[1]For example, the first annual report of the Unincorporated Association stated that only £31,198 of the expected £50,000 had been raised (I(iii), Vol.I, Pamphlet 4).

response to appeals for funds, with those workers and mills in areas most affected by erratic supply, such as Oldham, giving more generously.[1] Early in 1905 the Organisation Committee set out its agreed fair basis for subscriptions from spinning mill owners, weaving mill owners, operatives and other employees. A team of full-time canvassers, under Mr. Henry MacNiel, was to try to collect these from spinners, manufacturers, operatives' associations and through local committees (I(ii)(a): First Annual Report; Wardle, Ph.D. 1980, p.65). However, by 23rd June 1905, there was little sign that the required finance would be forthcoming and Hutton threatened to resign if subscribed capital was still inadequate in six months' time (I(i)(a): CGA 1/3/9-10). He did not resign but half a year later he repeated that he considered £300,000 of the nominal £500,000 as the absolute minimum working capital necessary to continue the Association's work of establishing the viability of African cotton (I(i)(a): CGA 1/3/13-14, Organisation Committee Minutes of 19/12/05).

One reason for operatives' lack of response to MacNiel's canvassers was a strong objection to the "Day's Wage Contribution from Operatives",[2] as described in MacNiel's 'Report on Organisation and Canvassing' to the Manchester Sub-Committee on 31st October 1906: "... very many of those holding Socialistic opinions amongst the Operatives have taken up a decidedly hostile attitude towards the Day's Wage Scheme ... professedly on the ground that the Employers are making such large profits that they ought to find all the money wanted" (I(i)(a): CGA 1/4/27-28).[3] Others felt that the Government should be responsible for cotton-growing in the colonies. It seems there was little perception of crisis in the lower echelons of the cotton

[1] Oldham's response is praised in I(ii)(c): Hutton, 'The Work of the British Cotton Growing Association', February 10th 1904, p.36.

[2] This was discussed regularly by the Manchester Sub-Committee, e.g. on 23/8/05 in I(i)(a): CGA 1/4/1.

[3] In Heslop Room Catalogue, this report is wrongly assigned call number CGA 1/4/20.

industry, even though short-time working had been so recently imposed and despite confirmation by the 3rd International Cotton Congress, at Bremen in mid 1906, that "cotton supply is considered in all countries a matter of urgency" (I(i)(a): CGA 1/5/1; and IFCATI, [1960?]).

The Association was far from financial security when, in early 1906, the President, Alfred Jones, informed the Organisation Committee that the entire capital would be exhausted in a few years if work continued along its present lines (I(i)(a): CGA 1/3/15). Jones and Hutton discussed with the CO an arrangement whereby the BCGA, Government and Bank of British West Africa would bear any losses in a scheme of advances to planters against future crops, the crops going to the BCGA. The scheme was not put into practice. Instead, although not a final solution, the immediate funding problem was tackled in an imaginative, almost devious, way by setting up the British Cotton Ginning Company Limited.[1]

The BCGA's Charter forbade dividends for seven years, but did not prevent the formation of a subsidiary company which could pay dividends and thus be infinitely more attractive to a Lancashire not driven by the altruism, or even the self-interest, Hutton had expected. There was a recovery in American cotton production in 1904-05 which may well have lessened Lancashire's desire to fund the Association,[2] though supply was not the sole interest of

[1] It is interesting to note that it was reported by Monte Schanz at the 4th International Cotton Congress, 1907, that the Kolonial Wirtschaftliches Komitee, described as the oldest Cotton-Growing Association, was also floating a similar commercial company - Afrikanische Baumwoll-Compagnie - on the advice of the Minister of Colonies (IFCATI, 1907).

[2] Appendix VI, Table 15, shows the substantial increase in bales and notable rise in percentage of American cotton in 1904-05. This recovery is also noted in Hose (Ph.D., 1970, Chapter 5) and Wardle (Ph.D., 1980, Chapter 1).

mill-owners.[1] Prices remained relatively high, except for a temporary drop in 1905, for the decade from 1903 and continued to climb, particularly in the 1910-30 period;[2] and, in 1906-10, 74.8% of the UK's raw cotton imports came from the USA which had proved very vulnerable to disruption and speculation.[3] Despite this, Lancashire showed little enthusiasm for non profit-making shares, apparently unmoved by tantalising remarks in BCGA Annual Reports that profits would be dispersed eventually.[4] The Textile Year Book[5] in 1906, repeated in 1907 and 1908, commented on the great lack of faith or want of patriotism shown by Lancashire's poor response to BCGA efforts (p.48), although, in the same issue, reinforced Lancashire's fears by quoting from Alfred B. Shepperson's 12th April 1904 address to New York University School of Commerce: "The promoters of the various plans to grow cotton in the wilds of Africa and in the West Indies ... are simply chasing rainbows" (pp.47-48). There was, however, an excellent response to the 1907 offer of £100,000 subscribed capital in British Cotton Ginning Company Limited which took over and leased back to the BCGA its West African ginneries, warehouses and other buildings and which provided a 7% annual dividend to shareholders.[6] This arrangement ideally suited BCGA's desire to control seed supply and quality by retaining power over ginneries, which it could not do in its own right while its capital was under-subscribed.

The Colonial Office was unhappy about this apparent change

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[1]For example, structural imbalance within the industry was a serious concern. Robson (1857, p.5) comments that during the 1905-07 boom twelve million new spindles were installed; and The Economist, 1/8/08, p.205, published a table showing a massive increase in spinning capacity in 1905, when 40 new mills came into operation to even out the previous imbalance between spinning and weaving sections.

[2]See Appendix VI, Tables 10 and 11.

[3]See Appendix VI, Table 8.

[4]For example, the Second Annual Report for year ending August 31st 1906 reported: "... decided progress has been made towards the only possible permanent form of commercial success, namely, the earning of dividends" (p.11).

[5]This was a publication directed towards mill-owners.

[6]Details in I(ii)(a): BCGA/AR, 16months to 31/12/1907.

of style of the BCGA from development to commercialism, seemingly heralded by the formation of the British Cotton Ginning Company. W.S. Churchill, at a CO-BCGA conference on 7th June 1907 (I(i)(a): CGA 1/1/24), warned that it might affect the relationship between the two; and Antrobus, particularly worried by the strong West African interests and influence of Arthur Jones, minuted Egerton: "We must be on our guard about the British Cotton Growing Association. Its character has changed very much in the last year or two".[1]

This slightly ambivalent attitude of the CO towards the BCGA had become apparent earlier in 1906. The year had started well, with Alfred Jones thanking the CO "for the sympathetic manner in which the Association had been met in the past in its effort to introduce Cotton Growing in the British Colonies" and Hutton remarking that it was reasonable for the BCGA to expect Imperial and direct governmental assistance because much of its work was such as might be expected of an Agricultural Department.[2] But, at a subsequent CO conference, when Hutton attempted to persuade Winston Churchill to assure CO support for BCGA involvement in the cotton industry in British East Africa, Churchill replied that "the best course was for them to proceed in the matter independently of any definite understanding at the moment".[3] And, at the next meeting, the BCGA was reprimanded for corresponding directly with Mr. S. Simpson, the cotton expert from Egypt, employed at Treasury expense in British Central Africa from mid 1905 (I(i)(a): CGA 1/1/16, Minutes of CO Meeting, 16/5/06).[4] The CO appeared at ease with the BCGA only as long as it remained in a fairly restricted, non-

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[1] CO 520/67, quoted in Wardle, Ph.D., 1980, p.75.

[2] I(i)(a): CGA 1/1/13, Minutes of Conference at BCGA Staff Offices, 25/1/06, pp.79-81.

[3] I(i)(a): CGA 1/1/15, Minutes of Meeting at CO, 5/4/06, p.109.

[4] Simpson himself was a source of dissension, being disliked and distrusted by Sir Alfred Sharpe, Governor of British Central Africa. Mr. Harris, for the CO, attempted to assuage the situation at the CO/BCGA meeting on 13th December 1906, pointing out "clearly there is friction between Sir Alfred Sharpe and Mr. Simpson, the latter being wanting in tact, and possibly the former did not give him full credit for his capacity" (I(i)(a): CGA 1/1/20, p.159).

commercial role.

Despite CO apprehensions, the British Cotton Ginning Company did not transform the BCGA into just another profit-making concern. It eased the financial position, in making more money available for the ginning side of the business, but did not solve it. In the first full Annual Report after formation of the subsidiary company, the BCGA reported depression in both trade and organisation, with a plea for additional capital to further its work, in Uganda and Northern Nigeria in particular (I(ii)(a): BCGA/AR 1908). The BCGA especially regretted that lack of funds had precluded it playing an active part in Uganda previously;[1] and, in correspondence with the CO, Hutton suggested confusion and quality deterioration had resulted from the industry being in commercial hands.[2]

Over the next few years, the BCGA invested heavily in several cotton-related companies, including Sudan Plantations Syndicate Ltd., East Africa Cotton Syndicate Ltd., Rhodesia Cotton Company Ltd., Ernest Thorne Ltd. Barbados and East Africa Cotton Company (1911) Ltd. These were mostly unremunerative, often positively loss-making, and tens of thousands of pounds were written off in the cause of encouraging cotton-growing (I(ii)(b): BCGA/CM and AR; I(iv)(e): CRC/F1/B1). A very significant involvement was with the British East Africa Corporation (BEAC), in which the BCGA purchased initially £14,000 of the £60,000 start-up shares on its formation in 1907 and to which the Council handed over its work in British East Africa.[3] This connection was severed in disagreement in 1914 after years of direct complaints and innuendos by the BCGA, planters, local government officials and others about BEAC methods of financing cotton, its supposed discouragement of local African farmers and the alleged

[1] I(i)(a): CGA 1/2/43-44, CO meeting Minutes, 30/1/08.
[2] I(i)(c): CGA 3/2, Hutton to Under-Secretary of State, 2/8/07, 17/1/08 and 5/2/08.
[3] Details in I(ii)(a): BCGA/AR, Third Annual Report, for year ending 31/12/07 and I(ii)(b): BCGA/CM, Vol.I,Minutes of East Africa Committee meeting on 30/10/06, reported at Council Meeting on 6/11/06.

preferential treatment given to it in Uganda and British East Africa.[1]

As early as 1902, J.A. Hutton had corresponded with French cotton-growing companies, suggesting cooperation to M. Guichard of Compagnie Francaise de l'Afrique Occidentale.[2] International recognition of the BCGA came at the 4th International Cotton Congress in Vienna in 1907: Mr. Cantoni thanked the BCGA for its help in putting Italian cotton-growing on the right lines and the *Societa per la Cotivazione del Cotone nella Colonia Eritrea*, founded in Milan in 1903, paid tribute to the BCGA as "the first and most powerful in this enterprise" (IFCATI, 1907, p.159).[3] The CO's and colonial governments' regard for the BCGA during the next year was not so whole-hearted. Hopkins (1976a) refers to disillusion, for example in Southern Nigeria, and refers to a Minute by Antrobus: "By 1908 the Colonial Office noted, with a certain amount of asperity, that the original aims of the BCGA had become subordinated to local expatriate interests" (p. 37).[4] Regular conferences with the CO continued, but the 10th December 1908 minutes note friction had arisen lately and Colonel Seely's intention to alter the form of meetings in order to remove any hindrance to furtherance of cotton-growing.

The years 1908-09 were difficult for the BCGA. Disputes within the Lancashire industry and financial crisis in the United States led to depression in the trade, making cotton difficult to sell and causing the BCGA to fear that

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[1] I(i)(c): CGA Adds 72 includes a letter, dated 8/2/09 from J. Hayes Sadler, Governor's Office, Nairobi to the Principal Secretary of State for the Colonies, drawing attention to the planters' view that the BEAC received advantages not given to them.

[2] The driving force behind Cotton-Growing Associations, wrote Hutton, was that, "Dans quelques annees les Americains emploiraient eux memes tout leur coton..." He continued: "Malheureusement je n'ai pas le temps a considerer exactement dans quelle facon nous pouvons cooperer, j'ai seulement l'idee que la cooperation est necessaire..." (I(i)(a): CGA 1/14/1 and 1/14/1a).

[3] The success of the encouragement of cotton-growing in the colonies can be assessed from Appendix VI, Table 17, 'Comparison of German, French, Portuguese, Italian and British African Crops, 1902-13'.

[4] CO 520/66, Minute by Antrobus, 3/11/08, on Egerton to Crewe, 26/9/08.

new sources would be discouraged (I(ii)(a): BCGA/AR 1908). In 1909, Egyptian and American crop failures were a reminder of the fragility of the cotton supply situation (I(ii)(a): BCGA/AR 1909). An unclear letter from the CO in July 1908 (CO 18129, 24/7/08), following attacks upon the Association's position in Northern and Southern Nigeria, added to BCGA worries about its future, only partially alleviated by Colonel Seely's assurance that experimental and instructional work would be as fully supported as ever (I(i)(a): CGA 1/1/33b, Meeting with CO, 30/7/08). It was not until the end of 1909 that the CO expressed its full commitment to continued cooperation between the Government and the Association.[1]

During these years the BCGA continued to urge the government to introduce proper scientific development of agriculture in the tropics and immodestly stressed its own role as "one of the greatest imperialistic movements of modern times" (I(ii)(a): BCGA/AR 1909). The 1909 Annual Report also begged Lancashire once more to realise the importance of the Association's work so that it might become a cotton-growing, instead of a money-raising body.

The Association published a comprehensive discussion document in March 1909.[2] The BCGA was at a cross-roads in its history, facing a desperate identity crisis forced upon it by lack of financial backing for its extensive plans. Should it continue or cease ? Should it operate, as at present, on Imperial lines ? Or should it conduct itself on a purely commercial basis ? Should Government cooperation be extended, diminish or end ? The Council made two things clear if the character of the organisation were to change - they would be unlikely to continue working so assiduously on a voluntary basis; and it would probably be necessary to wind up the existing Association

[1] I(ix): PRO, CO 879/105, Africa No.953 Confidential, Serial No.5, CO to Treasury, 3/12/09.
[2] I(i)(c): CGA 3/2, 'Memorandum on the Work of the British Cotton Growing Association in various Colonies', March 1909.

and form a new company. The BCGA's disposable capital was declared as £450,000,[1] but considerably more capital was required if its operations were to be extended, as it planned, in Northern Nigeria, Uganda, East Africa, Rhodesia, Nyasaland and the West Indies.

At home, the volume of work was hinted at by the fact that the Association dealt with over 200 letters daily and,[2] in 1908, had handled £260,000 worth of cotton. Overseas, there was "no general policy for all the Colonies, but each district is dealt with on its merits" (Memo, 1909, p.44): white planters were assisted in West Indies, South Africa and Ceylon; efforts to build up a native industry took precedence in West Africa and Uganda; while both planters and smallholders were encouraged in British East Africa, Nyasaland and Rhodesia. Direct financial input included thousands of pounds in advances to planters, much of which was lost, funds for purchasing peasant cotton, shares in cotton companies and provision of seeds for experimental use in all parts of the Empire. In addition, the BCGA offered advice and expert assistance in choosing the most suitable varieties and cultural practices, in valuing, handling, financing, insuring, marketing and arranging steamer and railway freights. Experiments on machinery and of an agricultural nature completed the general work picture.

Being of such an extensive nature, the Association's activities in West Africa were dealt with separately in the memorandum under three main headings: "Scientific Agricultural Work", which included experiments on cotton and other crops, seed selection, rotations and raising seed for distribution; "Missionary and Pioneering Work", which covered ascertaining the best districts, explanatory

[1] The sources were identified as: The Association £260,000; British Cotton Ginning Company £100,000; British East Africa Corporation £60,000; and Rhodesia Cotton Company £30,000. The same sums had been declared by the Manchester Sub-Committee on 22nd November 1907 in I(i)(a): CGA 1/5/4.

[2] In 1916, Hutton claimed that correspondence with the CO alone in the previous 9 years "fill sixteen good sized books" (I(i)(b):CGA 2/2/25).

and advice work, distribution of seed, fixing and guaranteeing prices, establishing pioneering buying and ginning centres and testing and experimenting with gins, presses, engines and other machinery; and "Commercial Work", which involved buying, ginning, baling, freight and insurance arrangements, financing of planters and general agency work. All of this was undertaken by the BCGA with the aid of grants from colonial governments. Prior to 1904, local governments in West Africa had paid the cost of experts, cultivation and experimental work with the BCGA contributing the ginning and buying expenses and a quarter of other expenses up to an annual maximum of £500. From 1904, the Association took over all the work and guaranteed a fixed price of 1d a lb for seed cotton at centres where cost of transport to ocean steamers was no more than $^1/_4$d a lb., in return for annual subsidies from Sierra Leone, Gold Coast and Southern Nigeria.[1]

The Association suggested that a division of labour might be appropriate, with the "Scientific Agricultural" side looked after by the local government, the commercial work left to the BCGA and the "Missionary and Pioneering" activities undertaken by the BCGA with cooperation and a share of the cost from the local government. The Association reiterated its determination to carry out as much work as its limited means allowed, pointing out, however, that permanent commitment was necessary for some aspects. Of the £360,000 capital of the Association and British Cotton Ginning Company, £150,000 had been spent on the promotion of cotton growing and £90,000 was locked up in advances, plant and buildings, leaving too small a sum available for its plans. The BCGA suggested altering its Charter, so that no dividends would be distributed for 10

[1]The arrangement with Sierra Leone ended in 1907, in which year it was agreed that for three years Northern Nigeria would pay an annual grant of £1,000, Southern Nigeria would contribute £5,000 and Gold Coast would give £1,500, all matched by an equivalent sum to be spent by the BCGA. In East Africa a similar arrangement was reached on 1st April 1907, with the Protectorate Government contributing £1,000 a year for three years towards the cost of experimental work.

years and any surplus profits after a 3-4% dividend payment would be devoted to cotton growing, "in order to ensure in perpetuity the present public spirited and Imperial character of the Association" (Memo, 1909, p.48).

An immediate deficit, up to 31st December 1908, of £124,233-19s-9d was admitted, increased to £150,000 if investments in other companies were included; but, on the credit side, BCGA claimed outstanding beneficial results. The Empire's interest had been roused to view cotton-growing as a remunerative industry; many of the West Indian islands had been saved from insolvency; West Africa had benefitted from increased Government, railway and customs revenues; the Mombasa railway had been made into a paying concern; and, in Nyasaland, cotton had been established as the foremost industry and export.

At a conference at the Colonial Office on 28th October 1909, Sir Alfred Jones led the discussion on the second item on the agenda - a request from the BCGA for an Imperial Grant of £10,000 a year for five years, to replace colonial grants-in-aid due to expire in 1910 (I(i)(a): CGA 1/1/39(b)). He drew attention to "the splendid Imperial Work" of the Association which had benefitted various colonies and made a large profit for the Mint on silver coin exports to West Africa. The Association agreed that the Imperial Grant should be conditional on the Association raising an additional capital sum. Jones himself offered £25,000, provided Lancashire raised a further £150,000 within the next six months (I(i)(a): CGA 1/1/39(b)).[1]

Arguments about salvation for Lancashire would have had little impact on the CO, but the carefully targetted remarks, in the memorandum and at the conference, about imperial and colonial benefits were well-received. A Colonial Office 'Draft Memo' on the BCGA in 1909 agreed

[1]Sir Alfred Jones, in fact, died before final agreement was reached with the CO.

that it was no longer fair for the burden of experimental and instructional work to be on the Association with Agricultural Departments capable of handling this themselves (I(i)(a): CGA 3/1/6).[1] The CO included in this research and educational remit some aspects classified as "Missionary and Pioneering" by the BCGA - travelling to ascertain the best districts, seed selection at ginneries and advising indigenous growers on cultivation practices.

On the financial side, an Imperial Grant of £10,000 annually for three years was the compromise accepted by the BCGA (I(i)(a):CGA 1/1/41(b)). In return, the BCGA was to raise an additional £150,000 capital; was to establish, and maintain for three years, six pioneer ginning and buying stations in West Africa and Nyasaland; was to provide free seed in Gold Coast, Southern Nigeria, Northern Nigeria and Nyasaland; and was to continue work already established on a commercial basis. A deputation visited Colonel Seely at the CO on 26th January 1910, where Hutton assured him that the whole capital would be found within the next few months (I(i)(a): CGA 1/1/41(b)).[2] Six months later, Lord Derby, the new President, reported that £40,000 had still to be raised (I(i)(a): CGA 1/1/42(b)).[3] The Federation of Master Cotton Spinners' Associations agreed to pay increased subscriptions in return for two seats on the Executive. But the new BCGA appeal, allegedly the last on a philanthropic basis with no dividends payable immediately, had met with a mixed and generally poor response, although reported, no doubt for strategic reasons, as being

[1] The CO was being rather optimistic about the strength of Agricultural Departments. For example, Northern Nigeria did not have a Department until 1912 (Anthony et al, 1979, pp.248-9); most of the others were very new and short-staffed (in 1905, British East Africa Protectorate had a Director of Agriculture without a department) and "academically a very mixed bag" (Masefield, 1972, p.37).

[2] Regret at Sir Alfred's death and Colonel Seely's loss of his Liverpool seat headed the agenda that day.

[3] The German equivalent organisation appeared to have had more success in attracting funds from the cotton industry. Berliner Tageblatt, 5th April 1910, reported that of 400,000 marks available for 1910, a large part was from voluntary taxation of the German trade (I(i)(a): CGA 1/9/31, CO 1186/1910 of 30/4/1910).

"generous" in the Fifth Annual Report (BCGA/AR 1909). In June, Sir Alfred Sharpe, Governor of Nyasaland, had expressed his incomprehension at Lancashire's reluctance to back the Association (I(ii)(b): BCGA/CM, Vol.I, 15/6/10); and it was not until November 1910 that the BCGA had raised enough money for it to claim its Imperial Grant.

Insufficient capital had curtailed the BCGA's work in the past. Now it had funding, experienced staff and knowledge. Instead of concentrating on raising money from a somewhat indifferent Lancashire, the Association could now devote all its time to raising cotton and could undertake direct operations in Nyasaland and Rhodesia where previously it had operated through other companies, such as the African Lakes Company, or been unable to participate. In P.H. Lamb's Uganda Cotton Department Report, 12th April 1910, he had remarked that boll weevil in the Mississippi region meant "it is likely that within two years the export of long-staple cotton from New Orleans will be a thing of the past" (p.6) and that waterlogging in Egypt would further reduce the supply of high quality long-staple cotton (I(i)(a): CGA 1/9/89-111, 17th June 1910, CO Ref. 16937/1910). To fill this potential supply gap was a major BCGA aim, aided by now having as Secretary of State at the Colonial Office, Sir Lewis Harcourt, the politician viewed as keenest to develop the Empire through scientific research and grants (Gann & Duignan, 1978, p.295).

2.7 THE BRITISH COTTON GROWING ASSOCIATION PROVES ITS WORTH, 1911-21, AND HELPS IN THE CREATION OF THE EMPIRE COTTON GROWING CORPORATION.

> "Does Lancashire want this cotton growing pushed on ? "
> (Question put to Lancashire cotton trade representatives at a Special Conference, 13th December 1916.)[1]

1911 was a fairly successful year for the BCGA. The Cotton Year Book (1911) reported on the BCGA agreement with the British South Africa Company for cotton development in Southern Rhodesia, with the Company subscribing £5,000 towards the Association's capital on condition that the Association spent £10,000 in Rhodesia; and the BCGA's Seventh Annual Report declared 1911 to have been the most satisfactory year since inauguration. There had been solid progress in most areas, though marred by transport problems in Nyasaland,[2] unsatisfactory quality in Uganda and rather more unforthcoming capital, promised but not received, than the Association would have liked.[3] On the alleged poor Ugandan cotton quality, P.H. Lamb, Agricultural Superintendent, took exception to Hutton's conclusions, denied that there was any falling off in demand and asserted that Agriculture Department efforts could not be hurried, "nor do alarmist reports tend to help or encourage us" (I(i)(a): CGA 1/10/99-105).[4] In a later memorandum, Lamb deplored the state of Mr. Vizram's ginnery at Entebbe, rumoured to be encouraged morally if not financially by the British East Africa Corporation (BEAC) and expressed "amazement" that the BEAC, under the auspices of the BCGA, ships such lint "of which we are thoroughly ashamed" (I(i)(a): CGA

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[1] I(ii)(b): BCGA/CM Vol.II

[2] Described in detail in I(i)(c): CGA 3/2, Letter from John Percival, Port Herald to BCGA manager.

[3] At the time of the CO conference on 24/11/1911, the position of subscriptions for £500,000 capital was:

Applications actually received:	£184,000
Applications promised but not received:	£ 48,500
Subscribed prior to December 1909:	£262,000
Balance:	£ 5,500

[4] Also in CO 32519/11 of 12/10/1911.

1/10/163-71).[1]

Amongst meetings arranged by the CO in 1911 were two which proved particularly interesting.[2] On 12th January,[3] Sir E. Percy Girouard, Governor of the British East Africa Protectorate, contended that development must be through the local population. He fulsomely described the BCGA as "the intelligence department of the Lancashire cotton industry, the intelligence department for the whole Empire". Discussion centred round a possible syndicate to investigate commercial cotton growing, but Crewdson for the BCGA was adamant that BCGA involvement in such a paying concern should be minimal because he felt "perfectly certain that the great difficulty we have had in getting money here is that we are partly a sort of philanthropic institution and people do not know whether we are going in for philanthropy or for profit". Later in the meeting, the Association's stance was perfectly clear: in giving £100 for a maternity home, it stated this was "not out of philanthropy but for purely commercial reasons", just as it had supported Liverpool School of Tropical Medicine - the easier life was for Europeans in the tropics, the better would be business.

On 2nd November 1911, J. Stewart McCall, Director of Agriculture for Nyasaland, presented a thoroughly researched paper on cotton cultivation in Nyasaland, condemning the railway "that starts nowhere and ends in Blantyre" which forced the wasteful use of large numbers of local people as produce carriers.[4] He attributed the

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[1]Also in CO 37731/1911 of 6/12/1911.

[2]Special meetings, mostly arranged by the CO, were an important feature of the BCGA's programme. During the next two years, amongst the most enlightening were those with Sir William Manning (Governor of Nyasaland), Samuel Simpson (newly appointed Director of Agriculture, Uganda), the Kabaka of Uganda, George Smith (new Nyasaland Governor) and several with J. Stewart McCall (Director of Agriculture, Nyasaland).

[3]Reported in I(i)(a): CGA 1/5/4, 'Report of a Special Meeting of the Council...January 12th 1911' (from the shorthand notes of George E. Leach of the Manchester Guardian.)

[4]The meeting was reported in I(i)(a): CGA 1/10/177-205 (38449/1911), 15/12/11; in I(ii)(b): BCGA/CM, Vol.I, 2/11/11; and in I(ii)(b): BCGA/BM, 2/11/11. BCGA officials noted with pleasure that McCall's knowledge and interest in cotton had grown substantially since his previous visit.

colony's agricultural prosperity to BCGA advances to undercapitalised planters; but was not keen on BCGA's mooted plan of an experimental plantation to train young agriculturalists. McCall was equally forthright in his views on the local population. The previous year, at the Brussels International Congress of Tropical Agriculture, he had described "the uncivilised native", who "is similar to a child at school who requires watching until he understands that there is profit in his work".[1] At the 1911 meeting, he stressed that he did not want outsiders, including the BCGA, interfering with the locals: "Mr. McCall stated that the natives would not respect the instructions of anyone, except the Government official, and that the Residents were extremely touchy in case anyone else should issue orders to the natives." One official proved immensely touchy in 1912, resulting in a letter from Sir William Manning, Governor, complaining that the District Resident had informed him that "the Association's Agent at Vua is a Russian and a dissolute person" (I(ii)(b): BCGA/EM, 20/8/12).[2]

Over the years, the relationship of the BCGA with Nyasaland was often tense.[3] The lines of activity were strictly demarcated by a Director of Agriculture who did not welcome BCGA interference. Over two decades after the first hostile exchanges, still wary, the Chairman of the BCGA wrote to an employee in Nyasaland "that it would be fatal to the Association's prestige in Nyasaland to get the heads of the local government up against him" (I(ii)(b): BCGA/EM 25/12/36).

Despite McCall's warnings that the BCGA should virtually restrict itself to commercial matters and steer clear of the Department of Agriculture's domain, the BCGA, during

[1]Reported in I(i)(b): CGA 2/1/5, Dunstan ed., 'Papers and Reports on Cotton Cultivation', 1911.
[2]He might have been referring to John Percival, who spent some time at Vua selecting land in 1912 (I(ii)(b): BCGA/EM, 19/3/12), but most likely it was Whitehead who was replaced that year because of his alcohol problem (I(v)(b): A 2/1/6, Dir.Ag., Nyasaland, to Deputy Governor).
[3]See Chapter 5, Sections 5.4 and 5.5 for McCall/BCGA relationship.

1912, became increasingly convinced that assistance to local cultivators would be more rewarding than helping planters (I(i)(a): CGA 1/1/47(a) and (b), 9/5/12), who were turning to tobacco as their main export crop anyway (I(ii)(a): BCGA/AR 1913). Fortunately, the local government shared this sentiment by the end of 1913, thus avoiding confrontation (I(i)(a): CGA 1/1/50(a) and (b), 13/11/13).

The annual Imperial Grant of £10,000 for three years was due to expire on 31st March 1913 and the BCGA began early to campaign for its renewal with a fourteen page compilation of supporting letters, statistics and accounts.[1] Appendix B illustrated an impressive progressive increase in cotton grown in new fields in the British Empire: in West Africa, a rise from 750 bales in 1903 to 12,800 bales in 1912, with a maximum of 13,000 peaked in 1909; in Uganda, British East Africa, Nyasaland and Rhodesia, a rise from 150 bales in 1903 to 36,300 in 1912; and a total rise in Empire production from 1,900 in 1903 to 75,400 in 1912.[2] The value rose from £29,000 in 1903 to £1,100,000 in 1912.

In Hutton's covering letter with the document, he stressed that all the conditions attached to the previous grant had been met. £52,244 more capital than stipulated had been raised.[3] Commercial work had been continued and extended - the number of bales financed and sold increased from 20,028 in 1909 to an estimated 35,000 in 1912; the system of planters' advances had been expanded, sometimes causing heavy losses to the Association (£13,717 had been written off in 1905-11); and a total of £11,500 had gone in cotton

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[1] I(ii)(c): BCGA, 'Grant in Aid from Imperial Funds', 1912, BCGA Publication No. 52.

[2] Appendix VI, Table 21 shows slightly different figures, from other sources, but also indicates the growth in production.

[3] Fully subscribed and anticipated capital brought the total subscribed capital to £485,000. In addition, capital of companies formed with the assistance of the BCGA, or in which it had an interest, totalled £625,000, with the three largest being British Cotton Ginning Company Limited (£100,000), British East Africa Corporation Ltd. (£200,000) and Sudan Plantations Syndicate Ltd. (£250,000).

growing companies' shares' depreciation in the past three years. It might seem suicidal that the Association appeared eager to admit to apparent financial incompetence, but its main claim to be "special" was that it was not a profit-seeking commercial concern and these losses had been incurred in the interests of growers and the future development of the crop. Hutton stressed that all the other requirements attached to the Grant had been more than fully met: for example, not just seven, but nine, pioneer ginning and buying centres had been established and maintained. However, if the Association was to attain its objects, the Council claimed it would need to spend about £10,000-£15,000 a year on unremunerative activities. To do this, it required more Government assistance because of its actually subscribed capital of £460,000, £160,000 was lost or written off and £150,000 was locked up in plant and investments. While grateful for past support and investment in transport facilities, the Association wanted a five year £10,000 annual grant. In return it promised the same commercial, missionary and pioneer work as before.

Hutton said the alternative would be to put cotton-growing into commercial hands with the likely result of failure to continue the current rapid production increase. In the long run, if the Association was to become permanent, it might be necessary to revamp it, but, in the meantime, "in the interests of the Colonies (to say nothing of the interests of Lancashire and of the whole Empire) it is absolutely essential that, at any rate for some years to come, the Association should continue its efforts on the same semi-philanthropic basis as before" (I(ii)(c): BCGA, 'Grant in Aid ...', 1912, p. 6).

From Hatton's analysis of CO papers, it seems that Lugard and Baynes, on the grounds that only Nyasaland and

Northern Nigeria would be beneficiaries,[1] were opposed to renewal of the BCGA subsidy but that Harcourt (Colonial Secretary, 1910-15) and Emmott (Parliamentary Under-Secretary, 1911-14), both keenly interested in export crops and cotton, won the day with their tributes to the pioneering and semi-philanthropic activities of the BCGA (Hatton, Ph.D. 1971, p.138). The £10,000 a year grant was renewed for three years, not the requested five; but, by the end of 1913, the Association was again expressing its urgent need for more capital for its increased work-load and had formed a Special Committee to look into the matter (I(ii)(a): BCGA/AR 1913).[2] It was Lancashire, not the CO, that was letting the BCGA down by lack of support. At a CO conference on 1st May 1913 (reported in BCGA/CM, 6/5/13), Hutton confirmed that he "did not think there had ever been a time in the whole history of the Conferences when more friendly relations had existed between the Colonial Office and the Association". This was a time of mutual regard, with the CO grateful that the BCGA "and friends" had just underwritten £36,000 of capital for the Central African Railway Company, thus allowing railway construction to go ahead (I(ii)(a): BCGA/AR 1913; I(ii)(b): BCGA/CM 1/4/13 and 6/5/13).

The BCGA's Ninth Annual Report claimed the Association's successful efforts to increase cotton production were relieving British tax-payers of the burden of supporting Uganda and Nyasaland.[3] The Tenth Annual Report for 1914 noted that Hut Tax Revenue in Nyasaland was highest where smallholder cotton yield was greatest. However, the main concern in 1914 was the effect of war, making cotton

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[1] The realm of benefit was limited because, for example, in Uganda, the BCGA and cotton-growing were on a commercial basis; and the BCGA was about to wind down its operations in Gold Coast.

[2] A Special Committee had also been set up to consider staff organisation now that there were over 40 existing or planned BCGA stations in Africa (I(i)(a): CGA 1/3/34-35).

[3] See Vail (1984, p.12), for example, commenting on the Nyasaland Government's fall into deep debt and subjugation to the Imperial Treasury through no fault of its own. It was not so easy to throw off Treasury control with railway debts hampering development.

difficult to sell even at low prices.[1] Within three days of Austria's declaration of war on 28th July 1914, the cotton trade had collapsed with Cotton Exchanges closed and marine insurances and shipping practically at a standstill (Todd, 1915, Chapter XX). Until 1914, Lancashire had provided two thirds of the world's cotton textile exports (I(x)(a): Board of Trade, 1946, pp.4-5). The war shut off markets, leaving Lancashire temporarily oversupplied with raw cotton, built up from a record Egyptian crop and both the United States and India producing their second highest ever crops in 1913 (Todd, 1915, Ch.XX;Hose, Ph.D. 1970, p.269). However, from the beginning of 1915, military requirements for cotton grew and John Todd propounded that "an organisation of the size of a State Department, with all the governments of the British Empire behind it, and a capital of about as much as is being spent on this war in a day, say, £10,000,000" would be needed to cope with increased needs when peace returned (1915, p.387).

The Association formally began its next Imperial Grant renewal exercise at the 1st July 1915 CO conference (I(i)(a): CGA 1/1/53(b), Minutes). Aware they had been told not to expect continuation after 3rd March 1916, BCGA felt the situation was now materially different. Given that the Association bore an annual loss of over £5,000 on its £10,000 annual grant,[2] it was intimated that, without further aid, activities in the Gold Coast and Southern Nigeria would be dropped and work in Northern Nigeria and Nyasaland cut back. J.A. Hutton threatened that the Ugandan cotton trade, a vital source of revenue, would have to be left "to the tender mercies of those ginning firms whose chief interest was the earning of

[1]From 7d/lb. in the first half of 1914, the American cotton price dropped to 4 1/4d/lb. in mid-December; and was almost unsaleable by the end of December, though the price began to rise when the Liverpool market reopened (I(i)(b): CGA 2/2/25, Hutton, 1916).

[2]During 1912-14, the costs of working in West Africa and Nyasaland had resulted in a net loss to the BCGA of £3,482 in Nyasaland, £24,133 in Northern Nigeria, £5,389 in Southern Nigeria and £8,237 in Gold Coast. The only credit balance was £6,317 in Lagos.

dividends, even at the risk of killing the cotton-growing industry." Despite Hutton's appeal that it would be most unfortunate if the BCGA's character had to change from "its present philanthropic business lines", the CO thought it unlikely that the Treasury would prove sympathetic.

On 15th December 1915, J.A. Hutton and the Earl of Derby, as Chairman and President of the Council, wrote to the CO asserting that withdrawal of the Imperial Grant would be false economy: as a result, the BCGA's non-selfsupporting work would have to stop, no further risks would be taken, producers would probably not be paid high prices and the Government would have to take over the Nigerian and Nyasaland seed supply at £3,200 a year (I(i)(c): CGA 3/2, pp.143-50). The Association had spent £177,886 of its capital in developing the industry to infinitesmal return to Lancashire but immense benefits to Government in revenue, reductions in grants-in-aid and in "spreading peace and prosperity throughout many parts of the Empire" (p.148). The authors claimed that there was still a legitimate need to extend growth to combat American supply vagaries, price and speculators, and to lead to an increased demand for manufactures.

Andrew Bonar Law, the new Secretary of State for the Colonies, was unmoved by this appeal. In his reply of 28th December 1915, he pointed out that the experimental phase, for which the grant was originally given, was now sufficiently fulfilled to put the industry on a commercial footing, especially at a time of public expenditure limits.[1] This implied liquidation or a reversal to a fully commercial concern; but the BCGA tried again to convince Bonar Law to enable retention of the BCGA as a semi-philanthropic unit, as the "trustees of cotton".[2]

[1] I(i)(a): CGA 1/12/781-5, Antrobus for Bonar Law to Chairman, BCGA, 28/12/15 (CO58458/1915).
[2] Hutton described the BCGA in these terms in a paper to the Royal Society of Arts on 26th January 1916 (I(i)(b): CGA 2/2/25, 'The Effects of War ...').

The January 1916 deputation led by Lord Derby succeeded to a limited extent: Bonar Law recommended a token £1,000 grant for 1916-17, duly sanctioned by the Treasury.[1] Hose Ph.D. 1970, p.271) describes this as "a gesture of the Government's faith in the ability of West Africa to eventually develop into a cotton producing area"; and the Eleventh Annual Report asserted it demonstrated Government recognition of the necessity of continuation of the BCGA's work. In either case, it was a fairly pathetic gesture - perhaps little more than a gentleman's agreement between Bonar Law and Derby, showing gratitude for the BCGA, enabled by bank backing to continue to buy cotton when commercial firms pulled out.[2] Retaining this subsidy tie also, no doubt, made it easier for the CO to ask the BCGA to handle Mwanza (German East Africa) cotton in January 1917 (I(ii)(b): BCGA/CM 9/1/17).

Once more, the BCGA faced crisis. At the CO-BCGA conference on 23rd November 1916,[3] Hutton reiterated that the organisation had proved the Empire could grow cotton for Lancashire, had built a solid foundation for the African cotton-growing industry but needed additional capital to continue its vital efforts for the country and colonies. He produced figures to show that in 1913-14 America had consumed 37.8% of its own crop, but that in 1915-16 this had risen to 60%; while prices for American cotton had risen from 7½d in April to 12d a lb. in November and for Egyptian had risen from 10¼d to 24d a lb. Hutton presented three immediate choices for Cabinet decision: that a Government department take over the BCGA's work, even though Government officials were not trained for the commercial aspects of this; that BCGA be reconstituted as a public trust under Government control;

[1] I(i)(a): CGA 1/12/815, 24/2/16, H.W. Just for Bonar Law to Chairman, BCGA (CO7736).

[2] Bonar Law (representing Glasgow Blackfriars) and Derby (West Houghton, Lancashire) coincided as M.P.s between 1900 and 1906. Bonar Law assisted Asquith in forming a Coalition government in 1915, accepting the Colonial Secretaryship; in July 1916, Derby became Under-Secretary of State for War and, in December, Secretary of State for War. For a brief time in 1922-23, Derby was War Secretary under Bonar Law's premiership.

[3] This was the last conference minuted in the CGA 1/1/- series.

or that the work be left to ordinary commercial enterprise, though he feared this would mean no more risks would be taken and profit-seeking would become the sole incentive.

Three weeks later, these same alternatives were put to a well-attended Special Conference of the BCGA Council with Lancashire cotton trade representatives.[1] Praising Lancashire's generosity, foresight and patriotism which had raised nearly £500,000 of subscriptions in the past, and without reminding them that this had not always flowed easily, the meeting was told it was this very success which now led to a further appeal for resources. It was pointed out that, even with unsatisfactory transport, colonial Government revenues had benefitted from cotton by nearly £150,000 a year and shipping companies had gained (by over £100,000 a year was the figure Hutton quoted in CGA 2/2/25),[2] as had bankers and insurers.[3] For almost the first time since the BCGA's inaugural years, Lancashire was overwhelmingly behind the BCGA, passing five resolutions:[4] that the present serious situation required immediate Government attention to stabilise the price at a moderate level and to provide cotton suitable for the finer counts in which the British industry specialised;[5] that it was essential for future home and colonies' prosperity that cotton-growing be developed as rapidly as possible in all suitable parts of the Empire; that the Gezira irrigation plan be developed; that cotton-growing be extended and improved in India; and that an official

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[1]Reported in I(ii)(b): BCGA/CM, Vol.2, 13th December 1916 and in I(iv)(g): CP 1/6.

[2]BCGA Publication No. 60, dated 15th December 1915, quoted the approximate revenue derived by steamship companies from cotton in various territories in 1914 as: Nigeria £18,200; Sudan £20,500; West Indies £9,400; Nyasaland £7,200; and Uganda £47,550 (I(iv)(g): CP1/7).

[3]Hutton quoted the figure gained by colonial economies as £130,000 a year on other occasions, e.g. in his address to the Royal Society of Arts (I(i)(b): CGA 2/2/25). In a paper read before 'Manchester Athenaeum' on 16th February 1917 (I(i)(b): CGA 2/2/38), he said the British taxpayer had been saved £600,000 a year "mainly in consequence of the work of the Association" (p.41).

[4]Set out in BCGA Publication No. 63, 'Memo on the Development of Cotton Growing in the British Empire' (I(i)(b): CGA 2/2/27).

[5]Appendix VI, Table 11 indicates rising prices, 1910-20.

committee be appointed to consider the best way of continuing and developing the work begun by the BCGA. In the meantime, the Government should fully support the BCGA. The meeting opined that: "The study of cotton as a science ought ... to be made a special business in the British Empire" (p.178).[1]

During 1917, Council members took every opportunity to further the case and cause of the BCGA. In Manchester, Hutton suggested that if cotton trade ceased, Britain "would become a third-rate Power, from a commercial point of view, and probably at least one-fourth of the population would have to emigrate" (I(i)(b): CGA 2/2/28, p.9). John McConnel, of the Fine Cotton Spinners and Doublers Association, in his 'Report on the Cotton Supplies of the British Empire after the War' (I(i)(c): CGA 3/1/17), saw this period as an opportune time for the British Government to safeguard and strengthen the cotton industry and for the BCGA to change its dichotamous constitution which aimed partly at public benefit and partly for eventual private profit.

As a result of pressure to have the issue discussed, the Prime Minister (Lloyd George) on 25th July 1917, through the Board of Trade, appointed the Empire Cotton Growing Committee. Under Sir Henry Birchenough's chairmanship, it was "to investigate the best means of developing the growing of cotton within the Empire and to advise the Government as to the necessary measures to be taken for this purpose".[2] The Committee was overwhelmingly Lancashire-based, with full representation of the various spinning, manufacturing and operatives' associations.[3] Professor Dunstan of the Imperial Institute and Dr. W. Lawrence

[1] Even further ahead, in 1926, Sir George Watt was to note that *Gossypium* had been largely neglected in taxonomic scientific studies ('*Gossypium*' in Kew Gardens, Bulletin of Miscellaneous Information, No.5, 1926, pp.193-207).

[2] I(iv)(e): CRC/F1/B1 contains a typescript extract of a foreword by Sir William Himbury for Cotton and its Production, by W.H. Johnson, 1926, which describes the setting up of the Empire Cotton Growing Committee.

[3] The committee is listed in I(iv)(e): CRC/F1/C4, 'Empire Cotton Growing Committee, 25th July 1917'.

Balls provided scientific input; Mr. W.C. Bottomley of the CO and Sir R. Graham of the Foreign Office looked after colonial and imperial interests; while Indian interests were presented on behalf of the India Office, Bombay Cotton Merchants, the Government of India and Bombay Millowners Association. The BCGA was directly represented by W.H. Himbury[1] and J.A. Hutton,[2] with several other Council members, primarily representing other organisations, on the Committee.

Even before the Committee was formed, the BCGA was expressing dissatisfaction at the lack of alacrity with which its interests were being noted.[3] It was not until 17th October 1917 that BCGA evidence was heard. Hutton then put forward his three options, first voiced on 23rd November 1916,[4] and argued that it would be best if the Association continued on its current lines but with stronger official status (I(ii)(b): BCGA/EM 10/10/17). The BCGA became frustrated at the apparent lethargy of the Empire Cotton Growing Committee in reaching conclusions, even after publication of its June 1918 Interim Report, based on a survey of cotton-growing territories and on evidence from many interested witnesses. For example, at the Executive Committee meeting on 5th November 1918, Benjamin Crapper said he could not understand the Committee's reluctance to take advantage of the BCGA's organisation and experience (I(ii)(b): BCGA/EM 5/11/18).

The final report of the Empire Cotton Growing Committee,

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[1] W.H. Himbury, whose name featured in the annals of both the BCGA and BCGC, first went to West Africa in 1899 as superintendent of the cable service. He joined the BCGA in 1904, was knighted in 1926 (an honour to the BCGA, not just to him, he declared), resigned as Managing Director in March 1945 but remained as Chairman until his death in November 1955. The Council Minutes of 7th May 1935 record that cotton-growing was his hobby, not just his work. Appendix VI, Table 24 is an example of his assessment of cotton-growing prospects in Africa.

[2] J.A. Hutton was suffering from poor health by this time, but was very keen to be involved in the Committee.

[3] In the BCGA Council Minutes of 5th June 1917, it is reported that that the Council was peeved that, as yet, no communication had been received from the Board of Trade regarding the planned committee, though a month later it was asked to appoint its representatives.

[4] See pp. 84-85.

dated 22nd October 1919, published as Command Paper Cmd. 523 in January 1920, concluded that the Empire could make good the world's shortage of cotton but only through united efforts of the British cotton industry, the British Government and governments of cotton-growing countries, funded by these three sources. Identified needs were for research, application of knowledge, improved transport facilities and control of cotton-growing and marketing. The Committee's general recommendations included that the work of the Committee continue, with a Treasury grant of at least £10,000 annually for five years; that Agricultural Departments be strengthened; that a Central Research Institute be established; that relevant research studentships and University readerships be provided; that a quarterly review be published; and that governments be advised to fully control cotton-growing. Also, the BCGA should act as the Empire Cotton Growing Committee's agent for marketing crops, where this was desired by local governments, with the BCGA foregoing profits if it was guaranteed against permanent loss. The commercial work (valuing cotton, knowing markets, guaranteeing prices and markets where necessary, ginning where needed, promoting cotton *versus* other crops), not the administrative, scientific or educational aspects, was to be the specific remit of the BCGA.

On the question of promotional funding for cotton-growing, the British Treasury was to provide for Empire Cotton Growing Committee secretarial and establishment charges, a proportion of expenditure on cotton schemes and assistance for public work funding in colonies and protectorates. The colony or protectorate was expected to contribute if developments were for its general benefit. The cotton industry was to finance the pioneer work of ascertaining suitable areas of profit and was to contribute where cotton was promoted in preference to other cash crops.

John McConnel pointed out an inherent difference between

the cotton industry's objective of getting cotton grown and the Imperial Government's objective of securing the wellbeing of its colonial population.[1] Although believing these aims could be harmonised, he foresaw friction, though he felt that financing cotton-growing would enable the British Government "to weld into an economic whole the scattered members of the Empire." Sir F.D. Lugard in 1922, in The Dual Mandate,[2] also drew attention to this dichotomy and to an allied, problematic question of the destination of Empire-grown cotton. The 1916 Board of Trade Committee on the textile industry had recommended that the Empire's raw material resources should be safe-guarded primarily for Empire utilisation, but this had been overturned by the Indian Report and debate in the House of Lords on 12th July 1920 which affirmed that the interests of cultivators must come first (Lugard, 1922, pp.271-4). Lugard expected local producers to favour Britain voluntarily, if it was essential for British industry, in return for remunerative prices. The Empire Cotton Growing Committee viewed it impracticable and undesirable to control the crop's destination.

The BCGA, at a meeting on 10th March 1920,[3] expressed its determination not to be absorbed by the new body but to retain its identity and act as the Commercial Department. A memo from McConnel in June 1920 questioned whether the BCGA should be the administrative body of the whole new organisation - advantageous because of lack of confusion, jealousy and friction but which would need modified attitudes and a new constitution.[4] Himbury replied that the Executive was of the opinion that it would be

[1] John W. McConnel, 25th February 1920, 'The Report of the Empire Cotton Growing Committee' in I(iv)(d): BCGA/BOT/BCGComm.

[2] This book was "required reading" for Cambridge University colonial agriculture scholars (Masefield, 1972, p.67). It contained Lugard's suggestions, mostly with reference to Northern Nigeria, on how to encourage cotton-growing by removal of population and colonisation, setting a minimum price, excluding middlemen and importing superior, strong cloth to decrease the local demand for raw cotton (pp.522-25).

[3] I(i)(a): CGA 1/5/40, Minutes of Second Meeting of Organisation Sub-Committee.

[4] I(iv)(d): BCGA/BOT/BCGComm, 'The BCGC and the BCGA', 30th June 1920, "Strictly Confidential". This also contains Himbury's reply.

impracticable to amalgamate the two and that the BCGA was best employed as set forth in the Committee's report.

That many people were unclear about the future and current role of the BCGA at this time is exemplified by a meeting between two M.P.s (Sir Thomas Robinson and R. Waddington) and three BCGA Council members on 16th March 1920. Waddington commented that the feeling in the House was that some sort of scheme should now materialise from the BCGA's work; and Robinson said the impression was that the BCGA should now have surveyed the Empire and be able to advise companies on where to commence commercial cotton-growing operations. Both clearly had some sort of profit-making plantation in mind.[1] Himbury's response, for the BCGA, made it plain that plantations - other than in Sudan, which only required irrigation and transport, and in India, where it was possible to obtain concessions and cultivate on a grand scale - were not a sure, viable proposition in any district looked at, though he did quote the success of one BCGA-financed planter in Nyasaland who had recently retired having made £80,000 out of cotton and tobacco (I(i)(a): CGA 1/5/41).[2]

In November 1920, the Empire Cotton Growing Committee produced a document on "future organisation" (I(i)(b): CGA 2/4/25 and I(iv)(g): CP1/236), which estimated that £200,000 a year would be needed to stimulate cotton cultivation. It envisaged a Board of Trustees to administer funds; an Administrative Council of representatives of trade interests, the Board of Trade, overseas governments and relevant British Government

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[1] Another supporter of plantations was H.Hamel Smith, editor of Tropical Life, who wrote to the Nyasaland Director of Agriculture complaining that he wanted to see cotton grown, not just noise about doing it. He claimed that the failure of the BCGA to grow cotton in the tropics was a discredit to cotton-growing as an industry. (I(v)(b): MNA, A/3/2/62, 16/3/1920).

[2] The BCGA's attitude towards both plantations and profit-making was clearly expressed by J.A. Hutton around 1916 when he wrote: "The experience of the British Cotton Growing Association is very much against plantations worked in the ordinary manner, where the native is employed merely as a hireling...", adding "...the promotion of cotton growing must never be subservient to the earning of profits" (I(iv)(g): CP1/22).

offices; direct control vested in an Executive Committee; and activities divided into administrative, scientific and commercial sections. It was expected that the BCGA would carry out much of the commercial work, though, at this stage, it was unclear what expenses and capital would be required and the likely extent of losses if a liberal policy of forward buying was adopted.[1]

Although tripartite funding for the development of cotton-growing had been agreed in principle, there was some delay in finalising financial details. After consultation with spinning, manufacturing and operatives' associations, and with the approval of cotton spinners owning at least 90% of the total spindles in the UK, by-laws created a levy of 6d per 500 lbs on all invoices for cotton forwarded to spinners in the UK who agreed to the charge.[2] It was calculated this would yield £100,000 a year. In addition, the British Government agreed to replace annual grants with a very substantial block grant of £978,715. Both the levy and the block grant were to finance the Empire Cotton Growing Corporation (ECGC or "the Corporation"), which it was decided should be incorporated by Royal Charter on 1st November 1921 to take over from the Empire Cotton Growing Committee.[3] This sum of almost a million pounds was part of the £4,000,000 profits from Egyptian Cotton Control Board handling of Egyptian cotton during the war. It arose from the sale of cotton by the Government to cotton spinners and, thus, essentially derived from the industry (I(iv)(g): CP1/407). Hose (Ph.D., 1970, pp.276-77) believes that the influence of W.S. Churchill at the Colonial Office from January 1921 gave cotton interests a

[1] An indication of the sums involved in the commercial nurturing of cotton can be found in CRC/F1/B1, September 1916-September 1917 (I(iv)(e)), which reports that in that year a maximum monthly sum of £819,488 (BCGA funds tied up, £80,090; financed by banks, £514,730; bills to mature, £224,668), in August 1917, and a minimum of £320,572 (BCGA funds tied up, £139,112; financed by banks, £111,281; bills to mature, £70,179), in February 1917, was locked up in cotton.

[2] Details of organisations consulted are in I(iv)(c): CRC/D1, Draft Charter.

[3] It was reported at the first Administrative Council meeting of the ECGC that, including previously advanced funds (such as £110,000 from the Board of Trade for 1920-21), and expenses, a total of £1 million had been received by the Empire Cotton Growing Committee/Corporation (I(iv)(b): ECGC/CR 18th November 1921).

strong friend in high places; and Wardle feels that the money was given, almost accidentally, because "there was official recognition of the incapacity of government to spend such money purposefully" (Ph.D. 1980, p.199-200). However, cotton had many influential spokespersons and backers at government level, the encouragement of cotton-growing was seen as having much wider implications than presented by a self-centred Lancashire approach and it is doubtful whether any government would ever be really embarrassed at having to spend money. The unanswerable question is: would the British Government have backed the Empire Cotton Growing Committee's recommendations if this lump sum had not become available ?[1]

Thus came into being the Empire Cotton Growing Corporation which, for the next fifty five years, was to play an important technical and educational role in the production of British Empire cotton, though readers of the Manchester Guardian were left very confused about what organisation had been formed: on 22nd November 1921, for example, it reported, "The first meeting of the Administrative Council of the British Cotton-growing Corporation was held...", and, on 24th November, more reasonably and almost correctly, it carried news of the "Empire Cotton-growing Corporation" (I(iv)(e): CRC/F1/C4). The BCGA, which, with other mainly Lancashire interests, had played a large part in the ECGC's creation, was left with a vital role, very similar in many respects to that which it had tackled previously, but, once more, with no guaranteed funds. The ECGC took over from the BCGA those aspects of its work which the CO, as far back as 1909, had decided really belonged to colonial agricultural departments.[2]

While the Empire Cotton Growing Committee had been deliberating, the war had continued to affect the cotton supply situation. Somewhat ironically, given the adverse

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[1] See Chapter 3, Section 3.2, for further discussion of ECGC finances.

[2] See Chapter 3 for an overview of the work of the Empire Cotton Growing Corporation.

conditions war was bound to impose and the fact that by 1918 cotton production in the British Empire was practically stationary (Cotton Year Book, 1918), the BCGA's financial position began to improve. In 1917, the Cotton Control Board was set up and under its auspices the Egyptian crop was taken over at fixed prices and Ugandan, Nyasaland and Nigerian cotton exports prohibited, except under license, to any but British Empire ports.[1] The worrying dependence on America for cotton supplies was increasingly brought home as American consumption increased.[2] However, after an initial lack of demand, supply and demand balanced fairly well, though prices rose from 1916-17 onwards (Todd, 1931).[3] A huge post-war rise in 1920 was followed by two years of low prices,[4] which the Cotton Year Book, 1921, opined might be caused by "hidden" raw cotton stored somewhere in the world. The disturbance of war was the catalyst for some customers of British cotton manufactures, India in particular, becoming determined to have their own industries. This was to lead to exports to India dropping from over three thousand million yards in 1913 (about half of Britain's production)[5] to less than three hundred million yards in 1938 (BOT, 1946, pp.4-5).

Transport difficulties had been a problem from the start for the BCGA, with frustratingly long delays and

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[1] I(iv)(d): Raw Materials Board, Board of Trade Memorandum, 9th November 1918.

[2] See Appendix VI, Table 3 and BCGA Fourteenth Annual Report for 1918 for evidence of the American surplus becoming alarmingly smaller each year.

[3] Appendix VI, Table 6, shows the value of raw cotton imports into the UK, 1896-1919, with a massive increase in value between 1916 and 1919. The price rose because of dwindling stocks, caused by lessened crops and losses at sea from U-boat attacks (Cotton Year Book, 1918).

[4] Liverpool prices for 1916-23 were:

	American Middling	Egyptian
1916	7.51	10.42
1917	12.33	21.56
1918	21.68	30.97
1919	19.73	27.85
1920	25.31	60.34
1921	11.89	19.75
1922	11.37	19.75
1923	14.92	17.29

(Source: Todd in Empire Cotton Growing Review, VIII, 4, 1931 and XV, 4, 1938.)

[5] Figures from 'All our Working Lives', Part 4, 4th May 1984 (BBC2 TV programme).

prohibitively high costs.[1] For example, the 1909 and 1910 Annual Reports express the BCGA's delight at the direct steamship service between England and Mombasa but, by 1911, it was complaining that the steamers were not large enough. During the war years, despite the shortage of shipping tonnage and generally poor internal transport facilities, the BCGA managed to assist in maintaining cotton flow to Lancashire and in augmenting colonial economies' revenue. Nyasaland internal water transport was already a subject of correspondence in 1913 when the Acting Governor informed the BCGA that he had to give priority to rice for troops, and not cotton, on Lake Nyasa;[2] and the ocean vessel shortage became very acute from 1914 onwards. In November 1916, it was minuted that of 7,500 bales of Uganda cotton, only 2,000 had so far been shipped (I(i)(a): CGA 1/1/55(b)); and in 1917-18 the shortage of tonnage and delay in shipping to the UK was such that 18,000 bales of Uganda cotton were shipped to India instead (I(ii)(a): BCGA/AR 1918).[3] In addition, high ancillary costs hindered easy movement of cotton bales. The BCGA complained bitterly about profiteering in East Africa at BCGA expense and hoped the Government would tax heavily those benefiting from extortionate freight and insurance charges at the expense of fellow countrymen (I(i)(b): CGA 2/2/25, Hutton, 1916, p.25). The CO, banks, colonial governments and BCGA all lobbied the Ministry of Shipping, most effectively in West Africa where 200 tons capacity was allocated for ginned cotton on each steamer (CO 583/63).[4] It was not until 1921 that freight charges were substantially reduced and in 1922 that shipping from African ports could be described as adequate (I(ii)(a): BCGA/AR 1921 and 1922).

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[1] As detailed in minutes of Colonial Office conferences and in correspondence with the CO.

[2] I(i)(a): CGA 1/11/63 (7823/1913), Read for Under-Secretary of State for the Colonies to Chairman, BCGA, 11/3/13.

[3] This turned out to be more than a temporary expediency. In 1922, two-thirds of Ugandan cotton was sent to Bombay, though the Eighteenth Annual Report, 1922, notes that large quantities were often transhipped from there to Liverpool.

[4] Wardle (Ph.D., 1980, pp.140-150).

At the end of the war, the situation in various colonies was discussed at BCGA Executive and Council meetings. Uganda had not made as much progress as anticipated because the industry had been left largely to traders (I(ii)(b): BCGA/CM 4/3/19) and the Association commented unfavourably on the £1 a bale export duty imposed on the 1918-19 cotton crop (I(ii)(b): BCGA/CM 7/1/19).[1] The future of German East Africa, and thus of its cotton industry, was uncertain (I(ii)(b): BCGA/CM 4/3/19). In Nyasaland, planters now favoured tobacco over cotton, more encouragement was being given to local African production (I(ii)(b): BCGA/EM 9/9/19), and the industry had suffered considerably from dislocation of labour for military purposes (I(ii)(b): BCGA/CM 15/11/18).

On the financial side,[2] the BCGA's Annual Report for 1915 declared a first-time surplus (over £9,798) on the year's working account. After writing off losses, depreciation, and £3,000 investments realised to repay British Cotton Ginning Company capital loans, £1,798+ surplus remained. Further surpluses meant 1916-20 saw the BCGA's Income and Expenditure deficit (still as high as £75,000 in 1918) and British Cotton Ginning Company debt cleared. Indeed, in 1919, the extent of profitability could be judged by the BCGA's £55,905 Income Tax and Excess Profits Duty bill. Despite the deep depression reported in the industry in 1921, African cotton remained in favour and the BCGA was able to market a record number of bales, offsetting lower value and producing a profit as it embarked on its new life as recognised guardian of the commercial side of cotton-growing in the British Empire, working to maintain Lancashire's export industry and to improve colonial revenues.

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[1] This had been reduced from £2 a bale at BCGA and Empire Cotton Growing Committee protestations. The whole area of export taxes was a controversial one: merchants, Chambers of Commerce and the Colonial Office all averred their preference for import taxes, though the Foreign Office had earlier maintained that the Berlin Conference powers favoured export duties to raise revenue (Lugard, 1923, Chapter XIII).

[2] Details from Annual Reports and I(iv)(e): CRC/F1/B1, Himbury, 1926.

2.8 THE SUCCESS OF THE BRITISH COTTON GROWING ASSOCIATION IN ITS NEW ROLE

> "Lancashire can certainly claim credit that a movement, having achieved great success in the cause of self-help for which it was primarily intended, has had a tremendous influence on the well-being, the enlightenment and the civilising of the backward African races."
> (Tewson, The British Cotton Growing Association, 1904-54, 1954, p.92.)[1]

The Empire Cotton Growing Committee recommendations, which resulted in the ECGC's formation and limitation of BCGA involvement to the commercial side of cotton production, generally worked well. There was some tension between the two organisations, but this was probably more in the imaginations of those who did not understand their roles, than in reality: for example, the 6th March 1928 Executive meeting minutes record, "In view of the fact that a good deal has been said about the Association and the Corporation not working together, the opinion was expressed that it would be of great value to hold the meeting of the respective companies on the same day" (I(ii)(b): BCGA/EM 6/3/28). And even before the ECGC charter was granted, the BCGA 24th June 1921 Executive Committee meeting discussed a letter from A.L. Bruce Estates, Nyasaland, which disputed the need, and grudged the funds, for the ECGC when, in its perception, the BCGA was already doing the Corporation's projected work to the practical benefit of colonial economies.

There was a natural division between the administrative, educational, scientific and experimental work of the ECGC and the BCGA's marketing of the final crop with all the knowledge of valuation, prices and ginning that entailed. The BCGA was not answerable to the ECGC, was to keep its own accounts and conduct its own business. It was also clear that the BCGA would have to make ends meet without

[1]This booklet was commissioned to commemorate the BCGA's first fifty years as a Royal Chartered organisation. It captured well the immodest view the BCGA had of itself.

governmental or trade funding. The ECGC had received the Government's block grant; and the Lancashire cotton industry was unlikely to wish to raise funding over and above the ECGC levy, made compulsory under the Cotton Industry Act 1923.

The BCGA was going to have to operate profitably, yet was to conduct the sort of promotional development of cotton that was so potentially unrewarding that no merchant firm would undertake it. The ECGC would ascertain if cotton could be grown; the BCGA would test if it could be grown commercially. The semi-official backing given to it by the Empire Cotton Growing Committee meant that banks were reasonably happy about the status of the BCGA when it came to consideration for loans;[1] but the BCGA over the next few decades found itself competing against fully commercial concerns when times were bright but forced to sustain the supply of cotton, encourage growers with guaranteed prices and persuade Lancashire to choose Empire cotton when the market and industry were depressed.

The level of the BCGA's success can be measured in several ways: for example, by number and value of cotton bales handled by the Association each year;[2] by the increasing extent to which the BCGA was able - through effective marketing, maintenance of quality and provision of adequate quantity - to persuade Lancashire to use the new African cotton exports;[3] by the growth in cotton exports from the areas in which the BCGA worked;[4] and by the effect on local economies, as measured in trade and revenue accounts. It is difficult, however, to

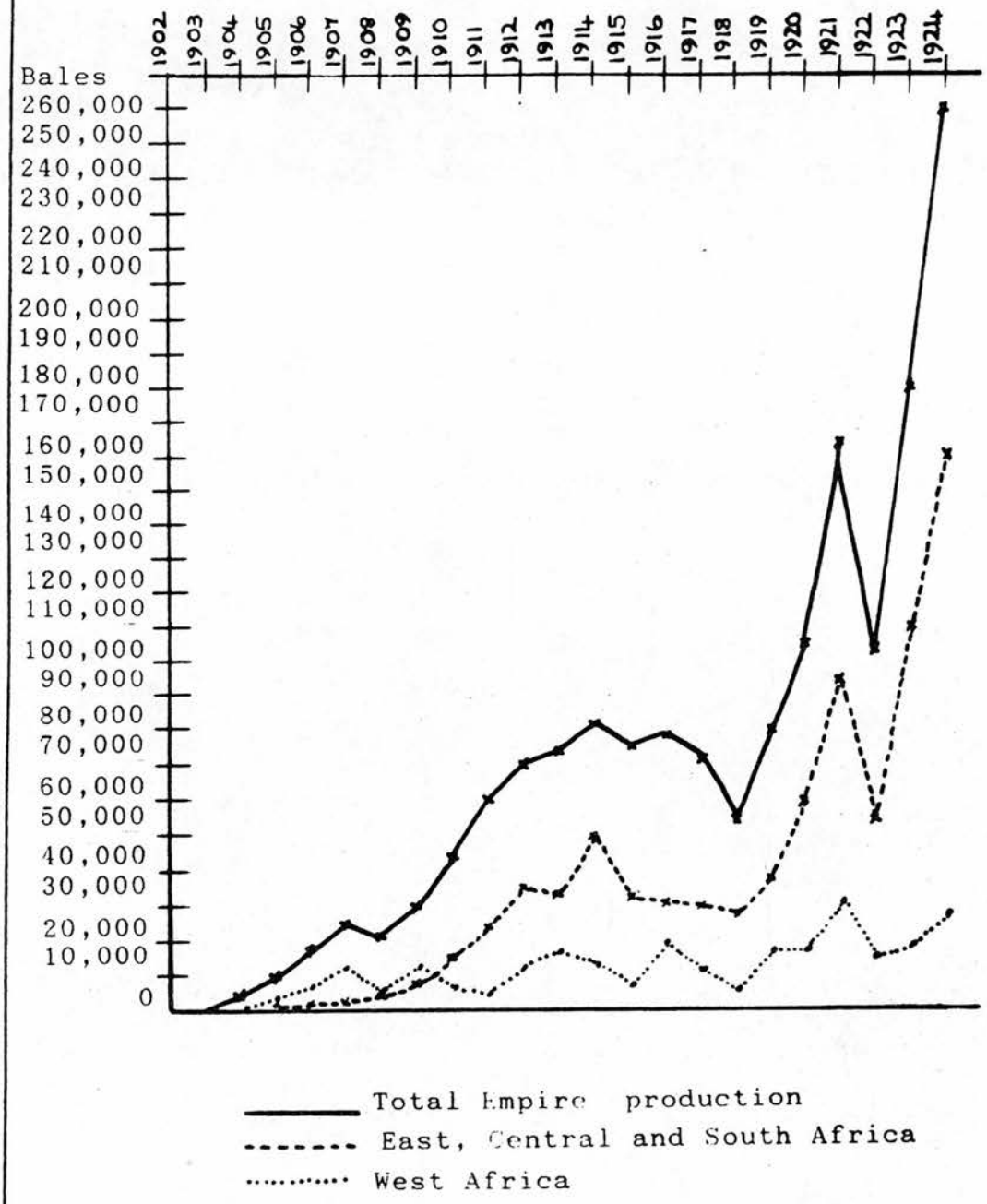
[1] In fact, the BCGA had never had cause for complaint about banking institutions, though Hutton had the rather eccentric notion that the banks were eager to lend money because they saw the BCGA was not working for selfish motives (I(i)(b): CGA 2/2/25, Hutton, 1916, p.25).

[2] See Appendix VI, Table 25, 'Bales dealt with by the BCGA, 1910-39'; and Figure 1, overleaf, for graph of production, 1902-24.

[3] See Appendix VI, Table 8 for the rise in the percentage of African cotton imported into the UK, 1906-50.

[4] See Appendix VI, Table 18 for the increasing percentage of African cotton production, 1909-53; Appendix VI, Table 20 for the rise in total Empire cotton crops, 1919-54; and Appendix VI, Tables 21 and 22 for selected African crop increases, 1902-75.

PRODUCTION OF COTTON IN 400lb BALES, RECORDED BY BRITISH COTTON GROWING ASSOCIATION, 1902-24



Source: BCGA, Annual Reports

Figure 1

differentiate between the various factors which brought about increased growth and revenue in order to determine to what extent the involvement of the BCGA was an integral part of the process.

A simpler way to begin to judge the Association's success is through its own balance sheets. During what Redford and Clapp (1956, p.220) describe as the "calamitous 1920s", the Lancashire cotton trade desperately tried to reduce its costs while prices and supplies fluctuated as boll weevil ravages hit the US crop at a time of low stocks and increasing US consumption. The Association, however, despite its stated policy of paying the highest possible prices for seed cotton, as reiterated in its 1923 19th Annual Report, managed to improve its financial position quite substantially. Its profits derived from direct activity of its Nigeria, Nyasaland and Uganda branches, marketing of cotton and supplying equipment; and through indirect, generally unrewarding, financial involvement in companies, such as the Kassala Cotton Company in Sudan. Most of this new-found wealth was put back into cotton development work and risks that ordinary trading concerns would not touch. Even so, by 1928, profits had accumulated so much that an Extraordinary General Meeting of the BCGA passed a resolution that the capital be reduced (I(ii)(b): BCGA/CM 16/5/28).[1] It was felt that the release of the £230,000 immediately available without endangering the Association would be very welcome in the depression. As a result, ten shillings for every pound sterling invested was repaid to all shareholders (I(iv)(e): CRC/F1/B1, Himbury typescript, 1929).

In late 1930 Oldham Chamber of Commerce made a request,

[1] This resolution would appear to be the result of discussion on what was coyly minuted as "a certain line of policy" and "the idea" at Executive Committee meetings on 6th March 1928 and 20th April 1928.

discussed by the Finance Committee and then by the Executive, that the BCGA should pay dividends.[1] In its response, the BCGA emphasized it was no ordinary trading concern but took risks that no commercial company would encompass, such as guaranteeing to purchase all cotton grown in Nyasaland months before American prices or the quantity were known, advancing 70-80% of the value of cotton to West Indian growers against cotton for which there was no current demand and which was not covered by the Futures contract, and erecting and maintaining buying and ginning centres where there was no imminent likely commercial proposition. Richard Jackson, BCGA's Chairman, reiterated the policy which the BCGA had adhered to from the start:

> "Whilst not being definitely on a commercial basis, the work is run as far as possible on business lines, leavened with a fair amount of philanthropy. Business and philanthropy may not sound hopeful for commercial success, but the work is really development, and whatever success has been obtained in the past, there is no doubt that the future prosperity of Empire cotton-growing largely depends on a continuance of the present policy, which would be entirely altered if the association became a dividend paying concern" (I(ii)(b): BCGA/CM 6/1/31).

On 10th February 1931, a deputation from Oldham Chamber of Commerce met the BCGA Executive Committee to discuss the matter further.[2] Mr. Hague, accountant, asserted that the real problem was the difficulty in disposing of shares, worth about thirty shillings each on the balance sheet but virtually impossible to sell. Jackson agreed that there was no outside market because the shares were not dividend-paying but maintained that it would upset its methods of working if the Association was made commercial: hence the reduction in capital which had been sanctioned. Ultimately, he promised, all shareholders would be repaid and a Public Trust for Lancashire, or something similar, would be formed. But Jackson warned

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[1] See Chapter 2, Section 2.2, p.41.

[2] Reported in I(ii)(b): BCGA/BM 10/2/31.

that a commercial BCGA would be unable to take risks, would lose prestige as people like Lord Derby dropped out and would not receive preferential treatment from the CO and the Government.

Despite the Executive stressing, on 7th October 1930, the need for economy in the prevailing unsatisfactory situation, a further five shillings a share was repaid in 1931. Another four shillings paid back in 1934 reduced the capital to £23,000 in one shilling shares (I(iv)(e): CRC/F1/B1). Profits continued to accumulate, mocking the Association's prognostications of gloom on many fronts, so that an excess of income over expenditure of £526,000 was announced in 1935. At the Executive meeting on 28th May 1935, Sir William Himbury accepted that shareholders would have to be given a return, though he was still very loath to fully commercialise the BCGA (I(ii)(b): BCGA/EM 28/5/35). This led to a restructuring of shares, so that, in effect, shareholders received an additional nineteen shillings worth of shares for every one shilling share held. The 19/- and 1/- shares were later consolidated into fully-paid £1 shares of a total £477,000 capital (I(iv)(e): CRC/F1/B1). It was also finally decided to pay dividends, albeit at a restricted rate of 3% maximum for five years (I(ii)(b): BCGA/EM 5/5/36); and, on 17th December 1936, BCGA shares received their first Stock Market quotation of fifteen shillings, increased by a shilling the next day. Dividends were announced in each succeeding year, proving that the Association was, what it affected such reluctance to be, a commercial success.

Overall, the 1920s and 1930s were bleak years for British cotton trade.[1] High unemployment and surplus capacity eventually led to the 1929 inauguration of Lancashire Cotton Corporation and the Cotton Industry Reorganisations Acts (1936 and 1939) aiming to restructure the industry on

[1] In the 1930s, 1937 was an exception, being the best year for spinners since 1929 (Cotton Year Book, 1938). The Coronation that year was reputed to have helped to increase demand for cotton cloth.

more efficient lines, mainly by reducing excess capacity. Quantity and quality of yarn and cloth exports decreased very dramatically from 1939-40, with a significant drop from 1929,[1] though raw cotton consumption in Lancashire, apart from a noticeable fall in 1931, decreased relatively slowly.[2] India was a major competitior by this time, using home-grown cotton and imports, mainly from Uganda, for an industry now bolstered by tariff protection; and Japan became a massive cotton importer in the 1920s and 1930s, overtaking Britain as an importer from 1930-31 as it captured the far eastern market for manufactured goods.[3] Another factor was the US Government's interference with agrarian price support programmes - by legislation for a drastic restriction of cotton acreages from 1933; and by the 1934 'Bankhead Act', limiting the crop to be ginned and marketed to ten million bales, except under prohibitive taxation. This, coupled with drought, led to a high rise in prices and an artificially favourable market for "Outside Growths" in cotton, to which world consumers had already turned in 1933-34 (Todd, 1936a and 1936b). The BCGA gained from this.[4]

In general, these inter-war years of depression and decreased consumer demand, marked towards the end by wild speculation and fluctuating prices, were not easy decades for commerce or the cotton industry. Yet, as just described, the BCGA flourished, receiving the unanimous backing of the cotton trade in 1937 when it was decided that both the BCGA and the ECGC should continue (Cotton Year Book, 1938). It had always been intended that dividends would eventually be the reward for Lancashire cotton industry's faith in putting up the initial subscribed capital for the BCGA, and it had succeeded in this aim by 1936. But how did the Association fare in other realms ?

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[1] See Appendix VI, Table 12, 'UK Cotton Yarn and Cloth Export Trade, 1913-61'.
[2] See Appendix VI, Table 5, 'Lancashire Raw Cotton Consumption, 1924-38'.
[3] See Appendix VI, Table 9, 'Imports of Cotton by Selected Principal Importing Countries, 1924-35'.
[4] Appendix VI, Table 16 shows a drop in US percentage of world cotton production from an average of 59.31% in 1924-28 to 43.36% in 1934-38.

Statistics illustrate success in increasing cotton-growing and cotton exports in the British Empire, with concomitant benefits to shipping and banking.[1] Part of the success from 1921 was due to ECGC achievements in improving yield per acre, often by selecting and breeding more suitable varieties; some was due to local officials' and Agriculture Departments' encouragement; much, of course, was thanks to the hard work and favourable decisions of local smallholders and planters; but a substantial, if unquantifiable, portion of the success was a result of BCGA efforts. At a 7th June 1921 banquet for newly appointed Secretary of State for the Colonies, Winston S. Churchill, he commented on the great changes in the thirteen years since he was last at the CO: "... jungles which bloomed in their pristine exuberance have now turned into cotton plantations which are sending every year substantial cargoes of useful and even of superior cotton to the Lancashire mills" (I(i)(b): CGA 2/2/36). By 1929, the BCGA was able to report that there were now ample supplies of Empire and other non-American cottons on the market, becoming increasingly popular as American quality deteriorated (I(ii)(a): BCGA/AR 1929, p.14). In 1931, Todd paid tribute to the Empire crops which, while not large in quantity, had filled gaps in the market, justifying the labour and expenditure devoted to them (p.7).

There is controversy over the extent to which Lancashire was willing to substitute "Outside Growths" for the American cotton it knew so well.[2] A CO letter to the BCGA in 1921, acknowledging a circular on Empire-grown cotton, states that African cotton is "virtually unknown" to the Lancashire cotton industry except "where spinners have been coaxed (practically in all cases by the Association)

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[1] Appendix VI, Tables 8, 18, 20, 22 and 25 all bear witness to this.

[2] It was not mere stubbornness or conservatism that inclined spinners towards using the same source of raw material year after year: their machinery was set up to deal with particular grades and qualities of cotton to produce specific yarns for the next stage of manufacture, with assured supply and quality equally important.

into using it".[1] During 1921, the BCGA found that African cotton was coming more into favour with Lancashire spinners (I(ii)(a): BCGA/AR 1921), followed by satisfactory demand the next year. But, in 1923, CO correspondence on the Ugandan cotton crop again dealt with the BCGA's reputed difficulty in finding a market for African cotton,[2] attributed in some measure to the "closed shop" of the American Futures Contract which did not allow for tenders on "outside growths" of cotton, even when grown from American types (I(ii)(a): BCGA/AR 1923, p.13).[3]

Demand for African cotton increased towards the end of the decade and was desirable enough for the Manchester Cotton Association to complain to the BCGA Executive Committee in 1927 that Liverpool was being given preference in the sale of the Association's cotton. The Executive replied that Nyasaland and Uganda cottons needed a good deal of classifying, compensated by demand and price in Liverpool, while Manchester's slowness in buying West African cotton was no incentive to send other growths there (I(ii)(b): BCGA/EM 15/3/27). But, considering that the BCGA estimated it was serving over 2,000 Lancashire and Yorkshire manufacturing firms with capital of over £500,000,000,[4] the new cottons were slow to prove attractive and prone to setback. Thus, the 27th Annual Report (p.53) for 1931 reported a bumper US crop and continuing trade depression leading to restricted demand, though the 1931 Cotton Year Book optimistically maintained that the cotton trade was slowly coming to appreciate Empire and outside growths. It was only through keeping a careful check on quality and

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[1] I(i)(a): CGA 1/13/75, Bottomley to Himbury, 28th July 1921.

[2] I(i)(a): CGA 1/13/409, Bottomley to Himbury, 22nd September 1923.

[3] The matter of a Futures Contract did not rest here: twenty years on, the topic was raised at BCGA Council and Executive Committee meetings, when submissions were made by the cotton trade to the President of the Board of Trade and pressure put on the CO to support a futures market against which Empire cottons would be tenderable (I(ii)(b): BCGA/CM 7/9/43 and BCGA/EM 24/8/43). Thirty years later, the topic was still on the agenda. The Cotton Futures market was closed from 1941 to 1954, but in 1953 the BCGC Executive Committee aired the arguments for and against inclusion of "outside growths" in the Liverpool American Futures Contract, leaving the question for further consideration (I(iv)(a): BCGC/ECM 1/9/53).

[4] I(i)(b): CGA 2/2/53, Himbury, 1926.

ensuring that the demand could be met throughout the year that the BCGA was able to maintain a market for African cotton.

BCGA aided local economies in two ways: through officially sanctioned buying agreements and through the increased revenue generated by cotton exports. An example of the former began in May 1921 when the BCGA was asked to purchase the estimated 150 ton African smallholder-grown cotton lint crop in Nyasaland, at a time when the bulk of the crop was grown by white planters.[1] The Governor, Sir George Smith, somewhat scathing about both CO and BCGA, pencilled in the margin of Churchill's letter to him of 22nd August 1921, "The CO takes a very narrow view of the problem of cotton development...for which the Empire is yelling"; and, regarding the BCGA's stated policy of paying as high a price as possible to maintain the cotton industry, added "Rather too much of this spirit and too little of the developmental one. The Association unfortunately know and understand but very imperfectly the African native and his mentality" (I(v)(e): MNA, S1/1702/21). Nevertheless, the BCGA agreed to buy the cotton at an economic price but feared that the Nyasaland Government had not appreciated the world fall in prices and were trying to hold the buying price too high.[2] Apparent regard for the BCGA's action was noted early in 1922: "...the Director of Agriculture appreciates what the Association have done in the interests of cotton growing and that these outside buyers who only come forward when prices are good have no real interest in the cotton, beyond speculation", wrote the BCGA's manager at Port Herald.[3] A few months later, a memo from Nyasaland's Director of Agriculture, Mr. Wortley, recommended that sole buying rights for native-grown Crown Land cotton be granted to the BCGA for five years, the BCGA bearing any

[1] I(i)(a): CGA 1/13/54, Bottomley to Himbury, 18th May 1921, enclosing 13th May 1921 telegram from the Governor of Nyasaland, started the debate. See Chapter 5, pp.297-302, for further discussion.
[2] I(i)(a): CGA 1/13/66-67, Batterbee to Himbury, 9th July 1921.
[3] I(iv)(e): CRC/F1/N2, J. Arthur Lee, BCGA Port Herald to Secretary of BCGA, 16th February 1922.

loss, 50% of any profits to be paid to the Government Treasury and 50% to the BCGA to create a "stabilisation fund" to even out prices when times were bad.[1] Churchill doubted the practicality of the scheme but the Nyasaland Government hoped that more certainty about prices would be as beneficial as in Northern Nigeria, where the BCGA acted as sole buyer, and would encourage cotton farming by the indigenous population.[2]

The scheme, entered into in April 1923 and renewed thereafter, initially had the desired effect. Nyasaland smallholder production soared as prices generated good profits.[3] Wortley's 1923 report recognised that three years previously BCGA had been practically moribund but that it now took the keenest interest in both planters and peasants and had begun to revive flagging local production of the crop (I(iv)(e): CRC/F1/N2).[4] In the first year of the agreement, production doubled and had reached 2,835 tons by 1925; by 1929 almost the entire crop was produced by African small farmers and almost 90% was of first grade quality (25th Annual Report, BCGA/AR 1929). The profit and loss account for the five years 1923-27 showed profits for 1923, 1924 and 1927 and losses for 1925 and 1926.[5]

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[1] I(i)(a): CGA 1/13/177-84 (CO 28310/1922), Enclosure 1 in Nyasaland No.166 of 15th May 1922, sent by H.J. Read for Churchill to Chairman, BCGA, 4th July 1922. The stabilisation fund was not set up.

[2] Cotton production had never recovered from the war. The unginned "native grown" tonnage from 1904 to 1921 was as follows:-

1904	26	1907	28	1910	654	1913	1203	1916	942	1919	300
1905	83	1908	110	1911	961	1914	930	1917	1084	1920	288
1906	61	1909	253	1912	744	1915	798	1918	365	1921	355

(Source: CGA 1/13/177-84)

[3] See Figure 4, Chapter 5, Section 5.6 for effect of BCGA agreement.

[4] A not unsurprising interest given the actual and potential profits involved.

[5] BCGA and Nyasaland Government Joint Cotton Buying Account, 1923-27

(Figures rounded to nearest £)

Year	Profit to BCGA	Loss to BCGA	Profit to Government
1923	£7,260	-	£7,260
1924	£5,576	-	£5,576
1925	-	£16,107	-
1926	-	£1,962	-
1927	£2,101	-	£2,101
TOTAL:	£14,937	£18,069	£14,937

NET LOSS to BCGA: £3,132 NET PROFIT to Government: £14,937

(Source: I(iv)(e): CRC/F1/N2, Typescript summary of statistics.)

Losses in renewal years led Sir William Himbury to complain bitterly in 1935 that the Association should not always be expected to bear heavy losses whilst those who made profits in good years left the BCGA to fend for the industry in bad times (I(ii)(b): BCGA/EM 25/1/35).

Increased revenue from cotton sales was welcome at individual and governmental level. Despite ruinous competition amongst ginners which tainted many seasons' activities, Uganda was the prime success story, though lack of finance had obviated initial direct involvement by BCGA. The BCGA's Nineteenth Annual Report (BCGA/AR 1923, p.28) noted that excise duty of over £111,385 had been collected on cotton in Uganda; the next year's Annual Report (BCGA/AR 1924, p.34) queried patronisingly whether progress was perhaps too rapid and disturbing; and in 1925, cotton accounted for 90% of Uganda's total exports (21st Annual Report, BCGA/AR 1925, p.33). In Tanganyika Territory in 1922 the BCGA took a risky decision to spend £20,000 on the erection of ginneries (Eighteenth Annual Report, BCGA/AR 1922, p.25): by 1924, cotton was the second greatest export, shipments having increased over 70% in that year (BCGA/AR 1924, p.37). Two years later, the Executive Committee agreed that it was in the British Government's and the BCGA's interests to retain Tanganyika Territory and that cotton-growing would help (I(ii)(b): BCGA/EM 16/7/26). In Nyasaland, cotton-growing was credited as the only alternative to emigration (I(ii)(c): BCGA, 31st Annual Meeting, 1936). On the debit side, there were bouts of antagonism between local governments and BCGA - in Nyasaland, as already noted,[1] and in Tanganyika Territory. For example, in 1931, the Executive Committee referred to the "superior and antagonistic" attitude of Tanganyika Territory Government officials, including the Director of Agriculture, alleged by the BCGA's Mwanza Manager to speak deprecatingly of the BCGA at every opportunity. The BCGA's response to this antipathy was to

[1] See p.78.

write to Bottomley at the CO to say that the Association would retire from Tanganyika Territory if it was not wanted (I(ii)(b): BCGA/EM 1/9/31).

Another measure of the BCGA's success might be looked for in the realm of "Empire development". The BCGA liked to consider itself a fine, strong Imperial movement, morally bound to help develop the British Empire. Nowhere is this made more explicit than in Sir William Himbury's paper to the Royal Colonial Institute on 16th November 1926,[1] in which he stressed that in the "cotton growing within the Empire story" lay the antidote for those who pronounced Britain decadent and decried its enterprise. "'Oxford bags' are symptomatic of the wave of effeminacy which is sapping the manhood of the nation," he proclaimed (pp.1-2). He went on to eulogise about the great precedent set by the £500,000 put forward by employer and employee to subsidise the BCGA in what he averred was probably the first instance of capital and labour "working together not purely from an altruistic point of view but in the cause of Empire development" (p.3). Perhaps Himbury had been particularly stirred too by his recent trip to Kenya, Uganda and Tanganyika[2] and by the Governor of Uganda's remarks on 5th October 1926, when Sir William Gowers spoke of the importance of cotton to primitive growers whose "working clothes consist precisely of nothing at all" and whose best clothes are "a few feathers stuck in the hair of their head".[3] The export of raw cotton would provide the cash for purchasing imported manufactured cloth. Appealing to finer sentiments, Gowers had asserted: "Manchester always has, and I am sure always will, sympathise with and encourage all efforts to improve the mental, moral and material status of native populations committed to our charge as a nation." Difficult though it

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[1] I(i)(b): CGA 2/2/53, 'Some Promising Empire Cotton Fields', Himbury, 1926.
[2] His visit is described in I(ii)(c): Himbury, June 1926.
[3] Sir William Gower's observations are minuted in I(i)(a): CGA 1/5/47, 'Report of Proceedings at a Luncheon to Sir William F. Gowers, Governor and Commander-in-Chief of Uganda at Midland Hotel, Manchester, 5/10/1926.'

is to pass objective judgement on such matters, the BCGA's office-holders and publications generally bear witness to its strong attachment to a somewhat sentimental duty to "do good" for the Empire, appreciated in Tanganyika Territory's Director of Agriculture's 1935 sycophantic declaration that BCGA and ECGC activity not only had been of "material benefit but has had in addition a moral and political effect" (I(ii)(b): BCGA/CM 3/9/35). However, the BCGA's interest in the Empire was primarily self-interest.

Given the importance of the early relationship between CO and BCGA, continuing good relations might be regarded as another minor criterion of the organisation's success. Although regular conferences had ended at about the time the Empire Cotton Growing Committee was sitting, correspondence continued to flow between the two. The CO arranged luncheons and meetings between the BCGA, Colonial Governors and other officials to maintain goodwill and understanding. Amongst topics discussed were the issue of ginning licences in Tanganyika Territory (I(i)(a): CGA 1/3/302, 1923), freight rates on Uganda Railways (I(i)(a): CGA 1/13/418 (CO 52755), 1923), seed problems in Uganda (I(i)(a): CGA 1/3/590, 1925), cotton regulations in Northern Rhodesia (I(i)(a): CGA 1/3/568-71, 1925), currency changes in Uganda (I(i)(a): CGA 1/13/122, 1922) and confidential information on railway development in Nyasaland (I(i)(a): CGA 1/3/551, 1924). Personalities were also important. Churchill, as previously mentioned, was regarded by many as a strong champion and the BCGA's chief parliamentary spokesman in the Commons (particularly by Hose, Ph.D. 1970, pp.276-77, and by Hogendorn, 1975, p.316); but he had a worthy precursor in Lord Milner who expressed regret to Himbury that, during his tenure at the CO, he had been unable to make a "big forward push" on colonial development.[1] It was useful to have such sympathetic "friends in high places" - others, noted in the 1929 25th Annual Report, were Amery, Ormsby-Gore and

[1] I(i)(a): CGA 1/13/2, Lord Milner to Himbury, 5th February 1921.

Bottomley. At the 3rd September 1929 Council meeting, it was minuted that the BCGA found it satisfying that its work was appreciated by the CO and local governments. That there was an enviable rapport between officials in London and the BCGA was acknowledged when the BCGA declined an invitation for a place on a London Chamber of Commerce East African Section Committee on the grounds that "the Association have always the privilege of going direct to the Government on all questions relating to cotton cultivation, and in the same way the Government always approach the Association direct" (I(ii)(b): BCGA/CM, 7th May 1929).

There were many setbacks, failures and problems for BCGA in this period too. Transport, for example, continued to create bottlenecks in many countries, because of lack of tonnage or high costs. The BCGA petitioned for additional rolling stock and new railway lines (for example, as detailed in I(i)(b): CGA 2/2/33, 1920; and CGA 2/2/49, 1925), appealing on the latter occasion that it would aid the home steel industry as well as cotton. On 27th May 1924, Himbury suggested the Imperial Government be asked to provide £20 million for railway construction in Uganda, Kenya, Tanganyika Territory, Nyasaland and Nigeria (I(i)(a): CGA 1/5/44). He later commented, after his 1926 travels, that port facilities lagged way behind production in Uganda (I(i)(b): CGA 2/2/53, p.9); and, in his 1925 submission to the Committee on Industry and Trade, highlighted transport problems all over Africa (I(i)(b): CGA 2/2/45). It is difficult to judge the weight of the cotton industry's arguments on decision-makers but W.G.A. Ormsby-Gore, Parliamentary Under-Secretary of State for the Colonies, dwelling on the importance of transport in improving agricultural prospects, gave credit to the cotton production movement as "the main lever for getting anything done in the past" (I(i)(b): CGA 2/2/54, 19th November 1926). Certainly, the BCGA was persistent in its requests and pleas, putting the CO and British Government on the defensive on many occasions.

Staffing was another problem area. It had been hard at the start to find people with relevant experience, education and background. This difficulty continued, so exasperating Himbury in 1921 that he asserted the BCGA had not "one really first-class, broad-minded, far-seeing man" on its staff in Africa (I(ii)(b): BCGA/EM, 3/5/21).

In addition to these shared hindrances to the development of cotton-growing, each country had its own selection of individual impediments to smooth progress. For example, in 1924, the BCGA discussed complaints that cotton in Uganda was too remunerative. This, according to Simpson, meant local Ugandan growers were getting too much money and so inclining to indolence (I(ii)(b): BCGA/CM,7/10/24), thus leading to ginneries and transport facilities being understaffed (I(ii)(b): BCGA/CM, 1/7/24). In 1927, the Executive Committee was determined that Ugandan ginneries must be kept out of "oriental hands" (I(ii)(b): BCGA/EM, 26/4/27); and Himbury protested that Nyasaland tobacco estate owners used foul means to ensure they got labour, persuading the local population that there was no market for cotton and so no point in growing it (I(i)(b): CGA 2/2/58, p.49). And, in 1934, having made substantial losses on its operations from 1930, the BCGA moved out of direct ginning in Tanganyika to a supervisory role (I(ii)(b): BCGA/CM, 6/11/34).

There was one especially severe constraint on the BCGA's efforts to sustain the flow of cotton from Africa to Lancashire: competition from other countries - Japan and India, in particular. "When the last great receptacles of cotton goods developed their own textile industries - India, Japan and China - the hour of Lancashire tolled," wrote Hobsbawm (1969, p.151). And so it was. After a short boom period after the First World War,[1] the British cotton industry contracted almost continuously, mainly due

[1] See Appendix VI, Table 12.

to loss of export markets, particularly for piece goods, in the face of Indian home industry and increasingly efficient Japanese competition (Seddon, 1979, p.108). The 29th Annual Report (1933) spoke dismally of the severity of Japanese competition; a Southern Rhodesia correspondent appealed to the BCGA in 1935 for help in finding an enterprising British firm "to convert some of the short staple cottons grown in Africa into Native goods and cut out this cursed Japanese stuff we get flooded out with" (I(ii)(b): BCGA/CM, 13/8/35); and The Morning Post of 15th November 1936 headlined, "Lancashire shut out of East Africa", with 85% of goods imported from Japan (I(ii)(c): BCGA Newspaper Cuttings File).

This competition in finished goods was matched by a buying struggle, noted at Council and Executive meetings and Annual Reports throughout the 1920s and 1930s. The Ugandan crop was the main attraction with Europeans, Indians and Japanese bidding - on a higher basis than Liverpool prices warranted, complained the BCGA in 1929 (I(ii)(b): BCGA/CM, 5/3/29). From the 1916-17 season, much of the Ugandan crop had been shipped to India, though Liverpool was the final destination of a portion of it. But this trend, at first thought to be a temporary war expediency, continued. So, in 1922-23, 79% of Uganda's cotton exports went to India and, in 1923-24, 56% did (Ehrlich, Ph.D., 1958, p.150). The ECGC Administrative Council also complained that African cotton was not getting to Lancashire but the general consensus was that it was difficult to reverse the trend and, anyway, if India and Japan were not buying East African cotton they would be reducing the amount of staple American available for Lancashire (I(iv)(a): ECGC/ACM, 13/12/23).

2.9 TIMES CHANGE BUT THE BRITISH COTTON GROWING ASSOCIATION LIVES ON

> "Owing to the temporary elimination of Japan as a large buyer, the United Kingdom has been since the war by far the largest individual importer of cotton, despite the fact that consumption of United Kingdom cotton mills was estimated in 1948-49 at only 74% of the pre-war level."
> (I(x)(a): Colonial Office, 1952, 'An Economic Survey...', p.21.)

The effect of the Second World War on the UK's cotton export trade was immediate and drastic. The industry never regained its pre-war strength.[1] During the war, the Cotton Board regulated matters, closing down 40% of the capacity which, despite efforts such as the Board of Trade "Cotton Comeback" propaganda and the establishment of the Raw Cotton Commission in 1948,[2] was not recovered post-war when demand rose but labour was short (Seddon, 1979, p.110). The keynote of the May 1946 Cotton Working Party recommendations was the maintenance of a reequipped, restructured, rationalised cotton industry, using mainly medium and longer staple cotton, as a major national asset under private enterprise (Board of Trade, 1946). The Colonial Primary Products Committee Interim Report (1948, (e)67) affirmed the "need for expanding as rapidly as possible the production of Colonial cotton of a staple length of between $^{5}/_{16}$ths of an inch and $^{1}/_{16}$th inches" for which there was an estimated need for £30-40,000,000 worth annually. However, the British cotton industry was unable to recoup its strength after the 1952 world textile recession,[3] following the UK's peak year for value of cloth exports since 1925,[4] exacerbated by imports from India and Hong Kong for the home market and the increasing significance of man-made fibres.

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[1] Appendix VI, Tables 12 and 13 illustrate the trend of decreased exports.

[2] The Raw Cotton Commission was much criticised for its importation and distribution control. Cotton buying and selling returned to private hands in 1954.

[3] Appendix VI, Table 7 shows the drop of raw cotton imports in 1952.

[4] Appendix VI, Table 12 shows the value of cloth exports as £132,191,722 in 1951. The value of yarn exports of £31,782,084 in 1951 was the highest since 1920.

By 1974, Britain's share of the world's cotton spindles was down from 50% at the end of the nineteenth century to just 3% (Seddon, p.111). Over a thousand mills have closed since the end of the Second World War and, in 1984, only 37,000 people were employed directly in the cotton industry compared to 10,000,000 dependent directly or indirectly in 1917.[1] The local effect has been devastating. In Rochdale, for instance, 40% of the local labour force was employed in the textile industry in 1959; in 1985, before the opening of a new £10 million spinning and weaving mill, it was 8% (The Guardian, 24/9/85, p.26). Protectionist policies have not prevented the continued decline of the British industry, while the more international protectionist Multi-Fibre Arrangements from 1974 onwards have hit hardest at the poorest countries but done little to save further contraction in the UK (World Development Movement, 1981).[2] The British textile industry is still "hanging by a thread" with fears for its complete collapse as an export income earner and competitor of cheap imports (The Scotsman, 6/11/90, p.3), although British textile firms still account for sales of more than £14 billion annually, employ over 460,000 people and believe they have the powers of survival and recuperation to redress Britain's balance of payments deficit and provide employment opportunities (TGWU,'Plan for Textiles 1991 and Beyond', 1990). Cotton still has a part to play at this crucial time for the industry.

During the Second World War cotton continued to be grown in Africa. Production dropped from 1942-43,[3] though record crops for the period prior to 1949 were achieved in Nigeria in 1940-41, in Sudan 1944-45 and Tanganyika 1940-

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[1] 'All our Working Lives', BBC2 TV, 4/5/84.

[2] An indication of the number of restrictive orders on Third World trade can be gleaned from the fact that in 1981 about 70% of the UK's imports of textiles and clothing from developing countries was governed by over 400 quotas in bilateral agreements negotiated by the European Community with 27 countries. Abolition of the MFA would particularly benefit poorest countries.

[3] See Appendix VI, Table 22 for a very clear drop in production from 1941-42 to 1942-43.

41.[1] The BCGA showed a substantial profit on its Income and Expenditure Account and Branches Account throughout the war and immediate post-war period, with only occasional, fairly insignificant deficits on individual branch accounts.[2] In 1947, Himbury was pleased by CO agreement that African cotton could be a solution to some of Britain's financial difficulties (I(ii)(b): BCGA/CM, 24/6/47 and 30/9/47). Sterling devaluation in 1949 created a special interest in the dollar-saving policy of obtaining more cotton from Africa, while the Korean conflict caused soaring prices. By 1954, Lancashire was using 30% Empire cottons (Tewson, 1954, p.111).

According to BCGA records, its services remained much appreciated in most British colonies. Meetings between the BCGA and colonial civil servants had continued to take place, particularly when colonial participants were on leave in Britain. The minutes of one such "mutual admiration" session between the Executive Committee and H.J. Wakefield, Director of Agriculture for Tanganyika Territory, record: "It had also meant a lot to him in his talks to the African, and particularly when he had been able to emphasise that the Association (and the Empire Cotton Growing Corporation) was getting nothing out of it", which, "created a very favourable impression upon the mind of the native" (I(ii)(b): BCGA/EM, 8/4/40). It is extremely doubtful that "the native", that supposedly grateful recipient of whatever colonialism had to offer, would have been even remotely interested in the BCGA's philanthropic motivation, even if this had not by this time become a gross misnomer for blatant commercialism in most transactions. For, by now, the Association was in fact getting a great deal out of African cotton growing.

During the 1920s and 1930s, decision-making was still

[1]Appendix VI, Table 23 lists record cotton crops for the period prior to 1949 and between 1950 and 1972 for Kenya, Nyasaland, Nigeria, Sudan, Tanganyika and Uganda.

[2]Appendix VI, Tables 26 and 27 give details of BCGA Accounts. They show small losses of £5,995 in Nigeria in 1948-49 and of £1,792 in Nyasaland in 1940, for example.

leavened with a fair measure of philanthropy; by the 1950s, potential commercial gain was invariably a key factor in BCGA involvement and advice.[1] For example, the BCGA's eventually favourable view of a large modern ginnery in Uganda was coloured by fears about its own possible loss of buying rights and compensation (I(ii)(b): BCGA/EM, 26/10/48). BCGA did not wish to be involved in a Nyasaland delinting plant, not just because it felt "it was not an essential part of cotton growing", but because it was not a good business proposition given the high capital cost and varying sizes of crops (I(ii)(b): BCGA/EM, 28/9/51);[2] and, for similar reasons, BCGA was not interested in a Nyasaland oil expressing plant (I(ii)(b): BCGA/EM, 25/11/52).[3] Nyasaland Agriculture Department had a very scathing view of BCGA by this time, as indicated by a letter from the Director of Agriculture to the Director of the ECGC in 1952, expressing disappointment at the BCGA's "apparent general lack of interest in the prospect of development" and complaining that it was now obviously a commercial concern working solely for its own ends (I(iv)(f): CRC/F2/56, Letter, Kettlewell to May, 27/9/52). Kettlewell asked May to mention his misgivings to Himbury and to ascertain whether the character and purpose of the BCGA had completely changed or whether it was willing to take an imaginative, constructive and cooperative part in cotton development.

The 1960s' era of independence in African countries did not adversely affect the BCGA's branches' financial position, which, apart from 1949 in Nyasaland and 1962 in

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[1]Financial aspects had always had some impact on decision-making. For example, although the BCGA had long stated that it was a champion of cotton as a "native crop", it was not until it had made substantial losses, and all hope of gain seemed to have faded, that it fully abandoned encouragement of European cotton farmers in Nyasaland.

[2]The Director of Agriculture eventually persuaded the BCGA, with the argument that delinted seed gave quicker germination and earlier establishment of seedlings, to erect a delinting lean-to at Chiromo ginnery, with running costs paid by the Department of Agriculture (I(ii)(b): BCGA/BM, 25/2/53).

[3]One of the major development problems of agrarian Africa is encapsulated in such reluctance towards involvement in the development of value-added processing of cotton within its country of origin.

Uganda, had continued to show healthy profits.[1] However, the real income of cotton producers in East and Central Africa did not reflect such a happy trend.[2]

During the 1960s, working relations between the BCGA and African countries proceeded much as before. Contact with Dr. Banda in Nyasaland was cordial, though he complained about the very poor price the Agricultural Production and Marketing Board was paying for cotton (I(ii)(b): BCGA/CM 9/3/62).[3] The BCGA was reassured that they were welcome as long as they had the country's interests at heart and, generally, felt relieved that their fears for the agricultural future of Malawi could be discounted as Dr. Banda appeared determined to improve the lot of agriculture (I(ii)(b): BCGA/CM, 5/3/65).[4] Cotton sales slowed in Malawi in the mid 1960s as the Gatooma spinning mills, which had taken at least two thirds of the crop over the previous decade, were supplied by Rhodesian-grown cotton. At the Council meeting on 1st November 1963, it was decided that the Association should seize any available opportunity in Rhodesia, prompted by a realisation that an unhealthy proportion of total interests was in Nigeria.[5]

In 1966 an internal Investigating Committee recommended the BCGA directorate be expanded to seven and the Finance

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[1] Appendix VI, Table 27 gives details.

[2] In Tanzania, for example, the estimated real income of cotton producers fell almost continuously for two decades from 1963, with prices for Lake Province Grade A cotton in the 1960s averaging only 1 cent a lb higher than in the 1950s (Appendix VI, Tables 49 and 50).

[3] The APMB had been given monopoly powers over smallholder cotton purchases in 1956. Given the manner in which ADMARC and President Banda have since manipulated smallholder finances and depressed farm product prices over the last two and a half decades, his apparent concern for growers is somewhat ironic, though perhaps not unconnected to Banda's antipathy at this time towards the European officials of APMB and to his desire to improve the finances of the state he was soon to lead. Most African governments have retained the pre-independence marketing structures and now maintain publicly sanctioned monopsonies for purchase and marketing of cash crops. Bates (1983) gives an interesting description of government intervention in markets and of colonialism as a political system designed to redistribute resources from indigenous to foreign interests.

[4] This aim remained unfulfilled. Modern Malawi's smallholder agricultural base remains weak.

[5] The overseas staff establishment of the BCGA was reported at the 19th October 1962 Council meeting as being dispersed in the following way:- Nigeria 43; Uganda 2; Nyasaland 2.

and Africa Sub-Committees be disbanded.[1] But a much more major change soon occurred. A notice sent to all BCGA members on 11th January 1972 informed them that Ralli International had offered 100p per share for the whole of the issued share capital.[2] The Executive Directors advised acceptance. Because the BCGA was incorporated by Royal Charter, which was incompatible with becoming a subsidiary of a large publicly quoted trading company, the Association renounced its Charter in order to register as a limited company. In October 1972, it was reported by the Executive Committee of the Cotton Research Corporation (CRC, previously ECGC) that the BCGA, following changes in its organisation, had now cancelled its three appointments to the CRC Council, which it had filled since 1921, thus ending a long relationship (I(iv)(b): CRC/ECM, 24/10/72).

The BCGA name continued to be used by Ralli International, with activities in Africa expanded to include consultancy services. Any residual notions of philanthropy had long since disappeared but, far from being "doomed from the group's inception" (Nworah, 1971, p.329), the BCGA had filled a need, fulfilled its remit, and made a profit out of it, for over 70 years.

On the credit side, the Association had fostered cotton-growing in the Empire; had persuaded Lancashire of the worth of African cotton; had handled vast quantities of the crop; had effectively lobbied for improved transport facilities in many parts of Africa; had augmented the profits of shippers and insurers; and had seen colonial and protectorate economies, and then newly independent states, benefit from its activities. It had helped to keep Lancashire's mills rolling when they were in danger of grinding to a premature halt, although, in the end, a

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[1] The original East Africa and West Africa Committees had been amalgamated into the Africa Committee in 1944.

[2] Notification in I(ii)(c): Pamphlets and Circulars, Volume 6, 1937 on.

regular supply of high quality cotton, even of the longer staples for higher count yarns, was not enough to stall the slow collapse of the British cotton manufacturing industry. British companies, even before the Second World War, were unable to compete effectively against cheaper, labour-intensive manufactures (e.g. Chinese, Indian[1] and Japanese) or against the more technically efficient, automated US industry with its fast ring spindles and fully automatic looms. Post-war plans to reequip were delayed too long to lead to recovery.

On the debit side, the Association's history has been dogged by a lack of clarity on its status and role, choosing to be regarded as philanthropic, as commercial, or somewhere between the two, according to the circumstances faced. The BCGA regularly manipulated its image to curry favour with Lancashire, the Colonial Office, local governments and Department of Agriculture officials. The fact that the organisation made a surplus on its working account as early as 1915, that it paid a £55,905 "Income tax and Excess profits" bill in 1919, and that it regularly made substantial profits from the 1920s on, implies more than a light leavening of hard-nosed business dealing to its altruism. Despite the recurrent refrain in reports and meetings that it always paid the highest possible prices for cotton and that it had improved the lot of cotton-growers and colonial economies by assuring a fairer, more stabilised price to growers than purely commercial companies could offer, it has to be stressed that the BCGA's profits continued to accumulate, even during the 1930s, so bleak for the British cotton trade in general.

Certainly, the BCGA monopoly and price stabilisation policy in Nyasaland had a dramatic effect on production in

[1] In India, the textile and clothing industry represents 28% of factory employment, with 10 million people working in this and related industries (Indian Textile Workers Federation, Problems of the Textile Industry in India, 1979, Table 12, quoted in WDM, 1981, p.3).

the 1920s,[1] giving profits to the Government and cash to growers to the extent that tobacco growers also demanded that they be given a fixed price, decided in advance, for their crops.[2] But the high price of imported goods was already eroding the worth of cotton prices when the mid-1930 UK cotton market slump caused the BCGA immediately and drastically to drop its offered price for African cotton, leading to Government subsidy intervention in Nyasaland. Although the BCGA had bought cotton at times when other companies had refused to do so, it is clear that it expected preferential treatment in return. When this was not forthcoming, the Association sulked and threatened to pull out of the market entirely.[3] It was the likelihood of future profits, not current altruism, that usually seems to have motivated the BCGA's decisions.

Lugard's oft-quoted sentiment, "that Europe is in Africa for the mutual benefit of her own industrial classes, and of the native races in their progress to a higher plane" (1921, p.617), echoed in Ralli International's mother-company's promotional statements that Cargill "uses its skills to help reduce the cost of matching supply and demand around the world, benefitting both producers and consumers",[4] is reminiscent of the BCGA's early assertions of its "semi-philanthropic, semi-commercial" nature. There is little doubt that, just as the European was the winner in the dual mandate stakes and the consumer is the gainer in Cargill's world, the BCGA was the main beneficiary in the unequal exchange of African cotton trading. The BCGA prospered while African cotton growers remained dependent, with very few transformed into

[1] See Chapter 5 for more detail of this. The Nyasaland Government's efforts to act directly as cotton buyer had been condemned in London (I(v)(e): S1/1702/21, Secretary of State to Governor, 22/8/21) and had not prevented wildly fluctuating prices, identified by District officials as the cause of lack of interest in the crop. Government intervention in tobacco purchasing was similarly condemned, particularly by growers who blamed the government for falling prices (Chanock, 1972, p.120).

[2] Chanock, 1972, p.121.

[3] For example, in Nyasaland in 1936-37, when Portuguese East African competition disrupted cotton sales, and in Tanganyika in 1933-34, when licenses were granted to Indians, the BCGA withdrew.

[4] 'The World of Cargill', p.1.

anything approaching rural capitalists.[1]

It is all too easy to take at face value the platitudes of the BCGA, masked by the smokescreen of imperial paternalism it shared with the early colonial state and many individual District officials, as it justifies its prices and policies by asserting that market mechanisms are not understood by "the native" whose interests it always had at heart. However, in essence, the interest of the BCGA was in metropolitan accumulation at the expense of the peasant. But in order to achieve articulation of metropole and colony in the provision of Lancashire's needs, the BCGA had to work within constraints imposed by colonial governments which aimed to generate revenue for local financial self-sufficiency and which were not always clearcut, loyal agents of the metropolitan state or capital.[2] Despite this ever-present, potential conflict of interest and occasional direct clashes, the BCGA remained as a peripheral partner of the state in its domination over production and exchange throughout colonial times and beyond in East and Central Africa. Sometimes BCGA appeared dominant in the relationship; at other times, in thrall to the colonial state. But always the success of the BCGA depended on peasant choice being exercised in favour of growing cotton, a choice over which the colonial state exercised considerable control through the imposition of regulations restricting every aspect of peasant crop production from seed supply to agricultural methods to land use to processing and marketing.

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[1]This was not just the case for cotton. McCracken (1983, p.184) points out that the pricing and production policies of the Native Tobacco Board acted as a brake on the growth of a rural bourgeoisie.

[2]Berman (1990) gives a sophisticated analysis of the powers and control of the colonial state in Kenya. He depicts colonial states as autonomous agents, often formulating policy with little reference to metropolitan interests.

CHAPTER 3

THE EMPIRE COTTON GROWING CORPORATION[1]

3.1 FORMATION AND STRUCTURE OF THE CORPORATION

> "The Corporation was one of the few good things that had come out of the war."
> (Minute of supporting speech by Mr. Runciman at 1st General Meeting of ECGC Administrative Council, 8th February 1922.)

Historians have paid even less attention to the Empire Cotton Growing Corporation (ECGC or the Corporation) than they have to the BCGA, somewhat surprising given the denigration of the BCGA at the expense of the ECGC in the few existing direct comparative comments. To some extent, this may be attributed to the ECGC being less controversial than the BCGA: its remit was more clearcut, its funding more secure, its objectives more plain; and, equally importantly, its scientific and technical methods not easy for the non-agriculturalist to assess critically. Yet, all was not "sweetness and light". Within expatriate circles in East and Central Africa there was often as divisive a line between the ECGC employee and government Agriculture Department worker, especially when they shared the same agricultural station facilities as was the case in all African countries but Uganda, and between ECGC officer and "blue collar" BCGA ginnery official, as there was in colonial circles between A class and B class officials,[2] between Government employees and "commercials", between secretariat and district officers and between untested first-timers on initial posting and

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[1] See Bibliography I(iv)(a)-(h) for a comprehensive list of primary sources used for this chapter.
[2] A class = officer rank officials *versus* B class = second class or "other ranks".

faithful old hands.[1]

In the hierarchy of agricultural and scientific services, the ECGC was perceived as being in the upper echelons and certainly regarded itself in this light[2]. As a result of the slight antipathy this was bound to invoke in other agricultural workers in the colonies, what was perceived as the ECGC's blinkered monocropping approach was blamed, quite unjustifiably in many cases, as the cause of erosion, famine, insect plague or whatever other environmental ill was prevalent. Some ECGC officers, no doubt, regarded cotton as the financial answer to many social and economic ills, looking askance at experiments and investigations of other potential money earners; but the official ECGC line was that cotton should ideally be regarded as an integral part of rotations in a wider agricultural scheme, which might include other cash crops. Hutchinson, more idealistic and far-sighted than most, stressed in 1947 that it was not just a question of "sterling" cotton, it was a matter of implementing pledges to colonial peoples and setting the land in order "without mortgaging the heritage of the native peoples" (1947, p.168).

The little that has been written about the ECGC has been fairly uncontroversial - complimentary, if dry - but suggests that the Corporation's role in agricultural research and planning warrants further analysis. Brett (Ph.D., 1966), writing on political influences on British policy making in East Africa, views the ECGC as the most important development during the 1910-29 period of

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[1]The divisions between these groups and the hierarchical snobbery of British colonial society is well-illustrated in the experiences related in Tales from the Dark Continent (Allen, 1979) and, at a fictional level in Orwell's Burmese Days and many of Somerset Maugham's short stories. The antipathy between ECGC and Government workers is from personal experience and anecdote, though, as will transpire, differences of opinion and attitude between the ECGC and colonial Agriculture Departments were present in many colonies.

[2]Sir Joseph Hutchinson, in 1984 (interview in Cambridge), spoke at some length about how the Corporation employees regarded themselves as members of an elite service, quite justified, he said, because they were a carefully picked group of people, many of whom became renowned in their fields.

expansion of colonial aid programmes. Yudelman (1975, p.341), as mentioned earlier,[1] believed erroneously that the BCGA was superseded by the ECGC which then expanded the cotton industry. Masefield (1972) highlights the Corporation's close links with Colonial Agricultural Departments, claims "It had considerable influence on the Colonial Office and its policy" (pp.7-8) and praises ECGC research workers "whose devoted labours in many of the colonies contributed largely to their prosperity" (p.83). Anthony *et al* (1979) regard the ECGC as foreshadowing international research centres and describe it, with its cotton research teams assigned to experimental stations in Kenya, Malawi, Nigeria, Sudan, Swaziland, Tanzania, Uganda and Zambia as, "One of the more interesting and important programs in the British colonies" (p.252). Jeffries (1964) pays tribute to the Corporation's outstanding record in genetics and breeding, leading cotton research in many parts of Africa and the West Indies (pp.105-6). In Prentice's view, the Corporation was a semi-official, nonprofit-making specialist in research, under the patronage of the home government, interested local governments in Africa and the Lancashire cotton industry (1972, p.13).

Hose (Ph.D., 1970) and Wardle (Ph.D., 1980), both writing on West Africa, attempt slightly more analysis of the Corporation's role, though neither devotes much attention to this. Hose depicts the ECGC as "very nearly a branch of the Government" (p.280), which gained a lion's share of public and government attention and support after the war, but which was unable to curb the decline of cotton in West Africa. Wardle makes brief reference to the ECGC: while admitting to a problem in assessing its official status, he assigns to the Corporation the status of a form of official Government agency dealing with the qualitative development of cotton, though he rather flimsily takes issue with Hose's division into privately-formed BCGA and

[1] Chapter 2, p.37, footnote 2.

publicly funded ECGC (Hose, pp.279-80), seeing the BCGA as influenced by the British Government to a greater extent than Hose's description allows (Wardle, p.205).

Wardle also alleges that the delays and initial small sums given to the Corporation by the British Government, before delivery of a substantial block grant, demonstrate "how unpremeditated was the greater degree of support" (p.200). There is, perhaps, another explanation for the apparent lack of commitment or apathy of the CO and British Government: Lord Milner and L.S. Amery,[1] at the CO at the turn of the century, were passionately keen on a bolder, more constructive policy of colonial agricultural development, capital investment and improved communications. But Amery, in the second volume of his autobiography, draws attention to two factors which blocked their plans - "the craze for economy resulting from deflation" (Amery, 1953, p.210) and, referring to a guaranteed loan for transport requirements when he was back at the CO as Secretary of State, the remembrance that, "These were the days when the Treasury still was a surly watchdog, grudgingly criticising and holding up all expenditure even when it had already received Cabinet sanction" (p.358). Thus, it may well have been that the CO and British Government were indeed fully behind the notion of the ECGC but found cutting a swathe through financial bureaucracy daunting and time-consuming.

As described in the penultimate section of Chapter 2, the ECGC arose from the deliberations of the Board of Trade appointed Empire Cotton Growing Committee, sitting during 1917-19. The Committee was a product of the lobbying of the BCGA and Lancashire cotton industry, given particular impetus by the potential world demand for cotton exceeding supply, by the effects of war on agricultural priorities

[1]Milner resigned, disheartened, in January 1921; Amery transferred to be Admiralty Financial Secretary six weeks later. W.S. Churchill - "the friend of cotton" (Hose, Ph.D., 1970, p.277; Hogendorn, 1975, p.316) - took over as Secretary of State from Milner.

and the economy, by pest and climatic problems, by an Egyptian crop restricted by food requirements, by low stocks and high prices, by the fine cotton supply depleted by boll weevil in Sea Island cotton (late-maturing and so particularly vulnerable to this insect) and by competition from sugar growing in the West Indies (I(iv)(d): Raw Materials Board memo, 1918).[1] Other factors in bringing the recommendations of the Committee to fruition were the post-war Empire self-sufficiency movement, the Imperial Congress of Chambers of Commerce in Toronto urging that Imperial and Colonial Governments should "advance and promote the growing of cotton within the Empire " (Brett, Ph.D., 1966, p.70) and individual Chambers of Commerce, such as Manchester's (Monthly Record, January and February 1920), calling for action.

On 11th October 1921, the Charter of the ECGC was sealed, granting the Corporation its £978,715 from public funds and affirming the 6d per 500 lb bale levy on cotton invoices, estimated to yield about £100,000 a year. The ECGC's purpose was to extend and promote cotton cultivation "in Our Dominions Colonies Protectorates Protected States and in any country or place over which we have or may have any mandate or control" (I(iv)(c): CRC/D1 and CRC/D2). By the first clause elaborating on its purpose, the Charter empowered the Corporation to educate by establishment and maintenance of any sort of institution which would promote knowledge of the nature, habits, growth, cultivation, production, treatment, use or marketing of cotton. Amongst the other twenty five clauses, the Corporation was authorised to solicit and receive financial contributions; to hold lands and buildings overseas; to conduct experiments and trials;

[1]See Appendix VI, Section I (xiv) for a note on boll weevil. Its persistence is neatly encapsulated in an American South ballad, recorded by Levine (1977, p.240):

"I found a little boll weevil,
An' put 'im on de ice.
Thought dat dat 'ud kill him,
But he say, 'Oh ain't dat nice
Dis is mah home, dis is mah home !'"

to establish plantations and farms; to carry out surveys, collect statistics and organise expeditions; to disseminate information by means of papers, reports and journals; to carry out all kinds of agricultural operations in conjunction with cotton growing; and to make loans or subsidies to promote any of its objects. It was also empowered by clause (g) to buy and sell or market cotton and by clause (i) to deal in machinery, plant and gins - both ideally the domain of the BCGA, to which the Charter referred in clause (y), allowing the ECGC to carry out any of the matters mentioned "either alone or in conjunction with The British Cotton Growing Association" (I(iv)(c): CRC/D2, p.6). It was stipulated that all profits, capital and income should be applied solely towards promoting the objects and purposes of the Corporation and that it should "remain British in character and domicile" (p.7). Government of the ECGC was to be through an Administrative Council, an Executive Committee and a Board of Trustees.

The first Board of Trustees, appointed to control the investment and funds of the Corporation, consisted of six Members of Parliament and Government officials and six representatives of trade associations - Federation of Master Cotton Spinners' Associations (FMCSA), Cotton Spinners and Manufacturers Association (CSMA), Liverpool Cotton Association (LCA), Manchester Cotton Association (MCA) and United Textile Factory Workers' Association (UTFWA) - headed by the President of the Board of Trade (I(iv)(c): CRC/D2, pp.7-8). The most important financial requirement of the Corporation was that the capital and income was not to be used as dividend to members and there was no provision for this to happen at any time in the future: there would be no debilitating clash between altruism and profits, as had dogged the BCGA.

The first Administrative Council, in which was vested the management and control of the affairs of the Corporation

and which was to have between forty and one hundred members, consisted of seven representatives of Government offices - Colonial Office, Foreign Office, Board of Trade, India Office, Australia, India and South Africa; thirty two trade representatives - the largest group being ten from the Federation of Master Cotton Spinners' Associations; five educational or scientific establishment representatives; fifteen from Chambers of Commerce - mostly Lancashire-based, but from as far afield as Bombay and Glasgow; and three BCGA representatives - W.H. Himbury, J.A. Hutton, B. Crapper (CRC/D2, pp.8-9). Given the contribution from the industry through the cotton levy, the large representation from the trade was justified; but, given the close relationship with Departments of Agriculture and officials from colonies and protectorates, the scarcity of Government representatives on the Council is somewhat surprising.

A preliminary meeting of Administrative Council nominees on 21st February 1921 was followed by the first full meeting on 18th November 1921 when Lord Derby was elected President of the Council. He was still President of the BCGA and joked at the First General Meeting in February 1922 that despite the wisdom of the proverb, "better to be off with the old love before you are on with the new", he intended "without any tendency towards Mormonism to try to live happily with both..." (I(iv)(b): ECGC/AR 1922, p.5), which indeed he accomplished until 1944 when ill-health forced his resignation from both organisations.[1] As BCGA President since 1910, Derby was in a unique position to correct Stanley Baldwin's wild erroneous euology with which, as President of the Board of Trade, he had opened the Corporation's meeting: "...it is the first great practical attempt of a great industry to cultivate our own empire and to bring into production great tracts in the world that have not hitherto been

[1]Derby died in February 1948. His position as President was taken over by his grandson, also the Earl of Derby.

utilised" (p.3). The BCGA had been a much earlier effort of employers and employees to encourage the supply of cheap raw material by bringing new areas into cultivation, as Derby was quick to point out.

John McConnel suggested in a confidential memorandum, 'The E.C.G.C. and the B.C.G.A.' of 30th June 1920 (I(iv)(d)), that it might be preferable to have the BCGA as the administrative body of the new Corporation, instead of forming a new committee, on the grounds that it would be less confusing, would cause less jealousy and friction, and would involve the same industry representatives anyway. However, the BCGA's Executive Committee decided it was impracticable to amalgamate the two and that the best interests of cotton-growing would be served by following the Board of Trade's recommendation that BCGA involvement be limited to commercial matters.

The Earl of Derby performed a useful role as head of both organisations, bridging any gap between them, even-handed in his praise: for example, at the ECGC General Meeting on 21st May 1925, Derby referred to a House of Commons question on how far the increase in Empire-grown cotton was attributable to the BCGA, to which his reply was that scarcity and high prices had led to the need for new sources but that Empire production had risen quickly because of the spadework of both organisations (I(iv)(b): ECGC/GM, 21/5/25). The relationship between the two organisations remained amicable with the ECGC often commending the BCGA for its invaluable work, particularly in providing ginneries and buying agreements when world prices were low and the future unsure (e.g. I(iv)(a): ECGC/ACM, 30/7/30, on South Africa, Rhodesias and Nyasaland). In 1954, the ECGC's Chairman wrote to Sir William Himbury to congratulate the BCGA on its Golden Jubilee: "The pioneer work which the Association did in the early years, in spite of almost insuperable difficulties, has always been a source of admiration and

encouragement to the Corporation and we shall ever be grateful to your organisation and to yourself for the unstinted help we have received from you in a partnership devised to widen and improve Lancashire's supply of raw cotton" (I(iv)(f): CRC/F2/24, 24/9/54). The BCGA and ECGC Councils had many members in common; in 1964, Geoffrey Nye, Chairman of the Corporation, had his position as a BCGA Council member regularised by the ECGC purchasing a nominal one hundred BCGA shares (I(iv)(f): CRC/F2/24, BCGA to D.F. Ruston, 4/3/64); and until 1972, the BCGA had three places on the ECGC Administrative Council.

Direct, detailed control of the Corporation rested with an Executive Committee appointed annually from the main Council, including the President of the Board of Trade and representatives of the Principal Secretaries of State for Foreign Affairs, the Colonies and India. The first Executive Committee met on 27th March 1922 under the chairmanship of John McConnel, replaced on his death later that year by Richard Jackson who served till his own death in 1943. Other members at the first meeting were Messrs. D.T. Chadwick (Government of India), A. Foster (CSMA), W.H. Himbury (BCGA), W. Howarth and R.H. Jackson (FMCSA), J. Thorpe (MCA), A.C. Nickson, C.M. Wolstenholme and Lt.-Col. J.J. Shute (LCA). In the early years, the Executive met at approximately monthly intervals, usually in the BCGA offices in Manchester.

The Administrative Council was permitted by Charter to appoint other Committees or Sub-Committees to aid it in its work. Amongst the subsidiary committees formed over the years were the geographically-defined Egypt and Sudan, Indian, Southern Africa, East Africa and West Africa; Commerce, which laid down that the "policy of the Corporation must be business one, help may be given by provision of experts, but Corporation could not as a general rule subsidise an industry or guarantee prices which were in advance of the market value of cotton"

(Minute 5, 11/5/22); Research and Training, which considered studentships and applications from colleges for grants; Intelligence and Library, which handled information services such as publication of the Empire Cotton Growing Review and pamphlets; British Empire Exhibition; Levy, to consider the steps to be taken to ensure the collection of the levy and that there was no "leakage", with ten members from the FMCSA, five from CSMA, three from LCA and three from MCA; Central Research Institute, which chose Trinidad as the site for the first Cotton Research Institute from a short leet which included Ceylon, Cyprus, Egypt, Sudan, West Indies and Malta; Mechanical Transport; Finance; Studentship; Joint Standing Committee, in charge of spinning tests and the Shirley Institute; and the important Scientific Advisory Committee (SAC). Perhaps this last was the most vital. The SAC took the place of the Research Station Committee on the reorganisation following the death in 1937 of Sir James Currie, the ECGC's first Director. It was the emphasis on agricultural and scientific aspects of cotton-growing which held the Corporation apart from the BCGA at the beginning and continued to be important. The calls upon the time and expertise of the SAC members were recognised in 1942 when honoraria were increased from £100 to £200 a year (I(iv)(a): SACM, 1/4/42).

The Council also had the right to appoint staff for home and overseas posts. The first permanent Headquarters establishment, in 1921, consisted of Sir James Currie as Director, L.G. Killby as Secretary and J.C. May as Assistant Secretary. Their devotion and skill did much to create a good working atmosphere and the status the Corporation came to enjoy as an employer. Killby became second Director in 1944,[1] followed by May in 1947, with M.A. Choyce as the last post-holder from 1972. Although the Corporation had difficulty in finding suitable staff in the early years, its postgraduate studentship scheme

[1]The post was abolished between 1937 (death of Currie) and 1944.

soon provided the right calibre of men (and they were, of course, all men), helped by James Currie's flair for picking staff.[1] During the course of its life, the Corporation employed about one hundred and fifty members of staff, many of whom spent much of their working life with it. Terms of service matched, and usually bettered, those offered by the Colonial Agricultural Service and the later diverse Ministry of Overseas Development and Technical Assistance contracts. Sir Joseph Hutchinson recalled that the staff were well looked after, made to feel part of a worthwhile Corporation. The 1961 ECGC publicity brochure laid stress on the fact that overseas staff on leave were very welcome to visit the London HQ and research institutes; and, from 1st January 1972, staff were given annual home leave to encourage a positive UK-based team attitude in its employees. This often had a detrimental effect on the relationship between ECGC officer and overseas country: there was less of the bonding and loyalty often apparent in other expatriates, who spent longer periods without home leave.

The structure of the Corporation altered little over the years, surviving a slight change of direction in 1966 when the ECGC became the Cotton Research Corporation (CRC). In 1958, the Bombay Millowners' Association had suggested that the title be changed to Commonwealth Cotton Growing Corporation, but the Executive Committee decided it would be a pity to give up voluntarily a good name (I(iv)(a): ECGC/ECM No. 2392). However, on 1st March 1966, the Executive considered a draft resolution to allow the ECGC to work in any country and to change its title to Cotton Research Corporation, both of which were agreed, the latter on the grounds that the omission of "Growing" would mean less confusion with the BCGA (I(iv)(a): ECGC/ECM, 1/3/66). The new name was adopted from 5th July 1966.

[1]Sir Joseph Hutchinson remembered Sir James Currie as an extraordinarily good judge of character and ability. Of the four, including Hutchinson, who were sent to Trinidad initially, all became Fellows of the Royal Society, which confirmed Hutchinson's opinion of Currie's wisdom (Interview with Hutchinson, 1984).

3.2 THE CORPORATION'S FINANCES: INCOME AND EXPENDITURE

> "There is probably no expenditure open to the British Government which will do so much to weld into an economic whole the scattered members of the Empire."
> (I(iv)(d): John W. McConnel, 'The Report of the Empire Cotton Growing Committee', 25/2/1920.)

The ECGC had a more secure financial position than the BCGA. Instead of continual lobbying for funds from the cotton industry and the Government for non-commercial aspects of its work, the ECGC received a large block grant of nearly a million pounds and a respectable sum each year from the cotton levy, though both were slow in materialising.[1]

Even before the sealing of the ECGC Charter, money was being spent by the infant Empire Cotton Growing organisation. The statement of accounts for 30/11/20 to 31/12/21 details an expenditure of £15,620 against revenue of £10,000 from a Board of Trade grant and £308 interest.[2] The largest items of expenditure were £4,757 to "Travelling Commissions, Salaries and Travelling Expenses", £3,550 to "Office Staff, Salaries, Allowances and Gratuities" and £2,115 to "Motor Ploughs to Government of Uganda". Promotion of cotton-growing was not going to be cheap.

The Cotton Levy was not compulsory at first, but in the first four months of levy collection, the Liverpool and Manchester Cotton Associations collected over £15,000 (I(iv)(b): ECGC/CR, 18/11/21). However, with the backing of the FMCSA and CSMA, there was general agreement that it would be fairer, more practicable and provide a more stable fund, if the levy of 6d per 500 lb bale of cotton taken by spinners was obligatory. Surprisingly perhaps, mill workers were as keen as mill owners to have a compulsory levy, as reported by Mr. Judson, representative

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[1] See Chapter 2, p.88 and pp.90-92, for further financial details.
[2] In I(iv)(e): CRC/P1/T4.

of 500,000 operatives, at the First General Meeting (I(iv)(b): ECGC/CR, 18/2/22). The first attempt to have this made law was a Private Members' Bill put forward by Colonel G.B. Hurst of Manchester Moss Side. It was as well that income from investments was then meeting current expenditure and that the voluntary levy was providing 67% of what would be expected if it was universal, because the Bill failed to get through (I(iv)(b): ECGC/ER, 21/9/22).

In December 1922, the Executive Committee report to the Administrative Council left little doubt about the effect of the Cotton Industries Bill, then being reintroduced to Parliament: "any comprehensive scheme for the increase of the supplies of raw cotton for Lancashire mills must await the establishment of the Corporation on a firm financial basis by the passage of the necessary legislation" (I(iv)(b): ECGC/ER, 14/12/22, p.2). Before the Bill's second reading on 13th April 1923, Members of Parliament received a letter from the ECGC beseeching their support (I(iv)(g): CP1/407). They were reminded that cotton yarn and fabrics formed 25% by value of Britain's total exports but, dependent on the United States for the greater part of the raw material, was subject to failure and fluctuation. It had been found for legal reasons that Liverpool and Manchester Cotton Associations could not adopt by-laws instructing members to add levy contributions to invoices, so it was essential to regularise the situation (I(iv)(b): ECGC/ER, 14/12/22). M.P.s were told that, not only were tens of thousands of pounds of levy at stake, so was the £978,815 Government grant which was conditional upon the cotton industry contribution of a bale levy on all cotton invoiced to the owners of at least 90% of UK spindles.

The Committee stage of the Bill was passed on 16th May 1923 (I(iv)(b): ECGC/ER, 21/7/23) and on 18th July 1923 the Cotton Industry Act, to provide for the compulsory contribution by British cotton spinners to the funds of

the ECGC, became law, much to the relief of the ECGC Council which could now frame schemes for the five years the Act would be in force (I(iv)(b): ECGC/CR, 10/10/23). Regret at the hindrance caused by delay in passing the Act was expressed by both the BCGA and ECGC (I(ii)(a): BCGA/AR19 for 1923 and I(iv)(b): ECGC/GM, 10/10/23); but the aim now was to ensure that the Act worked fairly, with collection of the statutory levy by Liverpool and Manchester Cotton Associations and thus with minimum Government interference. Repayment of voluntary levies was offered in the hope that most firms would donate these: by 10th October 1923, firms controlling over a third of the spindles had sought repayment of £18,203 but the remainder had said they did not intend claiming or had made no attempt to do so.[1]

At the end of 1923, it was reported that 98% of spinners had opted to pay the levy through brokers, rather than direct, and a Sub-Committee was appointed by the ECGC to keep a check on the workings of the levy. In the first five years of obligatory levy, it produced a sizeable proportion of total income and less thereafter. In 1926-27, for example, £73,992 of the total £120,956 income, to meet estimated expenditure of £71,955, was from the levy.[2]

In 1928, an investigation by FMCSA and CSMA concluded that a reduction in the levy from 6d to 3d per 500lb bale would ease the burden on spinners while not hampering the ECGC (I(iv)(b): ECGC/CR, 16/5/28). This was agreed overwhelmingly by its members and enacted in the Cotton Industries Act 1928.[3] Gerald Hurst, moving the Second Reading of this Bill, described it as: "What the 17th

[1]The precise figures are:- firms controlling 1,947,922 spindles sought repayment; owners of 1,362,562 said they had not paid or did not mention that they wished repayment; and owners of 2,150,668 spindles said they would not claim any repayment (I(iv)(b): ECGC/CR, 10/10/23).

[2]Appendix VI, Table 30 shows income and expenditure 1923-75. Estimated expenditure tended to be considerably less than actual expenditure.

[3]Council reports give the levy income as £54,402 out of a total income of £114,781 in 1928-29; and £34,880 out of £95,417 in 1929-30.

century would have called a self-denying ordinance, what the 19th century would have called a monument of self-help, and what today we call a sound business proposition".[1] Two years later even this reduced amount was excessive in relation to prospective expenditure and, on 18th July 1930, the levy was dropped to 1d per 500lbs. The ECGC Annual Report for 1928-29 declared that no curtailment of activities was visualised, the healthier financial position being due to reserves accumulated when the levy was 6d a bale but when there was a severe lack of qualified staff to carry out the Corporation's work. This report also mentioned that Colonial Governments were now paying a larger share of the cost of developing cotton-growing, while CO Agricultural Scholarships for recruits to the Colonial Agricultural Service had allowed the Corporation to reduce its own expenditure in that direction.

The levy remained at 1d a bale in the Cotton Industry Acts of 1933 and 1938. The Cotton Industry Act 1940 created a Cotton Board which was directed to pay the Corporation a sum similar to that which would have been collected if previous arrangements had remained in force. Until its repeal in 1948, the Cotton Industry Act allowed the cotton Board to collect a levy of two shillings and one penny, of which 1d was passed on to the ECGC. The cotton industry continued to support the ECGC until 1957 with annual grants of £18,000 a year for 1948-51 and an average £32,000 a year from 1952 to 1957, representing the "infinitesmal price" of $3^1/_2$d a bale, estimated the ECGC in 1952 (I(iv)(h): Misc.1).[2] Although overseas governments began to contribute to the ECGC Cotton Research Station soon after the end of the Second World War (I(iv)(h): Misc.2),[3] there was disappointment at the termination of the Cotton Board grant - not because of the sum involved,

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[1] House of Commons Debates, Vol. 216, 27/4/28.

[2] See Appendix VI, Table 30.

[3] Appendix VI, Table 31 shows contributions by overseas governments.

which was less than 5% of the total income in 1956-57,[1] but because it was felt that this would have an adverse effect on its credibility and relations with overseas territories (I(iv)(b): ECGC/ECM, Min.2444).

Finance from overseas governments played an increasingly important role in the Corporation's funding and activities from the ending of the Cotton Board grant.[2] By 1969, member countries were meeting about 42.5% of the cost of the Corporation's work; the Corporation was contributing 55% from investment income (between £70,000 and £100,000 during the 1961-74 period) and capital withdrawals;[3] and the Ministry of Overseas Development 2.5% (I(iv)(g): CP2/85 and I(iv)(h): Misc.3).[4] Member countries contributed in two ways - by block grant, according to size of cotton crop, which entitled the country to ECGC advice and publications, visits by experts and a quota of fibre and spinning tests at the Shirley Institute; and by contribution to salary, superannuation and passage costs of Corporation staff whom they had requested to be posted in their country.[5]

A major decision on the Corporation's future, taken at the Executive meeting on 22nd October 1968, was that the Corporation's flexibility and freedom of action could best be maintained by increasing from 20% to 55% the ECGC contribution to local staff costs. By deciding thus, the Corporation was accepting that it was no longer planning for indefinite survival: at that increased rate of funding, it was likely to manage to cope for another fifteen years only, leaving £0.5 million for pensions and compensation, But, it was hoped that by making its technical aid really effective, the Corporation might

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[1] See Appendix VI, Table 30.

[2] See Appendix VI, Table 31 for overseas grants.

[3] The first capital withdrawal was of £47,200 in 1965. Appendix VI, Table 30 lists further withdrawals.

[4] The first Ministry of Overseas Development grant, of £6,500, was made in 1967, although the matter had been discussed by the Administrative Council on 24th November 1965.

[5] From 1st January 1967, member countries contributed 80% of staff costs.

attract support from the Ministry of Overseas Development or large international aid organisations. This was not to transpire, but, in the meantime, the Corporation believed that, with its original function of providing alternative sources of raw cotton for British industry long since fulfilled, "its function was now to help the overseas countries to the best of its ability" (I(iv)(a): CRC/ECM, 22/10/68). From January 1972, the Corporation bore the full cost of staff supplied for work on cotton-growing problems with annual membership fees covering only about 10% of the total cost;[1] and the Corporation had handed over Namulonge Research Station as an outright gift to the Ugandan Government (I(iv)(a): CRC/ACM, 26/11/69).

The ECGC received a jolt from the Ministry of Overseas Development in a letter dated 15th August 1966, by which the Director was informed that, although it had been decided it would not be in the public interest to demand repayment of the £978,715 grant made to it in 1921, the matter would be reconsidered if the Corporation ever operated at its own expense in a country never part of H.M.'s dominions, colonies or protectorates, or if the market value of its reserves sank below the sum granted (I(iv)(g): CP2/5). Thus, the Corporation was reminded of the terms upon which repayment could be demanded by the Crown, although an amendment to the Charter in 1966 allowed the ECGC to operate "in any country" (I(iv)(c): CRC/D5). By overdrawing on its Revenue and Expenditure Account and withdrawing large sums from its accumulated capital, the ECGC continued outside the mainstream of British aid in a position "to some extent anomalous and dependent upon local goodwill" (I(iv)(a): ACM, 9/6/72).

On 29th November 1972, the Administrative Council discussed the situation regarding grants from overseas governments: seven out of eight had signed new contracts, with the eighth - Tanzania - honouring, but not so far

[1] January 1972 insert to I(iv)(h): Misc.3.

signing (I(iv)(a): CRC/ACM). The deteriorating situation in Uganda, with British Technical Assistance officers and Namulonge Research Station particularly disliked by General Idi Amin, was viewed with foreboding, as was the fact that the relatively small cotton crops of land-locked Swaziland, Malawi and Zambia were of importance only to their own economies.

The ECGC Chairman informed the Overseas Development Ministry (ODM) in April 1974 that falls in the stock market meant that CRC funds would not suffice to finance its current level of activity beyond 1977 (I(iv)(a): CRC/ACM, 26/4/74). Despite earlier hints that it would help, the Ministry could offer no solace: the CRC was on its own. So, finally, on 18th December 1974, the Administrative Council had to accept reluctantly the Establishment Committee's recommendation that, through lack of funds, the CRC be wound up and dissolved. On 12th November 1975, it was reported that pension liabilities had been taken over by ODM on payment of £305,000 (I(iv)(a): CRC/ACM, 12/11/75). By early 1976, two thirds of CRC staff had accepted new appointments with other organisations or governments (I(iv)(b): CRC/AR 1975).

The Corporation had experienced no difficulty in spending its funds: in the 31 years up to 1952, it utilised £2.5 million, of which £0.75 million had been contributed by the cotton industry (I(iv)(h): Misc.1). Of the £2.5 million, the Sudan had received £150,000; East Africa, excluding Namulonge Cotton Research Station, £189,000; Central Africa, £250,000; Nigeria £73,000; Australia £25,000; long range research work in Trinidad, £220,000; research institutions in Britain, £106,000; and £63,000

had been spent on spinning tests.[1]

In the years prior to 1945, annual expenditure was usually between £70,000 and £90,000, exceeding £100,000 only in 1939-40. Post 1945, annual expenditure rose to a peak of £343,689 in 1975, the last year of full accounts.[2] From 1961, when the financial year was changed to coincide with the calendar year, expenditure exceeded income each year; and, from 1965, sizeable amounts of capital were withdrawn.

Typical years' expenditure included "Assistance to cotton-growing countries", later itemised as "Overseas specialist staff";[3] a sizeable amount on the head office; spinning tests;[4] studentships; journal; and grants to universities and research institutes. All of these were areas of activity to which the Corporation devoted considerable attention, time and energy, as well as funds.

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[1]The ECGC had close links with the Shirley Institute, set up in 1929, particularly aided by its capacity to test small samples of cotton for spinning quality and fibre characteristics - a vital asset for breeders. Sir Joseph Hutchinson related how, when he was in India, he had tried to have spinning tests carried out by "Mr. Gandhi's disciples" but had found that their results did not correspond to machine spinning results, because of the difference in the manner of drawing (Interview, 6/3/84).

[2]See Appendix VI, Table 30, 'ECGC/CRC Income and Expenditure'.

[3]See Appendix VI, Table 28, for total assistance to cotton-growing countries by year, assistance to Tanganyika and Nyasaland in particular, and the country receiving the greatest assistance each year.

[4]In 1950-51, for example, 126 samples, of which 79 were from Sudan, underwent spinning tests (I(iv)(b): ECGC/CR 10/7/51).

3.3 AREAS OF ECGC/CRC ACTIVITY

> "The future of Empire cotton growing depends on the intelligence and industry of the native cultivator, guided by well-informed advice from a highly qualified agricultural service."
> (Killby, Empire Cotton Growing Review, 1937, p.3)[1]

In order to fulfill its aim of extending and promoting cotton cultivation in the interests of the British Empire, the ECGC quickly realised, as had the BCGA before it, that this did not mean engaging directly in setting up large cotton plantations. Despite the "Growing" in the titles, neither organisation recognised large-scale cultivation as its function. J.A. Hutton of the BCGA made this point emphatically to Sir E. Percy Girouard, Governor of British East Africa Protectorate, at a meeting in 1911: "It sounds like a paradox, but though we are the Cotton-Growing Association, our main policy has been to avoid growing cotton" (I(i)(a): CGA 1/15/14, Minutes of meeting on 12/1/11, p.15). Similarly, the ECGC did not want to lock up its capital in commercial cotton-growing ventures. Although it bought financial stakes in the Kassala Cotton Company (Sudan), Premier Cotton Estates of South Africa Ltd., Cotton Plantations Ltd. (I(iv)(b):ER, 3/3/25),[2] and Spelonken Cotton Syndicate (I(iv)(g): CP1/820, 24/5/29), the Corporation's main early efforts were directed towards lobbying for improved transport facilities, education, publications, scientific and agricultural research, grants and experts to cotton-growing areas, always bearing in mind that: "...it is to native labour that we must look in the main in many parts of our Empire for the cultivation of cotton...the best cotton" (Earl of Derby in I(iv)(b): ECGC/GM 10/10/23).

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[1] L.G. Killby, Secretary of the ECGC, stated that this was the Corporation's view, except under very special circumstances such as in Sudan where the ECGC supported the Sudan Plantations Syndicate.

[2] The Executive's decision to recommend buying shares in this company, registered to develop two properties in Portuguese East Africa and Swaziland with an option on a third in Nyasaland, whose flotation had been very poorly subscribed, was based on the view that, although native cultivation was believed to lead to maximum production in most areas, in others the plantation system would have to be adopted.

The Corporation appreciated that it did not have control over all the incentives to cash cropping, of which the ability to pay taxes was an important one (Killby, 1937, p.22); but it aimed to provide the backing and knowledge necessary to create an atmosphere conducive to cotton production, directed particularly towards Africans growing cotton on their own holdings and, to a much lesser extent, to European farmers including cotton in their rotations.[1]

3.3.1 TRANSPORT

Taking a lead from the BCGA, the ECGC realised that better transport facilities were an important factor in opening up new areas in Africa for cotton production. The Corporation tackled this on two levels: by lobbying the British Government for railways, bridges, roads and water transport; and by examining alternatives to wasteful head porterage and the wide variety of other means of moving African cotton.[2]

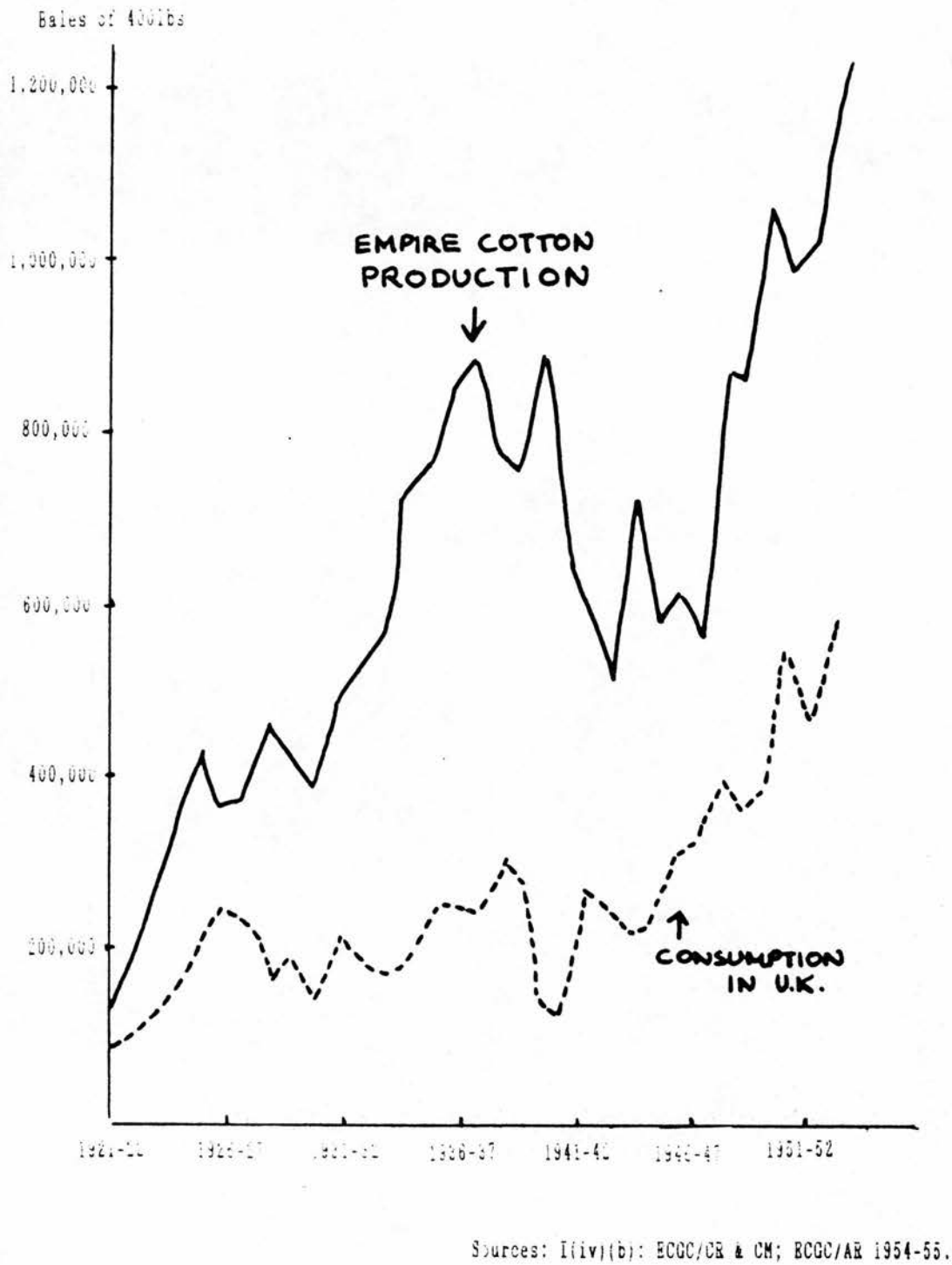
French (Empire Cotton Growing Review, 1924) had stressed that railways, although relatively expensive because of long distances and sparse populations in much of Africa, should be regarded as more than just an efficient means of conveying cotton: "Their effect is moral as well as material, they stand in Africa today for what the ancient high-roads stood for in the days of the Roman Empire" (pp.231-32). As a symbol of modernity, power and freedom - or as a suitable transporter of raw materials - railways were extended and built in the 1920s, in some measure as a result of ECGC efforts.

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[1] Figure 2 overleaf indicates the successful rise in Empire cotton production, as recorded by the ECGC, 1921-52. See also Appendix VI, Table 33, which shows a huge rise in Empire production from 117,000 bales in 1918-21 to 923,000 in 1948-51.

[2] French (Empire Cotton Growing Review, 1924) identified these means as oxwagon in South Africa, porters pushing carts in East Africa, camels in Sudan and camels, donkeys, ponies and oxen in Northern Nigeria.

EMPIRE COTTON PRODUCTION AND UK COTTON CONSUMPTION, 1921-52, RECORDED BY EMPIRE COTTON GROWING CORPORATION



Sources: I(iv)(b): ECGC/CR & CM; ECGC/AR 1954-55.

Figure 2

In an outline draft memorandum on its activities, the Corporation emphasised its influential role in pressing for African railway expansion - for the Kassala railway and extension in Sudan; for the Kenya-Uganda railway extension; for a Tabora-Mwanza line and reconditioning of the Lindi light railway in Tanganyika; and in support of the East African Commission transport recommendations (I(iv)(g): CP1/697, 18/5/27).

Two of the ECGC's most successful lobbying efforts were with regard to East Africa, where transport requirements were urgent and large-scale. In 1924, the Executive expressed satisfaction that its representations had played a major part in persuading Parliament to vote £3,500,000 as a loan to Kenya, free of interest for five years, for the extension of the Uganda railway to Jinja on Lake Victoria, a vital link to the cotton-growing area of Uganda (I(iv)(a): ECGC/ECM, 5/2/24).[1] And during 1925, the ECGC and BCGA joint deputation for increased transport facilities in Africa had been met sympathetically by L.S. Amery, himself a fervent believer in the worth of expenditure on communications as a key to development (I(iv)(a): ECGC/ECM, 8/9/25).[2] Amery promised to do all in his power to urge the Government to give effect to the East Africa Commission transport recommendations; and early in 1926 Cabinet approval was secured for a guaranteed £10,000,000 loan for East African transport to facilitate the building of railways, feeder roads, harbour improvements and bridges (Amery, 1953, p.357).

In line with its philosophy that cheaper transport was of paramount importance in enlarging areas of supply, the ECGC was also concerned about means of extending transport into areas which could not sustain the overhead costs of a railway system and in bridging the gap between producers'

[1] Brett (Ph.D., 1966) suggests that the need to relieve unemployment was also of importance in influencing the 1923 Conservative administration to sanction the loan.

[2] The deputation consisted of Jackson, Addison and Currie for the BCGC; Himbury and Thomas for the BCGA; and representatives of FMCSA, CSMA, UTFWA, LCA and MCA.

fields and existing or prospective railways. A Mechanical Transport Sub-Committee, set up in 1924, investigated two types of "half-track" lorries in Nigeria in 1926, using "suction gas" from anthracite or charcoal as alternative propellants (I(iv)(g): CP1/759), as part of its general remit to assess the relative efficiency of currently available motor transport (I(iv)(b): ECGC/ER, 17/3/24). In 1927, the Mechanical Transport Sub-Committee memo recommended tractors of 50 tons carrying capacity as the main feeder for railways. But unmetalled roads and painfully slow, labour-intensive headloads remained the norm for some years to come in most parts of Africa.

3.3.2 STUDENTSHIPS AND GRANTS

It was clear from early on that another of the ECGC's objectives must be the provision of highly-trained staff for scientific work and agricultural administration (I(iv)(b): ECGC/CR 1921). The situation had not changed much from about two decades earlier when the BCGA bemoaned the lack of well-trained men of character to undertake its activities.

Amongst early ECGC representatives in Africa were H.C. Sampson, previously of Madras Department of Agriculture, employed in Nyasaland in 1922 (I(iv)(a): ECGC/ECM, 12/9/22) and G.S. Cameron, formerly of Iraq Department of Agriculture, working in Southern Rhodesia from 1924 (I(iv)(a): ECGC/ECM, 23/10/24). But, although a nucleus of senior officers was recruited, like Sampson and Cameron, from the Indian, Egyptian and Iraq services, there were not enough people with relevant experience and practical knowledge to fill the desperate need for qualified, soundly trained experts. The ECGC thus decided to extend the Empire Cotton Growing Committee's scheme of offering studentships to selected graduates in

order to improve their capacity to work as tropical agriculturalists or scientists.

An ECGC confidential memorandum for the Lovat Committee interim First Report in 1925, informed Lovat that the Corporation had awarded twenty one one-year postgraduate studentships during 1921-23 (Masefield, 1972, p.40). Sixteen men had studied in Britain, five in the newly opened Imperial College of Tropical Agriculture, Trinidad, with the majority then advised to apply for Colonial Office agriculture posts, hopefully in a cotton-growing Colony or Protectorate. Lovat, impressed by the worth of such a scheme, went on to recommend that the Colonial Office institute a similar scheme for twenty postgraduates, each to spend a year in UK and a year in Trinidad, which had the effect of reducing the pressure on the ECGC to provide for this.

The ECGC scheme was suspended in 1931-32 because of the difficult job market (I(iv)(b): ECGC/AR 1931-32), but, between 1921 and 1952, over a hundred postgraduates were trained under the studentship scheme, at a cost of £86,000 including grants to the Imperial College of Tropical Agriculture (I(iv)(h): ECGC/Misc.1). Money well spent, argued the Corporation, with ample proof of its capacity to train good men in the posts now held by their trainees (I(iv)(h): ECGC/Misc.1). For example, James Currie in 1936 pointed to Uganda as the territory which had gained most from the Studentship scheme, with one third of its Senior Agricultural staff having been holders (I(iv)(g): CP1/1333). The Executive noted with pride in 1939 that G.F. Clay, newly appointed Director of Agriculture in Uganda, was a former Studentship holder, as was Killick, Assistant Director of Agriculture in Tanganyika, and Lewin, Director of Agriculture, Northern Rhodesia (I(iv)(a): ECGC/ECM 4/4/39).

Until 1952, the scheme was solely for the benefit of white

graduates of British Universities; but, in that year, the Executive Committee, at the urging of the Chairman, agreed to make their first award to an African. Thus, Mr. Bisase, recommended by J.B. Hutchinson, was financed to spend several months in England, mainly to attend courses on tractors and implements (I(iv)(a): ECGC/ECM, 7/10/52).

Closely allied to the need to provide specialists to work abroad was an awareness of the necessity to provide those key workers with access to the latest knowledge and adequate facilities at home. The Corporation, therefore, spent generously on long-range basic research work in Trinidad and on grants to British universities to encourage the continuation and initiation of relevant research of benefit to ECGC scientific advisers in the field. By 1952, it was estimated that the Corporation had spent £220,000 in support of the Trinidad research and £106,000 on research institutions in Britain (I(iv)(h): Misc.1).

Until 30th September 1957, grants were made each year for research work on plant genetics and cultivation techniques to the University of Cambridge School of Agriculture, for plant physiology and pathology to the Imperial College of Science and Technology, for mycology and entomology to the University of Manchester and for soil physics and disease to Rothamsted Experimental Station (I(iv)(b): ECGC/ER & CR, 1923-57). A major early aim was to bring scientific advisers in cotton-growing countries into direct touch with work being done at Universities (I(iv)(b): ECGC/ER, 21/7/23). As a result, ECGC scientific workers in the field had an enviable link with top research workers in relevant disciplines.

3.3.3 PUBLICATIONS

The importance of the dissemination of information was not forgotten. The Empire Cotton Growing Review (ECGR) was published quarterly from January 1924 to October 1975. The Executive Committee in 1922 described the objectives of the prospective journal as twofold: to keep spinners and others fully informed of what was happening in the world of cotton and to serve as a clearing-house of information on cotton-growing problems, statistics and reports (I(iv)(b): ECGC/ER, 14/12/22).

The first editor, J.C. Willis, the retired Director of Ceylon Botanic Gardens, compiled the bulletin for fifteen years, during which time editorials, articles and statistics served well as an information bank for the Corporation and Lancashire. Items as diverse as the 1861-64 Cotton Famine (ECGR, 9, No.1, 1932), transport of cotton in Africa (ECGR, I, No.4, 1924), soil erosion (ECGR, XV, No.1, 1938), insect pests as a factor affecting large-scale cotton-growing (ECGR, 24, No.4, 1947) and the influence of introduced crops on colonial economies (ECGR, XXIX, No.2, 1952) were written in easily accessible language and style for an interested, but not necessarily scientifically literate, audience.

Published Annual Reports served to give a general impression of each year from the cotton supply point of view, including financial statements and brief synopses of the years' activities in each of the cotton-growing countries in which the Corporation had an interest. To complement these, more general Annual Reports, annual Progress Reports from Experiment Stations and annual reports of work, written for the management of Department of Agriculture Research Stations in which ECGC officers were based, gave more scientific detail.

The most wide-ranging technical and scientific publications were in the Research Memoirs series, which began in 1946 with R.L. Knight's 'Breeding Cotton Resistance to Blackarm Disease' and contained such esoteric gems as J.H. Saunder's 1969 'Changes in Recombination and Genetic Disturbance on transferring the H_2Lo_2 Linkage Group from *Gossypium tomentosum* to *G. barbadense* and *G. hirsutum*', as well as more basic agricultural studies, such as 'Crop Water Requirements of Cotton' by Sir Joseph Hutchinson, H.L. Manning and H.G. Farbrother, 1959. The standard of research was highly regarded by all in the agricultural science world and it seems unlikely that any other cash crop in Africa was served so well by those attempting to encourage its production.

3.3.4 SCIENCE AND RESEARCH

It was in the scientific field that the Corporation truly excelled. Both fundamental research and immediate local research were identified as areas of concern in the first few years of the ECGC's existence (I(iv)(g): CP1/697, 18/5/27). The Earl of Derby acknowledged that the best work of the BCGA had been in supplying growers with the most suitable cotton for particular areas (I(iv)(b): ECGC/GM, 9/6/26): but the BCGA were mere well-meaning, albeit sometimes lucky, amateurs compared to the ECGC with its methodical, scientific experimentation and studies, conducted in order to make recommendations on types of cotton and agricultural practices best suited to different districts. Elucidating the scientific problems was believed to be the surest way of safeguarding cotton supply, with special emphasis on maintaining quality and staple when prices fell in the 1920s (I(iv)(b): ECGC/CR, 26/5/27 & 16/5/28). Changed demand in the 1930s meant further concentration on improvement rather than increased

supplies,[1] except where the prime motive for cotton-growing was to enhance the local economic position for cultivators or for the country (I(iv)(e): CRC/F1/R2 SAC, 'Note on Corporation's General Policy', 1939).

The ultimate aim of the Corporation was claimed to be to facilitate growth of a more productive cotton crop within a properly balanced crop rotation (I(iv)(g): Misc.3 & Killby, ECGR, 1937). This emphasis on cotton as a constituent part of an agricultural system, and not just as a solitary crop which should be grown to the exclusion of all others and to the almost inevitable detriment of soil fertility, was mentioned from the 1930s in Annual Reports and the ECGR. However, this worthy aim was difficult to achieve. In 1946, the ECGR editorial acknowledged that cotton-growing was particularly dangerous as a catalyst of soil erosion and that its growth must only be extended with care within a controlled rotation, but it admitted that in Tanganyika, for example, it was still "a thing apart" (p.2).[2] And Sir Joseph Hutchinson, looking back to the 1950s in Uganda, in answer to the accusation that the Corporation had treated cotton in isolation, agreed that the Corporation had not always achieved its target of having cotton an integral part of the agricultural regime and that, at Namulonge Cotton Research Station, they were guilty of insisting on putting first cotton's needs for planting and weeding, to the detriment of other crops in the rotation (Interview, 6/3/84). Hutchinson added that, because of the amount of seed-bulking carried out at Namulonge, which gave the impression that they were running plantations, the ECGC was also accused of favouring large-scale over smallholder cultivation.

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[1]During the five years prior to 1937-38, an annual cotton production of 31.4 million bales was met by annual consumption of only 27 million bales versus an average pre-war production of 23.4m bales matched by consumption of 23.1 million bales (CRC/F1/R2, SAC, 1939).

[2]Soils in which cotton is grown are particularly susceptible to erosion because of the slow early growth, lack of ground cover and usual advice that it be clean-weeded, though ridging, tie-ridging and contour ridging can all compensate for this to some extent.

It was not until 1973, following concern that farmers' cotton yields in Africa were only one tenth of those on research stations, that the Corporation fully committed itself to devise cotton-growing systems that would fit into patterns of rural life, taking account of constraints such as the primary need to safeguard survival by means of food crops. At that time, the Corporation admitted that until recently its aim had been maximum yields in a "package" concerned with cotton alone (I(iv)(a): CRC/SACM, 20/2/73).

The first essential for improving and increasing cotton production was an assured seed supply. But before seed could be bulked at experiment stations or seed farms, it was necessary to select and breed the best seed for the purpose and area. Prior to that, not only did the ECGC have to investigate local conditions and buyers' requirements, it needed to know considerably more than was then known about the cotton plant.

The "bible" of cotton botanists in 1921 was Sir George Watt's 1907 monograph, Wild and Cultivated Cotton Plants of the World, but it was already out-of-date on publication, as acknowledged in an introductory apology: "I cannot hope to have even now attained finality; but shall be abundantly satisfied if I have succeeded in throwing out suggestions that may tend to elucidate practical results, both commercially and botanically."[1] It was to increase basic knowledge of the cotton plant, and, in particular, to undertake a fundamental study of its hereditary mechanism and growth, that the ECGC set up a Central Cotton Research Station in Trinidad in 1925. It was here that Dr. Mason conducted his research on the transport of food materials within the cotton plant; that Dr. Harland began the genetics work, expanded by Dr. Hutchinson, to shed light on the origin and development cultivated cotton; and that the major collection of all

[1]Quoted in Hutchinson, 1959, p.viii.

wild and cultivated cottons was amassed. From 1,400 types of cotton, geneticists were able eventually to list the characteristics which might be of use to plant breeders (I(iv)(g): ECGC, Misc.2, 1961).

Trinidad was chosen as the location for the Central Cotton Research Station after five other areas had been assessed with regard to five factors - accessibility from England; good climate for scientific workers; availability of intelligent field assistants; proximity to an existing University or College; and suitability of the site to grow many different kinds of cotton. Although subsequent obstacles regarding the last point did emerge, on balance Trinidad had more advantages than Ceylon, Cyprus, Sudan Union of South Africa and the rest of Africa; and it served the Corporation well for twenty years (I(iv)(g): CP/S63, 1943).

To supplement the long-term scientific studies in Trinidad, more localised problems and topics in Africa were handled at smaller Experiment Stations in South Africa, Swaziland, Southern Rhodesia, Uganda, Tanganyika Territory, Nyasaland, Nigeria and Sudan.[1] Some of the most outstanding work was in breeding from the very varied, mixed bulk which had resulted from the cross-contamination of basic American Upland cotton stock imported at the beginning of the century. Distinctive types had arisen in most cotton-growing territories, one of the most successful being Nyasaland Upland, widely distributed on the eastern side of Africa; but it was at Barberton in South Africa that F.R. Parnell and colleagues bred jassid-resistant, hairy-leaved U4 stocks which contributed to some extent to the breeding stocks in all the Eastern African territories (Hutchinson, 1959, pp.70-71), its progeny proving useful in Southern Rhodesia, Nyasaland, Tanganyika, Kenya, Uganda and Sudan (I(iv)(g):

[1]Results and Progress Reports were produced annually for each station.

CP/S42, 1941).[1]

By 1941, staff at Barberton had also raised and tested other improved strains and studied rotations, rotation crops, insect pests and composting.[2] In Swaziland, ECGC staff conducted variety trials, mainly on U4 selections from Barberton, and examined rotation crops and red bollworm. At Gatooma, Southern Rhodesia, breeding from U4, cultural experiments, composting and insect pests were subjects of study. In Uganda, two experiment stations at Kawanda and Serere were both financed by the Government: Kawanda, serving the Buganda and Western areas, looked at quality improvement, Wilt resistance, agricultural practice and rotations; while Serere, for the Eastern area where Lygus and blackarm were serious problems, was concerned in 1941 to find a higher yielding cotton than Nyasaland Upland, with SP84, a selection from a U4 derivative, the best strain so far. Also in 1941, three experiment stations in Tanganyika Territory - at Ukiriguru and Lubaga for the Lake Province, and at Kingolwira, where there was also a smallholder scheme, for Eastern Province - were in charge of Corporation staff seconded from Southern Rhodesia who conducted breeding (U4 having been substituted for Mwanza cotton at Lubaga), agricultural practices, rotations and manurial trials. In Nyasaland, where a derivative of U4 was now the main variety, experiments at Domira Bay Station included breeding, rotation crops and work on maize and groundnuts. Nigeria's Northern and Southern Province stations were both financed entirely by the Government and specialised in breeding (local Allen, originally from Uganda, was still better than importations) and insect pest work. Finally, Anglo-Egyptian Sudan could boast a large staff and excellent organisation of agricultural research and experimentation, with two ECGC plant breeders at Shambat,

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[1] Appendix V, Section I(v) describes jassid.

[2] The detail in this paragraph is derived from Progress Reports and I(iv)(g): CP/S42, 'Present Objectives of Experiment Stations', 1941.

near Khartoum, and at Kadugli, Nuba Mountains, and an ECGC-supported soil chemist at the Gezira Agricultural Research Institute.

Robert Knight's breeding work at Shambat in 1941 was to have far-reaching effects. He was selecting strains of Sudan Sakel-type cotton which had been made resistant to blackarm disease by transference of resistance factors from a Nyasaland Upland type grown originally in Uganda. A few years later when J.B. Hutchinson arrived with his world cotton collection from Trinidad, to spend time with Knight before moving on to Uganda, Knight was able to classify the collection for blackarm resistance,[1] which led to the information which eventually produced in Uganda the ALBAR stock (Allen type, BlackArm Resistant) to be grown in rainfed areas throughout East Africa. Following Parnell's techniques, jassid-resistance was encouraged in ALBAR, to which Arnold later bred in high quality, illustrating excellent integration between entomologists, plant pathologists, geneticists and breeders.

During 1939, the Scientific Advisory Committee began to review the Corporation's general scientific policy, aided by a questionnaire to assess the cotton-growing situation. The replies, circulated as CP1/1788, indicated that ECGC policy was still to stimulate as much cotton production as it economically could in all parts of the Empire where the crop could be grown; that the crop was a commercial success in Uganda, Sudan and Nyasaland; that cotton-growing was still at an experimental stage in Tanganyika, Kenya and Nigeria; that there was no hope of commercial success in South Africa and Rhodesia; that current crops found a ready market, which justified the decision to grow whatever was suitable for an area and commercially useful; but that there was a limit to the extent to which the

[1] Hutchinson, in 1984, recalled his utter horror at finding that Knight had sprayed his entire collection with blackarm disease, which would have killed it off in Trinidad. But, as Hutchinson said, "Knight knew what he was doing", and his precious collection was safe, even if none of them knew the scientific reasons for it.

Corporation could be expected to spend money where only a very small return was likely.

During 1938 and 1939, staff research papers on the Corporation's policy on cultivation practices, pest control, soil problems, new varieties, plant breeding, genetics, diseases and the economics of cotton-growing by peasants were circulated. Milligan identified soil preparation, time of planting, spacing, subsequent cultivation, rotations and soil fertility as topics for investigation (I(iv)(g): CP1/1762). Crowther wrote of the need for a combined approach and coordinated trials on soils, crop physiology and ecology, particularly to initiate preventive measures against soil erosion (I(iv)(g): CP1/1778). Munro, on pest control, also stressed the importance of plant pathologists, physiologists and breeders working together, highlighting the possibility of breeding from resistant varieties and his concern that jassid resistance be scientifically understood (I(iv)(g): CP1/1777). Hutchinson regretted the failure of geneticists to provide adequate experience and theory to assist plant breeders but was convinced of the need for a wider range of varieties and the necessity of hybridising with well adapted local types where improvement in specific characters was required (I(iv)(g): CP1/1568). Engledow stated that, save in exceptional circumstances, there should be no further attempt to improve the quality of cotton in British territories; that, on present evidence, the Corporation should give direct assistance to breeding only in the British West Indies (St. Vincent), Uganda, Sudan, Tanganyika and possibly Nyasaland; and that the three breeding policy steps to follow, in order, were to introduce varieties from abroad for direct use in cultivation, to select and to hybridise (I(iv)(g): CP1/1757). On genetics, Hutchinson identified a series of problems, whose solution would help breeders, including the maintenance of purity, acclimatisation and indicators to the point of reduction

of genetic variance beyond which further selection would be superfluous (I(iv)(g): CP1/1583). Nowell named the most common diseases of cotton as Internal Boll Disease, Bacterial Disease, Leaf Curl, Fusarium and Verticillium Wilt (I(iv)(g): CP1/1776). Finally, Evans doubted the extent to which it was the Corporation's duty to conduct a survey to provide the necessary reliable figures on the economics of cotton-growing and alternative cash crops but postulated on the determining effect of prices and on the yield versus quality conflict for breeders and seed suppliers (I(iv)(g): CP1/1759).

These papers, comments on specific local situations, responses to a Scientific Advisory Committee memorandum on research and experimentation, discussion with Directors of Agriculture[1] and advice from ECGC staff, the Shirley Institute and the Lancashire industry[2] all contributed to define the Corporation's policy of an inter-disciplinary approach to the investigation of factors affecting plant growth, lint quality and crop yield, undertaken with due regard to the agricultural system and Agriculture Department of the country concerned and with the proviso that it "must have a practical bearing on cotton production" (I(iv)(a): SACM 18/10/40). The fact that cotton problems were found to have much in common throughout the colonial Empire fortified the growing movement in favour of a new Central Cotton Research Station in the heart of commercial cotton-growing Africa. Thus, on 5th May 1942, the Executive Committee adopted the Scientific Advisory Committee's proposal that Barberton, Swaziland and Trinidad Research Stations be closed and a

[1]These included a meeting with Tanganyika's Director of Agriculture who remarked that "Cotton actually had the effect of increasing the amount of food grown in a district", because the food crop could be planted immediately after uprooting cotton (I(iv)(e): CRC/F1/B2, Summary of SAC meeting, 29/3/40.

[2]Joint meetings of the Scientific and Executive Committees and of the Executive and Finance Committees in 1947-48 were particularly mindful of Lancashire's needs, with discussions on practical problems of spinners, the need for a rapid increase in the production of various growths, the necessity to have regularity of supply and strict quality controls (I(iv)(a): ECGC/SACM, 30/7/47, 29/9/48 & 1/2/49).

new Central Research Station with Departments of Genetics and Plant Breeding, Plant Physiology, Plant Pathology, Entomology and Soil Science be set up in Uganda after the war to study basic problems, produce better cottons and advise on improved growing methods.[1] Particularly vital was the requirement that cotton was to be treated as one element in a local agriculture structure, compatible with food production, prevention of erosion and maintenance of soil fertility. "It may well be a source of pride to Lancashire that they were in the forefront of developing and giving effect to the modern conception of tropical agricultural policy," claimed Professor Engledow in his policy review statement at the Executive meeting on 5th May 1942 (I(iv)(a): ECGC/ECM).

Uganda had been rejected as a site for the first Central Research Station because it was felt to be too far from England and incapable of providing intelligent Assistants. But air transport and education for Africans, especially the new college at Makerere, had now remedied these failings, and a 2,000 acre site at Namulonge was chosen as the location for the station.[2] At the time that Trinidad won favour it was also considered undesirable to have the Central Cotton Research Station too close to commercial cotton-growing for fear of cross-fertilisation, pests and diseases; but botanical and scientific knowledge and techniques were now advanced to the stage where such a geographical division was unnecessary. Management of the station ultimately rested with a governing body in England, on which colonial Governments were represented by the Colonial Office's Agricultural Adviser. An African Advisory Committee, under the chairmanship of the Director of Namulonge was formed of the Directors of Agriculture of

[1] It was the intention to retain staff for local work in Sudan, Tanganyika Territory, Nyasaland and St. Vincent to deal particularly with insect problems, local cotton breeding and rotations (I(iv)(g): CP/S63, 1943).

[2] For an assessment of the achievements of the Central Cotton Research Station, see M.H. Arnold, ed., Agricultural Research for Development. The Namulonge Contribution, Cambridge University Press, 1976.

Kenya, Tanganyika Territory, Nyasaland, Nigeria and Sudan (I(iv)(g): CP/S75A, 18/5/42).

Financing the new Central Station proved contentious for the Lancashire cotton industry, with the Federation of Master Cotton Spinners vociferous in its objections to being asked to provide a capital sum in order to develop colonies from which it might get nothing in return (I(iv)(a): ECGC/ACM, 5/2/46).[1] Eventual agreement was reached that, of the £206,500 capital sum needed for establishment, £103,250 would be provided from Colonial Development and Welfare Act Funds, £78,250 from the Corporation's invested funds and £25,000 from the Cotton Trade's War Memorial Fund and Cotton Board with recurrent expenditure financed by the ECGC, Colonial Development Welfare Funds and Governments of Kenya, Nigeria, Nyasaland, Sudan, Tanganyika and Uganda (I(iv)(a): ECGC/ACM, 1946; I(iv)(b): ECGC/AR 1946-47; I(iv)(g): Misc.1).

After much difficulty in obtaining building supplies at the end of the war, Namulonge Cotton Research Station opened in 1950 with Parnell as first Director and Hutchinson destined to be its second. Until its handover at the end of 1971 as a gift to the Ugandan Government,[2] its twelve research staff, its seventy local technical assistants and hundreds of farm labourers set a good example in agricultural experimentation, pest and disease studies,[3] and in plant breeding, although, ironically, the cotton work was moved to Serere in 1965 to be in the new heart of the cotton-growing area. Namulonge inherited a fine tradition from its predecessor in

[1] During the 1930s and 1940s, Lancashire cotton industry representatives complained to the ECGC about the lack of continuity of supplies of Empire cottons, the fact that they did not have a preferential opportunity to acquire Empire cottons and the increasing competition from India, Japan and Europe (I(iv)(a): ECGC/ECM & ACM).

[2] Idi Amin was in charge by then, though it was Obote's Government in 1967 which had accepted the offer of the Station, first made in 1964 (I(iv)(g): CP2/85).

[3] A memo from Pearson in 1943 led to a drastic overhaul in the Corporation's pest and disease work organisation, initiating a much more thorough and diverse approach (I(iv)(g): CP/S92, 11/3/43).

Trinidad and did much to justify Hutchinson's description of the Corporation in 1968 as "a model for commodity-based research" (I(iv)(g): CP2/50).

The Central Cotton Research Stations in Trinidad and Uganda, the grants to major scientific institutions and the work at Experiment Stations throughout Africa all enabled the Corporation to produce suitable varieties of cotton and integrated, practical recommendations for farmers. The success justified the sentiments in its laudatory 1967 booklet: "The freedom and flexibility which characterize the Corporation's structure and work enable it to make a unique contribution to the research services and countries whose individual needs vary greatly" (I(iv)(g): Misc.3).

3.4 THE ROLE OF THE CORPORATION IN AFRICA

> "Before very long now, I shall have been thirty years in East Africa and if there is one thing more than anything else that I have acquired as a firm conviction it is the appalling loss of effectiveness from diffusion of effort or staff that I have seen...overlapping, vacillation, lack of continuity, and many other regrettable things, besides a whole host of difficulties and defects due to nothing more important or permanent than personalities."
> (Philip Mitchell, Governor of Uganda, to John May, ECGC, 13/3/1940 in I(iv)(e): CRC/F1/R2)

From the early days of the ECGC, help was given to colonial governments and Agriculture Departments in the form of experts, advisory visits and grants, with the Corporation priding itself on the care it took in choosing staff and in careful vetting of prospective supported projects to ensure that the loss of effectiveness referred to by Mitchell did not occur.[1] Discussions were held, whenever possible, with colonial agriculture officials. In 1924, for example, the Directors of Agriculture for Uganda, Nigeria and Kenya and the secretary of the Indian Central Cotton Committee all met with ECGC members while on leave in Britain in connection with the British Exhibition at Wembley (I(iv)(b): ECGC/ER, 25/6/24). From the beginning of the 1930s, the general trend was to make grants for approved schemes for definite periods, subject only to an undertaking from the Government that it would maintain its own expenditure on cotton. In this way, with a minimum of friction, the ECGC ensured that cotton-growing was an integral part of the whole agricultural structure (I(iv)(b): ECGC/AR 1932-33). Care was taken not to offend Agriculture Departments: "... the Corporation do not <u>offer</u> help to Agriculture Departments, which might be taken as an implication that we think they need it, and an atmosphere thus be created in which

[1] Anthony et al (1976, p.248) comment that Agricultural Research Institutions have been seriously handicapped by lack of continuity of personnel and work programmes. The ECGC prided itself on continuity of both.

cooperation would be very difficult" (I(iv)(g): CP1/1713, 1939).

There were ECGC officers at some time in most promising Empire territories, except India, where the Indian Central Cotton Committee, constituted in March 1921, funded through the Cotton Cess Act 1923, performed a similar role to the ECGC (I(iv)(b): ECGC/CR, 10/10/23; I(iv)(g): CP1/1075, 27/2/33).[1] The report for the first ECGC General Meeting on 8th February 1922 mentioned only Tanganyika Territory, Nyasaland, India, British West Indies, Nigeria and Sudan (I(iv)(b): ECGC/CR, 18/2/22). By 1927, Australia, South Africa, Swaziland, Southern Rhodesia, Northern Rhodesia, East Africa, Uganda, Sierra Leone, Gold Coast, Cyprus, Ceylon, Fiji and Papua and New Guinea had been added to the list of territories dealt with (I(iv)(b): ECGC/CR, 26/5/27).[2]

In Nigeria, the Corporation worked closely with the BCGA but efforts to introduce mixed farming faced many obstacles, chief of which was the domestic market for cotton. Sudan was assisted in several ways - by lobbying for the Gezira dam to go ahead, when the ECGC heard of delays (I(iv)(b): ECGC/ER, 14/12/22); by purchasing debentures and Ordinary Shares in Kassala Cotton Company (I(iv)(b): ECGC/ER, 21/3/23); by sharing in the cost of a 1924 agricultural research work survey (I(iv)(g): CP1/759); and, from 1925, by being responsible for cotton breeding work (I(iv)(g): CP1/1333). In South Africa, the ECGC began by appointing Keatinge to examine what was reputed to be promising cotton territory, by giving £250 prizes to encourage production and by emphasizing to Smuts the need for railway extension and urging him to consider encouraging a native cotton growing industry (I(iv)(b): ECGC/ER, 14/12/22 & 13/12/23). Keatinge's favourable

[1] See Appendix VI, Table 32 for specialist staff in overseas countries in 1939, 1952 and 1973.
[2] In 1925, the Council Report stated that provision of experts was limited solely by lack of qualified men (I(iv)(b): ECGC/CR, 21/5/25).

report led to the Corporation sending a small staff; but three successive bad seasons from 1924 to 1927 militated against the success of the experiment stations and discouraged the excessive early enthusiasm of the farmers (I(iv)(g): CP1/759; Keatinge, ECGR III, 1926, No.3). The most successful aspect of the ECGC's involvement here was the excellent breeding work at Barberton which resulted in U4, previously mentioned, bred from a single plant in 1924-25 for its jassid resistance but which also proved drought-resistant, a prolific flowerer, quick at forming buds and setting fruit and less susceptible than others to bud and boll shedding (I(iv)(b): ECGC/AR 1928-29).

The Corporation's involvement in Southern Rhodesia lasted from 1924 to 1942, starting with staff and funding assistance, much of it connected with Gatooma Experiment Station.[1] Jassid was recognised early on as the chief limiting factor to good yields (I(iv)(b): ECGC/CR, 3/6/29), so jassid-resistant U4 proved a particular boon in this territory. However, other insect pests, lack of suitable varieties, low prices, alternative crops and more enticing labour prospects meant that cotton production never achieved much success during the two decades of ECGC involvement (I(iv)(b): ECGC/AR 1936-37, 1938-39; I(iv)(a): ECGC/ECM, 5/6/34 & ECGC/CR, 19/5/39).[2]

In Northern Rhodesia, the Corporation's first financial input was ten guineas for cotton prizes at the 1924 Northern Rhodesia Agricultural Society annual show (I(iv)(a): ECGC/ECM, 8/4/24).[3] From 1925 to 1939, and from 1967 to 1975, the Corporation directly aided cotton development in Northern Rhodesia but, as in the territory

[1] The Government provided the land, buildings and most of the running expenses of Gatooma, with the Corporation supplying European staff. Peat, cotton breeder, arrived in 1925; McKinstry in 1926 and Prentice in 1929. All three were transferred to Tanganyika in October 1939 to help with war-time agriculture.

[2] See Chapter 4, Section 4.5.1 for further information on the history of cotton-growing in Southern Rhodesia.

[3] See Chapter 4, Section 4.5.2 for further information on the history of cotton-growing in Northern Rhodesia.

to the south, insect pest damage severely limited profitable growth of the crop. High transport costs for the landlocked country were a further factor acting against commercial production, particularly for export overseas.

Kenya was not regarded as a high priority area, though the Corporation kept in touch with the situation, especially through the British East Africa Corporation in the early days.[1] Apart from occasional visits and reports, the Corporation felt unable to accede to the regular, major requests for help made by the Kenya Government until 1951 when a plant breeder was assigned to Kisumu.

Uganda, given its extraordinary success in cotton production, quite rightly warranted much more attention from the Corporation, starting with aid in the form of ploughs and staff in the 1923-24 growing season (I(iv)(a): ECGC/ECM, 8/4/24, 6/5/24, 31/3/24).[2] Other forms of assistance were granted in 1938, when the Corporation contributed £10,000 for a Biology Laboratory at Makerere College (I(iv)(a): ECGC/ECM, 4/10/38),[3] and, in 1940, when it financed research at Rothamsted on wilt, a particular problem in Uganda. In the end, the largest contribution to Uganda was the fruition of the decision taken during the war that a Central Cotton Research Station be set up at Namulonge, Uganda. However, although the Corporation took over cotton breeding work from the Uganda Government when the new Research Station was established, and although it was geographically in Uganda, Namulonge really belonged to all the contributing countries for two decades until its handover to the Uganda Government in 1971.[4]

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[1] See Chapter 4, Section 4.5.3 for further information on the history of cotton-growing in Kenya.
[2] See Chapter 4, Section 4.5.4 for further information on the history of cotton-growing in Uganda.
[3] Later named the "Currie Laboratory" after the ECGC's first Director.
[4] See pp.156-59 for further detail on Namulonge; and Appendix VI, Table 31 for grants made to the Station.

3.4.1 THE CORPORATION IN NYASALAND[1]

The 1919 Empire Cotton Growing Committee report identified Nyasaland as the "most promising of our smaller African dependencies" for cotton-growing, with the most pressing need an increase in Agriculture Department staff (I(iv)(g): CP1/142; & Cmd.523). Even before the Charter was sealed, the Corporation had received requests for assistance from the Governor (I(iv)(e): CRC/F1/N2, 13/5/21).

H.C. Sampson in 1921 became the first Corporation employee in Nyasaland, soon followed by C.B.R. King as entomologist, E.S. Eldridge as Farm Manager and H.C. Ducker and G.W. Nye as Assistants. Sampson's first work programme stressed the inhibitory factor of poor communications and the need for close cooperation between the Agriculture Department and Corporation in efforts to improve quality and quantity by research and experimentation.[2] From the start, the relationship between the Department and Corporation was excellent, though, in the 1940s, a sour note crept in. An example of good relations can be seen in joint action, such as the visit of Wortley, Director of Agriculture, and Sampson, ECGC chief officer, to the Lower Shire area in 1923, where, incidentally, Wortley noted wryly that the Indian hand cultivators introduced by Sampson had attracted attention: "Some of the natives have already taken sufficient interest in the implement to decided that the woman is to do the drawing and the man the guiding".[3]

The Corporation contributed to the cotton-growing industry

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[1] The Corporation's involvement in Nyasaland will also be referred to in Chapter 5. This section is a synopsis of the Corporation's work there.

[2] Relevant members of Agriculture Department staff at this time were E.J. Wortley, Director of Agriculture; Mr. Davy, in charge of cotton work; and Mr. Clegg, settler in charge of indigenous African development.

[3] I(iv)(e): CRC/F1/N2, 'Report to the Nyasaland Government on a Visit to the Lower Shire District'.

in Nyasaland with both funds and staff.[1] In 1924, the Executive decided to vote £250 a year for three years to Makwapala Experimental Farm, ten miles from Zomba, and to pay salaries of Europeans involved in its management (I(iv)(a): ECGC/ECM, 4/3/24), thus sharing the expense with the Nyasaland Government; and the same year it was reported that the Corporation was financing special temporary inspecting staff to enforce Cotton Ordinance regulations (I(iv)(b): ECGC/ER, 25/6/24). In 1925, in response to a further request for staff, James Currie wrote to the CO that the Corporation had already over-extended itself in Nyasaland, mainly because the Nyasaland Government were so pleasant to deal with, but wiser judgement suggested that until the Zambezi Bridge project was agreed there was no possibility of an exportable crop (I(iv)(e): CRC/F1/N2).

Over the next few years, cooperation continued and Sampson, who had retired from Nyasaland on health grounds in 1925, was recalled in 1926 to survey the commercial and food value of possible rotation crops. Regarding the possibility of a cotton/tobacco rotation, Killby wrote to Ducker that care must be taken in the way this was presented: "There must be no risk of people saying that the Corporation began to get cold feet about Empire cotton as soon as difficult times came, and at once started to turn their experiment station over to tobacco".[2] The ECGC could truthfully claim, as it did in 1929, that it had worked towards evolving a complete cropping system in Nyasaland (I(iv)(b): ECGC/CR, 3/6/29).[3] Although transport costs were an inhibiting factor on export crop production, the 1928 review emphasized other matters in its conclusion: "...the great agricultural difficulties of

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[1] See Appendix VI, Table 28 for the sums expended by the ECGC in Nyasaland.

[2] I(v)(b): MNA, A 3/2/69, Killby, Secretary, ECGC to Ducker, 30/12/26.

[3] W. Himbury, worried after visiting Ducker's experiments in 1927, did not want the Corporation to end up running a Colonial Agriculture Service, commenting: "I do not see why our officers should be responsible for the improvement and establishing of crops which, to a certain extent, are competitive crops" (I(ii)(c): Himbury, 1927).

the country are both the reason and the justification of the Corporation's work there" (I(iv)(g): CP1/759).

By 1929, 90% of Nyasaland's cotton was produced from ECGC strains by smallholders in the Lower Shire (I(iv)(b): ECGC/AR 1928-29);[1] and the ECGC Port Herald Experiment Station was absorbed into the Department of Agriculture (I(iv)(e): CRC/F1/N2, 16/7/30), as was Makwapala in 1935, by which time Domira Bay was the Corporation's main workplace (I(iv)(a): ECGC/ECM, 26/7/32). The Corporation continued to work at breeding and selection so that, by 1933, U4 seed, first introduced in 1929, was distributed throughout the country, replacing Nyasaland Upland (I(iv)(b): ECGC/AR 1932-33). Basic seed stock was produced at Domira Bay and then passed to the Department of Agriculture for bulking from ECGC seed multiplication areas, again illustrating cooperation.[2]

Disaster struck the Nyasaland cotton-growing industry in February and March 1939 when floods devastated large parts of Rhodesia and Nyasaland (I(iv)(a): ECGC/ECM, 4/4/39), washed away nine miles of the Chiromo-Port Herald railway and disrupted the northern railway extension to the Lake. When Parnell visited in July 1939 he found a massive efflux of local people to Southern Rhodesia to work, extensive flooding and much cotton taken to Mozambique where prices were higher because of a Portuguese subsidy (I(iv)(g): CP1/1796); and Ducker, in October, wrote that he could now travel by motor launch over land which two or three years before had been producing the greater part of the Lower River crop, estimating about 60% of the land previously under cotton had been lost (I(iv)(g): CP1/1797). Accompanying Parnell's report, the Scientific Advisory Committee circulated a lengthy survey of the cotton-growing industry in Nyasaland from 1935 which began by stating that the Legislative Council was attempting to

[1] Planters on European estates had found tobacco more lucrative.
[2] I(iv)(e): CRC/F1/N2.4, Ducker, 'Cotton Growing in Nyasaland', 1935.

blame ECGC poor seed for cotton growers' difficulties over the past few years, though, to its credit, the Department of Agriculture was not convinced and was disposed to attribute poor production to insects, disease and climatic variations (I(iv)(g): CP1/1797).

The Corporation decided that it could best contribute to recovery by experimenting to assess the best way of controlling red bollworm and stainers and by breeding to maintain quality $1^1/_8$" staple with jassid resistance incorporated (I(iv)(g): CP1/1807, 1940; I(iv)(b): ECGC/AR 1940-41). An entomologist, Mitchell, was moved to Limbe, "which is nearer the Lower River, and thereby saves much time spent in travelling" (I(iv)(b): ECGC/AR 1941-42): considerably more time would have been saved if he had moved into the District, but it was believed at that time that the Lower Shire was climatically "unfit for European habitation".[1] It was at this time that what Ducker later referred to as "the ever helpful attitude of Nyasaland Governmental Authorities" (I(iv)(d): CRC/F1/N2.4, Letter to Killby, 18/9/43) was observed in a different light. The Secretary of the ECGC wrote to his Chairman on 18th January 1941 that: "The policy of the Nyasaland Government towards cotton-growing is not very clear, and so far as we can understand it, it is rather unsatisfactory". The main gripe appeared to be worry that the Nyasaland Government was not going to honour the Corporation's desire that its entomologists should not be called up or allowed to volunteer. The Corporation's view was that if the entomological work was interrupted "we shall not feel disposed to start it all over again after the war", by which time unchecked breeding would have done untold damage (I(iv)(d): CRC/F1/R2, Secretary to Sir Richard Jackson, 18/1/41).

[1] In 1954, the Director of Agriculture admitted that he found it very difficult to get his own officials to live there (I(iv)(g): CP1/2751, 1954); and, in the 1970s and 1980s, there was a prevalent mythology among Agricultural staff that those who had not been born in the Lower Shire Valley found it impossible to stand the heat there. It was regarded by many as a "punishment posting".

The main feature of the 1940s' cotton-growing scene in Nyasaland was the battle against red bollworm, which led to violent fluctuations in yield per acre and, in 1944, to considerable correspondence on the merits of prohibiting cotton for a season, barring cotton in certain zones, various uprooting dates and winter *versus* summer cropping (I(iv)(g): CP/S1244, 1944; I(iv)(f): CRC/F2/56, 2nd file). There was considerable satisfaction when the Government, at last, decided to survey the reclamation of flooded land in the Lower River, as suggested by the Corporation's entomologist (I(iv)(b): ECGC/AR 1944-45). That it was worth expending effort on the Lower River crop was illustrated in a 1946 report describing the bulk as good grade, attractive $1^{1}/_{16}$"-$1^{1}/_{8}$" sawginned cotton, just what Lancashire wanted (I(iv)(g): CP/S177). This did not prevent Ducker's endemic pessimism from emerging: unlike tea, tobacco and tung, he surmised, which grew in cooler, more pleasant parts of Nyasaland, meaning "It is easy to get the Pooh-bahs and Nabobs to take an interest in them", cotton was doomed to be forever the poor relation (I(iv)(f): CRC/F2/56, 2nd file, Ducker to ECGC, 12/11/48).

Drought in 1948-49, excessive rains at the start of 1949-50 and famine in Central and Southern Provinces, causing around two hundred deaths, heralded a decade which reached its lowest ebb in 1957 when only 5,000 bales of cotton were grown due to a litany of disasters, including the weather, stainers, bacterial blight, red bollworm, floods, rats and cyclone 'Edith' (I(iv)(b): ECGC/AR 1949-50 & 1957). Despite these calamities, the Corporation retained its faith in the Lower Shire, though felt that some matters were outwith its control - such as the "conspicuous absence of shops in distant areas", which H.L. Manning, on a short visit in 1953, believed was the cause of 30% of ripe cotton bolls not being picked (I(iv)(g): CP/S302, 1953). A year earlier, Hutchinson had been gratified to note that the Corporation's entomologists' recommendations of early planting,

uprooting by 31st July and pure stand growing had been put into effect in the Lower Shire, which far exceeded his expectations of potential production (I(iv)(g): CP1/2673, 1952). He was worried, though, at what he perceived as a weakness in the Corporation's work in Nyasaland, expressing to J.C. May, Director of the ECGC: "The real function of an experiment station is to breed ideas rather than crops and you cannot breed ideas in isolation" (I(iv)(f): CRC/F2/56 3rd file, 17/3/52). This view was confirmed by another writer the following year who concluded that the ECGC "tends to be in a vacuum due to the absence of men in the Lakeshore areas, lack of roads and lack of Government officials concerned with cotton growing."[1]

In 1954,[2] Ducker retired from the ECGC in Nyasaland and Munro, previously in Tanganyika, took over - a move probably welcomed by several more senior staff in the Corporation. Hutchinson, for example, had disputed Ducker's judgement on the potential of the Central Areas, commenting sarcastically in a letter to May that he feared that Ducker "is going to take Rothamsted experiments in much the same way as the rest of us take paludrine - that is, without understanding but with confidence that it is a good thing to do" (I(iv)(f): CRC/F2/56 3rd file, 24/9/52). May, who also decried Ducker's faith in the central region, accused him of sitting in exclusion in Chitala instead of on the tail of the Government to put the Pearson-Mitchell report into operation in the Lower River (I(iv)(f): F2/56, 11/8/53).

Nyasaland cotton was liked in Lancashire and it was hoped that reasonable quantities would arrive there after the Southern Rhodesia market had been satisfied (I(iv)(b): ECGC/ACM, 28/2/56); and, from 1958, the production in Nyasaland increased impressively.[3] There were worries

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[1] I(iv)(f): CRC/F2/56, 3rd file, R. Smith, 'Impressions of Nyasaland 1952/53'.

[2] This was also the year from which overseas governments began to directly help to finance the ECGC's research work. See Appendix VI, Table 31 for Nyasaland's contributions.

[3] Appendix VI, Table 22 refers.

about the role of the ECGC in relation to the Department of Agriculture: it was felt that the ECGC staff should not be seen as substitutes for Department personnel but as part of an extra-territorial team of specialist cotton researchers looking to Namulonge for guidance and cooperation.[1] In 1969, after some years with no Corporation staff in Malawi, mainly because of the "hard conditions" at Makanga, where cotton research was centred, the Corporation responded favourably to requests from the Government for a cotton breeder and an entomologist to be based at Makoka, near Zomba (I(iv)(a): CRC/ECM, 2/10/69).[2] Cotton was in keen demand, with much consumed locally, so there was an incentive to improve yield, ginning outturn and pest control, though it was felt that a higher price to growers would be the most immediate spur to production (I(iv)(a): CRC/ACM, 29/11/72). Two years later, another visitor commented that Malawian growers were paid less than world prices for produce but that the Corporation's research work was impressive, with Malawi Albar producing a very good quality cotton of a higher grade than the local mill needed (I(iv)(a): CRC/ECM, 26/3/74, Report by Mr. Stern on a visit to Malawi in February 1974).

The Corporation's formal links with Malawi ended on 1st April 1975 when CRC staff at Bvumbwe and Makoka were transferred to Malawi Government's Department of Agricultural Research. There they played an important part in an enlarged breeding programme to produce a commercial cotton successor to Makoka 72 with higher yield, better ginning percentage, greater resistance to bacterial blight and larger bolls (I(iv)(b): CRC/AR 1975).

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[1] I(iv)(f): CRC/P2/56, Typescript of 'The ECGC in Nyasaland. Its functions and relations to the Department of Agriculture' (n.d.). For earlier worries on Dept.-ECGC relationship, see p.165, fn.3.

[2] The Government officer carrying out cotton work at Makanga was seconded to tthe Corporation from October 1965, "so as to preserve the Corporation's direct connection with Malawi" (I(iv)(a): CRC/BCM, 14/10/66).

3.4.2 THE CORPORATION IN TANGANYIKA[1]

The Corporation had a fluctuating relationship with Tanganyika. It began with a request from the Governor for substantial financial assistance to purchase cotton which the Government feared would not be bought by private individuals and so would discourage future planting (I(iv)(a): ECGC/ACM, 21/9/21 & I(iv)(b): ECGC/CR, 18/11/21). In the end, no ECGC action was needed, though Benjamin Crapper sounded a warning message at an Executive meeting on 2nd May 1922 that he hoped the ECGC, BCGA and Government would control cotton growing to ensure there would be no repeat of the Ugandan situation where all and sundry bought when the price was rising but left it to the BCGA when prices fell (I(iv)(a): ECGC/ECM, 2/5/22). The large number of ginneries (116 in 1926-27) under different ownership, also a feature in Uganda and far more than supply warranted, was identified as a particularly worrying feature in the 1928 review of the situation in Tanganyika Territory (I(iv)(g): CP1/759).

At the first meeting of the Corporation's East Africa Sub-Committee, Sir Horace Byatt, Governor of Tanganyika Territory, seeking expert advice and instructors, saw great possibilities for cotton in Tanganyika. He envisaged this as mainly African smallholder production, which he believed worked better than wage labour on European plantations (I(iv)(a): EASubM, 12/5/22). This confirmed the detailed Horne Reports, 1920-21, which had stressed potential to the Empire Cotton Growing Committee.[2] In 1922, Wood was lent by the India Office for two years as resident agricultural expert and Natrass was employed as his assistant. They worked initially on selection at Mpanganya on a cotton crop sown by the

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[1]This section is a brief synopsis of the Corporation's involvement. Further detail follows in Chapter 6.

[2]Circulated to the ECGC as CP1/272, 278, 282, 283, 284, 285, 286 and 300.

Department of Agriculture, though Wood's early reports suggested that the Tanganyika Government was not cooperating as hoped (I(iv)(a): ECGC/ECM, 5/6/23).[1] Within a few months, misunderstanding had also arisen over a £5,000 grant which the Tanganyika Government had turned down, and then accepted, and which the Corporation emphasized was to be used to carry out additional cotton work, not to relieve the normal burden from the Department of Agriculture (I(iv)(b): ECGC/ER, 13/12/23; I(iv)(a): EASubM, 19/4/23 & 25/10/23).

The Corporation claimed some success in the Imperial Government decision to approve £50,000 for Lindi light railway extension and reconditioning (I(iv)(b): ECGC/ER, 17/3/24); but, at the end of 1923, relations between the Cotton Specialist and Director of Agriculture were so bad that intervention from the Colonial Office was considered necessary to attempt to breach the gap (I(iv)(a): ECGC/ECM, 13/12/23). Matters did not improve and on 8th April 1924 the Executive resolved: "That the Colonial Office be informed that the Corporation have decided on early withdrawal from Tanganyika in view of the claims on their resources from other Dependencies where they have every reason to believe they will be able to work in close and cordial relationship with the responsible authority" (I(iv)(a): ECGC/ECM, 8/4/24).[2]

Despite the lack of cordiality, contact was maintained. French visited and reported on the situation in 1924-25; and in 1927 - a poor year of low prices, low acreages and much cotton left unpicked - the Tanganyika Department of Agriculture took full advantage of the ECGC offer of spinning tests (I(iv)(b): ECGC/CR, 26/5/27). In 1928-29, the Corporation, after discussions with the Governor, Sir Donald Cameron, and considerable internal debate,

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[1] Wood's letters and reports were circulated as CP1/379 and 422.

[2] Austen (1968, p.206) notes of A.H. Kirby, the Director of Agriculture with whom the ECGC was in dispute, that he was "a weak individual generally held in contempt by his colleagues."

allocated up to £6,000 for three years for ploughs and instructors' salaries on condition that the money was "in no way under the control of the Department of Agriculture" (I(iv)(a): ECGC/ECM, 21/9/26, 5/4/27, 26/5/27; I(iv)(b): ECGC/CR, 16/5/28). By 1929-30, cotton was the third most valuable crop in Tanganyika, with 75% smallholder grown (I(iv)(b): ECGC/AR 1929-30).

After Milligan's advisory visit at the request of the administration in 1931, he recommended that Tanganyika should select from better length and higher value locally grown cottons and try new Ugandan selections (I(iv)(a):ECGC/ECM, 5/7/32; I(iv)(e): CRC/F1/T1.1). To carry this out the Government and Department of Agriculture lobbied the ECGC for financial aid. This was somewhat reluctantly granted with safeguards that the sum would be reduced if the Government cut the funds it was then devoting to cotton, that an additional Assistant Agricultural Officer be selected from the CO scholarship or ECGC studentship holders, and that the Tanganyika Government should give the ECGC officers every facility to become familiar with Agriculture Department work on cotton (I(iv)(a): ECGC/ECM, 4/4/33). The sum agreed was £1,000 a year for five years from 1st April 1933.

The Government undertook a vigorous campaign to promote African cultivation in 1933-34. The Department of Agriculture drew up proposals for a demonstration and seed multiplication farm next to Ukiriguru Experimental Station for Lake and Western Provinces, for an additional Agricultural Assistant for instruction purposes at Lubaga where U4 was grown for the Shinyanga area, for a multiplication area next to the Eastern Province experimental station at Morogoro and to reopen Mpanganya Experiment Station in Rufiji (I(iv)(g): CP1/1222;

I(iv)(a): ECGC/ECM, 8/5/34, 5/6/34 and ECGC/ACM, 7/2/35).[1] Reassured that the administration and the Department of Agriculture were truly keen on development, the Corporation agreed to support the schemes, expressing particular interest in the mixed farming native holdings schemes at Mpanganya, Lubaga and Ukiriguru and in demonstration farms which were reckoned the best means of instruction for a mainly illiterate population (I(iv)(b): ECGC/AR 1936-37). The Corporation added the precautionary measure that May should visit Tanganyika in early 1935 to check that cotton development was along lines acceptable to the Corporation.

In 1938 and 1939 respectively, Ponsonby and Parnell toured Tanganyika to see what use had been made of Corporation assistance and were very impressed at the excellent work achieved by judicious use of the Corporation's £23,000 over five years (I(iv)(a): ECGC/ACM, 27/10/38 & 9/1/40; I(iv)(e): CRC/F1/T1.1). Parnell picked out Lake Province, then producing about half of Tanganyika's cotton, as the most promising area because of its large, hard-working population (I(iv)(g): CP1/807); and recommended that the Corporation supply two breeders from Barberton to fill a gap in the Department of Agriculture. The war effort intervened and four Corporation staff were sent to Tanganyika to allow Agriculture Department staff to be redeployed for food production (I(iv)(a): ECGC/ECM, 9/1/40; I(iv)(b): ECGC/AR 1938-39).[2] The four were put in charge of the four experiment stations - Ukiriguru, Nyamahona, Lubaga and Kingolwira - where they believed improved strains and better agricultural practices would lead to a considerable increase in yield per acre in a short time (I(iv)(b): ECGC/AR 1939-40).

Following a second visit by Parnell in August/September

[1] Mpanganya had been one of the chief cotton stations during the German administration but had been closed by the Tanganyikan Government because of lack of funds.

[2] These were the first directly employed ECGC staff in Tanganyika since the ECGC's departure at the end of the 1924-25 season.

1942 (I(iv)(e): CRC/F1/T1.1), it was decided to amalgamate Ukiriguru and Lubaga Experiment Stations at Ukiriguru and to close Kingolwira, unsuitable because of its atypical soil and climate and insect attacks so severe that they disrupted breeding work. In May 1943, the Executive discussed a proposal that the Corporation take over entire responsibility for the Cotton Experiment Stations. However, there was no desire to have these as "detached Corporation units in the country" and it was felt that Department of Agriculture and Native Administration officials would be more likely to take a close interest and translate into action if they had a direct input in the form of contributions to running costs (I(iv)(a): ECGC/ECM, 11/5/43). Grants were renewed over the years after the expiry of the original grant in 1939 on the usual understanding that Tanganyika Government expenditure on cotton would not be reduced. By 1946 agreement had been reached that the Corporation would provide senior staff and the Government all the other costs of Stations to carry on cotton experimental work in peacetime (I(iv)(a): ECGC/ECM, 28/5/46). The research was to be conducted mainly at Ukiriguru and at Ilonga, where a new station was completed in 1945-46, maintenance costs of both to be paid by the Government through a cotton cess.

During the 1950s and 1960s, the ECGC, Government, Lake Province Cotton Committee, Lint and Seed Marketing Board, farmers and extension workers all cooperated to increase cotton acreage and yield per acre, with most of the production in Lake Province, so that in 1966 a record crop showed a tenfold increase over the past twenty years (I(iv)(a): ECGC/ACM, 7/12/66).[1] A considerable part of this success was due to the Corporation's work at Ukiriguru where cross-breeding of Albar with the best Ukiriguru (Uk) strains was aimed at producing types

[1]Cotton Ordinance 1955 defined the Department of Agriculture's functions on the non-production side of cotton-growing; Lint and Seed Marketing Ordinance 1952 laid down the functions of the Lint and Seed Marketing Board and Provincial Cotton Committees (I(iv)(f): CRC/F2/62, 2nd file, '1959 Report on Cotton Industry in Tanganyika').

suitable for a wide variety of good and poor conditions; and where experiments on cultural practices included testing the worth of 5' ridges, contoured and tied ridges, manurial treatments and resting periods using pigeon pea, elephant grass, *Hyparrhenia* and *cynodon* (Ukiriguru Progress Reports and I(iv)(a): ECGC/SACM, 2/10/52 & 22/7/55).

During the 1970s, the breeding programme at Ukiriguru continued to produce higher yielding, better lint quality cottons in the Uk series; and seed issues were developed with reduced seedcoat fuzz to improve the efficiency of ginning and sowing (I(iv)(b): CRC/AR 1975).

3.5 THE END OF THE CORPORATION

> The belief:
> "Cotton will outlive all of us...The Corporation is the guardian of a great store of experience and commonsense on this subject and I for one do not think that we need fear unduly for the future."
> (Earl of Derby, addressing the Corporation's General Meeting, 21st June 1960.)

> The reality:
> "Whatever the imperatives were - and they appear to have been real enough - we are left with the foreseeable consequence that Britain no longer possesses a continuing and experienced capability in cotton growing research and development."
> (A.H. Bunting, Cotton Growing Review, vol. 52, 1975, pp.251-2)

In 1940, the Corporation pointed out that it was contributing to the welfare of local African peoples and widening Lancashire's export market (I(iv)(b): ECGC/GM, 28/5/40).[1] In 1947, the Corporation asserted its claim as a positive influence on the urgent and paramount need

[1] Appendix VI, Table I3 shows the percentage increase in average exports of cotton piece goods from UK to British East Africa and British West Africa. There was an impressive rise from 7.4% in 1937-39 to a high of 27.6% in 1952.

to conserve dollars (I(iv)(b): ECGC/CM, 3/6/47). In 1952, the Corporation's publicity brochure stressed its importance to the Lancashire cotton industry in ensuring supplies from the sterling area;[1] in maintaining constant vigilance over cotton strains, soil fertility, growing conditions, pests and diseases; in encouraging Governments and Agriculture Departments to be partners in its work; and in influencing policy on types of cotton to be produced, so that it would continue to suit British needs and be well-adapted to the conditions in which it was grown (I(iv)(g): ECGC, Misc.1). In 1969, looking back to when it had begun work in its then eleven member countries (Kenya, Malawi, Nigeria, Sudan, Swaziland, Tanzania, Uganda, Zambia, Botswana, Gambia, Sierra Leone), the Corporation recorded an increase in annual production from 100,000 bales to 2,000,000 bales and asserted that cotton was now of vital importance as the mainstay of the economies of many of these countries, as well as filling a growing local demand for raw material (I(iv)(g): CRC, Misc.3).

Thus, the Corporation had fulfilled its original remit of extending and promoting cotton in the Empire: production had been substantially increased,[2] and, even if much of the cotton did not arrive in Britain,[3] the UK's dependence on the United States had been dramatically reduced even by 1950. The ECGC had achieved this through its changing role in conjunction with overseas governments, Departments of Agriculture, Marketing Boards, the BCGA and growers.

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[1]The reduction in imports from the USA was very substantial:- at the beginning of the century, 75% of Britain's raw cotton came from the States, 64% in 1921-25, 52% in 1928-32 and 27% in 1946-50. In 1921, 1-2% of raw cotton imports came from the Empire, rising to 25% in 1951. See Appendix VI, Table 7 for further import figures.

[2]See Appendix VI, Table 20 for increase in Empire crops from 84,797 bales in 1918-19 to 1,228,085 in 1953-54. Table 18 shows the gradual rise of the African percentage in the 1920-53 period, from 0.72% in 1920-21 to a peak of 6.50% in 1950-51. See also Figure 2, p.143.

[3]Appendix VI, Table 19 illustrates the amount of cotton from Uganda and Tanganyika which was exported to countries other than Britain. See also Figure 2, p.143.

In 1971, Geoffrey Nye, Chairman of the Corporation since 1966, submitted at the General Meeting that there was still a pressing need for cotton research for changing conditions and needs (I(iv)(b): CRC/GM, 27/4/71). Cotton was often the only African cash crop, the main foreign exchange earner and provider of raw material for local spinning and weaving mills; and it was now the Corporation's function "to help the overseas countries to the best of its ability" (I(iv)(a): CRC/ECM, 22/10/68).

In 1972, CRC conditions of service were brought more or less into line with Britain's Overseas Development Administration (ODA) staff terms, except for the Corporation's retention of annual leave;[1] but the Director of the Corporation was upset that ODA had revised its intention of bringing the CRC under its general umbrella of technical aid (I(iv)(a): CRC/ACM, 9/6/72). From January 1972, the Corporation had been meeting the whole of the overseas staff costs and, as noted earlier,[2] was in a poor financial position. It is clear that the CRC thought that the British Government, to which it "owed its existence, and its allegiance", would step in and take over the structure and functions of its technical assistance to cotton-growing countries,[3] but ODM had no funds for this purpose or none it wished to divert to this end (I(iv)(a): CRC/ACM, 26/4/74). A month later, it was accepted that dissolution within five or six years seemed inevitable but finance, economies and structural changes would all be examined in an effort to find a means to continue (I(iv)(a): ECGC/ACM, 30/5/74). No solution was found and on 18th December 1974, at the 149th meeting of the Administrative Council, the decision to wind up was forced by circumstances upon the

[1] The Corporation had always emphasized that it was a British organisation and felt that this was reinforced by its officers coming back to Britain each year on leave. ODA terms, on the other hand, were usually based on home leave after a minimum 21 month overseas tour of service.

[2] See pp.138-40; & Appendix VI, Table 30.

[3] As detailed in Administrative Council and Executive Committee minutes; and in interview with Hutchinson.

Corporation (I(iv)(a): CRC/ACM, 18/12/74). Overseas staff appointments were to terminate on 31st December 1975 and home appointments on 30th June 1976. By early 1976 two thirds of the ECGC's staff had found alternative employment (I(iv)(b): CRC/AR 1975).

The 1975 Annual Report declared that the "CRC's final act, as an empty shell, will be to petition her Majesty the Queen in Council to accept surrender of the Charter" (p.2); on 14th July 1976 the Administrative Council met for the last time; on 10th October 1977, the final accounts were approved; and, on 25th October 1977, the Charter was surrendered. The loss of a dedicated, professional team of botanists, agronomists, geneticists, breeders and entomologists has yet to be calculated. At the moment, it seems unlikely that their places will be filled other than on a piecemeal country to country basis. However, the need for coordinated effort is as great as ever. Crops do not remain static. Neither do the conditions in which they grow. For optimum quality, yields and return to farmers, continuing agronomic, applied and scientific research is essential. It is vital that this should not be mere "ivory tower expertise" imposed on peasants whose needs and knowledge are discounted. Research and recommendations must be based soundly on smallholder experience.

CHAPTER 4

THE ECONOMIC AND AGRICULTURAL SITUATION IN BRITISH TERRITORIES IN AFRICA

4.1 THE COLONIAL-METROPOLITAN ECONOMIC RELATIONSHIP

> "Although nothing an agricultural officer of a colonial state or a development economist of the World Bank says should ever be taken at face value, the enduring laments about African backwardness, obsession with subsistence cultivation, lack of interest in what the British sometimes called 'economic crops' and the supposed modesty of their wants may actually reveal something about a system of economic domination that did not penetrate to the point of production."
>
> (Cooper, 1981, p.303)

During the earlier twentieth century a *modus vivendi* was reached in the economic relationship between metropolis and colony.[1] Under Colonial Secretary Harcourt (1910-14), a limited doctrine of colonial development emerged.[2] Colonies should be fiscally self-supporting, without British Treasury grants-in-aid or intervention, permitted to raise development loans without British Parliamentary approval.[3] This policy supported Britain's import needs by necessitating economies heavily structured in favour of primary production for export.[4] Smallholder earnings stimulated a market for British manufactured goods.[5]

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[1] The relationship between metropolitan and colonial states is considered in depth by Berman (1990). He demonstrates that the Kenyan colonial state was by no means an unquestioning servant of the metropole. There were frequent conflicts of interest and policy, with the local state making autonomous decisions. Throup (1987), also in the Kenyan context, placed the future of Africa in the hands of local policy makers, not remote Whitehall.

[2] Harcourt's particular enthusiasm for cotton is typified by, "I wish to promote cotton growing and ginning everywhere by everyone", quoted in Hatton (Ph.D., 1971, p.141, Footnote 44).

[3] As Walter Rodney put it: "In effect...the colonial governments never put a penny into the colonies. All expenses were met by exploiting the labour and natural resources of the continent..." (1972, p.180), with Africans paying for the governments and police who oppressed them.

[4] For discussion on such economies, developed for local revenue needs, see Brett (Ph.D.,1966).

[5] A potential conflict between metropolitan and local states arises from the desire of the local state to retain revenue and from metropolitan manufacturers seeking export of surplus capital.

Decades later, Britain still needed colonial imports and markets, particularly to counter dollar deficits and political interference with trade.[1] Little had changed fundamentally since Lugard claimed the tropics, though "populated by backward races", as a vital source for "civilisation" (for him, the advanced capitalist states, especially his own) of raw materials and food-stuffs (1921 (1923 edn., p.43)).

Many scholars have addressed the economic relationship between metropolis and colony this century. Themes of exploitation and uneven development recur in their works.[2] Seidman (1970; 1977) sees rural poverty as rooted in historically developed exploitative institutions and class relationships. Coercive measures, such as hut and poll taxes, helped carve out export production sectors between the European metropole and the vast labour reserves of Central and Southern Africa. The result was destruction of local handicraft industries by mass-produced imports, repression of peasant initiative and marginalisation of women as independent cultivators. Duignan and Gann (1975) refer to exploited African populations, compelled to cultivate marketable produce for Europeans (p.11). This led to uneven export sector development with little input where resources were absent or hard to exploit, a situation worsened by metropolitan inexperience and ignorance. Ajayi and Crowder (1974), discuss the West African situation, paralleled all over Africa, where discouragement of food crop production and high taxes forced Africans into increased cash crop production or wage labour (pp.531-533).[3] Clute (1982) suggests inputs into Africa were, and still are, skewed

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[1] In the 1950s, this was stressed by James Littlewood, Chairman of the ECGC (as in I(iv)(a): SACM, 3/4/52).

[2] A somewhat simplistic division can be made into those who deny a complex, vital, pre-colonial economy and those who exaggerate its importance. The former generally view the colonial period as modernising and vitalising; the latter as distorting and undermining. Both would agree it had a profound effect.

[3] Earlier, Crowder (1968) had dwelt on the minimal expenditure on agriculture by both British and French in their West African colonies.

to cash crops (p.7). Allied to brutal treatment and food shortages, this has drained rural sector vitality in favour of urban industrial development (p.15). African rural resources were manipulated for metropolitan commercial gain during the colonial period and for African urban gain in post-colonial times.

By contrast, "vent for surplus" became a popular theory, particularly in the 1970s and 1980s, to defend the export orientation of African economies. The term was used disparagingly in 1848 by J.S. Mill in Principles of Political Economy (1909 edition, p.579) with reference to Adam Smith's comments in The Wealth of Nations (1776)[1] that foreign trade benefits countries by affording "an outlet for that surplus part of the produce of their land and labour for which there is no demand among them".[2] Hla Myint (1971)[3] refined the theory for African "traditional society", attributing the expansion of agricultural exports to improved transport, availability of trade goods from overseas and access to overseas markets. These markets were the "vent" through which to tap "surplus" productive capacity of labour or natural resources. Myint ignored social, economic and agricultural disruption caused by export commodity production. For Hogendorn, Myint underemphasised colonial governments' stimulation of trade and overlooked indigenous entrepreneurial activity. But Hogendorn accepted surplus land and labour capacity[4] was indicated by shifting cultivation, communal land tenure, manpower released from warfare, low population densities and cash crop production not leading to food deficits (1975, pp.88-91 & 290-1).[5]

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[1] 1889 edition, pp.166 & 217, for example.

[2] The phrase was not coined by Mill, as claimed by Hogendorn (1975, p.289), though he certainly popularised "a vent for surplus" as what he described as one of the phrases "customary to designate the uses and recommendations of commerce with foreign countries" (p.579).

[3] Chapter 5 of Economic Theory and the underdeveloped countries is a reprint of Myint's first article on the topic, which appeared in Economic Journal, 68, 1958, pp.317-31.

[4] Of the two factors, Hogendorn believed labour to be a greater constraint on expansion of production.

[5] Myint did not foresee the desperate food self-sufficiency pleas of later African governments.

Hogendorn describes negative and positive stimuli - including propaganda, transport subsidy, processing plants,[1] free or subsidised seed and coercion - used by colonial governments to encourage "vent for surplus" production (1975, p.302).

Myint's model has many opponents. Hopkins views production of export crops as dependent on population increase. Hill sees indigenous capital and entrepreneurship as more important than the model allows.[2] Tosh (1980) denies there was widespread surplus land and labour. He contends convincingly that environmental constraints and crop complexes warrant attention too. Earlier, Elliott (1969, p.124) demonstrated labour abundance was often more apparent than real, attacking ignorance of crop seasonality and failure to differentiate true free time and the socially productive "leisure" of kinship bonding.

The notion of readily extractable surplus production was spurious, promoted by colonial apologists to mask the exploitation inherent in the one-sided outward expansion of European capitalism which drew subsistence economies into the world commodity market. There was no cheap elastic supply of land or labour. Petty peasant production was manipulated by capitalist concerns and the state, to supply outside needs. Resources were redistributed from local to foreign interests. Local economies were skewed towards primary production for export and becoming markets for metropolitan manufactures. Peasants' choices were restricted by international demand, world prices and decisions of metropolitan and local states. Peasant labour, scarcely more than wage labour, was unable to control these factors. This was certainly the case for cotton.

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[1] In order to utilise all the cotton grown, it was essential to have adequate ginning facilities. Governments sought to control ginning, initially by licensing and Ordinances, occasionally by direct intervention.

[2] Hopkins and Hill are discussed in Levi & Havenden, 1982, pp.40-43.

Extraction of surplus is inextricably linked with the "underdevelopment" of many modern African states,[1] seen by dependency theorists, such as Samir Amin, to be a defining characteristic of the world capitalist system.[2] Export of smallholder crops, without dynamic transformation of indigenous economies and investment inputs, leads to unbalanced imposed dependence on the international economy. Exhortation is no substitute for material inputs in overcoming low peasant productivity. Inadequate resourcing by modern states of the rural sector may be a legacy of the colonial government practice of undervaluing agriculture and the ideology "that governments should concern themselves with economic affairs as little as possible" (Levi & Havinden, 1982, p.128). However, the self-interest of African ruling elites provides the incentive to continue such policies.

Nominally, African interests were paramount.[3] In reality, during colonial times, local needs were usually subordinated to metropolitan needs, a feature also of neo-colonialism.[4] Mostly working through the existing agricultural frame-work,[5] and learning from white settler-planter or large scale plantation failures, technological innovations and new crops were introduced to

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[1]Szentes (1971), in turgid prose, provides a critical survey of various explanations of "underdevelopment" ("this odious and humiliating product of historical development", p.238), making a useful differentiation between "underdevelopment" and "relative underdevelopment", requiring different solutions of redistribution of goods and liquidation of exploitation and oppression.

[2]Amin has recently taken his critical ideas further in an argument in Delinking: Towards a Polycentric World (Zed Books, 1990) that Third World societies have to "delink" from global capitalism, over which they have no control, if they are to break free from stagnant dependence caused by underdevelopment and maldevelopment.

[3]The need for cotton production within the British Empire was generally recognised, but an example of the way the need was legitimised in terms of local benefit can be seen in the following statement that there are "...good reasons for believing that a well-organised native industry, which would lead to native production of cotton would be the economic backbone of stable native progress" (I(vii):RHL, Mss.Brit.Emp. S22 G142, Roneo of 'Native Policy in East Africa').

[4]c.f. Nyerere's Ibadan speech, for example, lamenting that new African Governments often found there was no such thing as a national economy: "Instead there exists in its land various economic activities which are owned by people outside its jurisdiction, which are directed at external needs, and which are run in the interests of external powers."

[5]Early agricultural initiatives, such as seed distribution and organisation of planting, usually involved working with chiefs and local power structures (Munro, 1976, p.116ff.)

improve peasant output to suit colonial overlords.[1] Low and fluctuating crop prices, and export crop taxes appropriating surplus value, limited peasant economic choice and mobility. Peasant decision-making in marketing, storage and credit was minimised.[2]

No rival African rural capitalist class could emerge to challenge metropolitan economic power. Bauer (1975, p.644) views restrictions on traders (especially Asians) in British East and Central Africa as intended "to protect Africans from contact with more resourceful expatriates".[3] Inevitably, this privileged some expatriates over others. Hatton's narrow study of Colonial Office documents for 1910-14 suggests a desire "to limit and if possible reduce the role of the Europeanised African" in East and Central Africa (Ph.D., 1971, p.172).[4] Iliffe (1983) is equally convinced that indigenous capitalism was impeded during most of the colonial period. Only in the 1950s, did African capitalists become desirable successors to power. But they were often "too likeminded, ... equally hostile to the growth of rural capitalism" (p.37).

At the macro-level, a fragile, superficial, symbiotic relationship of colony and metropolis emerged. Colonial issues rarely interested the British electorate (Brett, 1966; 1973; and Porter, 1975). A colony's success was measured by absence from British public debate or notice; and to an extent, by value to specific metropolitan economic sectors, such as Lancashire textiles. Colonial well-being was related to metropolitan industrial prosperity. However, Treasury concerns for domestic matters outweighed vague CO commitment to African welfare.

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[1]State intervention, ostensibly to "rationalise" local cotton and tobacco industries, in reality invariably favoured European interests of settlers and metropolitan industries.

[2]Many of these disincentives to agricultural sector growth have been noted by Bicher & Baker (1982) in their writings on the exploitation and strangulation of smallholder farming in Africa and the low priority given to agriculture at independence.

[3]Was this to prevent exploitation or, more cynically, to prevent Africans learning by example ?

[4]Hatton, however, concludes that British policy in this period was diametrically opposed to exploiting Chamberlain's "undeveloped estates" and was aimed at mutually profitable trade.

4.2 COTTON IN THE ECONOMY

> "Cotton is the crop which more than any other has introduced the African peasant to a cash economy."
>
> (Prentice, 1972, Preface.)

Many sources indicate cotton's early ubiquity in Africa. For example, the 'Report on the Island of Pemba for the Year 1900' mentioned small quantities of good quality cotton grown for local fabrication (p.10);[1] and the 1898 'Precis of Information concerning Barotseland' noted abundant wild cotton used to weave coarse native cloth (p.18).[2] Such familiarity suggested that peasant-grown African cotton might become important to Europe.

There were failures in governmental encouragement of cotton production for the metropolis.[3] Heavy coercive taxation sometimes fired resistance, emigration or wage employment.[4] Compulsion required strict control, to prevent reactions of derisive protest songs,[5] mass exodus or even rebellion, such as the 1905-07 German East African Maji Maji rising.[6] The rationality of peasant decision-

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[1] Cd.430, 1901, HMSO, London.

[2] Precis compiled by Major C.T. Dawkins, Intelligence Division, War Office, July 1898 (A541/Conf.7460).

[3] Missionaries, not the Government, had actually been responsible for the introduction of many important export crops (Yudelman, 1975); but self-interest soon led to active Government involvement.

[4] The relationship between taxation and cotton-growing was complex. Because the peak period of crop introductions coincided with poll tax, growth in production was thought to be one of the main objects of taxation (Masefield, 1972, Chapter 5). This was denied by Lugard, who believed that Africans did not need compulsion; by Wrigley (1959, p.16) who commented, in relation to Uganda: "The people were not taxed in order that they might be made to grow cotton; rather they were urged to grow cotton in order that they might be able to pay tax"; and by Jamal (Ph.D., 1976, p.11) - "Having imposed a tax, the government had to provide a means of earning it. Cotton filled this role."

[5] Songs as detailed, for example, in Vail & White (1978a), writing on Mozambique.

[6] Compulsory cotton-growing triggered the Maji Maji rising (see pp.342-43). French, Belgian, Portuguese and German colonies all had compulsory cotton-growing schemes at various times using varying, sometimes very brutal, degrees of force to ensure the crop was grown. Forced labour is defined by International Forced Labour Convention No.29, Article 2, 1930, as "work or service exacted from any person under the threat of any penalty and for which the said person has not offered himself voluntarily." The production results, particularly in Mozambique, were outstanding; but the effect on individuals and societies devastating. For descriptions of the practice, see, for example, Clarence-Smith (1983a), Dampierre (1960), Isaacman (1982), Isaacman & Isaacman (1983), Jewsiewicki (1977), Munslow (1983), Srivastava & Livingstone (1983), Sturzinger (1983), Vail (1983), Vail & White (1978; 1980) and Vellut (1977).

making was constantly under-estimated by those promoting cotton. Peasants preferred other crops (e.g. groundnuts in Northern Nigeria or maize in Kenya's Nyanza Province) for good reasons, such as higher returns and fewer man-hours expended per acre.[1] Even when cotton was grown at government behest, peasants often sought more remunerative non-metropolitan markets. For example, Nigerian cotton was retained for local industry and Nyasaland cotton was sold in Mozambique.[2] Sometimes, colonial governments blocked cotton production in certain areas to facilitate labour recruiting.[3] At other times, white farmers, as in Kenya, criticised administration encouragement of peasant cotton as a threat to their labour supply and livelihood.[4]

Cotton stimulated improved transport facilities, regarded in metropoles as vital for colonial economic welfare and market penetration. The Manchester Chamber of Commerce Monthly Record, from the 1890s, repeatedly and urgently called for further African railway construction; and railways had top priority in the Chamber's African Sectional Committee.[5] Cotton interests' railway lobbying led to new lines, easing cotton exports and trade goods imports, and stimulating feeder road building.[6] Cotton production made hitherto loss-making routes, such as the Mombasa-Kisumu line, profitable.

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[1] See Appendix IV, Section 4 for man-hours per acre. Despite pressure from gender-conscious critics that "person-hours" should be substituted for "man-hours", the latter phrase is used deliberately for two reasons. In general, I have no problem in using "man" in its generic sense of mankind. In particular, as a measure of agricultural input and productivity, a man-hour is one hour's work by one man. Not all the available statistics state whether the labour is provided by male or female but many studies are based on experiment station acres where labour is most commonly male. A male man-hour of digging virgin soil would probably result in a larger area dug, compared to that of a female man-hour; whereas a male man-hour of boll-picking generally produces less than a female man-hour.

[2] See Chapter 3, p.166, for an example of this.

[3] This happened in other European colonies too. For example, in Zaire (then Belgian Congo), a 1920s proposal by Texaf (Societe Textile Africaine) to introduce cotton-growing in Lulua was rejected by the administration in order to keep the local population free for wage labour (Vellut, 1977, p.305).

[4] Berman (1990) clearly depicts the powerful impact of settlers on official policy in Kenya. Settlers' prosperity was dependant on a servile labouring class.

[5] e.g. Monthly Record, Vol.III, No.1, 30/1/1897.

[6] Before completion of the Uganda Railway, it took 35 porters with 56lb headloads three months to transport one ton of materials from the coast to Lake Victoria (Gann & Duignan, 1978, p.287). The railway reduced the cost from £250 a ton pre-1900 to £6 in the 1920s.

Railways could have unpredicted consequences. The Kano line (completed 1911), stimulated groundnut production, more profitable for the local people, not Hausa cotton for Lancashire as intended. But Knowles could truthfully say in 1924: "In every tropical colony under British rule where cotton is grown it has proved to be a great factor in stimulating transport and exchange" (1924, p.135). Prentice (1972) echoed this: "Africa ... must always be grateful to cotton for its influential role in the opening up of the continent through communications" (p.18). But railways (and roads and shipping services) were the arteries of metropolitan-colonial exchange. Routes opened colonies to the world economy, not their regions to each other. Major communications infrastructure has remained an urgent task in post-colonial Africa and is still a potent political weapon.

Finally, cotton production for export competed with food crop production for home consumption. Most smallholders, encouraged or coerced to grow cash crops, had previously concentrated their labour on food production. Cotton and food crops' planting and tilling requirements generally coincide, creating a conflict of interest. There are three main schools of thought on this subject. Tosh (1980, p.93) sees marked deterioration in diet quality in Eastern Uganda in the 1920s, when millet yields suffered from cotton's primacy in the rotation.[1] In Oubangui, less nutritious cassava replaced sorghum following compulsory cotton cultivation in 1926.[2] Others, as quoted in Eicher and Baker (1982, p.212-14), acknowledge cash cropping might reduce food production but argue rural nutrition is

[1] Supported by Uganda Department of Agriculture Annual Report 1926 which shows millet yields in Eastern Uganda were affected by cotton-growing.

[2] A typical grouse is expressed by the DO, Biharamulo, Tanganyika, on 23/12/26 to the Provincial Commissioner, Bukoba: "Last year owing to cotton cultivation there was less food in the district than normally and I cannot possibly give very active encouragement to cotton without running a risk of a food shortage" (I(vi): TNA 215/82/Part I/168). Cassava, easier to grow and drought-resistant, but of more limited dietary value than cereal crops, became the main staple in many cotton areas.

maintained through farmers' higher net returns.[1] Thirdly, optimists, such as Tanganyika's Director of Agriculture, insisted cotton-growing with extension advice increased food crop planting.[2] This has little empirical support. Indeed, fertiliser and other cultivation practices excellent for cotton can devastate maize or sorghum.[3]

Tosh has the best of these arguments. Export production tends to undermine subsistence production.[4] Then, when cash returns are low, poor nutrition or worse occurs. Pressure to rely on cash earnings to buy food subordinates producers to external control. Their livelihoods depend on the sale price of export crops and the purchase price of food, both of which can be manipulated by others. More attention to peasant nutrition might have benefitted colonial states, with returns in increased agricultural exports. Food and nutrition policies still languish, overshadowed by cash crops in development programmes.

4.3 SOME ASPECTS OF AGRICULTURE IN BRITISH COLONIAL AFRICA

> "There is little evidence that the African cultivator is so conservative as to cling to methods which are obviously unwise or to resist the introduction of new crops."
> (Lord Hailey, 1938, p.886.)

Munro (1976, p.101) alleges colonial governments between 1896 and 1914 "made almost no direct contribution to agricultural change". Agriculture Department budgets were minimal. Crops such as cotton in Nigeria, which commercial

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[1] The view that cotton should be included in rotations as a "famine crop" was popular in Tanganyika in the 1930s. The rationale for cotton as a compulsory food crop in Sukumaland was explained by Swynnerton, talking of his days in Tanganyika, prior to his Kenyan appointment: in drought years, cotton was more likely to succeed than a food crop, thus providing cash for food (I(vii): RHL, Mss.Afr.s.1426).

[2] See p.156, footnote 1.

[3] See Chapter 6, p.375, fn.1, on inappropriate use of fertilisers. However, p.203 cites increased maize yield after cotton, showing its rotational value.

[4] Tempany (1952, p.85) noted: "Excessive dependence on imported foodstuffs is a notable consequence of export production in British Dependencies."

experience had led Africans to reject, were prioritised. By 1914, every British colony, except Gambia, had a Department of Agriculture, an experimental farm and a botanic garden (Gann & Duignan, 1978, p.319). However, of 1,399 Senior Technical and Administrative staff on the 1915 CO list for East Africa Protectorate, Nyasaland, Uganda and Nigeria, only 47 were employed in agriculture (Gann & Duignan, 1978, p.292). From the 1920s, colonial research stations focused on export crop expansion. In the 1950s, regional research stations serving a common ecological zone became fashionable (Eicher & Baker,1982).[1]

The Colonial Agricultural Service, established in 1935, expired with the CO on 1st August 1966. Although lacking any formal policy,[2] Masefield admiringly suggested, "History is likely to regard as the greatest single achievement of the Service the introduction of cash crops to so many parts of the world and the inculcation of practical methods of cultivating them" (1972, p.102), adding that there are no bouquets for disasters that did not happen. However, the Service did little for cotton. That was mainly the remit of the BCGA and ECGC, though encouragement and cooperation from the CO, colonial Agriculture Departments and Colonial Agriculture Service were welcomed.

Anderson (1984) notes that soil erosion, a local question in 1928, was by 1938 a major issue, "at the very heart of the strategies that emerged for African development" (p.343). The 1930s "American dust-bowl" enhanced awareness. The ECGC, accepting cotton could cause or exacerbate soil erosion, encouraged counter-erosion practices. It discouraged steep slope cultivation,

[1]The BCGC's Central Cotton Research Station in Uganda was an example of the trend towards regional stations in the 1950s.

[2]Though there was no written policy, except a 7-page CO publication of 1945 (Masefield, 1972, p.65), many issues, such as soil conservation, were dealt with in a regulated way with exchange of information between territories, particularly when officers were transferred. Levi & Havinden (1982) suggest that if there had not been financial pressure, there would probably have been no agricultural policy at all.

and advocated mulching, heavy yield varieties and labour-intensive contours, ridges and tie-ridges.[1] [2]

In the Empire Cotton Growing Review XV (1938), Sir Daniel Hall emphasised the British Government's responsibility to "save natives from themselves" by educating them in soil-conserving farming rotations including leguminous crops. However, environmental control was not in the gift of Europeans. As pointed out by McCracken (1987a, pp.189-90), many precolonial communities had conservation priorities. Thus, the Mbona ('Guardians of the Land') cult's rituals, described by Schoffeleers (1979; 1985), effectively addressed ecology and the environment; and, before European contact, the Luo had appropriate techniques for all principal soil types (Reed, Ph.D., 1975, p.4). Cedric Harvey (Agricultural Officer, Tanganyika, 1927-38) noted, only half-humorously, Moshi missionaries' "serious biological blunder" of insisting on cemetery burial when, previously, corpses maintained fertility among the bananas (I(vii): RHL, Mss.Afr.s.1769, Harvey).

Colonial agricultural policy adopted false premises of lazy,[3] wasteful Africans, bad shifting cultivation and inherently backward, inefficient subsistence farming.[4] As Hopkins points out, "The 'lazy' African is in reality usually either debilitated or without a market for his labour - or both" (1973, p.18). One can add, much

[1] Allan (1967, p.377) believed that any annual cash crop accelerated degeneration of the land, acting with the same effect as an increase in population. Ruthenberg (1976, pp.311-12, apparently basing his description on a similar view of the upset of man/land equilibrium in Von Rotenhan (1968, p.80), described the "cotton cycle" which increased erosion damage: arable farming with cotton as a cash crop leads to cash for farmers; the cash is invested in stock which leads to a concentration of stock in cotton-growing areas and an increase in arable land, which means less pasture; the decrease in pasture means erosion increases and stock are lost as grazing disappears; the farmer wants more stock and so increases his cotton acreage; and so the vicious circle is perpetuated.

[2] See Appendix IV, Section 4, 'Land Preparation', for a note on ridging.

[3] Even in 1972, Cole-King (1972a, p.33) mused that life was too easy for Africans, who, thus, had little incentive to become productive.

[4] Geary (1927) and Hill (1970) both note some of these wrong assumptions. Prentice (1972, p.14) dismisses any previous entrepreneurial activity when he writes of the inter-war years that "the conception of a modern exchange economy, very often based on the farming of cotton as a cash crop, began to impinge on the consciousness of the African as a possible alternative to the precarious subsistence farming which had hitherto been his only way of life".

African labour was not recognised as "work" by colonial officials with little regard for indigenous aspirations:[1]

> "... as long as the native through the medium of his womenfolk could grow sufficient foodstuffs to stave off hunger and famine and provide beer for his more than occasional beer drinks, he attained the summit of his outlook."
>
> (Ponsonby, 1926, p.332)

By the 1940s, there was some recognition that allegedly static, "primitive", pre-colonial agriculture was actually balanced, stable and ecologically sound. Colonialism had caused land loss, agricultural instability and reduced fertility (I(iv)(e): CRC/F1/R2,'Memo', 1941).[2] But, in general, pre-colonial export crop production, indigenous land tenures and variety of agricultural systems were dismissed or ignored.[3] African peasants were neither "backward" nor "irrational";[4] but indigenous knowledge and skills were ideologically discounted. A "mere native" could teach nothing. Europeans had always to appear superior.[5] Mordant comment on "expertise" is found in Donald Malcolm's remarks on a visit to Bukalasa Experimental Farm in Uganda in 1935:

> "The big word when inspecting strains of Cotton is "Habit". One should walk up to a plant, pull it about, grunt several times and say something about appearance and cleanliness ending some indefinite phrases with praise or abuse of the wretched plant's Habit (always singular !) ..."[6]

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[1] See also p.183, regarding failure to understand social obligations.

[2] 'Memo submitted to Colonial Council of Agriculture and Animal Health by the Agriculture and Veterinary Advisers to the Secretary of State for the Colonies'. It also recommended that export crop development must be strictly regulated by reference to market possibilities.

[3] Ten general tendencies to change were noted by Ruthenberg in his analysis of farming systems in the tropics, including natural grazing to cultivated fodder and natural regeneration of soil fertility to intensive manuring and fertilising (1976, pp.326 ff.). The systems in use were shifting cultivation, rotational bush fallow, rotational planted fallow, mixed farming, permanent cultivation, tree cultivation, floodland and irrigated agriculture.

[4] Nor was the peasant always male. Although male-female farming is the most prevalent form (Tosh, 1980, p.88), colonial officials found it hard to accept that "he" was often "she", showing little sympathy for female farming systems (Boserup, 1970, p.54) or the advantages of polygamy in shifting cultivation systems (Boserup, 1970, p.47).

[5] There was frequently political accommodation to this sort of attitude among Africans. An ironic continuation is seen in the apparent self-denigration (and flattery of Banda) in such statements as, "I never knew how to cultivate" (before Banda came along, because Europeans kept the knowledge to themselves), by a Malawian interviewee (White, 1987, p.234).

[6] I(vii): RHL, Mss.Afr.s.14445, Malcolm, Box 2, ff.1-100, Entry for 28/12/35.

How best to introduce innovations to smallholders has attracted much attention. Bernal (1988), writing on Sudan, divides the debate into "coercion" dialectic, assuming peasant incapacity to develop agriculture,[1] and "incentives" dialectic, which assumes peasants choose development when opportune. Anthony *et al* see the keys to new crop acceptance as profitability, ease of incorporation into existing farming and low risk to the farmer (1979, p.137). Lyon (1970) suggests that, in Nigeria, the best innovations were those, such as seed dressings and new pest and disease resistant varieties, not requiring direct farmer participation. He believes improved food crop methods create time for cash crops. Ruthenberg estimates (1968, p.349) that on small East African farms the value of new crops must be double the cost of additional inputs, before adoption will occur. However, Leonard (1977) reckoned that in Kenya, effective extension organisation should persuade farmers to accept new practices with substantially lower returns than 100%. Like Lyon, he evidently assumes that initiative comes from outside and above the peasant community.

Ruthenberg's detailed farming study (1976, 1st edition 1971) posits rational and adaptable farmers. He describes the many environmental variables influencing farm structure. Natural conditions (soil, climate, diseases) and institutional factors (land tenure, farm size, taxation, labour laws, credit and extension services) play a vital role. Technical knowledge, the economic climate and farm household demand for goods, shaped by cultural and social factors, are important. In turn, the environment is shaped by farming decisions.

Differential research station and smallholders' yields have provoked comment. Eicher and Baker (1982, p.122), for example, portray farmers' yields as commonly between

[1]Emphasis was often placed on alleged "Natural resistance to change of a rural society" (Cole-King, 1972a, p.34).

one third and one sixth of experimental yields.[1] To explain this, agricultural economists have examined dissemination of innovatory knowledge, particularly lags between its acquisition and adoption. Many expected to find failure to communicate with farmers, yet, this is often successful.[2] Farmers choose not to respond. FRI field studies of sixty farmers in Geita District (Tanzania) and Teso District (Uganda) indicate that ignorance was not a major problem.[3] In Geita District, 100% of the sample knew of recommended manurial and insecticide treatments but only 13% and 12% respectively practised them. However, 87% knew and implemented the recommended sowing date. In Teso District, 100% knew of and 95% practised row cultivation; whereas 93% knew of but none applied fertiliser recommendations. Clearly, more than information determines farmers' decisions.

IBRD studies (1967) indicated three possible reasons for smallholders' reluctance to use such knowledge. Firstly, when more productive, but less hardy, new cotton varieties were introduced, interplanting of food and cotton had to be abandoned (p.34). Secondly, at Kibos Research Station in Kenya's Central Nyanza District, cotton was subject to intensive experimentation, but was not adapted to the district's prevailing farming system (p.36).[4] Thirdly, in Sukumaland, farmers initiated cotton-growing methods resulting in desired cash income for minimum inputs (pp.74-76). New cottons were really new crops, demanding radical agricultural changes, not easy for rapid peasant accommodation.[5] Researchers ignored the

[1] The ECGC found this an intractable problem, noting with regularity that the gap between commercial and experimental yields was widening (e.g. I(iv)(b): ECGC/AR 1963).

[2] Peter Misiko's study of hybrid maize in Bungoma District, Kenya, found that 60.4% of farmers were low or non-adopters of innovations and that there was evidence that innovations were not used because of lack of knowledge of how to use them (Misiko, Ph.D., 1976).

[3] Anthony *et al* (1976, pp.164-65) compiled the results of the 1960s studies in useful tabular form.

[4] To be fully effective, recommendations have to be adapted to local farming systems or *vice versa*. The extent of the task can be seen from Conyers' 1971 study (noted in Chapter 6, p.375) describing the enormous variety of farming systems in Tanzania.

[5] The pre-colonial cottons in Africa had generally been trated as hardy perennials, pruned each season to induce new growth. They were thus quite different from exotic less hardy annuals.

real world outside experiment station fences.[1] The farmer invariably correctly assessed his needs (especially for home-grown food *versus* cash), priorities, effort and risks in relation to uncertain higher yields.[2] Even after independence, farmers often distrusted agricultural officials, recalling their historic triple role as advisers, ordinance enforcers and tax collectors. Experience had taught that such officials could be more a menace than a help.

Norman, Hayward and Hallam (1974) demonstrated that cotton grown to recommendations in Nigeria was a different crop from smallholder cotton grown in indigenous style. Farmers decide whether or not to adopt the "new" crop on the basis of profit, food supply security, water resources and financial requirements. Monu's (1982) indictment of diffusion of innovation studies, condemns assumptions that innovation and recommendations are unproblematically good, suitable and practical (pp.118-19). Identifying a socio-economic gap between researcher and peasant as the first inhibitory factor in the adoption process, he particularly berates the emphasis on progressive farmers as a conduit for innovations to trickle down and increase general productivity (pp.120-23). It is clear, as Monu suggests (p.124), that further study is needed to evaluate technology. Its applicability, compatability, profit-making potential and the availability of support systems all warrant attention. Small farmers have to maximise returns on limited capital. Extension advice without financial incentive is irrelevant.

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[1] Capital expenditure and high fuel cost are delimiting factors in most areas for mechanical cultivation but lack of attention to prevailing conditions led to problems when mechanical cultivation was introduced in a few areas. It is generally accepted that cotton picking cannot be effectively mechanised under African conditions or produce a quality product, so mechanised cultivation of large areas for planting and early husbandry led to bottlenecks at picking time (IBRD, 1967, p.102; J.B. Hutchinson interview).

[2] The autonomy and rationality of African farmers is confirmed by many studies (e.g. Bchessa, M.Sc. dissertation, 1980; Campbell, Ph.D., 1971). Richards (Bib.III: 1990) noted that Sierra Leone rice farmers carried out their own experimentation; sensibly put a higher value on low output, low resource crops in high risk areas; and used kinship, not agricultural extension, channels for passing on modern plant germplasm.

4.4 COTTON AS A CROP IN AFRICAN AGRICULTURE SYSTEMS

> "I have made no attempt to expound to you the difficulties and disappointments that attend the growing of a crop which Nature appears to detest and which, in addition to being attacked by every kind of insect and vegetable disease, is always breeding itself backward into badness."
> (J.W. McConnel, 1921, 'Cotton Growing within the British Empire': National Library of Scotland, 6.348)

Cotton adapts to various climates and soils.[1] It needs modest rainfall and resists drought. With adequate temperature and sun, minimal soil fertility and a dry season for boll-ripening, it can thrive. This and the vast American slave-grown acreages was taken to prove it is an "easy" crop, requiring little input. Karl Marx, in The Poverty of Philosophy (1847, 1956 translation, p.69) asks, "Why are cotton, potatoes and spirits the pivots of bourgeois society ?", answering they require the least labour. The Gold Coast cotton expert, E. Fisher, pronounced it was "impossible to make a complete failure" of properly attended cotton (I(i)(b): CGA 2/1/3).

McConnel and millions of African colonial peasants forced to grow the crop could have demolished all notions of abundant yields with little effort.[2] Cotton suffers numerous pests and diseases. It requires continuous attention from initial land preparation, early planting, timely thinning and constant clean weeding, through to rapid and careful multiple harvestings, cleaning and grading. Finally, uprooting and burning prevents plant residues harbouring diseases and pests. Cotton remains longest in the ground of all major African annual crops, so land is often not free until well into the dry season.

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[1] Full detail of the taxonomy of cotton, lint-producing cottons of relevance to Africa, technical terms connected with cotton production, cotton botany and husbandry and major pests and diseases of cotton in East and Central Africa is in Appendices I - V. Appendix IV, Section 3 contains particularly relevant remarks on cotton plant ecology.

[2] The table in Appendix IV, Section 4, illustrates how labour-intensive a crop cotton really is: much more so than maize, for example, requiring 620 man-hours per acre *versus* 320 for maize in one sample.

Optimal cotton soils are heavy to work, especially when wet. In addition, antipathy exists to a crop perceived as cruelly "introduced",[1] while proliferate regulations on seeds, culture, quality, ginning and marketing test growers and administrators.[2] Cotton is no "easy option". It requires considerable human investment.[3]

Western Europe turned to Africa for non-dollar cotton as the Marshall Plan ended. Read Dunn's useful 1950 African cotton survey for the National Cotton Council of America outlined the status, trends, problems and possibilities. Out of Africa's 11 million square miles, Dunn reckoned 5.5 million theoretically suitable for cotton (p.3).[4] This impressed him, though he foresaw difficulties, such as population sparsity (pp.10-12) and the 15-50% annual toll taken by pests and diseases (p.16). Dunn commended research programmes, in British Africa mainly ECGC's, but noted very low yields necessitating a mammoth educational task. Insignificant imminent expansion and increased African domestic consumption led Dunn to suppose no early great rise in exportable surplus.

Bartlett's study of tropical African rain-grown cotton production uncontroversially posits the African peasant objective as "maximisation of the utility obtained by use of the resources it commands" (Ph.D., 1974, p.2). He

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[1]Two examples of high feelings about cotton can be seen in the slogan of Chad's first political party - "No more cotton, no more chiefs, no more taxes" (Jewsiewicki, 1983, p.60); and in the fact that, in Mozambique, "to this day the word for cotton - tonje - evokes an almost automatic response: nyatwa - suffering" (Vail & White, 1978, p.253).

[2]Not all of the administrative burden relates to essentially agricultural matters. Many of the rules and regulations owe more to a desire to manipulate and control farmers and regional economies, than to crop requirements.

[3]This is acknowledged by Dumett, for example, who wrote, "Whereas early twentieth century British cotton-growing teams had quite a realistic appreciation of the environmental difficulties which confronted them, it is doubtful whether they fully comprehended the economic and human resource implications of their work" (1975, p.170).

[4]Not all of this land was available in practice. Dunn discounted Southern Africa, for example, as a "white man's country", while cotton had never been "a white man's crop" (p.6); and omitted Northern Africa from his calculations because not much cultivable land there was unutilised (pp.4-5).

examines labour and land availability,[1] technical costs and returns and resource allocation decisions. He concludes that African production, from colonial times to the present, follows an S-shaped curve of slow growth to rapid growth to stability (p.238). He sees transport development, elimination of tribal wars, limited alternatives, price increases and regional prices equalisation as long-term expansionary stimuli. But his "vent for surplus" model provides no satisfactory evidence of a surplus.

Inter-war and post-1949 years saw increased cotton production in Africa for a reasonably assured market. Cotton farmers evaluated social, economic, political, environmental and technical factors. Decision-making was influenced by priority to foodcrops, distances from markets, cash needs, competition for scarce inputs, alternative crops, Government support, social structures and customs,[2] price incentives,[3] marketing and quality control bureaucracy[4] and, very importantly, cotton's troublesome nature.

Cooperative Societies and Marketing Boards were important production agencies.[5] Cooperatives were especially vital

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[1]Included in this are demography, labour migration, seasonality of employment, land settlement, soils, production practices and equipment, crop varieties, food production and other cash-earning and non-agricultural activities.

[2]For example, according to Heussler (1968, p.156), who may however have absorbed rather too uncritically colonial notions of primitive peasant irrationality, villagers in Abuja Emirate, Nigeria, refused to grow cotton because the juju was against it. In parts of Tanganyika, smallholders were inhibited about growing cotton because they were unwilling to follow recommendations for manuring which would have meant disturbing the deposits in the cattle *bomas* which also acted as burial grounds; and, in the Lower Shire Valley, no amount of incentives would have persuaded villagers to clear and grow cotton in sacred ground.

[3]Abercrombie (1967, p.10) made the interesting postulation that "Price stability is not in itself an incentive to produce for the market, but unstable prices may act as a significant disincentive."

[4]These controls, many dating from the 1930s, included zoning arrangements to squeeze out middlemen and to retain governmental control of the industry.

[5]Hibbert gives a useful definition: "A Cooperative Society is an association of producers, usually of limited means, who have voluntarily joined together to form a democratically controlled business enterprise to market collectively their produce, making equal contributions to the capital required, and accepting a fair share of the works and benefits of the undertaking" (Hibbert, Ph.D., 1971, p.8).

in Tanganyika and Uganda.[1] Thus, Tanganyika's Victoria Federation of Cooperative Unions influenced the nationalist protest movement, as well as safeguarding its members' economic interests. Cooperatives generally offered guaranteed purchasing; storage and transport; loans and advice; and seeds, pesticides, fertilisers and implements at cost. But many growers complained of poor management, high subscriptions and deductions and that independent sales could achieve higher prices.

Until the 1940s to 1950s, marketing and processing was usually regulated by Government ordinance and in BCGA or commercial hands. With the advent of statutory colonial Marketing Boards, direct monopolistic state control of prices occurred. The stated aims were to stabilise production, eliminate competition, generate tax revenue, curb middleman profits and ensure marketable quality. Ostensibly, this was to protect African producers, particularly against Asian immigrants; to create an assured market; and to minimise the impact of world price fluctuations through price-assistance funds. Many Africans rightly felt one exploiter was replacing another as producer returns often fell short of international prices. At independence, 60% of raw cotton exports from Africa were government marketed. After independence, most African countries retained public monopsonies in cash crop purchase and marketing.

In 1931, John Todd wrote: "...the Empire crops while not in themselves very large in quantity, have played a very important part by filling up gaps here and there in the world's supplies, and they have more than justified all the labour and expenditure that has been devoted to them" (p.7). Certainly, industrial consumers benefitted from the additional supplies and competitive prices of the small but rising percentage of African-grown Empire

[1]For an analysis of cooperatives in Uganda, see Opio-Odongo (Ph.D.,1978).

cotton.[1] For Britain the expenditure and efforts of the CO, colonial governments, Departments of Agriculture, BCGA and ECGC were worthwhile. If rarely fully successful, they had justified themselves. However, Todd's self-satisfied remarks omit African peasants. In the short-term, few gained from cotton ventures. Most remained largely subsistence producers. In the longer term, they were unable to influence or control markets and prices.

4.5 THE HISTORY OF COTTON-GROWING IN EAST AND CENTRAL AFRICA[2]

> "Africa is the land of maize and dhurra, of palm, sugar, and cotton, of drought and flood, and the Africans are more or less naked black men, pastoral and agricultural, who, from Egypt to the Cape Colony, work iron and weave cotton cloth."
> ('Central Africa' by Captain E.C. Hore, FRGS, 1890.)[3]

This section reviews cotton-growing in Southern Rhodesia, Northern Rhodesia, Kenya and Uganda.[4] Mozambique, in the same broad geographic area, also has a history of cotton-growing from at least the sixteenth century.[5] Much literature dwells on the long, often brutal interaction between Portuguese colonizer and African colonised.[6] However, Mozambique, outside the sphere of the BCGA and ECGC, is not discussed here.

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[1] See Appendix VI, Tables 18 and 33.

[2] Malawi and Tanzania will be covered in Chapters 5 and 6, not here.

[3] Report in Manchester Chamber of Commerce Monthly Record, Vol.I, No.2, 20th February 1890, p.31.

[4] Brief mention of BCGC involvement in the countries of East and Central Africa can be found in Chapter 3, Section 3.4.

[5] Theal's 1899 translation of Baretto's 1569 journey refers to this; and, in 1915, Todd wrote: "Portugal seems to have been fifty years ahead of all the other European countries in taking up the development of cotton growing in her African colonies" (1915, p.195).

[6] Useful publications which refer to cotton production in Mozambique, many concentrating on the horrors of forced labour, initiated in 1926 and expanded in 1938 under the Salazar regime, include: Bravo (1963), Hammond (1975), Isaacman (1982), Isaacman & Isaacman (1983), Isaacman & Stephen (1980), Munslow (1983; 1984), Srivastara & Livingstone (1983), Vail (1983), Vail & White (1978; 1980), Young (1977) and papers in Edinburgh University Centre of African Studies (1978) 'Mozambique' Seminar Proceeedings. For further details on these, see Bibliography IV.

The BCGA and ECGC were involved to varying extent in the four territories examined here.[1] To begin with, BCGA carried out tasks later assigned separately to the two organisations. Their roles from the 1920s did not coincide,[2] though there was occasional collaboration and UK discussion.[3] BCGA needed ECGC scientific and agricultural expertise as much as ECGC depended on BCGA and others' ginning and marketing skills in pursuit of their aims of increasing and improving African cotton; but they did not have a joint campaign. Up to independence and beyond, both organisations maintained a charade of undiluted "aid" to subject peoples, yet were motivated mainly by commercial or national self-interest. Especially in the early days, both exhibited ignorance of African economies, agriculture and social structures; and both claimed expertise which often proved fallible. Perhaps subconsciously, their attitudes and policies were based on racist epistemologies at worst or paternalism at best. However, their influence was not all unwelcome and the net effect, most visibly of ECGC's scientific work, was to improve African cotton production.

4.5.1 THE HISTORY OF COTTON-GROWING IN SOUTHERN RHODESIA[4]

Although Agriculture and Economic Review (Zimbabwe Modern Farming Publications, 1982) and G.S. Cameron in Empire Cotton Growing Review (No. 8, 1931) state that cotton was first grown in the country in 1924, much earlier

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[1] As detailed in Sections 4.5.1 - 4.5.4.

[2] See Chapter 2, p.88 for the division of labour between ECGC and BCGA.

[3] For an example of joint funding in Southern Rhodesia, see p.202; and for agreed joint action in Uganda, see p.231.

[4] The territory which became Southern Rhodesia was in the administrative control of the British South Africa Company under its 1889 Charter and became a Crown Colony in 1923. The country was known as Southern Rhodesia from 1911-64, as Rhodesia from 1964-79, as Zimbabwe Rhodesia for 1979-80 and as Zimbabwe from 18th April 1980.

production occurred.[1] During the nineteenth century, the Ndebele were said to have made durable garments from locally grown cotton.[2] Cotton weaving was also practised by nineteenth century Shona people (Ranger, 1968, p.114). Up to 1923, cotton initiatives in Southern Rhodesia were desultory, lack of success being attributed to ignorance and insufficient incentives (Nobbs, 1925, pp.91-92). Despite early enthusiasm (I(iii): Pamphlet 4), BCGA had soon reported the failure of experiments and the Rhodesia Cotton Company plantation (I(ii)(a): BCGA/AR 1907).

The "cotton expert", appointed in 1918, actually concentrated on tobacco (Nobbs, 1925, p.2). In 1923-24, renewed interest resulted in 3,000 acres of cotton, mostly on one to two acre plots but with some of 150 acres. ECGC involvement began about this time after the Director of Agriculture, through the British South Africa Company, complained of ECGC neglect and asked for assistance (I(iv)(g): CP1/469, 1923). ECGC had held back, mainly because the Tobacco and Cotton Expert's 1920 Annual Report forecast no profit potential (I(iv)(g): CP1/307).[3]

In 1924, persuaded of better prospects, the ECGC arranged for G.S. Cameron to be a Cotton Specialist under the Ministry of Agriculture. It assisted in setting up Gatooma Experiment Station, and, in 1925, entered into a tripartite ginnery funding arrangement with the BCGA and Southern Rhodesian Government. Eric Nobbs, retired Director of Agriculture, over-optimistically imagined a

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[1] A denial of historical antecedents, which might show good sense, hard work, intelligence or other admirable qualities in the indigenous population, is not uncommon in European commentaries on Africa. It is possible that both of these cases are of genuine misconception or a rather loose use of language, but it seems plausible, certainly in the first example, of a book sponsored by the country's large-scale farmers, that the statement was a deliberate deception.

[2] From T.M. Thomas, Eleven years in Central South Africa (London, 1873), quoted by Palmer (1977).

[3] His report ended: "Taking into consideration the erratic behavious of the rainfall early in the growing season, and the high altitude of a large part of the country, I am convinced that Cotton Culture will not become a profitable branch of Agriculture in most parts of the present settled areas in Southern Rhodesia."

dawn for European cotton producers (Nobbs, 1925, p.95).[1] However, the 1923-24 boom year had seen "more enthusiasm and enterprise than perhaps prudence would have dictated".[2] Rash cultivation in the next two seasons, with insufficient knowledge, lack of suitable cotton varieties and severe pest problems, led to disaster.

Jassid was the chief limiting factor (I(iv)(b): ECGC/CR, 3/6/29), so Parnell's breakthrough in breeding jassid-resistant U4 at Barberton was of immense benefit to Southern Rhodesia. In 1928-29, one ton of U4 was bulked up to 65 tons by farmers and the 1929-30 season saw the reestablishment of commercial cotton-growing (I(iv)(b): ECGC/AR 1929-30). Insect pests still proved a problem, American bollworm particularly intractable, but many white farmers reckoned it was worth persevering for cotton's enhancing of maize yields in rotations (Cameron, 1931, p.85). In 1931-32, a drastic drop in production followed good results.[3] [4]

Against ECGC's protestations that prosperity lay in encouraging African agriculture, Native Reserve smallholder production was not officially encouraged in Southern Rhodesia until 1933-34 (Cameron, 1934 p.98e; I(iv)(b): ECGC/AR 1933-34). A few years later, Cameron was hopeful that, "provided he [the smallholder] is given a square deal and paid out in cash" (Cameron, 1937, p.29), there would be a growth in native cotton-growing. Despite efforts in 1938 (I(iv)(a): ECGC/ECM, 6/12/38), African smallholder cotton-growing expanded tardily, hindered by understandable reluctance to grow anything other than food

[1] Himbury visited the territory in 1924 and reported favourably on it in 1925, with the proviso that cheaper, better transport was essential. See Appendix VI, Table 24.

[2] R.A. Fletcher, Southern Rhodesian Minister of Agriculture and Lands, quoted by Cotton Specialist G.S. Cameron, in Empire Cotton Growing Review (Cameron, 1931, p.91).

[3] Production details were are as follows:- 1927-28 90 bales; 1928-29 280 bales; 1929-30 1,481 bales; 1930-31 1,974 bales; 1931-32 579 bales; 1932-33 355 bales.

[4] Late rains, which continued into the expected dry season. exacerbated the insect pest problem that season. Stainers were particularly rife. Low prices in the 1930-31 commodity slump must also have affected acres grown.

crops and by alternative cash sources. Low prices and distance from railways, solely serving white farmers, also deterred Africans (I(iv)(b): ECGC/AR 1936-37 & 1938-38; I(iv)(a): ECGC/ECM, 5/6/34 & ECGC/CR, 19/5/39).

The Cotton Research and Industry Act 1936 created a Board of Trustees from Government, BCGA, ECGC and a growers' representative.[1] This took over ginning and purchasing, and responsibility for Gatooma Experiment Station, the ECGC-staffed centre of cotton research (I(iv)(a): ECGC/ECM, 7/1/36; I(iv)(b): ECGC/AR 1935-36). However, ECGC assistance ended on 31st March 1942, following its new policy of no expenditure where only minimal exports were probable and where work did not benefit other areas (I(iv)(a): ECGC/ECM, 10/12/40 & 13/10/42). The Corporation recovered most of the money lent for ginneries and continued to keep in touch. The Southern Rhodesian Government took over its duties, research intensifying from 1947. Insect pests remained the worst problem, hence the setting up in 1956 of Gatooma's Cotton Pest Research Team, part-financed from outside sources.[2] Post-Federation, this Team became a unit of the Agricultural Research Council of Central Africa.

Between 1943 and 1953, fifteen businesses arose manufacturing from local yarn (Sommerville, 1953, p.21). By 1950, cotton production in Southern Rhodesia, evenly divided between European and African farmers, provided about 50% of Gatooma Spinning Mill's requirements (I(iv)(f): CRC/F2/58).[3] The 1960s' major pest control breakthrough permitted African smallholders, many on reclaimed land in formerly uninhabitable districts, to produce large quantities of cotton. There was a tenfold increase in

[1] The representative of cotton growers was appointed by the Government, so, needless to say, was white. Cameron paid lip-service to other growers by noting, "It would be interesting, if it were possible, to give the point of view of the potential native cotton grower" (1937, p.29).

[2] The Federation Government had assumed control at Gatooma in 1955.

[3] Gatooma Spinning Mill (which had opened in 1943) consumed 503,339 lbs lint to produce 447,615 lbs yarn in 1945-46. Imports of raw cotton from Uganda, Nyasaland and Belgian Congo, added to local supply, kept the mill working.

production between 1960 and 1965 (Weinrich, 1975, p.86) and a 47-fold increase from 1962/63 to 1968/69 (Zimbabwe Modern Farming Publications (ZMFP),1982, p.71). Production continued to soar,[1] spurred by the textile industry's role in diversification to counter international sanctions after UDI in 1965.[2] By 1971, when the Cotton Promotion Council was formed, the industry was boasted to be "one of the best cotton producers in the world" (ZMFP, 1982, p.71). Zimbabwe is now one of the top producers in Africa, fourth after Egypt, Sudan and Cote d'Ivoire (Africa South of the Sahara, 1991 edition, p.115).

4.5.2 THE HISTORY OF COTTON-GROWING IN NORTHERN RHODESIA[3]

Archaeological evidence of twelfth to thirteenth century cotton spinning by the Tonga Diaspora people attests to cotton's long history in this area (Roberts, 1976, pp.55-58). Dos Santos, a Dominican friar, found cotton at the end of the sixteenth century (Hobson, 1979, p.45); and on his 1858-63 journeys, David Livingstone enthused about cotton there. However, attempts between 1900 and 1910 to stimulate European and African commercial cotton-growing failed. The North-Eastern Rhodesia administration told chiefs in 1904: "The people should grow cotton for sale to the white man and so become rich...".[4] However, mainly because of transport difficulties, the British South

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[1] Value (in $ Thousand) of Crop Sales To/Through Marketing Authorities

Intake Year	Cotton	Intake Year	Cotton
1964-65	964	1979-80	54,871
1969-70	21,420	1980-81	70,515
1974-75	44,891	(Source: ZMFP, 1982, p.178)	

[2] The Rhodesia Political Department of the Commonwealth Office wrote to the CRC on 22/7/68 that the importance of cotton in Rhodesia's sanction-minimising programme meant it was not appropriate for a Rhodesian official to attend a cotton research conference (I(iv)(f): CRC/F2/58).

[3] The country was known as Northern Rhodesia from 1911-64 and Zambia from independence in October 1964. From the 1890s until 1924, when the CO took over the administration, the territory was under the control of the British South Africa Company.

[4] Fort Jameson District Notebook, Vol.I, 1904, quoted in Mwalukanga (III: 1982).

Africa Company had abandoned its hopes by 1906. Settlers' efforts in the Fort Jameson district and Eastern Province generally failed, although Messrs Honey and Thomson reported a good crop in Luangwa Valley in 1908, despite having to handpick bollworm off four acres (Honey and Thomson, 1908).[1] The BCGA gave advances to planters, using the African Lakes Company as agent, though many complained about exorbitant charges (I(x)(b): Zambia National Archives, ZNA NWR BS 2/18-19).

In 1910, the BCGA sent cotton expert J. Bateson to North Western Rhodesia. Little was then known on the best promotion and cultivation techniques. The BCGA gave £10,000 to match the British South Africa Company's donation to cotton development. In 1911, Mazabuka Experiment Station was established, but, after some initial success, experiments ended in failure. The BCGA ceased research but continued to buy cotton and give advances to planters (I(ii)(a): BCGA/AR 1912). Josselin de Jong,[2] Secretary for Agriculture, in his Annual Report for 1915 expressed grave doubts about commercial cotton-growing (Hobson, 1979, p.46). Partial confirmation came in a 1918 report that districts selected had proved climatically unsuitable for profitable cotton (Rhodesia Resources Committee, 1921).[3] Expensive transport, competing labour claims,[4] deficient ginning plants and lack of support to African farmers had also inhibited

[1]Despite Honey and Thomson's claims, J.C. De Jong reported on 3rd May 1910 that the Honey and Thomson estate at Chutica in Luangwa Valley, which had opened in 1904, was a failure by 1908-09 because it was exhausted (I(x)(b): Zambia National Archives, ZNA NWR BS 2/62, 'Report on Journey from Livingstone to Broken Hill').

[2]De Jong, previously a British Central Africa Shire Highlands planter, had conducted successful cotton experiments at Mirongo in North Eastern Rhodesia earlier in the decade (Central African Times, 12/1/07, p.7.)

[3]This probably said more for the inept choice of sites than for the supposed climatic problems. European "experts" chose to place research trials along railway lines and near administration centres (I(x)(b): NR Department of Agriculture, Annual Reports; ZNA, NWR BS 2/58).

[4]Bateson of the BCGA had been led to believe that labour would not be a limiting factor, but he found it was. In response to his letters, Wallace, for the administration, wrote on 11/3/12: "I regret to learn that you have closed down the Ginnery and that the Plantation is suffering from want of Native labour", but warned him, "I must impress upon you that requisitions for Native labour cannot be filled in the same manner as requisitions for stores." (I(x)(b): Zambia National Archives, ZNA NWR BS2/58).

production (I(x)(b): Northern Rhodesia Department of Agriculture, Annual Reports; ZNA, NWR BS 2/58).

Despite this disastrous start, high prices in the 1920s led to a minor boom. A ginnery was built at Mazabuka and over 11,000 acres planted by 1925-26 (Prentice, 1963). T.C. Moore arrived in 1923 to give advice, mainly to 200 new white settlers, before handing over to Salter of the ECGC in 1925. Early ECGC activity was hesitant and limited. As recommended by its Southern Africa Sub-Committee's first meeting, it decided that insufficient and irregular rainfall determined refusal of the Northern Charterland Exploration Company's request for an expert. Poor transport and its policy against subsidising private individuals inspired rejection of help to Rev. J.A. Ross of Kambole Mission, who wanted cotton-growing at the south-western end of Lake Tanganyika (I(iv)(a): ECGC/SASubM, 12/5/22). Ross nevertheless conducted his own successful experiments (Peet, 1926) and loaned out cotton gardens to native growers during the 1920s. The ECGC's H.C. Sampson reported on a 1923 advisory visit from Nyasaland that expensive transport, red bollworm and price fluctuations all made cotton-growing in Northern Rhodesia very speculative (I(iv)(g): CP1/450, 1923).[1] This influenced the Corporation's rejection of a 1924 request for an adviser for North-Eastern Rhodesia's African growers and a procrastinating reply to an appeal for an economic entomologist or biologist for North-Western Rhodesia's white farmers (I(iv)(a): ECGC/ECM, 4/12/24; I(iv)(g): CP1/535, 1924).

However, on 30th June 1925, the ECGC Executive confirmed the appointment of Salter to advise farmers in North-Western Rhodesia. This was in the midst of several poor seasons, mainly due to jassid attack. Bankruptcy was imminent for white cotton planters who had been lured by

[1]On a later visit, in July 1925, Sampson was more optimistic about cotton-growing, but only as a rotation crop for Africans who needed an easy, hardy, cash crop (I(iv)(g): CP1/595, 9/10/25).

high post-war prices. After heated debate, the ECGC agreed on joint loans with the Government to affected farmers (I(iv)(a): ECGC/ECM, 30/6/25, 29/7/25, 3/11/25). Of forty eight applications received by January 1926, thirty seven totalling £9,560 were approved (I(iv)(a): ECGC/ECM, 5/1/26). ECGC recovered this and further advances with no loss except interest.

Typical of failed 1920s settlers was Eric Landless who arrived in June 1924, jointly blessed by the BCGA and his father, a member of Manchester Cotton Exchange. Despite the BCGA's 1924 Annual Report optimism ("no serious pests are evident, the cost of labour is low, the natives are adaptable as cotton pickers, and many other factors" (p.42)), Landless's venture collapsed under heavy rain and insect plagues. Probably as under-capitalised and inexpert as many white settlers in East and Central Africa, he soon succumbed. In 1925 he wrote, "there was no crop at all, and my father said you might just as well try to grow cotton in the middle of Manchester" (Hobson, 1979, p.61). Like Landless, most white planters gave up, disillusioned as in Southern Rhodesia, by insect ravages, erratic rainfall and falling prices.

A.J. Wakefield's hope in 1924 that cotton would save Rhodesian farming was blighted.[1] By 1925, drought had ended visions of one million kilos of seed cotton.[2] Very low yields of 55 lbs/acre were reported by the Department of Agriculture. In 1929 further official encouragement was suspended till suitable varieties and effective pest and disease control might emerge (I(x)(b): Northern Rhodesia Department of Agriculture, Annual Report, 1929).

An Agricultural Experiment Station was reopened at Mazabuka, south of Lusaka, on Milligan's 1926 advice, with

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[1] Himbury had also viewed prospects favourably in 1924. See Appendix VI, Table 24.

[2] From Arthur John Wakefield letters, 1923-28, in Rhodes House Library (I(vii): RHL, Mss.Afr.s.348-49), including 'Impressions and Experiences of Northern Rhodesia', 4/4/24.)

Government establishment and maintenance funds. ECGC recruited a Senior Agricultural Officer (McEwen) and a Cotton Selection Officer (Bebbington) (I(iv)(a): ECGC/ECM, 21/9/26, 13/1/27, 18/9/28). By July 1933, Mazabuka was on a care-taking basis, despite the ECGC's pleas to the Government and to the Secretary of State for the Colonies that it should continue as a link in the chain of African experiment stations (I(iv)(a): ECGC/ECM, 5/5/31, 4/7/33). The ECGC defrayed Mazabuka's cotton work expenses from 1934 to 1939. In exchange, Government allocated a larger sum for the development of carefully controlled African cotton-growing. This, the ECGC believed, "would tend to keep the fit men of the community occupied at home, instead of their being compelled to go off to the copper mines as at present, in order to earn a living" (I(iv)(a): ECGC/ECM, 5/11/35). In 1939, foreseeing no worthwhile prospects, the ECGC pulled out of Northern Rhodesia (I(iv)(b): ECGC/AR 1938-39). The local Agriculture Department continued experimental work, but the ECGC did not return until 1967.

Despite BCGA and ECGC interest, African production was never encouraged in Northern Rhodesia as it was eventually in Southern Rhodesia or Nyasaland. The territory lacked processing facilities and transport. Competing labour claims, low market prices and an understaffed and hostile Department of Agriculture did not help. In 1931, the ECGC's A.G. Bebbington found commercial cotton production still uncertain, mainly blaming insects in a somewhat monocausal explanation. Research and breeding programmes eventually produced yield-enhancing jassid-resistant U4 but cotton stainers, American bollworm and spiny bollworm remained uncontrolled. By 1945-46, cotton production had virtually ceased (ECGR, XXVIII,1951, No.1). Not till the Southern Rhodesia and Nyasaland Cotton Pest Research Team, set up in 1956, devised strict insect control, were worthwhile results achieved.

In 1939, the Zambesi Valley could have doubled its 63lbs per acre seed cotton yield, but for the fact that "The indolence of the inhabitants is notorious", complained the Department of Agriculture Annual Report. Pim (1946, p.152) dismissively agreed: "... the tribes were in general of a much less advanced type with a much shorter history of education" than found in Nyasaland.[1] But the real blame for the failure of peasant production lay elsewhere. Long distance to the coast was a major deterrent. Further, "a thoroughly incompetent settler-agricultural community was allowed to take precarious root" (Palmer, 1983, p.108). Government assistance went to settlers not Africans, despite the 1930 Passfield Memorandum dictum that "the interests of the African natives must be paramount" (Dodge, 1977, Ch.2; Martin, 1975, pp.33-34). The Central African Federation intensified this European bias. Also, maize prices and high labour input requirements impeded cotton. By 1955, native production was confined to 759 growers in the Luangwa Valley in Eastern Province, dropping to 580 in 1956 and only 8 in 1958 (I(x)(b): Northern Rhodesia Department of Agriculture, Annual Reports).

A new cotton production drive from 1961-62 still faced competition from maize plus heavy damage from a wide range of vicious pests.[2] Yet, there was a startling revival in cotton-growing in 1962 due to competitive prices and, above all, insect pest control spraying. In 1964, when Lusaka Ginnery opened, the "good European farmer" was visualised as "the spearhead of the drive for production"

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[1]These remarks compare unfavourably with the following quote from a letter, dated 24/2/1910, from J. Bateson to the Secretary of the BCGA regarding the local population at Mungaila, visited on his tour of North-Western Rhodesia, who: "had the land beautifully clean showing a high state of cultivation and intelligence far beyond what one usually finds with these primitive people" (I(x)(b): Zambia National Archives, ZNA NWR BS 2/23). Implicit in Bateson's and Pim's comments is the typical stigmatising colonial assumption of "tribal" backwardness and laziness. Vail (1989) contains interesting analyses of ethnic self-awareness and how stereotypes were used to engineer, reinforce and justify inequality.

[2]Described thus by Prentice in 'Report on a Short Tour of Cottongrowing Areas in Northern Rhodesia, March 1964' (I(iv)(f): CRC/F2/57).

(Prentice, 1964).[1] But, by 1972, policy emphasized small-scale growers (I(iv)(a): CRC/SASubM, 22/2/72). From 152 acres in 1961, African-grown cotton acreage increased to 6,506 in 1966. 33% of the total crop was African-grown in 1964, almost all by 1971 (Lombard & Tweedie, 1974).

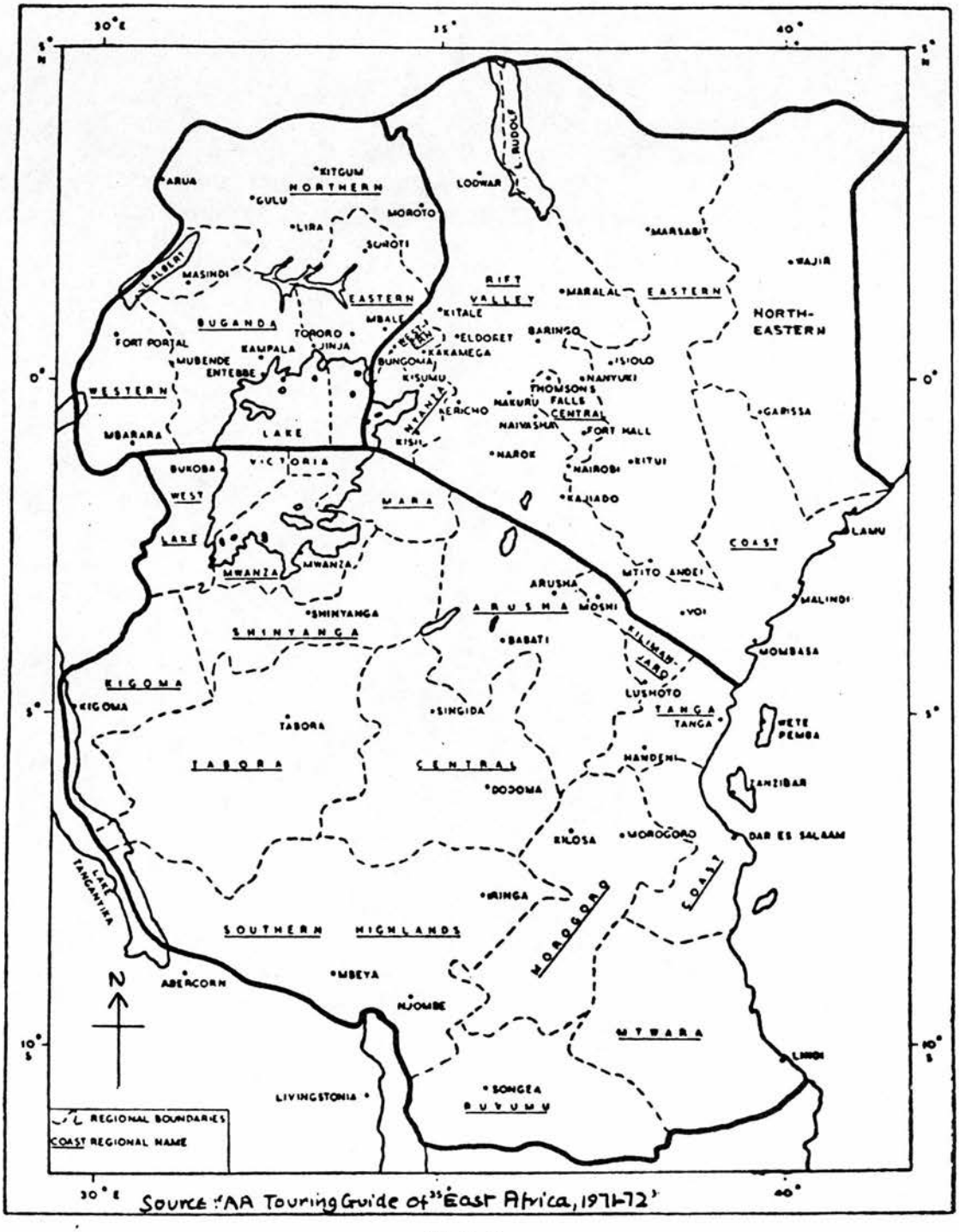
Most production was in Southern, Southern Central and Eastern Provinces, though red bollworm severely limited Eastern and extreme Southern areas. Average yields rose from 200 lbs of seed cotton an acre in the 1950s to over 900 lbs in the 1960s (I(iv)(f): CRC/F2/57/1st & 2nd files). Results were nevertheless disappointing. The Department of Agriculture's aim was 1,200lbs of seed cotton an acre, about half of what it believed technically possible (I(x)(b): Department of Agriculture, 1968). Bulteel (1970) noted Zambia's failure to supply demand at Kafue Mill for 6-8 million lbs of lint cotton. As a result, Zambian textile mills had to import synthetic materials (Roberts, 1976, p.237).

Labour and minerals have always been the main exports from an economy dominated since the 1920s by its mineral sector. The Zambian Government has always been aware of the need for diversity to end dependence on unpredictable world copper prices. However, cotton is unlikely to be to the fore in this. Despite its undoubted potential with insect problems now overcome, maize and other foodstuffs are likely to remain more crucial than cotton. The colonial agricultural sector was first developed to supply the food demands of World War I and to feed miners. Food crops still predominate, and when maize prices are high, cotton production drops.

[1] CRC/F2/57, as in Footnote 2, previous page.

REGIONAL MAP OF EAST AFRICA

(Regional names in use in 1971)



MAP 2

4.5.3 THE HISTORY OF COTTON-GROWING IN KENYA[1]

White settlers on fertile land dominated colonial Kenya's commercial agriculture and political economy, ensuring African production enjoyed less support and success than in neighbouring territories.[2] In most African countries, cotton has been regarded as a "black man's crop". In Kenya, climatic factors (low temperatures of high altitude areas, aridity of the desert belt, humidity of the narrow coastal areas), preference for foodcrop production and competing labour demands militated against the few early colonial attempts to encourage peasant cotton-growing.[3] Shortage of labour was an early problem, though the BCGA's suggested "indentured coolie labour" solution was turned down by the CO in May 1908 (I(i)(a): CGA 1/1/32(b)).

Reporting to the Directors of the Imperial British East Africa Company, Fitzgerald (1898) headily envisioned perennial cottons needing little attention. He noted great variety in the coastlands: uprooted annual American Upland; Sea Island; pruned perennial Egyptian and wild cottons; ridged and planted on the flat; and very fine staple to very poor quality. This appeared to confirm Manchester Chamber of Commerce's Monthly Record reports in the 1890s about cotton's potential in the protectorate. But his dream of perennial cotton was a mirage - unviable, botanically and agriculturally.

To the Oldham Committee, F.Sandbach Baker responded: "it is really well worth your while to seriously consider cotton growing out here" (I(ii)(c): BCGA, Oldham, 1902). Unsystematic experimental cultivation began in 1903 with

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[1] Known as the (British) East Africa Protectorate from 1895 to 1920, the country was consituted as the Crown Colony of Kenya in 1920, retaining the name Kenya at independence in 1963.

[2] Useful recent appraisals of the Kenyan situation can be found in Berman (1990), Furedi (1989), Kanogo (1987) and Throup (1987). All agree, with different emphasis, that an initially weak white settler sector in the Highlands acquired economic and political clout. In the process, African farmers were subordinated and manipulated.

[3] Appendix VI, Table 21, shows the low crops from 1903-22, the boom years of 1935-38, steady 1950s and expansion of production from the early 1960s.

the establishment of a Department of Agriculture (I(i)(b): MacDonald, 1911). Colonial Reports for 1904 to 1907 were optimistic about cotton as a staple export crop on the coast and at low elevations (I(x)(a): Colonial Office(b)). The BCGA sent ginning plant in 1905 and an expert in 1906.[1] But inadequate funds and misgivings about promoting cotton in British East Africa meant little BCGA enthusiasm.[2] After revealing in its Second Annual Report (1906) that it was working with "an important group of capitalists", in 1907 the Association's role was taken over by the newly formed British East Africa Corporation (BEAC) in which it had substantial shares. BEAC also took over cotton work from the Department of Agriculture, including expenditure of £1,000 a year on experimentation and education.[3] Kisumu ginnery was opened in 1908 and seed dispensed to the Kavirondo people. Much capital was written off in the process. Failures were blamed on Government's lack of sustained interest and the priority it accorded to European needs. In 1910, BEAC handed responsibility to the Department of Agriculture (I(i)(b): CGA 2/1/5).

Until the 1909 inauguration of Union Castle Steamship Company routes, Mombasa lacked direct shipping links with England and cotton exports had to be transhipped at Aden, Bombay or Hamburg. By 1911 BCGA was complaining that direct service vessels were too small (I(ii)(a): BCGA/AR 1911). This, however, was no indicator of East Africa Protectorate export potential. More typical were failures like the Tana River and Juba River Cotton Syndicates, in which the BCGA had a stake. The shipping capacity was needed for Ugandan cotton and it was mainly as an outlet for Ugandan cotton that BCGA retained interest in the East

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[1] I(i)(a): CGA 1/1/15-18; 1(ii)(a): BCGA/AR 1905

[2] I(iii): Pamphlet 4, 'First Report of the Unincorporated Association'.

[3] A useful synopsis of BEAC work to promote cotton-growing in the East Africa Protectorate can be found in a letter dated 26th April 1923 on 'Cotton Growing in Kavirondo', sent from Leggett, Chairman and Managing Director of BEAC Ltd., London, to the company's General Manager in Mombasa (I(vii): RHL, Mss.Afr.s.633, ff1-5, Coryndon Papers).

Africa Protectorate (I(ii)(a): BCGA/AR 1913). By 1920, BCGA doubted cotton would ever be economically viable in Kenya, mainly because of high altitudes and heavy rainfall (I(ii)(a): BCGA/AR 1920). By 1922, deciding that commercial interests there precluded its own, BCGA withdrew (I(ii)(b): BCGA/EM, 22/8/22).

Cotton-growing in Kenya in the 1920s aroused controversy. Ronai-Lower Molo Farmers Association of Nakuru were annoyed to be refused help by Major Legget of the BEAC.[1] He believed cotton would be unprofitable with a wage labour system, that it impoverished the soil, its price would probably fall and its marketing difficult. G.S. Sneyd of the Farmers' Association added, in a letter of 29th May 1920 to Colonel Franklin, Trade Commissioner, that Legget believed that the Empire Cotton Growing Committee would be unlikely to assist "purely a money making concern in reality if not in name" (I(iv)(e): CRC/F1/K1). In 1922, the ECGC refused a 1920 request for an expert because its limited expert personnel must go to more promising established areas. ECGC's private view of Kenya's administration appears in a letter to the BCGA: "I admit the possibilities, but I hate the Kenya Government, which represents a departure from the great English tradition in the tropics" (I(iv)(e): CRC/F1/K1, unsigned, probably Currie to Himbury, 3/5/23).

In July 1923, Governor Sir Robert Coryndon and the ECGC discussed developing cotton growing in Kavirondo country (I(iv)(e): CRC/F1/K1). But a thriving indigenous cotton industry was abhorrent to the settlers, dominant in

[1]Legget, whose name is spelt variously Legget, Leggett, Legat, Legatt in official documents, was originally lent to BEAC by the War Office when BEAC was administering for the BCGA the government grant of £1000 a year. The grant ended in 1910. (I(i)(a): CGA 1/9/38, 6/11/10).

commercial farming.[1] The East African Standard (18th October 1924, pp.37-38) warned of 'Dangers of the Cotton Policy in Kenya' when reporting a Convention of Associations' resolution that the Government appoint a cotton-growing commission in relation to "moral welfare of natives etc." European attitudes emerge from the speeches of the proposer and seconder. Captain Sayer, who admitted he had never been there, forecast "undoubted ruin" to European farmers and severe detriment to the moral welfare of Africans, "as in Uganda", if native cotton-growing was encouraged. Colonel Paterson quoted a friend, "who, while motoring recently in Uganda, came to a bridge on which sat a Uganda native with a tin. The motorist asked the native to get him some water from the stream and he would give him 25 cents. The native looked up and said: 'There is my hut over there, bwana. If you will bring the water for my cooking, I will give you a shilling.'" The colonel feared the like in Kenya if Kavirondo cotton was stimulated. Dual agricultural development for both Africans and Europeans was not for him - or for settlers generally.

The Colonial Office favoured Kavirondo development, contending "we do not believe that it will ultimately injuriously affect the settler".[2] But, despite Kenya Government interest, provision of seven ginnery sites in 1923, the 1923 Kenya Cotton Ordinance and Rules and an intensive campaign in 1927, Kavirondo cotton never took off. The Kavirondo people, unenthusiastic about an uncertain crop, sensibly preferred labour tenancies under white settlers in the Highlands (I(ii)(a): BCGA/AR 1922, 1923, 1925; I(iv)(g): CP1/759, 1928; I(x)(b): Kenya

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[1] Coryndon believed that settlers were "not as a body hostile to cotton growing" (5/5/24, letter from Coryndon to Henn (Henn Papers), quoted in Brett, Ph.D., 1966, p.218), a fact disputed by Sir Sydney Henn, Chairman of the Joint East Africa Board, set up in London in 1923 to look after the economic policy interests of various groups with an involvement in East Africa. In the same letter Coryndon expressed his belief that Uganda and Tanzania were quite capable of producing all the cotton Manchester could use, leaving Kenya with the role of providing high-class, capable European leaders (Brett, p.177).

[2] I(i)(a): CGA 1/13/251, Bottomley to Himbury, 16/11/22).

Agriculture Department/AR 1927).[1] By 1925, the BCGA saw Kenya as a potential "Meat and Wheat country" for Uganda (I(ii)(a): BCGA/AR 1925). Himbury's visit in 1926 left him unoptimistic: "I don't think Kenya will ever be a big cotton country" (I(ii)(c): Himbury, Diary note for 6/1/26).

During the 1930s, the Government conducted cotton trials and promoted local cotton-growing with scant success. Only 0.6% of the total cultivated area was under cotton. Yields were exceedingly poor; as low as 45 lbs an acre (I(x)(b): Holm, Kenya Department of Agriculture, 1931). Lack of African interest impeded early progress in the Lake area (I(iv)(b): ECGC/AR 1932-33), but production later increased erratically, depending largely on price. Attempts in Coast Province, where BCGA noted revived interest in 1929 (I(11)(a): BCGA/AR 1929), were hindered by poor communications and a scattered population, described as having little desire to earn money (I(iv)(b): ECGC/AR 1935-36 & ECGC/CR, 25/5/37).[2]

The Corporation rejected 1930s Kenya Government requests for assistance, because of higher priority elsewhere, but agreed on Milligan's three month advisory visit in 1936, the year the BCGA's Annual Report noted a huge crop increase. Milligan recommended no immediate ECGC action but suggested a few Government Agricultural Officers might visit Barberton for a season (I(iv)(a): ECGC/ECM, 15/1/35, 5/3/35, 14/5/35, 5/5/36, 26/7/39). His report concluded that Kenyan cotton would never be more than locally important and that "development has outrun knowledge".

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[1] Although BCGA and ECGC records refer to the Kavirondo as resigned to remaining as "labourers", most African labour on white farms in the Highlands was provided by Kikuyu "squatters". These were people who lived on European settlers' holdings, entitled to use some of the land for their own agricultural purposes, generally in exchange for labour. Increasing white oppression and the basic incompatibility of the two systems was a key factor in the rise of Mau Mau.

[2] For an analysis of the reaction of coastal peoples to attempts to push them into cotton-growing, see Cooper (1982), who concludes that: "Effective control of extrafamilial labor, good market conditions, freedom from money lenders whom the community regarded as parasitic, and lack of alternatives were needed to make cotton an attractive crop" (p.30).

Thus, trials and investigations rather than expansion were required (I(iv)(g): CP1/1341, 1936), a view sustained at a 1938 "Cotton-growing Problems" conference (I(iv)(g): CP1/1583).

During the 1940s, war efforts were concentrated on cereals and oilseeds (I(x)(b): Kenya Agriculture Department Annual Reports). Yet the Kenya Government retained its hopes for cotton. The Agriculture Department Annual Reports for the 1950s continued whingeing about native apathy and idleness, poor cultivation and in 1959, adverse world prices. Any compliments to African farmers were barbed, as thus: "The Coast cotton crop in the 1959/1960 season was so successful that the Giriama farmers at the Coast have been celebrating ever since. The result was poorly prepared land, very late planting and the minimum of attention" (I(x)(b): Kenya Department of Agriculture, AR 1960, Vol.I, p.12).

The National Cash Crops Policy Part I reported much cotton rotted unpicked each season, but recommended perseverance (I(x)(b): Kenya Government, 1963, p.17 & pp.7-9). In the same year, an optimistic Cotton Lint and Seed Marketing Board report suggested the cotton industry, which it was heavily subsidising,[1] could expand tenfold to 137,000 bales a year by 1970 to meet growing world demand for medium staple cotton, with Communist countries a potential valuable market.[2] Increasing yields to at least 600-700lbs/acre would raise output, according to a statement of the obvious by D.E. Smith, Secretary to the Board (East African Reporter 19/10/63, pp.35-37). By 1965, production targets had diminished to 100,000 bales a year in a programme calling for doubling yields

[1]The Board subsidised cotton from 1961-65 but then cut the producer support price from 60 Kenya cents per pound to 50 cents, to bring it closer to the 40 cents market price (IMF, 1969, Vol.II).
[2]I(iv)(f): CRC/F2/54, 1st November 1963, 'Cotton - A Major Export'. An indication of the purchasing power of Communist China can be gleaned from Reporter (EA), 9/11/63, p.18, which reported that of Uganda's 1962-63 crop of 358,000 bales, India purchased only 45,000 bales compared to 100,000 bought by Communist China.

per acre by the old refrain of better cultural methods, insect control and changed peasant attitudes. Peasants were still seen as tied to "static methods of the past", unwilling to adopt new yield-enhancing technologies, such as aerial insecticide spraying and increased tractor use on blocks of individual plots. Fixed prices for seed cotton and a charge for cotton seed for planting were also advocated (I(iv)(f): CRC/F2/54/-, 'Expansion Programme'). Kenyan cotton production increased promisingly well from 1963-64.[1] The 1966-70 Development Plan regarded cotton as the export crop with greatest potential for relative expansion by 1970.[2]

In the 1970s, there was adverse weather and ineffective pest control, particularly in Central Kenya, where the decision to grow cotton was essentially political. Nevertheless, eager for cotton self-sufficiency, Kenya requested further CRC research personnel (I(iv)(f): CRC/F2/54/-, 5th file, 1972).[3] By 1980, Kenya still only produced 26% of its requirements. Low producer prices and the higher priority of food cash crops hampered cotton (Echessa, 1980, p.17), though Msemakweli and Mwangi in their 1981 study on price elasticity of cotton supply in Kenya indicate that farmers were quite responsive to relative price changes.

A key question, especially for the colonial era, is why was Nyanza Province so unproductive compared to the adjoining Eastern Province of Uganda, despite similar climate, soil and population ?[4] Although the most important cash crop of Kenya's Lake Shore and Intermediate Savanna Regions, grown by 12,000 farmers on small scattered plots in the 1970s (IBRD, 1976, Vol.II), Nyanza

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[1] Appendix VI, Table 22, shows Kenyan yields for 1918-71.

[2] Quoted in Hibbert, Ph.D. 1971, p.29.

[3] The first direct aid to Kenya from the Corporation was a plant breeder assigned to Kisumu in 1951 to deal with Nyanza Province.

[4] Nyanza Province, home of the Kavirondo people, in conjunction with Western Province, provides about 75% of Kenya's cotton. For Uganda's remarkable cotton productivity, see Section 4.5.4.

cotton remained outperformed. Fearn (1956) argues that lack of incentive to earn and a preference for foodcrops for subsistence needs (with any surplus for sale), were early reasons for Government failure in promoting cotton. Wrigley (1965, pp.222-23) suggests marginal climatic differences, a stronger wage labour demand on the Kenyan side and pro-cotton pressure from Eastern Uganda's forceful Ganda chiefs. Initially pushed by the administration, self-interest soon saw chiefs exercising oppressive control over their tenants' cotton growing. Allan (1967, p.181) uses Nyanza to exemplify breakdown of old systems of land use. He regards cotton as inhibiting land use just as much as population growth. Very low prices and outflow of male labour to private and public employment explain the lack of progress on the Kenyan side, according to Ogutu (1971). Reed (Ph.D., 1975), attributes the 1901-39 failures in Central Nyanza Province to absence of a rational coordinated plan, the minimal attraction of a money economy, lack of attention to grievances and differences of perception between the European Government and African peasants. The Luo rationally and strongly prioritised maintaining their society over Government dictates.

The colonial government was slow to promote cotton-growing in the early days, with considerable objections from the dominant settler sector to the effects this might have on its labour supply. Even when policy was expansionary, results were disappointing. Cotton has had little impact on the Kenyan economy. Even when growing conditions were suitable and there was a desire for cash, better profit opportunities were available. Drives to expand cotton were counter to rational peasant self-interest, and so foundered.

4.5.4 THE HISTORY OF COTTON-GROWING IN UGANDA[1]

The second smallest territory examined,[2] Uganda was by far the most successful colony in establishing and sustaining cotton-growing. Peasants produced the crop; processing and marketing were mainly in expatriate hands.[3] Tanganyika, four times its size, was the only territory that came close, in any year between 1902 and 1975, to Ugandan production levels.[4]

The astounding success of Ugandan cotton has attracted much scholarly attention and many explanations.[5] As already seen, cotton requires considerable hard work and accurate timing, often giving poor cash returns. Ugandans had no prior experience of cotton as a cash crop but environmental conditions were suitable, and land and labour were available.[6] Early failures in cocoa, tea and coffee planting forced attention to cotton and other crops. Demand for Ugandan cotton (from Britain initially, later from India and Japan), ensured a cash flow to producers, required to pay Hut Tax from 1900 and attracted by an increasing range of consumer goods. Communications were, as usual, vital. The 1901 completion of the Kisumu

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[1] Formally incorporated into the British Empire as Uganda Protectorate in 1893, the territory achieved independence as Uganda in 1962.

[2] Figures vary, according to source (Africa South of the Sahara, ITN Factbook 1990, various geography books and atlases) but the areas of the countries are approximately as follows:- Nyasaland/Malawi - 45,800 square miles, of which 20% is non-land; Uganda - 93,000 square miles, of which 17% is non-land, and of which 25,000 square miles was assessed suitable for cotton-growing by Todd (1915, p.174); Southern Rhodesia/Zimbabwe - 150,800 square miles; Kenya - 225,000 square miles; Northern Rhodesia/Zambia 290,500 square miles; and Tanzania 364,800 square miles.

[3] European firms dominated ginning until 1914; Asians took over after the First World War; and it was not until the 1950s that Africans played a major role in the processing sector. Even in 1962, of 129 ginneries, only 14 belonged to African cooperatives.

[4] See Appendix VI, Tables 21 and 22 for cotton production 1902-75.

[5] Amongst those whose work has been particularly helpful in writing this review section are Bartlett (Ph.D., 1974), Barthwell (Ph.D., 1978), Brett (1973), Ehrlich (Ph.D., 1958), Hogendorn (1975), Jamal (1974; Ph.D., 1976), Masefield (1962), Nayenga (1981), Opio-Odongo (Ph.D., 1978), Reed (Ph.D., 1975), Taylor (Ph.D., 1981), Tosh (1978), Wrigley (1959) and Zwanenberg & King (1975). The standard general reference work on Uganda was for many years Thomas & Scott (1935) and, on agriculture, its companion, Tothill (1940).

[6] The disbanding of the Buganda Army and 1920s migration from Ruanda-Burundi swelled cotton growing labour. Also, plantain and cassava have lesser labour demands than maize. Both were diet staples in parts of Uganda, releasing man-hours for cotton production.

Railway,[1] the 1912 Busoga railway extension, Lake Kyoga steamers, and the 1928 Jinja and 1931 Kampala railway extensions maximised cotton export opportunities. The colonial government encouraged cotton to raise revenue to achieve self-financing. A well-developed hierarchical local government system in some districts aided introduction and expansion. Baganda chiefs readily collaborated, persuading or coercing peasants to widen production.[2] Through Cotton Ordinances and Rules, the administration controlled all stages of the industry. Various other agencies participated. The Uganda Company, formed in 1903, spent years nurturing cotton production.[3] The BCGA was involved indirectly from the start through its relationship with this company, the Colonial Office and the British East Africa Corporation; and through direct operations from 1914. ECGC research on better varieties and cultivation practices pushed up yields per acre.

Yet the process of expansion was uneven. Tosh (1978) reveals efforts in Lango District foundering for ten years. Bartlett (Ph.D., 1974), on regional and district variations and trends, mainly of the 1950s and 1960s, finds competition with food and other marketable crops often inhibited cotton. In general, though, the Ugandan peasantry transformed with remarkable ease into a nation of cotton-growers. They were encouraged by the linked interests of the British Government, British industry, local government, missionaries, local chiefs and Asian entrepreneurs. Many commentators stress the role of chiefs but Nayenga (1981, p.189), writing on Busoga

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[1] Cost of headload transport from Kisumu to the Kenyan coast was £300 per ton; cost by the new railway, which opened to traffic in 1902, was 48/- per ton (Bartlett, Ph.D., 1974, Ch.3).

[2] "Judicious use of physical coercion", Jamal (Ph.D., 1976, Introduction) described it; while Sir Hesketh Bell's 'Report on the Introduction and Establishment of the Cotton Industry in the Uganda Protectorate' (Cd 4910, 5/10/1909) argued that compulsion to grow cotton was necessary because "... the average peasant of the Protectorate is so naturally indolent that it is unlikely that he would have embarked in it on any considerable scale if he had not been more or less driven to it".

[3] By 1905, many local chiefs were stockholders in the Uganda Company (Hogendorn, 1975, p.313), thus, no doubt, inspiring them to greater efforts to encourage cotton production.

District, rightly emphasizes the part played by ordinary cultivators with their rich agrarian tradition, fertile soil and favourable climate. Reed, comparing the Baganda with the Luo, notes pre-colonial Baganda acquisitiveness and materialist values as aiding rapid adaptation to cotton production (Ph.D., 1975, Ch.3), though it is questionable whether these would have overcome the challenges of the colonialism imposed on Kenya.

Speke and Grant reported *G. barbadense* in 1862 and Samuel Baker established Gallini cotton from Egypt in Bunyoro in 1872 (Nye, 1931, p.282). Manchester Chamber of Commerce Monthly Record, Volume XIII, 1892, carried a eulogy from Mountjoy-Jephson, one of Stanley's officers who had been with Emin Pasha for eight months. He had observed cotton so prolific that modest acreage clothed all "Emin Pasha's people"; and prophesied Ugandan cotton would be Africa's great product (p.70). In 1893, Lugard noted earlier Sudanese introduction of Egyptian cotton and arrogantly assumed that skilled established producers "would be only too glad to export the raw material in return for cheap Lancashire cloth ..." (pp.430-1). Economic hegemony posited grateful natives forgoing profits and benefits from their own spinning and weaving in return for the doubtful pleasure of providing profits for British manufacturers. In 1896, Frederick Grant Banks wrote home from his tent near Fort Kampala that cotton was among the crops he was to plant. By 1900, cotton was growing at his new posting at Lubas, Usoga.[1] Yet, Special Commissioner H.H. Johnston was sceptical that Ugandan production could surmount rail freight costs to the coast, despite the quality of the country's existing "wild, or half wild" cotton (I(x)(a): Foreign Office,

[1] I(xi): Royal Commonwealth Society collection of Banks' letters, No.12 of 25/10/1896 and No.48 of 1/8/1900).

Cd.256, 1900).[1] Such caution was then rare. More typically, E. Helm enthused in 1902 to Manchester Chamber of Commerce on a Ugandan cotton sample forwarded by Kew Gardens (Manchester Chamber of Commerce Monthly Record, Vol.XIII, 1902, pp.171-72). On this slight basis, in 1903 a proposed Uganda Development Company waxed lyrical about cotton as a fiscal and commercial panacea (I(xi): CMS, G3/A7/P, 1st July 1903 report, p.3).[2]

When large-scale production began in Uganda is uncertain, different "seasons" being used by different authorities. Probably, commercial cotton-growing began in 1903[3] when K.E. Borup[4] on behalf of the Uganda Company,[5] the sole buyer until 1907,[6] imported 62 bags (2.5 tons) comprising five seed varieties provided by the BCGA.[7] Simultaneously the Ugandan Government imported half-a-ton each of three varieties from the Khedivial Agricultural Society of

[1]Fifteen years later, when the Ugandan cotton industry was thriving, Todd (1915, pp.174-76) commended the quality and quantity of cotton produced but complained bitterly about the high costs of freight from cotton fields to Lancashire: starting out as headloads to buying stations; then to the nearest forwarding station; then by short rail link from Namasagali to Jinja; then to Kisumu by lake steamer, perhaps with a detour to Kampala for ginning; on to Kilindini by railway; and, finally, by ship through the Red Sea, with heavy Suez Canal dues, to Liverpool.

[2]The Hut Tax imposed from 1900-01 was an added incentive for the local population to earn money. The administration benefited enormously from cotton, producing 80% of its revenue in the 1920s and 1930s (Brett, 1973, p.246).

[3]Masefield (1972, p.17 footnote) says that, although the usual date given is 1903, he was "informed" that the Uganda Company records state 1904.

[4]Borup was in charge of the Church Missionary Society (CMS) industrial missions until his resignation with effect from 1/1/1905, though he asked that he should be allowed to return to the CMS if he had to leave the Uganda Company for any reason not his own fault (I(xi): CMS, G3/A7/P, Letter of 28/2/1905). Buxton had agreed that the connection between the Uganda Company and the CMS should be severed, following objections from traders that the CMS was helping a trading company to cut them out in legitimate business (I(xi): CMS, G3/A7/P, Minutes of Conference of Missionaries held at Mengo, June 15-18, 1904).

[5]The Uganda Company Ltd., established in 1903, launched by T.F.V. and F.A. Buxton (President of the Anti-Slavery and Aborigines Protection Society and British Member of Parliament, respectively), spent its early years in the promotion of cotton-growing among African farmers, diversified in the 1920s into a wide range of activities and was taken over by Mitchell Cotts Ltd. in 1967 (Hopkins, 1976a; Zwanenberg & King, 1975).

[6]In 1907, the French company, L. Besson et Cie, and the company owned by former Uganda Company mechanic, James Buckley, started ginning operations. It was not until 1914 that the first Asian ginnery was opened by Allidina Visram, though Asians dominated this sector a decade later. Government rules and regulations made it difficult for small operators to enter the ginning sector and a failed attempt by the Baganda Cotton Company in 1930-31, described by Barthwell (Ph.D., 1978, Ch.6) did not encourage other Africans, who appear to have been deliberately discriminated against to prevent an African capitalist class from emerging.

[7]The varieties were American Upland, Afifi, Peruvian Sea Island, Black Peruvian and Yannovitch.

Egypt for trials (Ehrlich, Ph.D.,1958; Nye, 1931; Tothill, 1940, p.187; Yudelman, 1975).[1] Distributed free to farmers in eight districts, American Upland was the lone success. In 1905, Government issued a ton of American "Black Rattler" seed, acquired from BCGA, *via* the indigenous authorities in Buganda, Busoga, Bunyoro and Ankole (Nye, 1931, p.284).

The British Government never saw Uganda as a potential "white man's country". This meant discouragement of settlers but Europeans were certainly to be in overall control. Development was to be *via* "native agency, controlled by Europeans and assisted by European capital", thus relegating indigenous elites to being local instruments of the colonial state and metropolitan capital (I(x): CO(d), CR, Uganda, 1904-05, pp.31-32).[2] Cotton suited this perfectly. The colonial state, eager for a revenue-creating crop, required local chiefs to persuade their people to grow cotton. The Scientific and Forestry Department Annual Report, 1904-05, spoke of plans "to obtain trained pupils from the Indian agricultural colleges to train the natives in the cultivation of cotton".[3] Growth was astounding: in 1904-05, 54 bales were produced, worth £236 and accounting for .39% of all exports by value. From this tentative start, the 1905-06 Colonial Report envisaged cotton as a national industry. By 1906-07 cotton-growing was Uganda's principal industry (1906-07 Colonial Report, p.15). In 1907-08, 3,973 bales were exported, totalling 35% of exports by value; in 1910-11, production rose to 13,378 bales; and in 1914-15, the 32,535 exported bales gave

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[1] The varieties were Abassi, Afifi and Ashmouni.

[2] The BCGA was convinced early on that emphasis on smallholder production would be best in British East Africa (I(i)(a): CGA 1/2/21-22, 8/3/06); and W. Himbury of the BCGA had no doubt about Uganda, nearly twenty years later - "It is a black man's country" (I(i)(b): CGA 2/1/6, 10/6/24).

[3] I(ix): PRO, CO 879/88, enclosure in J.Hayes Sadler to Lyttelton, 26/4/05.

71% of the total value of exports (Hogendorn,1975,p.314).[1]

Lacking funds, the BCGA had no early direct involvement in Uganda. Also, Hutton may have underestimated cotton's potential there. Thus, when asked at the CO on 5th April 1906 about BCGA taking control of British East African cotton, Hutton objected that "very serious storms" might impede cotton-growing in Uganda (I(i)(a): CGA 1/1/15). Yet, the BCGA showed early concern about quality, seed control and the need for a so-called fair price to growers.[2] These matters were raised regularly at BCGA/CO conferences. As Hutton wrote: "I have no doubt that at times the Officials have looked on the Association as an intolerable nuisance", because of bringing up the topic of Uganda at every possible moment (I(i)(c): CGA 3/1/15, Hutton, c.1917). In 1907, when Churchill enthused after visiting East Africa, the BCGA was worried by the large proportion of inferior, mixed and stained cotton from Uganda (I(ii)(a): BCGA/AR 1907).[3] One cause was early official eagerness to maximise widespread production, regardless of seed source or variety. Early on, the Government sold 62 handgins at £1 each and donated a further 43 (Nye, 1931, p.285; Ehrlich, Ph.D. 1958, p.69). A fiasco ensued. The lint was practically unsaleable and administration lost control of seed supply, forcing Government repossession and destruction of the gins. Barthwell (Ph.D., 1978, Ch.6) rightly suggests this policy limited African owned ginning. This suited both colonial rulers and large-scale expatriate ginners. But

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[1] These figures will be found not to match those in Appendix VI, Table 21. Indeed, no two sets of figures for bales or percentages appear to agree; but all sources - official (Blue Books, Colonial Reports, Department of Agriculture Annual Reports), commercial, contemporary, modern - illustrate a similar dramatic rise to that shown here.

[2] Given that the BCGA's main interest and base was in Lancashire, the notion of fair prices to growers is easily attacked. However, the BCGA, more than most commercial companies, did at least acknowledge that growers might have some rights or, more cynically, should be treated well enough to ensure that consumers' demands for a regular supply of cheap cotton could be met.

[3] The BCGA feared that poor quality grades, lack of uniformity, totally unacceptable mixing of American and Egyptian types and a variety of other malpractices would give Ugandan cotton as bad a reputation as that from East India, "sown anyhow, grown anyhow, ginned anyhow" (I(i)(c): CGA 3/2/33-34, Hutton to USSC, 17/1/1908).

there were overwhelming technical arguments against the use of handgins, which gravely reduced crop quality.[1] In uncontrolled buying in 1907, native and Indian buyers competed with the Uganda Company for the first time. On BCGA advice, Government appointed a cotton inspector and introduced stringent seed import, distribution, planting, cultivation and marketing regulations. By 1909, only "American Black Rattler" was imported and almost all cotton grown was American Upland. Throughout 1910 and 1911 BCGA corresponded with the Colonial Office on the poor quality of Ugandan cotton,[2] but "Ordinary Uganda", a conglomerated seed, was distributed as late as 1911-12 (I(x)(a): CR, Uganda, 1911-12). BCGA was undecided in 1913 about favouring long-stapled Upland type over the readily marketable existing crop, doubting Uganda's ability to produce the quality in demand in the longer-stapled market (I(ii)(a): BCGA/AR 1913). In 1915-16, Nyasaland Upland was imported; and in 1916-17, the entire crop was grown from varieties selected and developed locally (Norris, 1937; Opio-Odongo, Ph.D., 1978, p.59).

Operating indirectly, mainly through the British East Africa Corporation and by advising the CO, severe buyer competition was the BCGA's main Ugandan worry in 1909. Its advocacy of the highest possible fixed price was unwelcome to the Uganda Company and others (I(ii)(a): BCGA/AR 1909). However, during the second decade of Ugandan commercial cotton production, ginning and buying came under close Government scrutiny. As Munro (1976, p.129) suggests, these matters were prioritised above productivity. 40% of cotton was exported unginned in 1910, none by 1918 (Jamal, 1974, p.138). Shortage of Lake steamers and rolling stock in 1912 led to Uganda Government prohibition on export of bulkier unginned cotton and eventually to the 1918 Cotton Rules licensing

[1]Clean ginning and separation of varieties is vital for trouble-free manufacturing. Poor quality means poor sales. Handgins could not produce the requisite quality. Thus, a sound technical argument fortuitously served non-African economic interests.

[2]I(i)(a): CGA 1/10/-; I(ix): PRO, CO 879/111.

ginneries.

The BCGA complained frequently, mainly to the CO, about Ugandan Government meddling beyond its bounds or expertise. These complaints were often larded by lofty platitudes masquerading as statesmanlike concern. Sometimes BCGA advice was heeded and rules withdrawn or amended. For example, in 1912, the BCGA effectively criticised as meddlesome and impracticable certain particularly inane Government Rules. To have all shippers using the same marks and brands would have impeded quality control; to require division into twelve different grades, when four or five taxed the most expert, was an impossible task (I(ii)(a): BCGA/AR 1912). As if neutral, the BCGA criticised new regulations limiting buying licences to merchants owning ginning factories, though the Government ignored this, under pressure from other European ginners' vested interests (I(ii)(a): BCGA/AR 1913). In 1918, the Government moved towards monopolistic buying by ginning conglomerates through a rule forbidding new buying posts within five miles of existing, even if inactive, posts.[1]

Until Alidina Visram opened his first mill in 1914, all ginneries were European-owned.[2] Despite European ginners' tendentious arguments that Africans needed protection from Asian sharp practices and despite a marketing system favouring large firms over peasants and newcomers, by 1919 17 out of 58 ginneries were Indian-owned. By 1925, 100 out of 155 were Indian (Zwanenberg & King, 1975, p.207; Kilby, 1975, p.476). Of 160 in 1930, as many as 130 were Indian-owned (I(ii)(a): BCGA/AR 1930) - a remarkable achievement, matched by India's outbidding of

[1] Economies of scale in cotton production are in ginning, not growing. The Ugandan Government moved quickly towards curtailment of competion to ensure a higher rate of utilisation per gin. Inevitably, monopoly meant poorer prices for farmers. The BCGA regularly claimed to favour higher prices to producers but it was not averse to monopoly in other countries, provided it held the monopoly.

[2] See footnote 3, p.221; and footnote 6, p.224.

Lancashire for Ugandan cotton.[1] The few African middlemen were eliminated by official discouragement and Asian competition. European ginners successfully lobbied the Colonial Office and Ugandan Government to protect their high-cost investments. The 1920s and 1930s saw increasingly restrictive legislation to stop further ginnery building, curb middlemen and increase central control.

BCGA admitted early mistakes by Legget and the BEAC, but was satisfied with how BEAC handled its Ugandan interests up to 1912.[2] However, BCGA-BEAC ties ended in 1914, after differences on general policy and specific practices in crop financing. Mutual acrimony and the antipathy of other firms in Uganda to their previous collaboration left their mark. Nevertheless, the Colonial Office reassured the BCGA on 17th March 1915 (I(i)(a): CGA 1/12/353, Bottomley to Hutton) that, "The authorities here (Downing Street) are confident that you can safely leave it to time - and Mr. Worsley [BCGA Manager, Uganda] - to remove the bad impression which the past relations between the Association and the British East Africa Corporation has created."[3] From 1914, the Association was involved directly in the country, financing and working three ginning and buying centres by July of that year (I(i)(a): CGA 1/1/53, 1/7/15). It continued often at loggerheads

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[1] Destination of Ugandan cotton as % of Total Cotton Exports (Sample Years)

	% to UK	% to India
1906-07	83	3
1915-16	74	<1
1916-17	62	30
1917-18	67	33
1920-21	62	32
1921-22	29	70
1924-25	35	64

(Source: Ehrlich, Ph.D., 1958, p.150, from Annual Trade Reports and Department of Agriculture Annual Reports)

[2] I(ii)(a): BCGA/AR 1912; I(ix): PRO, CO 879/111, Serial No. 51, Hutton to CO, 21/10/11.

[3] The BCGA and BEAC continued to quarrel, e.g. about the Cotton Flower trade mark of BEAC. This particular case was settled out of court with BEAC agreeing not to use it (I(ii)(b): BCGA/BM, 17/2/16).

with the Department of Agriculture[1] and other companies, which rightly resented competition cloaked by philanthropy.

Conflict attended the BCGA's policy of paying the highest price the market would allow. Opposed commercial firms wrecked a scheme of financing the entire crop through a joint BCGA-Government loss guarantee. At a meeting on 13th November 1914, objections included that BCGA was apparently empowered to fix prices and that a French firm was being assisted (I(i)(a): CGA 1/1/52; CGA 1/5/32).[2] The BCGA professed it was prepared to lose money to prevent the trade's destruction and, indeed, stepped in with a financing scheme in 1915 when cotton was "practically unsaleable" (I(i)(c): CGA 3/2/, p.146). It resented the burden borne by itself and Government when trade was unremunerative, while ginners were only too eager to carry profitable trade. Deprecating reckless competition, the BCGA's 1915 Annual Report lamented the "misfortune that the Association were not directly established in this country long ago".[3]

Except for oxploughing in Teso District from 1910, an area producing much of Eastern Province output by 1914-15, most cotton was cultivated manually by hoe (Anthony et al, 1976, p.140 & pp.185-86). Despite war and post-war labour demands for Government service and plantation expansion, by 1918-19 42 ginneries served 145,000 acres of cotton (Nye, 1931, p.287), producing mainly for Asia for several decades from 1918. The Government introduced a controversial £1 a bale cotton export tax in 1918-19,

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[1]S. Simpson, Director of Agriculture, previously in Nyasaland, was particularly resented as having too much power and ideas contrary to those of the BCGA (as, for example, discussed at the Executive Committee meeting on 25/6/14 (I(ii)(b): BCGA/BM, 25/6/14)).

[2]Present at the meeting were representatives of the British East Africa Corporation, Uganda Company, Bukedi Cotton and Trading Company, Uganda Cotton Buying and Ginning Company Ltd., Bombay Uganda Syndicate, BCGA and CO.

[3]This echoes earlier sentiments, such as at the CO conference on 30/1/08: "It is unfortunate that, owing to want of capital, the Association were not able to take an active part in Uganda in the earlier stages on the same lines as in West Africa" (I(i)(a): CGA 1/2/43-44).

reduced from its mooted £2 a bale at the instigation of both BCGA and Empire Cotton Growing Committee (I(ii)(a): BCGA/AR 1918; I(ii)(b): BCGA/CM, 7/1/19). At first supposedly hypothecated to cotton cultivation development, but later subsumed in general revenue, the tax yielded £47,227 in its first year,[1] £1,589,552 by 1934 (Clay, 1934, p.175) and £2,526,000 in 1953 (Hailey, 1957, p.839).

The report on Ugandan cotton-growing, on which the Empire Cotton Growing Committee deliberated in 1917, detailed the extraordinary smallholder production of high standard cotton, making it the principal export crop (I(iv)(g): CP1/35a, Enclosure to despatch by Secretary of State No. 313 of 15/11/17).[2] Early ginning, marketing and speculation problems had been overcome. The Agriculture Department had laid sound foundations, aided first by the Uganda Company, later by BCGA, so that, by 1921, cotton production was higher than in any other Empire territory except India. Most of the credit for this has to go to the thousands of peasants who reprioritised and intensified efforts. The currency change in 1922 caused confusion, coinciding with the 1921 plague aftermath, poor rains and very low prices taking a desperate, albeit temporary, toll (I(ii)(a): BCGA/AR 1922; I(ii)(b): BCGA/CM, 6/9/21). But the main limiting factor appeared to be transport capacity, for which the ECGC soon lobbied with other cotton interests (House of Commons Debate, Hansard, 25/2/24).[3] The Corporation decided to maximise aid to the Uganda Government, acceding to requests for 390 ploughs in 1923-24, appointing four Corporation Studentship holders to posts attached to the Department of Agriculture in 1924 and gifting a pulverising harrow in 1926 (I(iv)(a): ECGC/ECM, 8/4/24, 6/5/24, 31/3/24,

[1] Department of Agriculture Annual Report, 1919, quoted in Barthwell, Ph.D.,1978.

[2] See Appendix VI, Tables 21 and 22 for Ugandan crops, 1902-71.

[3] The BCGA 'Memorandum on Railways' (I(i)(b): CGA 2/2/33, 1920) stated the main requirements as speedy construction of Kilindini deep-water pier, more rolling stock for the Uganda Railway and light feeder railways. The Governor, Sir Robert Coryndon, added that roads needed upgraded and railway rates should be lower and stabler, adding ignorantly, "The cotton is at present produced free of cost. Time is nothing to natives." (I(ii)(b): BCGA/CM, Luncheon report, 12/3/20).

20/10/26).

Ugandan raw cotton production expanded in the 1920s beyond all expectations, providing 94% of total exports in 1925, allegedly creating a labour shortage in other spheres and rousing paternalistic fears that progress might even be too rapid and disruptive of local economic conditions (I(ii)(a): BCGA/AR 1924; I(i)(a): CGA 1/5/47, Sir William Gowers, 5/10/26). The revenue created by the industry encouraged close Government control of cultivation, marketing and ginning through enactments such as the Cotton Ordinance No. 11 of 1926. The ECGC's Assistant Director had advised consolidation rather than extension of cotton-growing in Uganda. Accordingly, BCGA and ECGC urged the Colonial Office not to issue more ginning licences, in an attempt to rationalise the industry (I(iv)(a): ECGC/ECM, 3/4/28). Surplus ginning capacity was identified as the root of many difficulties. Addressing the supply side, the Government, BCGA, ECGC, Department of Agriculture and 1929 Commission of Enquiry into the Cotton Industry of Uganda proposed that improved cultivation methods giving better yields[1] could clear excess ginning capacity. Thus, the Corporation offered to pay the costs of two supplementary officers to work on enhancing yields (I(iv)(b): ECGC/AR 1928-29). In 1929-31, the ECGC made further contributions to staffing and seed supply organisation to aid a Uganda Government suffering revenue reduction. Black arm disease, insect pests, falling prices and lower scale of Cotton Tax[2] had all contributed to the Government's loss (I(iv)(a): ECGC/ECM, 17/9/29, 5/11/29, 2/12/30; I(iv)(b): ECGC/AR 1929-30; I(ii)(a): BCGA/AR 1930).

Following the 1929 Report of the Commission, the BCGA decided to gradually liquidate its assets in Uganda. To

[1]The BCGA Annual Report for 1925, for example, estimated that a 30-50% yield increase was possible in most places.

[2]Cotton Tax was on a sliding scale related to export prices from 1926.

some extent, this reflected pique at the Commission not submitting to BCGA a draft for comment prior to publication (I(ii)(b): BCGA/CM, 1/10/29). Ostensibly, BCGA wanted neither to join nor stand aloof from the cooperative buying associations and ginning combines likely to result from the Commission's findings.[1] Himbury believed the Commission guaranteed that native interests would be safeguarded by Government, thus obviating continued Association presence (I(ii)(b): BCGA/EM, 1/10/29). In December 1929, BCGA envisaged its ultimate future role in Uganda as limited to selling cotton and banking (I(ii)(b): BCGA/EM, 3/12/29). By January 1930, it had sold three of its seven ginneries (I(ii)(b): BCGA/EM, 7/1/30).[2] Hints during 1930, that the BCGA would not fully abandon ginning in Uganda,[3] heralded a *volte-face* at the end of the year, when the Association agreed to continue its advice, information, ginning and marketing on a commercial basis, if required (BCGA/EM, 2/12/30).

Spinners' complaints in 1930 of lack of uniformity, inadequate staple length, poor ginning and expense compared to American Uppers were investigated by the ECGC which reported to the Director of Agriculture (I(iv)(a): ECGC/ECM, 3/3/34). The Corporation hoped its additional staff would help resolve botanical and cultural problems. G.W. Nye's 1930s development of BP52 variety, suitable for much of the country, greatly aided the drive for higher yields and better quality. Ginning again came under scrutiny in 1931, following rising unease about mixing of growths, congestion and spread of pests and diseases through use of motor transport (I(iv)(b): ECGC/AR, 1931-32). Consequent zoning legislation in 1933 aimed to improve lint standard. The Governor also hoped

[1]Himbury told the BCGA Executive Committee on 1/10/29 that the Association "could not join with the other bodies consisting of Indians, Japanese as well as Europeans." It was also agreed that the BCGA would incur jealousy and trouble if it stood outside these bodies. This was reiterated at the Executive Meeting on 3/12/29.

[2]A financially wise move to make, just before the Ugandan cotton slump.

[3]Himbury suggested the BCGA's remaining four ginneries should be merged into a joint company with the Liverpool Uganda Company, keeping representation in Uganda (I(ii)(b): BCGA/BM, 7/1/30).

that secondarily it would "check the uneconomic competition and the improvident use of motor transport" (I(ii)(a): BCGA/AR 1933).[1] Increased profits resulted for established firms, except where buying pools operated or competition was severe (Brett, Ph.D., 1966, p.251).[2] In 1934, still pursuing improved seed quality, the Corporation part-funded a 350 acre seed farm for Buganda, where soil deterioration, erosion and disease were becoming problems (I(iv)(a): ECGC/ECM, 6/11/34).[3]

"Speaking generally, the Africans of Uganda are indolent, ignorant, irresponsible and not infrequently suspicious of foreign intervention." Thus ranted J. Hathorn Hall, Governor of Uganda, in 1946,[4] though more sensibly he suggested malnutrition and shortage of consumer goods as additional obstacles to production. However, the contemporaneous description in Empire Cotton Growing Review of 'A Day in the Life of a Cotton Grower' (Kaumi, 1946), from opening up a fresh plot in early April, through to cotton markets the next February, suggested a hard-working, rational, amenable farmer - as did the resurgence in cotton-growing at the end of the 1940s.[5]

Soil exhaustion and soil erosion were problems in the 1945-60 period,[6] though production was maintained by better ginning out-turn, seed dressing, insecticides, earlier planting, closer spacing and purer seed (Masefield, 1962). Sir Frederick Crawford in 1958 (in Joelson, 1958, p.187) remarked that the crop could be doubled with care, depending "largely on the efforts of

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[1] African entrepreneurship in motor transport was a threat to rail freight profits and to existing distribution of power relations.

[2] See Brett (Ph.D., 1966, Chapter VII) for detailed analysis of marketing and ginning arrangements.

[3] See Chapter 3, Section 3.4 for other ways in which the Corporation aided Uganda, the greatest contribution being Namulonge Central Cotton Research Station from where sterling work on cotton was coordinated.

[4] I(vii): RHL,Mss.Brit.Emp. s.332, Box 12, File 4, 'Notes on Economic Development of Uganda', 18/4/46).

[5] Appendix VI, Table 22, shows crop production rising from 1948-49.

[6] Hailey (1957, pp.1046-47) blamed ploughs in Teso District and shallow soils and tree felling in West Nile Districts as agents of erosion and exhaustion.

peasant producers, who unfortunately do not yet fully appreciate this essential fact". On the contrary, as Masefield (1962, p.65) pointed out, falling world prices required farmers to produce almost twice as much in 1960 as in 1950 to obtain the same returns. However, cotton had now begun to lose its appeal. The post-war coffee boom raised the area under coffee 264% between 1945 and 1960, compared to a 31% increase in cotton acreage. By the mid 1950s coffee overtook cotton as the most valuable export (Cownie and Pearson, 1974, p.240; Munro, 1976, p.190). Coffee took longer to reach first yield but gave a higher return for considerably less labour.

In the 1960s, the Reporter swung from doom to high optimism on Ugandan cotton: on 28/8/64, "King Cotton is spreading his acres at an inspiring rate..." (p.22); on 18/11/66, "A gloomy future for cotton growers in Uganda is indicated..." with the need to abolish the Price Assistance Fund;[1] and, on 15/1/67, concern at sterling devaluation and unseasonable early and freak late rains (pp.21-22). It also reported changes in export markets. Of the 358,000 bale 1963 export crop, 45,000 bales went to India, 100,000 to Communist China (9/11/63, p.18).

Cotton has since remained a significant export, though now well behind coffee which accounted for 93% of 1990 exports. Before the opening of Namulonge, cotton production peaked at 417,179 bales in 1937-38. Its high of 467,800 bales in the 1950-72 period was in 1969-70.[2] Bukedi and Busoga in Central Province and Lango and Acholi in Northern Province emerged as the most important cotton-growing areas in the 1960s (Hibbert, Ph.D., 1971, p.47; O'Connor, 1971, p.80). But in general, acreages have

[1] During 1945-60, the Lint Marketing Board withheld £40 million from cotton incomes which was then used to maintain producer prices when export prices fell after 1960. The excess from the Cotton Assistance Fund, based on a reorganised Price Assistance Fund in 1952, went to the African Development Fund, controlled by the CO. Little direct benefit to Ugandan cotton-growers or the Ugandan economy resulted from this (Taylor, Ph.D., 1981, pp.319-20).

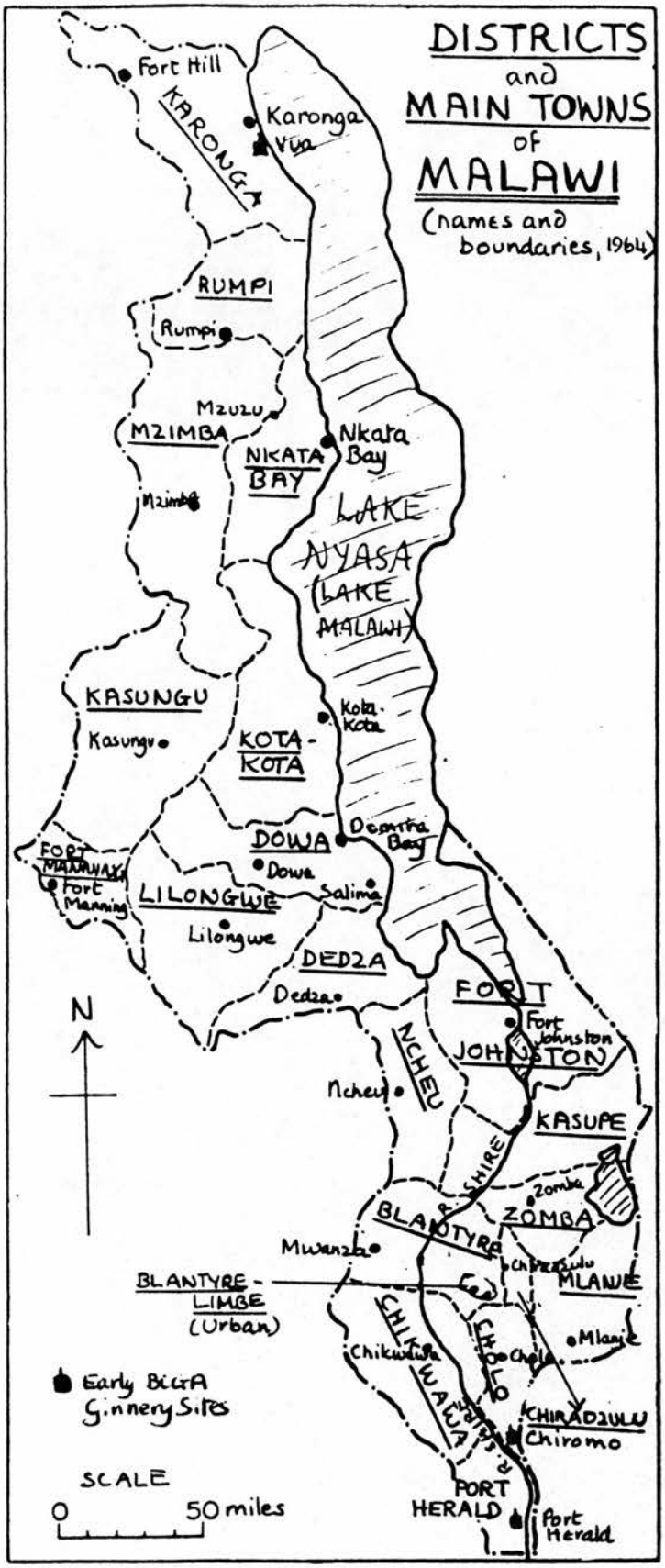
[2] See Appendix VI, Table 23.

declined, despite rehabilitation attempts and the needs of the important domestic textile industry.[1]

In no other African country was cotton racially stratified as distinctively as in Uganda (European rule, Asian enterprise, African labour). Nowhere else did smallholder cotton so quickly and completely become the long-term backbone of the colonial economy. Cotton produced revenue directly (customs and Cotton Tax) and indirectly (providing the means for individuals to pay other taxes and to purchase goods). The correlation between cotton and customs revenue was recognised by the 1929 Carter Commission. The dependency of poll taxes on cotton was acknowledged by Coryndon in 1931 (CO 536/1921, quoted in Barthwell, Ph.D., 1978, Ch.5). Cultivated by 75% of adult African male workers in Uganda in the 1970s (Cownie & Pearson, 1974, p.241), the crop has remained an important source of cash income. It has also stimulated industry, with direct back linkages to agricultural tool, baling hoop, tin and drum manufactures and front linkages to ginneries, oil mills and textiles.[2] Despite its modern decline, it has shaped twentieth-century Uganda.

[1]The first integrated spinning and weaving operation was begun in 1954 by Calico Printers of Manchester, bought by Uganda Development Corporation in 1957.

[2]See Jamal (1974) for a review of linkages with local industries.


DISTRICTS
and
MAIN TOWNS
of
MALAWI
(names and boundaries, 1964)
Fort Hill
KARONGA
Karonga
Vua
RUMPI
Rumpi
M2U2U
M2IMBA
NIKATA BAY
Nkata Bay
LAKE NYASA
(LAKE MALAWI)
KASUNGU
Kasungu
KOTA-KOTA
Kota-Kota
DOWA
Dowa
Salima
LILONGWE
Lilongwe
DEDZA
Dedza
FORT JOHNSTON
Fort Johnston
NCHEU
Ncheu
KASUPE
ZOMBA
Zomba
BLANTYRE
Mwanza
BLANTYRE-LIMBE (Urban)
MLANJE
Mlanje
CHIKWAWA
CHIRADZULU
Chiromo
PORT HERALD
Port Herald
N
Early Bicita Ginnery Sites
SCALE
0
50 miles

MAP 3

CHAPTER 5

A HISTORY OF COTTON-GROWING IN MALAWI

5.1 SETTING THE SCENE[1] - UP TO 1891

> "We have entered into a cotton producing country of unknown extent...".
> (I(xi): David Livingstone (1859), David Livingstone to Prof. Whewell, 20/10/1859, from River Shire.)

> "As a cotton country, it is magnificent and the natives would do the work and sell the produce."
> (Foskett, 1965, Vol.II, p.561: John Kirk to Alexander Kirk, 16/12/1861, from River Shire.)

> "Nothing was laying about except a cotton gin... There has not yet been a pound of cotton to clean by it."
> (Wallis ed., 1952, p.102: James Stewart at Magomero, 22/8/1862)

> "... in as much as the country had undergone war, famine and drought and ... sweeping pestilence ... between the periods of the Dr.'s first visit ... and yours, there is nothing inconsistent in the two reports."
> (Wallis ed., 1952, p.226: Horace Waller to James Stewart, 5/7/1863)

Malawi is a landlocked, densely populated country,[2] covering approximately 45,750 square miles, of which 23.3 million acres is land with a wide range of climatic and soil conditions. The altitude varies from a mere 50' above sea level at Ndinde Marsh, south-east of Nsanje (formerly Port Herald)[3] in the southern Lower Shire Valley, to nearly 10,000' at Mount Mulanje's highest peak.[4] Censuses indicate that over 90% of the population

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[1] For a note on the administrative history of the territory, see Appendix VII, Section (i).

[2] Average population density at independence was 111 people per square mile (Dequin, 1970), compared to 13 per square mile in Zambia and 29 per square mile in Tanzania (Stone, 1968).

[3] For a note on name-changes, see Appendix VII (ii). In general, unless continuity demands otherwise, the name used in the text will be the one in use at the time.

[4] The variety of vegetation and landscape has led many authors to eulogise on the undoubted beauty of "the warm heart of Africa", "the Land of the Lake": "If scenery were for sale, Nyasaland would be rich" (Gunther, 1955, p.625).

are village dwellers. Agriculture forms the mainstay of the economy now, as in the past, accounting in recent years for about 90% of the country's export earnings and nearly 40% of Gross Domestic Product.[1] Although no longer a prime export crop, cotton has continued to be of value since its rise to prominence in the first two decades of this century.[2] It has dropped in importance relative to tobacco, tea and, latterly, groundnuts, though for some time the actual tonnage increased.[3] Before 1932, most of the crop went to Britain; by 1943 virtually none did. Then, after a post-war reversal, by 1951 80% of the cotton crop was destined for the UK.[4] Cotton is still an important source of smallholder income in certain areas, providing part of the needs of David Whitehead & Son Ltd., the local textile weaving firm.

Since 1925, cotton has been mainly smallholder grown, though in the late 1930s there was a revival of tenant production on estates. Few have grown rich in the process and for most it has been a hard struggle, beset by weather variations, hydrological changes, pests and price fluctuations. Growing cotton has been a way of satisfying wants, by means seen as preferable to labour migrancy or plantation work. Studies by Dean (1966) and Mills (1975) conclude, not unexpectedly, that the Malawian smallholder is a rational allocator of resources, making decisions on the basis of comparative crop prices.[5] This confirms Pearson and Mitchell's (1945) correlation between number of cotton growers and preceding year's prices. In 1975, Mills found that ADMARC cotton price increases, announced in time, influenced the amount grown, with the "above-

[1] Figures from Africa South of the Sahara 1991, Europa Publications Ltd.

[2] A useful synopsis of cotton's rise and fall as an export crop, in relative and real terms, can be found in Baker (1972) and Pachai (1978, pp.24-25).

[3] See Appendix VI, Table 36.

[4] Appendix VI, Table 44 shows country of destination for Nyasaland cotton crops in 1938, 1949 and 1950.

[5] Dean's introduction refers to earlier economists' arguments that African farmers paid little attention to price, making "supply curve" analysis irrelevant. However, Bauer (in West African Trade, CUP, 1954) had shown that Africans responded rapidly to price fluctuations, in the same way as producers in more developed countries.

average" farmer responding more quickly.

Pre-colonial agriculture accounts are skimpy and generalised but it seems that the Portuguese were the first Europeans to identify the potential of what is now Malawi. Batalha-Reis (1889, pp.257-59), condemning English rejection of Portugal's prior claim to Nyasaland, established that the Portuguese were familiar with Lake Nyasa and the River Shire in the 16th and 17th centuries. Gaspar Bocarro wrote of the river "Chiry", and the "Nyasa" ("lake which looks like the sea") nearby, in the early 17th century (Theal, III, 1899, pp.416-17), while a 1609 Portuguese report recorded that provisions were provided from the fertile Shire valley lands (Theal, VII, 1901, p.268).[1] Manuel Barretto, a Jesuit priest, reported in 1667 on the profitable transactions of the warlike "Maravi", who traded in ivory, iron, slaves and "machiras which are coarse cotton cloths" (translated in Theal, 1899, pp.480-81).

Kings Phiri (1985, p.17) writes of the laborious, cotton-weaving process of the Mang'anja in the lower Shire region from the 16th century and of the Chewa in the Mchinji-Kasungu area in the 19th century. Cotton cloth was known as *machila* in the former and as *cimbwi* or *gumbi* in the latter. The origins of the early Mang'anja industry are obscure, although spread from the lower Zambezi seems feasible. Oral tradition, quoted by Phiri (1985, p.18; Ph.D., 1975, p.107) suggests that cotton-weaving knowledge was transmitted eastward by Bisa and Kunda of the Luangwa Valley to the Chewa of central Malawi.[2] Megan Vaughan (Ph.D., 1981, pp.243-44) makes brief reference to Nyanja and Chewa vassals of the Ngoni, who settled in the Upper Shire Valley to protect Ngoni borders. Their tasks

[1] From the distances and geography in the account, the Shire valley referred to is barely in modern Malawi, being somewhat to the south-east, but, nevertheless, gives an indication of the land and its capabilities.

[2] Macmillan (Ph.D., 1970), however, notes that the Bisa, despite access to imported cloths in their role as long-distance traders, generally wore bark cloth, as is described by Gamitto for example.

included growing cotton for their overlords.[1] However, even before the late 19th century influx of imported cloth, local textile manufacturing was subverted by the exchange of slaves for cloth and by the general insecurity and disruption caused by slavers and expansionist groups. Phiri estimates Central Malawi and Eastern Zambia must have exported 8-10,000 slaves annually in the 1820s and 1830s (Ph.D., 1975, Ch.III). At a minimum value of 20 yards of cloth for each slave, this would have created substantial competition to local manufacture.

Gamitto's 1831-32 journal provides a useful description of cultivation, preparation and production of local Marave cloth before David Livingstone's 1859-67 venture to the interior (Cunnison translation, 1960, pp.82-83). Much happened in the period between Gamitto and Livingstone. Swahili traders with firearms moved inland as ivory and slave-buyers from about 1830, with an accompanying rise in both trades (Pachai, 1973, Ch.3; Phiri, 1985, pp.24-25). Two major groups of Ngoni settled in the 1850s; and Yao, previously familiar as itinerant traders, began to arrive as refugee settlers at southern Lake Malawi and the Shire Highlands from the 1860s, after Livingstone's first visit (Macmillan, Ph.D., 1970, p.17; Northrup, Ph.D., 1978; Pachai, 1973, pp.22-40).

Despite earlier passing interest,[2] it was not until after his 1857 visit to Manchester Chamber of Commerce that Livingstone seriously sought potential cotton-growing areas in East and Central Africa (Shepperson, 1965, p.18). His post-1859 diaries and letters exude optimism: "I see here a solution of that great problem - supply of the raw material of our manufacture without dependence on slave

[1] A Zomba History Project informant recalled that he had heard people were sent from Ngoniland by Gomani to grow cotton in the Bazale area (I(xi): ZHP2/KMD/17, 2/9/77).

[2] For example, in a letter to the Earl of Clarendon, dated 19/3/1856, Livingstone mentioned that cotton was cultivated by local people in the Tete/Nyungwe area (letter in I(ix): PRO, Foreign Office Conf.657).

labour";[1] "Never saw so much cotton grown as among the Mangango of the Shire and Shirwa valleys - all spin and weave it";[2] "The capabilities of the country for the production of cotton cannot be overestimated ....";[3] and "We have opened a cotton field in the Shire and Lake Nyassa four hundred miles in length ... the cotton is of superior quality".[4]

Some shared this enthusiasm. Charles Livingstone confirmed the discovery of "a great cotton growing and cotton manufacturing country" between the Shire River and Lake Nyasa.[5] Horace Waller's 1861 diary, amongst tales of war, slavery, murder, famine and the river polluted by bodies "for alligators satiated", reports excellent thick cotton cloth exchanged in the Elephant Marsh area "for an equal quantity of the miserable Americano which has not half the consistency" (I(vii): RHL, Mss.Afr.s.16, Waller, 25th May 1861). Waller suggests cotton as a profitable export. However, John Kirk, economic botanist and Medical Officer to Livingstone's expedition, was less wildly enthusiastic. Nevertheless, he itemised indigenous, short-stapled "tonje-kaja" and superior, longer-stapled, foreign "tonje-manga",[6] identifying the best cotton as in Mang'anja country. From there, it would be least expensive to transport overseas and the industry could be supervised by Europeans settled in the neighbouring, cooler Highlands (CSR, 67, 1/6/1861, p.525). Kirk puzzled over the fate of all the cotton he saw planted. Very little seemed to be worn in clothing (14/4/1859 journal, in Foskett, 1965, p.185), though both he and Livingstone noted a woman at a funeral, "her hair covered with raw cotton" (Kirk, 31/3/1859 in Foskett, 1965, pp.173-4), "a bunch of cotton

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[1] I(xi): David Livingstone (DL), 20/10/1859.
[2] DL to Sir George Grey, 1/6/1859 in CSR, No.29, 1/11/1859, p.236.
[3] DL to Lord Malmesbury, 15/10/1859, in Wallis ed., 1956, II, pp.334-35. In this letter, Livingstone made the sort of remark which so incensed Batalha-Reis, about "the hitherto undiscovered Lake Nyinyesi or Nyassa".
[4] DL to Lord John Russell, 10/11/1861, enc.1, in Wallis, 1956, II, pp.407-9.
[5] Letter to Thos. Clegg, 4/11/1859 in CSR, 38, 5/3/1860, p.57.
[6] *G. arboreum* and *G. barbadense* respectively (Pike, 1968, p.199).

tied on her head" (DL, 31/3/1859 in Wallis, 1956,I,p.93).[1]

Stirred by Livingstone's reports, the Oxford and Cambridge Mission sought "by promoting the cultivation of the cotton-plant" to create a "demand for native labour as the surest method of starving the slave market" (I(xi): OCM, 1860, p.11). This was greeted enthusiastically by the Cotton Supply Reporter (No.36, 5/2/1860, p.31). However, not all had faith in Livingstone. The London Examiner's editor queried his expertise (CSR, No.37, 1/3/1860, p.35). The Times' 20th January 1863 editorial grumbled: "We were promised cotton, sugar and indigo and of course we got none...". James Stewart, too, had his hopes dashed when he visited Livingstone's supposed golden future of massive cotton fields. On 22nd August 1862 at Magomero he was informed not a pound of cotton had been through the cotton gin (Wallis ed.,1952, p.102).[2] At Chisa's village between the Lisangwe and Shire Rivers on 5th September 1862 he saw two looms, but two out of the three operators wore skins, not cotton (Wallis ed., 1952, p.112). Next day at Chikembo he observed that of twelve men "one only wears the product which so abounds, or is supposed to abound in the country" (Wallis ed., 1952, p.119). Stewart's bitterness at Livingstone's "humbug" and "insincerity" exploded on 1st February 1863: "In the afternoon I went down the river-bank a short way and threw with all my strength into the turbid muddy weedcovered Zambesi my copy of certain 'Missionary Travels in South Africa'" (Wallis ed., 1952, p.190). Stewart's pessimistic report to the Cotton Supply Association that little cotton was grown and even less worn (Wallis ed., 1952, p.266) was echoed by H. Rowley's similar doubts.[3]

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[1]Pike (1968, p.199) noted that the kidney-shaped locks of "tonje manga", still found as a parasitic shrub in Central and Northern Regions, are used in funeral ceremonies, though I have been unable to acquire any knowledge or explanation of this from Northern and Central Region acquaintances. Samuel Simpson, BCAP's first "cotton expert" described kidney cotton as *G. peruvianum*, which he said, in 1905, had been introduced about twelve years previously.

[2]Nearly twenty years later, Rowley reported that the useless cotton gin was still at Magomero (1881, p.133).

[3]H. Rowley to James Stewart, 6/11/1862, in Wallis ed., 1952, pp.210-11.

Kirk and Waller both attempted to convince Stewart. Kirk wrote to him on 25th February 1863 that few better cotton grounds could be found (Wallis, 1952, p.222). Waller, a few months later, reconciled Livingstone's plethora and Stewart's scarcity, blaming "war, famine and drought and pestilence" between the two visits as the reason for the discrepancies.[1] Livingstone's own reaction was brusque. If it was true, as he had been told, that Stewart had only seen five cotton bushes, then he obviously did not know what he was looking for.[2] Probably both Livingstone and Stewart reported fairly accurately. Waller's explanation of their divergent accounts rings true.

Baker (1967) estimates 1,000 slaves a year were being exported from the Malawi area as late as 1894. This indicates the slave-trading disruption which Kirk believed led to cotton production decline between 1859 and 1862 (C.A. Baker, 1962,p.16). Elias Mandala, too, whose thesis on the Lower Shire Valley covers the later 19th century particularly well, blames the incorporation of the valley into international slave trade networks as a reason for the agricultural collapse around 1860 (Ph.D.,1983, Ch.1).[3] A mid 1870s cotton production revival was shortlived (Mandala, Ph.D.,1983, p.93). John Buchanan, in 1885,[4] asserted that English calico had by then almost destroyed the once-thriving industry: "In 1876 it was quite common to see in villages in the Shire young men and old men busy spinning cotton into thread" (1982 edn., pp.127-8). Life and Work in British Central Africa, Blantyre Mission's journal, concurred: "When the Mission came to the country a quarter of a century ago, every villager had his little bit of cotton planted out from which he made his native cloth" (No.172, July 1903, p.3). Robert Laws' diaries

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[1] Horace Waller to Janes Stewart, 5/7/1863, in Wallis ed., 1952, p.226.

[2] DL to John Kirk, 2/6/83, in Foskett, 1964, pp.63-64.

[3] Mandala uses the term "Lower Tchiri Valley" in his writing. He rejects "Lower Shire Valley", the name used in colonial and modern Malawi, citing Harry Johnston (1894) in rather dubious support: "'Shire' I would state is absolutely unknown as a native name ...".

[4] John Buchanan was appointed as "agricultural adviser" by Blantyre Mission in 1876. By 1878, he had grown a wide variety of crops, including cotton (Gelfand, 1964, p.159).

record that, although cotton and looms were both seen, the men were mostly naked or dressed in bark (I(viii): EUL Sp.C., Gen.561/1, entries for 14/8/78, 30/8/78, 21/9/78). Laws did, however, observe that dhow seams on Lake Nyasa were caulked with cotton and oil (7/9/1878). Later, reminiscing about Livingstonia, he recalled expensive strong calico cloth of the southern lakeside which might take one man a fortnight to make two yards (Laws, 1934, pp.51-2). That local, or indeed any, cotton cloth was not much in evidence by the 1880s was confirmed by F.T. Morrison, engineer with the African Lakes Company.[1] Ironically, given that his remit in 1882 was to install a cotton gin at Mandala, he commented that "the people nearly all dress with bark cloth", though most aspired to wear a little piece of cotton cloth under it (I(viii): EUL, Sp.C., Gen.1803, Morrison Diaries).

Although bark cloth production required skill, effort and time, it was considerably less labour-intensive than the process for local cotton cloth. This began with the frustrating task of separating lint from seed, often by hand.[2] After spinning and twisting,[3] the next process involved weaving on simple looms.[4] James Stewart's 1862-63 journal gives details of looms providing cloth of 36"-40" breadth and two yards length, estimated to take two men four days to produce.[5] In 1919-20, when the high price of imported cloth encouraged efforts to revive a local clothweaving industry, it was reported from Chiromo District Council that no-one surviving knew how to make

[1]Founded as the Livingstonia Central Africa Company in July 1878, the primary object of the African Lakes Company, as it was officially known from June 1881 to July 1893 (thereafter, briefly known as African Lakes Trading Corporation, and then as African Lakes Corporation; and also nicknamed Mandala, by which name it is now still known), was "to stimulate cultivation by the people of crops which could be exported" (Macmillan, Ph.D., 1970, p.401).

[2]Stewart, unimpressed by a basic cotton-cleaning machine at Chundo village, submitted, in typically superior fashion, "Anything ruder, displaying less intellect and less ingenuity, could hardly be possible" (5/9/1862 diary, in Wallis ed., 1952, p.115).

[3]Described by Kirk in 1859 (Foskett ed., I, 1965, p.240) and Gamitto (Cunnison trans., 1960, pp.82-83).

[4]The whole process was described by Livingstone as "the most rude and tedious that can be conceived" (DL to Lord Malmesbury, 12/5/1859, in Wallis ed., II, 1956, p.318).

[5]Stewart's diary entries for 23/7/1862 and 23/11/1862 (in Wallis ed., pp.83-84 and p.155).

calico (I(v)(a): MNA, Nsanje DBII, 1918-23). The Lower Shire District Report was adamant: "All headmen unanimously stated that it would be impossible to revive the industry of making their own clothing as they had been dependent on Indian traders for cloth since the regime of the Europeans in this country" (I(v)(e): MNA, S1/1988/19, LS District Report, October 1919). Although Neno Division Headman, Tsenjerani, claimed he had made a piece of cloth recently, it turned out on examination to have been in his possession for some time (I(v)(e): MNA, S1/1988/19, West Shire District Report, December 1919). There was an attempt to match teachers to willing apprentices but a survey demonstrated it was easier to earn money to buy a trade cloth, even at inflated prices. However, it was not until 1938 that the Executive Council accepted that "Hand-loom weaving is not likely to be a success in Nyasaland" (I(v)(e): MNA, S1/1988/19; Bell Report, pp.260-66).

By the time a British Protectorate was declared over the Shire Highlands ('Makololo, Yao and Machinga Countries') in 1889, and central administration and government set up under the Nyasaland Districts Protectorate in 1891,[1] there was little on view to validate David Livingstone's optimism about cotton. However, Lugard envisaged great commercial possibilities for Nyasaland with cotton as a possible crop in the Highlands (1889, pp.689-92). H.H. Johnston, who had visited the country in 1889 and 1890, before he became first Commissioner and Consul-General, had concluded in his second visit's report that despite it being the "most drunken part of Africa I have ever travelled in", the Upper Shire Valley was admirably suited to cotton. Several planters, companies and missions had tested the crop before 1891. The African Lakes Company imported cotton seed for experimental planting in 1887, but freight costs made lint exports uneconomic at the

[1]See Appendix VII, Section (i), for more detail on the administrative history of the territory. Baker (1972) is a useful source on the topic.

prevailing Liverpool price (Fred Moir, n.d., p.86). Yet John Moir's 1890 report to the ALC directors was positive: "The cotton experiment at Katunga's is, for instance, full of promise. It is surely of great importance to Britain that the raw material of one of her greatest manufacturers should be produced in her own possessions" (p.17).[1]

5.2 THE LAST DECADE OF THE NINETEENTH CENTURY

> "Opinions are divided as to whether it is or is not worth our while to cultivate cotton."
> (H.H.Johnston, H.M. Commissioner, 19/10/1895)[2]

Harry Hamilton Johnston was entrusted with establishing British administration over the British Central Africa Protectorate. Yet the Foreign Office was wary of this eccentric, aggressive, self-taught, versatile man, berating his "fatal want of caution" and bemoaning, "We cannot control Johnston".[3] [4] However, during his six years of duty, he created a solid foundation of decentralised district administration and a superficially satisfactory land policy.[5] As far as possible, he ensured land claims were "legitimate" and that the Crown secured control over unalienated land, though his actions were generally in settler interests not for the Africans he claimed to be protecting. Johnston also attempted to create securer state finances by negotiating for British Treasury grants-in-aid and raising revenue locally through hut tax

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[1] Report in I(viii): BUL, Sp.C., temporary loan from G.A. Shepperson.

[2] Letter to Thiselton-Dyer, Kew, in Kew Royal Gardens Bulletin of Miscellaneous Information, Additional Series II, I - Vegetable Fibres, HMSO, London, 1898, pp.23-24.

[3] I(ix): FO 2/65, Draft of H. Percy Anderson, FO, to Johnston, 7/11/1894.

[4] Baker (1972) and Palmer (1972) both elaborate on Johnston's career, character and achievements, giving references to further sources.

[5] "Superficially satisfactory", in that, as Palmer (1972, pp.312-13) points out, there were severe weaknesses in Johnston's solutions, particularly in his ignoring of indigenous African rights and ignorance of agricultural and settlement habits. With thousands of Africans left landless, to establish an orderly land market for settlers, problems erupted in the first decade and a half of the 20th century. Land had held a "use value" for Africans rather than an exchange value.

(initially, in 1892, a 6/- poll tax),[1] customs duties, licensing fees, export dues, postal fees and stamp duties. Despite these efforts, local revenue met only about a third of expenditure in 1891-96.[2] It was clear early on that the lack of an exploitable source of income would create ongoing budgetary problems.[3]

Some European planters had arrived before 1891, but most were attracted later by prospects in a securer environment.[4] Johnston was surprisingly equivocal about the soil - "too fertile in some places" - and the climate - "in most parts of the Protectorate agreeable, but it cannot be described as healthy. Neither can it be described as very unhealthy."[5] Soon after proclamation of the Protectorate, a massive 15% of the land (without doubt selected for quality) had been alienated to a few hundred British (Mwakasungura, 1984, Pt.1). Most decided their future prosperity lay in coffee planting, though John Buchanan suggested a wider "back-bone of commerce in coffee, cocoa, rubber, tobacco, cotton, cinchona and it may be, tea, and sugar" (1892, p.253). African agricultural capacity was virtually ignored, influenced by Eurocentric advisers, such as Buchanan himself: "Native agriculture, though possessing great interest, must, I fear, be passed over ... ashes and burnt earth play a prominent part, notwithstanding the great waste" (Buchanan, 1893, p. 250).

The administration looked to European planters for

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[1] Public outcry by African leaders, Scottish missionaries and others led to replacement of poll tax in 1894 by a 3/- hut tax. Regulations in 1901 raised this to 12/- but, in practice, rebates reduced it to 6/- and 3/- rates.

[2] Vaughan (Ph.D., 1981, Ch.2) quotes for 1891-96:- local revenue £54,352; with the shortfall made up of £64,021 from the British South Africa Company and £54,200 from Imperial grants-in-aid.

[3] Appendix VI, Table 34 gives an indication of the continuing nature of this problem, with expenditure exceeding revenue during the ten years examined.

[4] Baker (1967, pp.77-78) notes that one planter had been in the country since 1875. By 1896 there were 300 Europeans and 263 Indians in the protectorate.

[5] I(x)(a): Foreign Office, Conf.6768, 'Information respecting Climate, Coffee-planting, Land etc. in British Central Africa'. To his credit, one of Johnston's earliest appointments was of Alexander Whyte as Botanist and Natural History Collector in 1891.

immediate returns. A major concern was lack of accessibility (and thus of an export outlet), recently made worse, as noted by Buchanan (1892) and The Central African Planter (Vol.1, No.4, Dec. 1895, p.52), by hydrological change. Over the previous ten years, the levels of Lake Nyasa and thus of the River Shire had fallen. A falling Shire was devastating to trade. It severed the route for bulk exports to the sea and equally impeded imports necessary for economic development.

Ironically, this commercial hindrance was an agricultural boon for the lower Shire valley. Large tracts of previously flooded land (*dimba*) were exposed for cultivation. This allowed a three crop year, with consecutive food and cotton crops on the *dimba* during the dry season and a rain-fed dryland (*mphala*) crop during the wet season. How long would this last ? Most, like Alfred Sharpe (1896), doubted its permanence. In fact, usable marshland was available from the dropping levels of the mid-1890s to 1914,[1] through to the end of the 1930s. It was responsible for the Lower Shire Valley's prime role in cotton production in the first three decades of the century. As Debenham put it: "The land is, in a curious sense, dominated by the lake, it is shaped by the lake" (1955, p.63).

European planters soon faced potential competition. In 1892, Joseph Booth founded the Zambezi Industrial Mission at Mitsidi. There, he encouraged Africans to open up coffee and cotton plantations (Pachai, 1973, p.167). Bandawe recalls in his memoirs (1971, p.60) that John Gray Kufa, Joseph Bismarck and P.G. Somanje were amongst those Africans who became cotton planters. Johnston spoke of cotton wild, or semi-wild, over large portions of the country (1897, p.457).[2] Most cultivated cotton at this

[1] Even the Upper Shire was unnavigable in 1902 (I(v)(d): MNA NS 1/14/1).

[2] A sample of "half-wild" cotton from Eugene Sharrer's estate at Zomba, sent to Kew by Johnston, was assessed as being rather woolly and discoloured but clean, bright, of $1^1/_8$" - $1^3/_{16}$" staple and worth $4^1/_2$d/lb (Manchester Chamber of Commerce Monthly Record, Vol.VII, No.1, 27/1/1896).

time was on European estates, though it was appreciated by some whites early on that cotton culture was equally suited (The British Central Africa Gazette, 15/3/96, p.3) or more suited (The Central African Planter, Vol.I, No.1, Sept.1895) to small-scale African production. Lack of cheap and regular transport inhibited export production which commenced in 1893 with 400lbs of cotton, mostly from Blantyre District, worth £1 (I(x)(a): FO, 'Report for 1894 on Trade of British Central Africa').

Although his sanctioning of vast tracts in grants to plantation owners and raising hut and poll taxes to extract cheap labour might suggest otherwise,[1] Johnston apparently did not envisage the protectorate as a permanent white settlers' land worked by a black proleteriat. He claimed, "if anything is a political crime, it will be the misusing of our force to turn this country of black people into a white man's colony where the black man would hold a very third rate position."[2] However, the first concrete settler suggestion for commercial cotton-growing by Africans came during Sharpe's administration. An article by 'Africanus' (Central African Times, 25/11/1899, p.4) advocated Africans cultivating small patches of cotton for sale to Europeans. It was suggested, as befitted publication in a bulletin for and by European planters, that to safeguard the coffee industry's labour needs, the scheme should be limited to districts such as

[1]Landeg White's analysis in Magomero (1987) of the inefficiency of hut tax as a means of mobilising local labour for coffee planters, mainly by its failure to provide skilled labour when needed (p.86), is useful in itself. But it gains from being put into the context of "salvation" arriving in the form of the *thangata* system of labour for rent (further detail on p.271) which was levied on landless immigrants from Mozambique, who came in from 1895 (pp.87-91). Although I have reservations (some shared by some Malawians and by reviewers, such as J.B. Webster (1990) and Hugh Macmillan (1988) in otherwise glowing reviews) about certain aspects of Magomero - including its lack of normal scholarly apparatus, apparently uncritical acceptance of some oral history and early records *versus* perverse non-acceptance of others (e.g. p.67, against Rowley; and p.120, dismissing as "rumours" what does not match the image of W.J. Livingstone he wishes to project) and reconstruction as "fact" from a flimsy basis (e.g. p.74 & p.223 re "Zachurakamo's" forge) - he has brought to life, in the manner of John Prebble for Scottish history, many episodes and dry facts, described elsewhere more unimaginatively.

[2]PRO, FO 2/89, Johnston to Hill, 5/10/1895, quoted in Vail, 1984, p.3. Six years later, Johnston asserted that British Central Africa "still exists mainly in the interests of the natives" (I(ix): PRO, FO 2/789, 'Report on the Negro Labour Question', to Marquess of Lansdowne, 17/1/1901).

Port Herald, Chiromo and West Shire. It should be made compulsory and the product sold for taxes. This exploitative project's object, presumably, was to make Africans "outworkers" rather than employees.[1] It tacitly acknowledged that estate cultivation of cotton had failed, mainly because it was not profitable enough at the prevailing 4½d/lb Liverpool price. As the African Lakes Corporation had found a year before from their plantations at Mandala and Katunga's, the crop grew well but prices did not induce further experimentation (CAT, Vol.II, 1, 1/10/1898). The future of the cotton industry depended on better railway communication, lower freight charges and higher Liverpool prices.

Sir Alfred Sharpe, Johnston's successor as Commissioner and Consul-General from 1896-1907, then Governor from 1907-10, showed little interest in cotton initially. In an early article, he inaccurately envisaged the protectorate as a great coffee country, suited to such as South African Boers, with limited capital and a strong work ethic (Sharpe, 1896, p.382).[2] The CAT contained a few desultory comments on cotton during 1900 and 1901. McClounie, Head of the Scientific Department, believed in 1901 that cotton might be suitable for the Lower River but not at Zomba's altitude (I(v)(b): MNA, A 5/1/1, Scientific Department AR, 1900-01).[3]

The first decade as a protectorate seemed to have proved that it would not be worthwhile cultivating cotton, but,

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[1] This scheme was outrageous but rational, similar to exploitation of 19th century Indian peasants in Bihar, compelled to grow indigo and opium. It was ideal for Europeans, who would need to make little or no capital investment, would be able to pay poor rates for the crop and would be the main beneficiaries of state expenditure from tax appropriation of peasant receipts.

[2] Sharpe probably did not have in mind the extreme exploitation of African labour and disinclination to manual work which often accompanied in reality the "super Boer" of his imagination.

[3] The Scientific Department, formed in 1895, opened Botanical Gardens and a Plant Introduction Station at Zomba that year. McClounie's experiments were conducted at Zomba, where the altitude and cooler temperatures were unsuitable for many of the tropical plants he tried. The Scientific Department was succeeded by the Forestry and Botanical Department in 1905. In 1908, it became the Agriculture and Forestry Department and the first Director of Agriculture was appointed.

as seen earlier,[1] conditions at the turn of the century stimulated interest in 'Empire cotton'.

5.3 RISING INTEREST IN COTTON-GROWING IN NYASALAND: 1901-1905.

> "...away from the European centres and on the shores of the Lake there is no reason why Government should not cooperate with the Mission and traders in establishing a native industry which, properly initiated and conducted, might in a few years' time grow to enormous dimensions and completely revolutionise the standing of this Protectorate."
> (R.S. Hynde in CAT, Vol.VI, No. 37, 13/6/03, p.4)

The British Central Africa (BCA) Chamber of Agriculture and Commerce response to the Oldham Committee on Increased Growth of Cotton stated that, despite poor freight facilities, all necessary land and labour components were present for "a vigorous industry in cotton" (I(ii)(c): Oldham,1901). Lancashire's interest was aroused. By 1903, the BCGA was assisting with gins, presses and seed; and the ALC had become the BCGA's agent to finance planters and encourage African peasant cotton-growing. Industrial missions,[2] trading companies and planters were busy with cotton planting and experiments (I(ii)(c):Hutton 10/2/04).[3] [4] This coincided with the initial downturn

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[1] See end of Chapter 1, pp.29-30, and Chapter 2, especially 2.3 and 2.5.

[2] For example, the Superintendent of Zambezi Industrial Mission, Mitsidi, reported 5,000 acres planted to cotton in 1903 (Life and Work, 174, Sept. 1903, pp.4-9). Seed from Mitsidi Mission was used by A.L. Bruce Trust estates for successful experiments (I(i)(a): CGA 1/10/177-205, CO to BCGA, 15/12/11 enc.).

[3] The number of large trading companies was a particular feature of the territory. They included British Central Africa Company Ltd. (BCAC), African Lakes Corporation Ltd., Blantyre and East Africa Ltd., African International Flotilla and Transport Company, Messrs. Ludwig Deuss and Company, Kubula Stores Blantyre - all involved in the cotton industry to some extent. The size of company can be judged from the fact that ALC had 140 employees in BCA by 1904 (I(ii)(a): BCGA/AR 1904).

[4] One of the most successful cotton businesses was to develop at Magomero, where W.J. Livingstone was appointed to manage A.L. Bruce's estate of 169,000 acres. White (1987, p.109) wrote of Livingstone, "Cotton was his greatest success, representing during his lifetime his one claim to minor distinction."

of the coffee industry which had promised so much at the end of the 19th century.[1]

Believing that the small profit margin hindered the chances of successful European cultivation, R.S. Hynde, the influential planter and editor, suggested that planters should induce Africans to grow cotton (CAT, 30/8/1902, letter, p.4). But most whites still saw cotton as a European planters' crop. McClounie had continued his experiments and produced successful cotton seed, though of unknown antecedents, offered to planters through BCA Gazette (Vol.IX, No.7, 140, 31/7/1902, p.2). The ALC encouragingly gave a much reduced £2 a ton freight rate from Katunga to Chinde, if a minimum of 20 acres was planted.[2] The BCGA advertised in the Government Gazette its wide-ranging services to planters: cash advances, seed supply, advances on the crop, disposal of crop, etc. The Oceana Company became the first European firm to grow cotton in the Lower Shire Valley, in 1905 at Kaombe Estate in Ruo District (I(v)(b): MNA, A 2/1/3).[3] It employed over 5,000 people on large cotton fields and had extensive ginning and baling plant (Life and Work, 198, Sept.1905, p.9). But it was another two decades before many grew cotton in the Lower Shire Valley.[4] In the country as a whole, from 60 acres of cotton grown by Europeans in 1901-02, the acreage rose to a peak of 21,900 in 1904-5, an extent not overtaken until 1911-12.[5]

By 1905, several long-term cotton themes and questions had emerged. These revolved around labour supply, communications, cotton-growing economics, African *versus* European

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[1]The coffee industry's first recorded export was in 1889. It rose until a dramatic fall in 1901 and gradual decline thereafter to negligible importance in 1914, mainly because of disease and saturation of the market by Brazil.

[2]I(ii)(c): BCGA, Oldham 1902. William Ewing, ALC, to Atkins, BCGA, 16/5/02.

[3]Although most primary sources give the date as 1905, CAT of 13/6/08 implies the estate was opened in 1903 (see p.266).

[4]The ALC and BCAC, amongst others had plantations in the Valley from the mid-1890s, but for sisal and coffee, not cotton.

[5]See Appendix VI, Table 36, for European acreages.

(smallholding *versus* plantation) production, expert advice, the quantity and quality of the product and ecological constraints.

The labour question gave rise to contradictory white views on labour emigration and encouraging African cotton-growing. Regular labour migration and the formation of Witwatersrand Native Labour Association (WNLA, known locally as 'Wenela') both date from 1903. From then, with varying official support or prohibition, thousands of Nyasalanders travelled to the Rand or Southern Rhodesia for employment. The initial impetus came from a collapsing coffee industry and an apparent glut of labour. Letters to the BCGA on the territory's cotton-growing prospects defined labour as plentiful and cheap,[1] a view shared by some CAT correspondents. Others were not convinced. Morel, for example, believed if the protectorate allowed labour migration to the Rand, "then goodbye to the development of a cotton export industry" (I(ii)(c): Morel, 17/4/03). The CAT's 30/5/1903 editorial urged, "... an export of cotton from BCA is more of an imperial necessity than the export of natives to the gold mines" (p.7). Belief that the two exports were incompatible was implicit. Over the next years, CAT columnists and correspondents continued to report that labour shortage had led to thousands of cotton acres abandoned by planters.

The Foreign Office and later the Colonial Office were bombarded by letters from the BCGA, plantations and trading companies, urging labour should not be exported, citing instances of cotton abandoned or not planted for lack of workers (I(ix): PRO, FO 2/867, pp.269, 362 ff.). The CO's briefing for the Under-Secretary of State for Foreign Affairs identified low wages, unsatisfactory rations and generally poor conditions as the real reasons for any scarcity and denied emigration caused what it

[1]For example, Ewing to Atkins, 16/5/02, in I(ii)(c): BCGA Corr., 1902; and Scott to Atkins, 25/2/03 in I(ii)(c): BCGA Corr., 1903.

regarded as mere rainy season labour scarcity (I(ix): PRO, FO 2/867, p.365). The Zambezi Industrial Mission, however, condemned Government methods. Far from restricting recruitment sensibly to areas of scarce work and plentiful labour, "workers actually employed on coffee estates and cotton plantations were recruited for the Transvaal by labour agents" (I(ix): PRO, FO 2/867, p.410). By 1905, labour difficulties had led the BCGA to consider encouraging an African cotton-growing industry as in West Africa but regretted it had no finance for the necessary experiments (I(ii)(a): BCGA/AR 1905). So damaging was ~~the~~ the situation for planters, CAT suggested a regular form of contract labour should be instituted or Indian coolies imported (16/12/05, p.7).

Lack of transport facilities aggravated the labour situation. Many who might have cultivated on their own account or for European settlers were employed as porters. An even more intractable problem was that labour scarcity slowed up railway development itself. The BCGA frequently lamented slow progress on the Chiromo to Blantyre line, less than 20 miles completed in over two years (I(ii)(a): BCGA/AR 1905). The Shire Highlands Railway Company, granted the railway development rights (and 3,200 acres of prime land for every completed mile of railway),[1] complained to the Under-Secretary of State for Foreign Affairs on 24/2/04 that progress was constantly restricted by labour shortage.

Lack of cheap regular overseas transport and heavy cost of land carriage affected the economics of the cotton industry. High profits were elusive. On paper, Dunstan (I(ii)(c): 1904,p.2) and the Emigrants' Information Office (I(ii)(c): 1903, p.8) reckoned a Liverpool price above 4d/

[1]Colonial Office policy was that railways should be in Government hands; the Foreign Office preferred to have as little to do with such matters as possible, leaving development to private enterprise. The FO was then still in control of the territory, not the CO.

lb should make the industry profitable.[1] But they had misjudged ancillary costs, especially for those in the Shire Highlands, where most cotton was then grown. From there it was head-loaded to Chiromo and transferred onto river steamers which faced sometimes impossible navigation to Chinde (I(ii)(a): BCGA/AR 1905). To encourage planters, BCGA offered advances of £1 per acre of cotton planted. BCGA records show this led to £9,279 advanced in 1904-05 and 18,000 acres planted in 1905, compared to 5,000 acres in 1904 (I(ii)(a): BCGA/AR 1905).[2] Planters' seed experiments (reported in MNA: A 5/2/1), an ALC test plot of a few acres at Karonga (I(v)(a): Karonga (North Nyasa) DB I), 93 estates growing cotton (CR 1904-5), of which about 15 were company or privately owned estates of 200-500 acres in the Lower Shire Valley (I(v)(a): Chikwawa (West Shire) DB I), all commanded attention during 1904-5. But District Books and Colonial Reports also reveal efforts in many districts to encourage Africans to grow the crop.

CAT had already expressed its support for "judicious" - i.e. controlled - encouragement of African cotton-growing in order to keep the local population "at home in the land of their birth" (6/6/03, p.4 editorial).[3] The ALC gave free seeds for peasant cotton-growing. The colonial administration, though constrained by district officials' calibre and interest, tried from about 1903 to

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[1] From 1900, the average price of American and Egyptian cotton was above this rate:-

Year	Middling American d/lb	Fully Good Fair d/lb	Year	Middling American d/lb	Fully Good Fair d/lb
1900	4.04	5.52	1905	5.45	7.51
1901	4.20	5.69	1906	5.61	7.99
1902	4.31	5.87	1907	5.93	8.81
1903	4.71	6.67	1908	6.07	8.89
1904	5.44	7.39	1909	5.78	8.86

(Source: I(i)(b): CGA 2/2/25, Hutton, 1916)

[2] Hutton gave details of the advances system in 1905: 8/- an acre was advanced on the planter signing an agreement with the BCGA that he would clear, plant and send cotton to the Association. A further 12/- an acre was lent in 3 instalments, with a further 2d/lb when shipped. When sold by the BCGA, any surplus would be paid to the cultivator minus a small commission (I(i)(b): CGA 2/2/1, Hutton, 1906). Mandala (1990, p.120) wrongly dates BCGA loans to 1910 when direct operations began.

[3] This was not as altruistic as it might seem. Inveigling Africans out of labour migration would also ensure a handy labour reserve when wanted.

induce peasant cotton-growing. Amongst Districts reporting early attempts were Karonga, Mlanje and Upper Shire. At Karonga, distribution of a ton of seed in 1904-05 made a "promising start" (I(v)(a): Karonga (North Nyasa) DB I). In Mlanje, success was related to the Resident's presence, with local chiefs unable or unwilling to distribute seed themselves (I(v)(a): Mlanje DB I & IV). In Upper Shire District, District Magistrate, C.A. Cardew,[1] reported successful results. Despite late planting, his 1903-4 distribution of 2 tons of seed gave 25 tons of seed cotton bought and sold at 1d/lb by the administration to the BCAC, agents of the BCGA (I(x): CO, CR, BCAP, 1904-5). Five tons of seed were issued to African growers in October/November 1905. Yet it was already apparent that bollworm was an insidious cotton pest, that more convenient markets were needed for the industry to thrive and that local people needed more expert assistance and advice than the District Resident could give (I(v)(a): Upper Shire DB I). Nevertheless, by 1904-5, over 2000 Shire Highland acres were under African cultivation. This was the first opportunity under the Protectorate "for the African to earn money in his own village without the necessity of seeking employment with Europeans or Asians on estates or in the settlements" (Terry, 1962, p.60). The offered price satisfied Sharpe as adequate: "Natives find that 1d per lb (cotton in seed) gives them a good return" (PRO, CO 525/7, Sharpe to CO, 24/4/05; III, Myambo, 1973).

By 1904-5 it was evident that the cold and rainy Highlands were unsuitable for cotton, especially Egyptian types (I(x)(a): CO, CR, BCAP 1904-05);[2] that caterpillar, stainers, borers and mites were potential pests;[3] that

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[1] The name of Cardew ("Kado") was remembered by a Machinga District respondent as that of the man who had introduced cotton to his district (I(xi): ZHP4/Nyanja Phiri/19/1/79). Whicker, the first Collector, was another name recalled in connection with cotton planting.

[2] The Scientific Department Report for 1900-01 (in I(v)(b): MNA, A 5/1/1) had already established that the Zomba Botanical Gardens were too high for successful growth and that the Lower River was the best locality, though it was believed that irrigation would be needed if cotton was to compete with coffee.

[3] I(v)(b): MNA, A 2/1/2, Correspondence, April-June 1904, from McClounie.

quality varied but excellent samples had been grown from both Egyptian and American cotton;[1] and that late sowing led to poor results and financial loss.[2] A mere four hand gins and the BCGA could not meet demand for good quality seed, leading to reliance on the often poor, mixed seeds of the chief trading companies (I(x)(a): CO, CR, BCAP, 1904-5).[3] Above all, planters, companies, BCGA and local administration agreed there was urgent need for informed advice. All regretted the difficulty and delay in appointing a "cotton expert". "As usual, British Central Africa is left in the cold and forgotten," lamented participants at the Chamber of Agriculture and Commerce 1904 AGM (CAT VIII, No. 7, 12/11/04 p.5).

[1] I(ii)(c): Hutton, 10/2/04; CAT, 10/12/04, p.3; and I(v)(b): MNA, A 5/2/1, July 1905.
[2] I(i)(c): CGA 3/2/7, 10/2/05, Hutton to USSC.
[3] The 1904-05 CR noted the failure of the BCGA to send a requested 20 tons of seed, which led to use of unreliable seed.

5.4 THE EARLY STAGES OF COMMERCIAL COTTON-GROWING IN NYASALAND, 1905-10.

> "Before the introduction of cheap manufactured cotton goods, the natives themselves grew considerable areas of the staple for local use; and there is every reason to hope that under efficient guidance they are capable of producing a large quantity of good cotton suitable for export."
> (Samuel Simpson, Cotton Expert, in I(ii)(c): Simpson, 1905, p.6.)

That the Nyasaland Protectorate, "the Treasury-controlled territory par excellence" (Nthenda, Ph.D, 1972,i),[1] needed a source of revenue is clear from Revenue and Expenditure Accounts.[2] With the collapse of the coffee industry and a short-lived rubber trade, tobacco and cotton both rose to prominence, initially as European planters' crops. By 1910 there was grudging admission that future prosperity might lie with African-grown commercial crops. By the time Samuel Simpson, the eagerly awaited "cotton expert", an agriculturalist with Egyptian experience, arrived in 1905, the main technical feature of cotton was profligate planting of unreliable seed by settlers giving little or no consideration to land suitability. In 1904-05, 21,900 European acres contributed to an export of 713 x 400lb bales (including 26 tons of African produced seed cotton). In 1905-06, 10,012 European acres gave 1,941 x 400lb bales (including 83 tons of African-produced seed cotton).[3] This made cotton the leading export by value, just ahead of coffee, to which it had been a very poor second the previous year (I(x)(a): CO, CR, BCAP, 1905-6). Clearly, this improvement was too rapid to attribute to Simpson's major cotton-growing report (August,1905), but better knowledge, varieties and practices had made an impact. CAT was quick to regret that Simpson had not arrived four

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[1] Nthenda cites Treasury correspondence with FO and CO, listing the territory as one whose budgetary estimates were scrutinized by the Treasury, each item being subject to sanction before being passed on to colonial legislature.

[2] See Appendix VI, Table 34.

[3] See Appendix VI, Table 36, for relevant statistics.

years earlier and thus saved planters thousands of pounds (CAT, 16/9/05, p.7).

Simpson's report was lucid, comprehensive and hard-hitting.[1] It included a general cotton-growing guide, "in the hope of substituting definite lines of action in place of the chaotic conditions which previously existed" (p.1), which he later vilified as resulting from "a mad rush into cotton" (I(v)(b): MNA, A/5/2/1, 'Cotton Experiments at Zomba'). Simpson attacked the greed of unbriefed planters, fuelled by the BCGA's prodigal distribution of seed and cash advances, leading to ill-executed expansion (p.4). Despite his dismissive "Like most African peoples, the natives are not enthusiastic cotton-growers" (p.6), and belief in their few wants easily satisfied, Simpson thought African cotton-growing worthy of enouragement and support under European control.[2] On the labour question, Simpson was on the "plentiful and willing" side (p.6), disappointing CAT. Its 13/1/06 editorial riposted, "he is evidently echoing the usual statements which appear annually in the Blue Books and Government Reports". On transport, Simpson agreed that the cost was sometimes almost prohibitive and conditions always difficult (pp.7-8).

Simpson evaluated the Egyptian, American, Upland and Sea Island seed introduced during the previous three years. He decided that quick-ripening types should be brought in to establish an ideal variety for the Highlands.[3] On cultural practices, he advised on time of sowing (normally December), method of sowing (on the ridge, except in low rainfall in Port Herald District), planting distances (varying by soil and climate), thinning, replanting,

[1] Report on the Cotton-Growing Industry, by Mr. Samuel Simpson. Full details in I(ii)(c), Simpson. Page references in this and the following two paragraphs are to this report.

[2] Sir Alfred Sharpe agreed that local people should be encouraged to grow cotton by such means as a labour certificate being issued if it could be proved that a person had grown and sold a certain quantity of cotton. Thus, cotton-growing would be accepted in lieu of compulsory labour.

[3] I(v)(b): MNA, A 5/1/1, Scientific Department AR, 1905-06, confirmed that Sea Island cotton, despite the planters' attraction to it, was unsuitable for commercial cultivation in the Highlands.

hoeing, topping and harvesting (pp.9-12). On baling, he recommended adopting a standard size and weight, greater than the small bales then prepared. On seed production, Simpson devoted an annex to improvement of indigenous varieties and introduction, acclimatisation and adaptation of exotic types. With £2,000 starting capital and £3-8-10 an acre cultivation cost, he contended a planter could begin to profit from 2 cwts/lint/acre in the Highlands (pp.14-15). While accepting the bulk of Simpson's report as valid, if unoriginal, Hynde's CAT disagreed on specific costings, averring that Simpson had underestimated labour and European superintendence costs and overestimated returns (CAT, Vol.IX, No.15, 13/1/06, p.7).

The BCGA displayed early signs of the ambiguity which was to incense later critics, in continuing to finance BCAP planters while maintaining that cotton was "essentially a black man's crop" (e.g. I(i)(b): CGA 2/2/1, Hutton 1906; IFCATI, 1907). At least BCGA did keep to its intention of not actually buying an estate in its own right.[1] Severe planter losses reinforced the Association's growing conviction that African cultivators might succeed where Europeans had failed. Thus, it entered into a fixed price, ginning and buying arrangement with the African Lakes Corporation,[2] which met many of the requirements the 1905-06 Colonial Report had considered essential for keeping the native industry alive.

Although Simpson regularly published advice for planters in the British Central Africa Gazette, the need for well-conducted experiments was glaringly obvious to all involved. Hutton of the BCGA suggested to the CO on 18th May 1906 that the BCGA would raise £1000 of the necessary annual £2000 for experiments under supervision of the

[1] See I(ii)(b): BCGA/M, 28/7/03, for an early strenuous rebuttal of the suggestion that the Association should become a plantation owner.
[2] Described in I(ii)(a): BCGA/AR 1906.

Scientific Department, if the CO authorised £1000 to be paid by the local government (I(i)(i): CGA 3/2/16). Although Sharpe had accepted this in principle, BCGA-CO conference minutes detail his actual reluctance: "Sir Alfred is not clearly satisfied that the present expert, Mr. Simpson, is sufficiently capable to conduct such work, and does not think him quite a safe guide in the matter. He would prefer before expending such a large sum, to have other and more competent advice" (I(i)(a): CGA 1/1/19, Minutes of 25/10/06 meeting). As Harris of the CO pointed out at a later conference, there was clearly friction between Sharpe and Simpson, "the latter being wanting in tact, and possibly the former did not give him full credit for his capacity" (I(i)(a): CGA 1/1/20, Minutes of 13/12/06).[1] Simpson certainly had better credentials as a cotton specialist than McClounie, Head of the Scientific Department, who had been conducting experiments from before Simpson's arrival, but often without the expertise to make these successful or useful. Purves, Acting Head of the Forestry and Botany Department, was driven to write to Sharpe on 19th February 1906, that McClounie's experimental patches at Zomba looked doomed to failure because the wrong type - Sea Island - was being grown at the wrong altitude and in the wrong conditions (I(v)(b): MNA, A 2/1/2).

The major administrative events of 1907 affected the agricultural sector. Simpson welcomed the change of name which he felt would benefit the image of the country's exports and was enthusiastic about the formation of a Legislative Council giving planters and commercial men direct access to Government (I(v)(b): MNA, A 5/2/1). A new Department of Agriculture and Forestry was gazetted in February 1908. J. Stewart J. McCall, whom the Bell Commission described as a recognized expert in cotton, "an

[1]Simpson continued to antagonise people throughout his career in Nyasaland and Uganda: for example, Wolstenholme, the cotton broker, complained that Simpson was difficult to deal with and did not listen to advice (I(ii)(b): BCGA/BM, 25/6/14).

agriculturalist to his finger tips" (I(v)(c): COM 2/5/2), was appointed Director of Agriculture.

Between 1907 and 1910, exports almost doubled, with European acreages trebling between 1906-07 and 1907-08.[1] This apparent well-being camouflaged worries and criticisms. The labour question, for example, continued to trouble the BCGA, concerned at possible effects on its efforts to establish a peasant cotton-growing industry (I(i)(a): CGA 1/1/40, 9/12/09 Minutes), though Colonel Seely of the CO reassured the Association that it was not government policy to recruit for work outside the Protectorate (I(i)(a): CGA 1/1/41(b), 26/1/10).[2] Also, transport was still unsatisfactory in 1910, with high ocean freights and need for more rail track, despite completion of the Port Herald-Blantyre line.

CAT criticised BCGA for not building a solid base in British Central Africa, but jumping in with advances to inexperienced planters and no scientific or practical guidance (5/1/07, p.7 & 29/6/07, p.9). It quite rightly condemned the BCGA's incompetent seed distribution (citing a planter offered mixed seed at ½d/lb) while apparently demanding firm control over quality and purity (CAT, 6/6/08, p.7). Despite this, the paper believed that cotton prospects were bright. With growing cotton and cotton-seed oil markets, this optimism was shared by the ALC (precis of AR in CAT, 21/2/07, p.4). Protectorate Colonial Reports to 1910 commended Residents and BCGA for encouraging and purchasing the African crop and reported on very high quality Nyasaland Upland crops from the Shire Highlands as the "... first case where cotton has appreciated instead of depreciated when grown away from natural habitat" (CR 1908-09) and "the finest cotton ever grown from Upland seed in any part of the world", according to brokers quoted on the 1909 crop (CR 1909-10).

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[1] See Appendix VI, Table 36.

[2] But see Appendix VI, Table 35, for high rate of absentee males, 1909-13.

The alleged "constitutional apathy" that had threatened African cotton production was regarded as less insuperable by the 1909-10 CR. Indeed, by 1910, African cotton production seemed firmly established. Nevertheless, earlier Chamber of Agriculture and Commerce support, to the extent of petitioning Government to develop the industry so that workers would not find it necessary to migrate abroad (I(v)(b): MNA, Hist.Mss. NY 3/2/1), had turned to total opposition two years later.[1] The Director of Agriculture informed the BCGA in no uncertain terms that the plantocracy was totally opposed to the extension of the native cotton industry (I(v)(b): MNA, A 2/2/1, McCall to BCGA, 3/12/10).

Free distribution of seed by the Department of Agriculture and Forestry, advice from Residents,[2] remittance of half the hut tax if the taxpayer produced 3/- worth of cotton, accommodating headmen, leaflets and demonstration farms had all played a part in stimulating a well-graded African crop of good quality, sometimes better than European-grown, concluded the 1909-10 CR in self-congratulatory mood. Some Africans had even opened up larger ventures of independent plantations, in what the 1909-10 CR described as "a sort of communal enterprise". But just in case local aspirations might rise to greater heights, the CR hastened to add that rising values for cotton on the international market should not be passed on, "since the native mind is not yet competent to grasp the idea of market fluctuations and would be inordinately puzzled and discouraged by any sudden depreciation in the value of his wares" (p.10). Such official inclination to manipulate returns to African producers is illustrative of the political economy of cotton growing in Nyasaland. African success was usually attributed to others' wisdom and must

[1] I(v)(b): MNA, A 2/1/4, Report of Department of Agriculture for Quarter ending 31/12/1910.
[2] The 'Residents Handbook' gave Residents themselves hints and advice on how to develop the African cotton-growing industry in their Districts (e.g. I(v)(b): MNA, A 5/2/1/ contains the 8/1/10 version). Not all followed the advice, of course, which was sometimes just as well because, it was based on conditions in the Shire Highlands.

not be allowed to go to peasants' heads.

The success of African and European cotton-growing varied from District to District, the former often arbitrarily dependent upon the interest and ability of local Residents and other administrative staff.[1] In general, at the end of the decade, Blantyre and West Shire Districts were dominated by European cotton-growers and Lower Shire and Mlanje by African growers. The attitude of local chiefs was very important in the early stages before cotton seed was distributed more directly to the local populace. For example, it is reported that Chief Hinda-Hinda of Machinga burned the seed given to him by Whicker as a protest that his people needed food not cotton (I(xi): ZHP4, Maria Hinda-Hinda, 15/1/79).

A glance at various Districts' records shows the variety of responses to the prospect of growing cotton. Apart from R. Tennett's estate, no cotton was grown in Cholo District (I(v)(a): MNA, Cholo DB I). In Dedza District, despite tax incentives, it was reported that catching fish was more profitable and less troublesome (I(v)(a): MNA, Dedza DB I, p.182). From Dowa, it was recorded that in 1907-8 cotton was grown for the first time to any noticeable extent by local people. For Blantyre District, Duff, a particularly prolific note writer on "prostitution" and "native beer-drinking", wrote of the A.L. Bruce Trust estates' success.[2] He found that progress in native cotton-growing depended on the personal influence, time and supervisory skills of the Resident (I(v)(a): Blantyre DB I), a view that found no room for African initiative or skills. Notes in the District Book refer to the decision not to encourage native cotton-growing in order to encourage work for pay. Blantyre District had for some years in this early period the greatest European acreage

[1] District Books, District Reports and Agriculture Department Annual Reports provide useful information on this.

[2] Previously mentioned on p.252, footnote 4.

(over half the total of the Protectorate's acreage in 1905, according to 1906-07 CR). In Chiromo District, the Oceana Company abandoned its Kaombe estate of Egyptian cotton in 1908, after five years' struggle against disease (CAT, 13/6/08, p.5).[1] At the other end of the country, four tons of Nyasaland Upland seed given to Karonga inhabitants in 1909 produced cotton of phenomenal length, strength and silkiness of staple (I(v)(a): MNA, Karonga DB I). Though European plantations produced only a small tonnage in Ncheu District in 1903-07 (I(v)(a): MNA, Ncheu DB I), cotton was the principal product of plantations in Upper Shire and Zomba (I(v)(a) : MNA, Upper Shire DB & Zomba DB), with early tenant growing schemes for cotton introduced by the British Central Africa Company in Upper Shire District (Vaughan, Ph.D., 1981, pp.237-8; I(xi): ZHP, Reports of various informants).

Three events at the end of the first decade had considerable impact on the cotton industry. These were the appointment of J. Stewart McCall as first Director of Agriculture, the 1910 Cotton Ordinance and BCGA's decision to commence direct operations in Nyasaland.

The Department of Agriculture and Forestry took over the work previously discharged by the two officers of the Forestry and Botanical Department (which succeeded the Scientific Department in 1906) and the Cotton Expert. One of McCall's main tasks was to promote cotton-growing, which he set about with considerable energy. Like Simpson before him, he toured the country and wrote reports, including papers presented to International Cotton Conferences, convinced that "in a few years the export of native cotton will be the largest export of the

[1]Bacterial blight (*Bacterium malvacearum*) was probably the most invasive and difficult to eliminate of the diseases of Egyptian cotton. In fact a United States Department of Agriculture pathologist suggested to McCall that the only remedy was to abandon Egyptian cotton and take up American instead (I(v)(b): MNA, A 1/1/2, 12/11/09). See Appendix V, II, (i) for description of the disease.

Protectorate".[1] Though his predictions came true eventually, it was not until 1925, in fact, that "native" exceeded "European" acreages. From that year, African production was regularly higher than European.[2] McCall was to have various differences of opinion with the BCGA during the next few years. But, within the limitations of his understaffed, underfunded Department, and bearing in mind the general lack of agronomic knowledge of the time, he had satisfactorily promoted cotton-growing by the time ill-health forced his resignation in 1918.[3] McCall did not solely encourage cotton. His December 1909 report (I(v)(b): MNA A 5/2/1) also covered tobacco, coffee, rubber, stropanthus, livestock, chillies, tea, wheat, sugar, groundnuts, maize, rice, turmeric, ginger, kapok, cocoa, camphor, vegetables, fibres and beeswax.

Determined to encourage African cotton-growing as much as possible, a leaflet - 'Za Thonje'- was circulated urging local people to have their own cotton gardens and reminding them of tax relief for 36lbs of cotton in the South and 48lbs in the North (I(v)(b): MNA, A 2/1/3). McCall also tried (fairly successfully as it transpired, though this was as much to do with BCGA's internal policy decisions as it was to outside pressure) to direct the BCGA's attention towards African cotton-growing in the Lower River and Shire Highlands and to persuade it of the need for a ginnery at Port Herald to avoid the wasteful expense of the 60 mile round trip from Port Herald to

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[1] Agriculture & Forestry Department, AR, 31/3/1910, p.5, published as a supplement to the Government Gazette of 30/6/10.

[2] See Figure 3, page 282, for a graphic illustration of acreages. Prior to 1925, African production exceeded European in 1917 and 1918 but this was not sustained. Vaughan (Ph.D., 1981, pp.133-34) gives estimates of African cotton production as % of total cotton production for 1906-22, based on Blue Books, as follows (figure for 1913 not available):-

1906	11%	1910	29%	1915	17.1%	1919	22.5%
1907	4.5%	1911	47.7%	1916	18.4%	1920	17.4%
1908	1.6%	1912	49%	1917	77.7%	1921	10.6%
1909	8.1%	1914	20.9%	1918	96.5%	1922	19.9%

[3] McCall returned briefly to Nyasaland in 1919-20, moved to Tanganykika Territory, where he died in February, 1921 (I(ii)(a): BCGA/AR 1920). Dar es Salaam Times of 12/2/1921 carried his obituary.

Chiromo and back.[1] Like Simpson before him, McCall's April 1909 report condemned the BCGA and indiscriminate growing in the early years. He believed that "if the Cotton Growing Association had spent the same money as they have spent on advances to planters in erecting ginneries and aiding the native cultivation, that a much larger cotton Industry would be established in the country" (24/4/1909). This ire was not too deep. McCall's December 1909 report recognised the country's debt to the BCGA for funding planters and recommended that if the BCGA's terms were comparable to commercial firms, it be granted marketing rights for the native crop grown under the Government's auspices. BCGA had already heard from ALC of unwelcome competition for the crop[2] and a year later the Director of Agriculture appealed to buyers not to force the price up to a level that could not be maintained.[3] The real problem, though, was not that African growers were being recompensed too highly, but that vast profits were being made at their expense. In 1910, 6d/lb profit was made by plantation companies reselling at 10d/lb in Liverpool African-grown cotton bought at 1d/lb.[4]

By 1910, cotton's popularity among both Europeans and Africans necessitated state intervention to control a source of revenue, vital to itself and the metropole. The Cotton Ordinance (1910),[5] modelled on 1908 Ugandan legislation, was designed to bring order to the seed and marketing sectors. Nyasaland Legislative Council discussants justified the restrictive Ordinance and Rules

[1]Detail in I(v)(b): MNA A 2/1/3, 'Report on Nyasaland Cotton', 24/4/1909, and 'Report on Agency of British Cotton Growing Association', 21/12/1909.

[2]I(i)(c): CGA Adds.20, Fred Moir, ALC, to BCGA, 10/3/09.

[3]AR, Department of Agriculture and Forestry, 31/3/10, published as Supplement to Government Gazette, 30/6/10.

[4]PRO, CO 525/32, Sharpe to CO, 15/3/1910, quoted in Vail, 1983, p.224. A.L. Bruce Trust's Likulezi estate profited from cotton bought from African growers, sometimes employing *ganyao* labour from Mozambique, as described in White (1987, p.109). *Ganyao* labour was given land for villages and food in exchange for work.

[5]Amongst other places, copies of Cotton Ordinance 1910 (Ordinance No.7 of 1910) are filed in I(ix): PRO, CO 625/1; I(ix): PRO, CO 879/105; and I(i)(a): CGA 1/9/273-9, 24/10/10.

as making Government policy more explicit and being in the best interests of country and people (Nyasaland Government Gazette, V, XVIII, No.13, 31/8/1910, p.146). The stated aims of the legislation were "to distinguish between native and other cotton"; to regulate seed issue, planting, cultivation, harvesting and sale of native-grown cotton; to regulate seed importation, deal with diseases of the crop and generally provide for protection and control of the industry. To these ends, the Director of Agriculture had to approve all cotton seed issues to Africans and had the power to establish markets and levy fees, with licensed buyers allowed to purchase native-grown cotton for seed for distribution. Africans growing on Crown Land were prohibited from selling other than at fixed markets. Additional rules were implemented on uprooting and burning dates and for ginning within the Protectorate. Breaches could involve three months' imprisonment or a £20 fine (considerably more than quoted by Terry, 1962, p.65),[1] raised to £25 two years later. The Nyasaland Government thus imposed state control over African farming to provide for metropolitan interests.

During 1910, while the BCGA was negotiating successfully with the British Government for an annual £10,000 grant, it was agreed that it would commence direct operations in Nyasaland if the grant was forthcoming. Previously, the BCGA had worked through the agency of the ALC, with which it remained on amicable terms. Kidney of the ALC believed that Simpson would be ideal for cotton missionary work in the territory, on the slight grounds that he had picked up some local language (I(ii)(b): BCGA/EM, 10/2/1910). Simpson accepted the post of BCGA's Nyasaland manager at £500 per annum, but by 31st March 1910 had agreed to join Farrar Bros. instead.[2] So, John Percival, then on leave from Northern Nigeria, took the job instead (I(ii)(b):

[1]For comparison, the Witchcraft Ordinance 1911 allowed for maximum fines of £5 for using charms, £5 for being present at a trial by prohibited ordeal and £25 for charging a person with being a witch.
[2]Simpson became Director of Agriculture in Uganda in 1912.

BCGA/EM 10/3/10, 31/3/10).

McCall, guarding against possible erosion of the new Department of Agriculture and Forestry's powers, wrote to the Colonial Office, for transmission to the BCGA, concerning his blueprint for a BCGA agent in Nyasaland.[1] This made clear that the appointee should be a marketing, commercial expert but should not in any way become involved in cultivation or extension of cultivation. These points were repeated forcibly on other occasions.[2] On the BCGA's idea of establishing an experimental plantation to train young men (discussed in I(i)(a): CGA 1/1/42(b), 5/7/10), McCall had no doubt that this would be unnecessary and dangerously competitive with planters for labour (I(ii)(b): BCGA/EM, 2/11/11). While happy to welcome BCGA ginneries, the first of which, including a hydraulic press, built at Port Herald in 1910, was ready for operations in 1911,[3] McCall was determined that the BCGA be kept in what he regarded as its "proper", subordinate place. Although eager to accept BCGA financing for African cotton 'capitaos' (foremen/supervisors/advisers) and insisting in reports that the relationship between the BCGA and the Department of Agriculture was always cordial,[4] the Department was adamant that the BCGA should have no control over agricultural activities and should restrict itself to post-harvest work.

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[1] I(i)(a): CGA 1/9/83-87, SSC to BCGA, enc., 17/6/10. As noted in Chapter 2, apart from contact with its "men on the spot", the BCGA seldom had direct contact with Government staff in the colonies. All correspondence was directed through the Commissioner and Colonial Office. The CO took great exception when contact undirected by itself took place, as, for example, in 1906 when the Association was berated for conducting direct correspondence with Samuel Simpson (I(i)(a): CGA 1/1/16).

[2] Chapter 2, Section 2.7, used the BCGA-Nyasaland relationship as an illustration of terms of contact between the Association and colonies.

[3] Later BCGA ginnneries were erected at Vua, Fort Johnston and Chiromo. The BCGA was successful in persuading the Nyasaland Government to limit ginneries in the Lower Shire Valley.

[4] For example, CO 879/111, Manning to SSC, 10/8/12, where Manning informs the CO of the excellent relations between the Department of Agriculture, McCall and BCGA.

5.5 1911-1920: EUROPEAN AND AFRICAN COTTON-GROWING VIE AND EXPAND.

> "The future prosperity of Nyasaland depends upon its agriculture, and the greatest production of cotton and other crops in Nyasaland will be reaped by a judicious combination of enlightened agricultural cultivation by Europeans using machinery and an extensive and intensive cultivation of small areas by natives on their own behalf." (AR, 1912-13, Nyasaland Dept.Agric.)

The Department of Agriculture made special efforts to promote African cotton-growing from 1910,[1] yet this did not prevent European as well as African cotton-growing making steady progress from 1911. European acreages increased dramatically between 1909-10 and 1910-11[2] and remained high until 1917-18. Then a drop for a few years was followed by a brief rise in 1921-24, with ensuing relentless decline. The expansion of white cotton plantations was sustained by the brutal *thangata* land-labour rent system, which overcame the labour shortage of a totally labour-intensive system. Blantyre District Book for 1910 described Magomero estate's *thangata* system as "a verbal agreement to the effect that each hut owner shall work for one month during the rainy season for his government hut tax and shall, if and when called upon to do so, work for a second month for pay during the rainy season." The theory of *thangata* was oppressive. In practice, as White (1987, pp.108-20) describes so vividly, the institution was cruelly and dishonourably enforced.[3] However, native cotton acreages, 20% of European acreages in 1916-17, rose to 50% in 1924. From 1925-26, they were

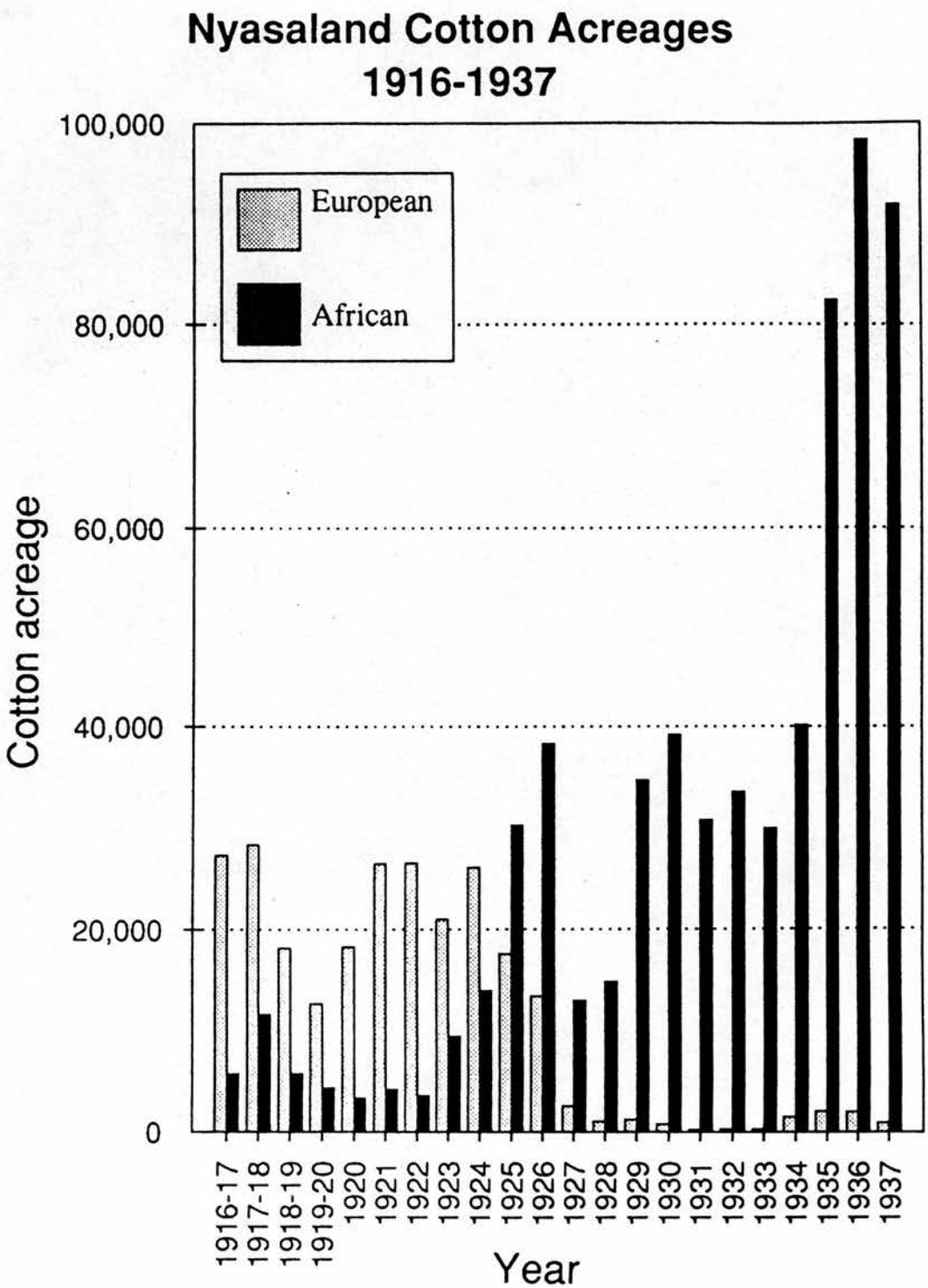
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[1] The efforts were successful enough for William Manning, new Governor in 1911, to argue that the scarcity of labour in the protectorate was due to rapid development of the cotton industry (I(ix): PRO, CO 525/36, Manning to SSC, No.12310); and for District Residents, by 1911, to advise would-be emigrants of the financial gains of cotton-growing (Casson, Superintendent of Native Affairs, Zomba, to WNLA, 27/2/11, in CO 525/41/422, Manning to SSC, 9/3/12).

[2] Some sources show the rise between 1910-11 and 1911-12. See Appendix VI, Table 36.

[3] Illegal aspects practised by W.J. Livingstone at Magomero included withholding of tax certificates, extending the system to include children, assessing a month as 28 days instead of 26 days, omitting to keep accurate records, forfeiting days for no good reason and paying in tobacco.

Figure 3



Sources: as for Appendix VI, Table 36

considerably and consistently higher each year.[1] Around 1920, there were 364 Nyasaland cotton estates (I(v)(b): A 3/2/230), ranging from 48 in Blantyre District to one in Marimba District. These were mainly European, but included fourteen Indian estates in Ruo District and eight African in Zomba District.[2] By 1930, virtually all cotton was grown by African peasantry.

At a Special Meeting with the BCGA in 1911,[3] McCall praised the two BCGA Nyasaland agents, attributing agricultural prosperity to BCGA advances to planters. He sought BCGA support for a railway extension to the coast, claiming this would reduce manpower waste and cotton damage through portering. It took 40 men three days to carry one ton of seed for distribution from Zomba to Fort Johnston, so savings from a railway line would be substantial. McCall also condemned the chaos of mixed varieties of unknown origin which had resulted in Nyasaland, as in Uganda, from early indiscriminate seed importation. He asked the Association to choose which of three samples of selected, improved, Egyptian cotton from the Government farm at Port Herald should be grown exclusively by Africans on Port Herald Crown Lands.

McCall did not suggest at this meeting that the BCGA should drop support for settlers in favour of independent African cultivators. However, during 1912-13 it became increasingly clear to the Association that that was where future prospects lay.[4] In 1911 McCall was commenting on the difficulty in persuading African peoples to grow non-food crops and the necessity to use their "love of cloth" as an incentive (I(ii)(c): McCall, 1911). Yet, by 1910-11, the African cotton-growing industry was established to the extent that the hut tax rebate, introduced as

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[1] See Figure 3 on previous page.

[2] Prior to 1915, about two dozen Africans owned land of up to 200 acres, according to Myambo (M.A., 1973, p.40 and p.116).

[3] Reported in I(ii)(b): BCGA/CM, 2/11/11 and I(i)(a): CGA 1/10/177-205.

[4] McCall's attitude swayed from anti-settler to pro-settler with ease during his Nyasaland career.

encouragement, could be withdrawn in some districts (CR, 1910-11). In others, however, there was still provision for a lower rate of tax if the payer sold 36-56lbs of seed cotton to a European (Pachai, 1973, p.114, Sharpe, 1912, pp.8-9).

Climatic conditions made 1911-12 a disastrous year for Shire Highlands planters (Agriculture Department, AR, 31/3/1912). Drought led to poorer quality crops than usual throughout Nyasaland (I(ii)(a): BCGA/AR 1912).[1] Planters took exception to McCall's press statements, arguing that they had lost money and that cotton could not be produced as cheaply as he asserted (I(ii)(b): BCGA/EM, 19/3/12).[2] The BCGA, unimpressed by settler attitudes, debated the worth of dealing with hostile white planters (I(ii)(b): BCGA/EM, 19/3/12). Hutton transmitted BCGA's worries to the CO: "white settlers bring difficulties and complications which do not arise when the industry is solely in the hands of natives".[3] Two months later, the CO was advised: "The question arises as to whether the Association should not devote its main efforts to assisting native cultivation in preference to plantations owned and managed by Europeans" (I(i)(a): CGA 1/1/47(a), 9/5/12). By November 1913, the decision was out of BCGA's hands - "Government evidently attached most importance to the native industry, and while appreciating the assistance the Association had rendered to European planters, they were not under the circumstances prepared to press for a continuance of the system of advances" (I(i)(a): CGA 1/1/50(b), 13/11/13). By 1913, anyway, some planters were abandoning cotton for tobacco, which by 1919 had

[1] This was the year in which planters' opposition to competition for labour led to the fruition of their campaign to prevent immigrants from being allowed to settle on Crown Land, thus virtually forcing Lomwe labour onto European plantations through *thangata*. The *thangata* system had been consolidated and strengthened in 1904, 1906 and 1909 (Vail, 1984, pp.9-10). Later legislation to intensify exploitation was passed in 1917 (Labour Ordinance) and 1928 (Ordinance No.15). See p.250, footnote 1, and p.271 for previous references to *thangata*.

[2] This illustrates the antagonism of colonial capitalists towards the colonial administration, as described by Woods (1989).

[3] I(ix): PRO, CO 525/46, Hutton to Harcourt 20/3/12.

overtaken cotton as a European industry. Indeed, some were using BCGA advances for their tobacco crops. This led the BCGA's East African Committee to decide finally there would be no more new planters' advances and existing ones would be limited to £4000 (I(ii)(b): BCGA/EM, 16/7/13). By 1920, the 2d/lb raw cotton export tax, introduced despite protests from the planting community and companies, was seen as threatening total abandonment by white planters.[1]

Nyasaland's response to the 1917 Empire Cotton Growing Committee circular noted the Shire Valley as particularly suitable for cotton-growing. Within that area, the most valuable land was Ndinde Marsh (sometimes Ndindi or Dindi), 5 to 8 miles wide by 30 miles long, in the crowded far south-east of the country. At that time, in the Lower Shire Valley, there were several different types of cotton-growers - Africans on small plots, a few Africans on larger plots, Indian shopkeepers with 100 acre leases and a few Asian shopkeepers or ex-Shire Highlands Railway employees on larger tracts of land rented from the Government or private landowners. There were also individual European planters and plantation companies, generally using labour from Portuguese East Africa; and African tenants,[2] growing on Blantyre and East Africa Company land in Ruo District (I(v)(b): MNA A3/2/67, Response to ECGC circular). The Ndinde Marsh was earmarked for immediate development. Towards the end of 1918 it was divided into fourteen 500 acre plots, leased by the Agriculture Department to European cotton growers, mostly at a rent of 1/6d an acre.[3] In fact, the scheme was a disaster - a victim of the environment and limited agricultural knowledge. The first crop was destroyed by

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[1] I(iv)(e): CRC/F1/N2, Nyasaland Chamber of Agriculture and Commerce to Board of Trade, 27/3/20. The experimental "crippling" export duties were abolished from 1/4/21 (I(v)(e): MNA, S1/1155/19).
[2] Tenant cotton-growing schemes were more common in the Upper Shire area, particularly on British Central Africa Company land. The tenant's right to land and subsistence depended on production of cotton, which was bought and usually ginned by the plantation company which took a portion as rent.
[3] Take-up of leases was more successful than Mandala (1990, p.317, footnote 106) allows.

flood, the second by drought. In the third year there was still no return. At last the Cotton Expert delivered his verdict that the area was not suitable for cotton, even with irrigation and despite its remarkable fertility (Murray, 1922, p.68; I(v)(e): MNA, SI/224/20).

While many European planters and companies were turning to tobacco as a potentially more lucrative venture, particularly in the Shire Highlands and Upper Shire, African cotton-growing was receiving attention from the Department of Agriculture and the BCGA. By 1914, the CO, previously optimistic about planters in Nyasaland, was converted to following Uganda's path of development through indigenous effort (Hatton, Ph.D., 1971, Ch.3). George Smith, Governor from 1913 to 1923, appeared to accept that prosperity was tied to individual African production and not to coercing Africans to work for plantation-owners.[1] Yet, in a later letter to the CO he noted, "...it is to the European and European capital that we must look for any considerable and rapid expansion - the native continuing in a large degree to find the labour" (Smith to SSC, 16/8/20, in I(iv)(e): CRC/F1/N2). Clearly, at the official level, the development of a pro-peasant policy was a matter of one step forward, two steps back.

Peasant enthusiasm is shown by the eagerness of Lower Shire Valley inhabitants in registering over 1,800 small cotton plots with the Resident by 1914 (I(ii)(c): Rees, 1914, p.38). Progress in other areas was hampered by lack of transport facilities (I(x)(b): NP, Agriculture Dept. AR, 1913-14). Assistant Agriculturalist Jennings noted in March 1915 that cotton tended to fail if it was grown at Government's insistence (I(v)(b): MNA, 3/1/2, 31/3/15). McCall later endorsed Jenning's view that tax rebates were not enough to increase output permanently "in this Economic Garden of Eden with small financial obligations

[1]PRO, CO 525/56, Smith to CO, 16/5/14, quoted in Tangri (Ph.D., 1970, p.115).

to Government or Family".[1] There was agreement that a willing cultivator with an incentive to grow was more likely to make a permanent success of cotton growing, thus aiding local government with revenue and British manufacturers with raw material supplies and purchase of exports, especially cloth.

However, not all were keen to see unlimited expansion of individual African cotton-growing. William Manning, while Governor, had become convinced that the Protectorate's general welfare could only be enhanced by development of an African cotton industry; but he knew that most planters feared competition for labour (I(v)(c): CGA 3/1/7 & I(ii)(b): BCGA/CM 30/1/13).[2] This was expressed directly in antagonistic letters and speeches or more indirectly, as at the 20/3/1912 meeting of the Nyasaland Associated Chamber of Commerce, when Mr. Partridge suggested the Agriculture Department "should direct its attention rather to teaching the natives agriculture than encouraging them to rush into cotton-growing on their own" (I(v)(f): MNA, Hist. Mss. NY 3/2/1).

Karonga District Book I records the 1911 decision that large areas of cotton should be encouraged instead of small areas which involved much work for a return often too meagre to cover tax needs. Government's fear of allowing Africans access to possible financial success is clear from Mlanje District Book. Four pages detail the cotton planting exploits of Makondeza, *alias* Somali, "a thoroughly bad character", who had opened up a huge cotton garden near Mhanda's on Mlanje Stream. His only crime appears to have been to have made "a great deal of money" out of his former cotton garden at Fort Lister by getting some assistance from Musa, an Indian to whom his sister was concubine, thereby, the Resident asserted, committing

[1] I(v)(b): MNA, A 3/1/2, McCall to Chief Secretary, Zomba, 5/6/15).

[2] These fears were justified. Mandala (1990, p.115) correlates the popularity of cotton in the Lower Shire Valley to unpopularity of wage labour. Other forms of resistance were emigration, temporary hiding in *nomi* group compounds and sale of foodcrops.

a further indiscretion in allowing an Indian trader to make use of Crown Land for cotton growing (I(v)(a): MNA, Mlanje DB II, 1910-13).[1] It seems to have been regarded as particularly heinous when Asians or Europeans were involved in encouraging African capital accumulation, however small-scale.

A little African industry was thus a good thing; more than a little raised worrying spectres of plantations left labourless, while competitive Africans made money on their own account. Few, in fact, appear to have been able to accumulate much in these early years, though the Director of Agriculture's Report on the BCGA in 1916 (in MNA, SI/83/19) noted that some had sold cotton worth £20 and one over £100. The Chamber of Commerce and Agriculture in 1919 complained of natives, financed by Europeans and Asians, growing over the allowed eight acres per tax-paying hut on Crown Lands (Pachai, 1973, p.166). In the Upper Shire Valley, Vaughan notes that returned migrants were the only Africans with enough capital to become successful cotton growers (Vaughan, PhD., 1981, p.132 & p.207). Most Zomba History Project respondents believed that very few earned from cotton more than just enough for tax. An interesting hypothesis on the small number of economically successful African cotton-growers was put forward by E. Grove White, Port Herald Agriculturalist, in his June 1922 report to the Director of Agriculture: "There are a few progressive natives about, who can be taught, but in their case, natives who are progressively inclined are often afraid of provoking the jealousy of their chiefs" (I(v)(b): MNA, 3/2/157).

During 1911-20, several other matters continued to be debated by the BCGA, CO, settlers, Protectorate Government and Director of Agriculture. For example, following the

[1] Many District Books had headings for "District Natives known to be Bad Characters". Another later cotton-growing example is of James Allen, "who has a desire to take up cotton-land in Chikwawa", described as well-educated, ambitious, arrogant and dishonest (I(v)(a): MNA, Chikwawa DB V, p.68).

1910 Cotton Ordinance, the BCGA made various suggestions on licensing and inspection of ginneries and seed supply.[1] However, McCall argued against ginnery controls as unwarranted Government interference and against seed selection at ginneries as no substitute for observation and experimentation with growing plants.[2] This was a reversal of stance. Previously, the BCGA had complained of unnecessary bureaucratic meddling when Cotton Rules were introduced or mooted by the Ugandan Government.[3] In fact, McCall did not want to offend white planters, often ginners too, who had already expressed their dislike of such legislation. In Uganda, on the other hand, African growers would have suffered.

The BCGA was keen to have control of Nyasaland ginning and baling (I(ii)(b): BCGA/EM, 2/11/11), having earlier expressed unhappiness at competition.[4] Indeed, within a few years, the BCGA Chairman quite blatantly asserted the Association's need to have control of the African cotton-growing industry or he would "drop the whole thing".[5] On ginning, the Imperial Institute's Professor Dunstan sided with the Department of Agriculture.[6] This helped finalise the April 1912 decision that ginneries should not be licensed. African growers should learn how to grade seed which would earn a small premium if well done and from which prime planting seed would be reserved by ginnery owners.[7] After a successful pilot scheme in 1912-13 of Government cotton markets with Agriculture Department staff inspecting and weighing before offering the cotton to the public, this system was universally applied in 1913-4.

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[1] I(ix): PRO, CO 879/105, Hutton to CO, 4/9/11; and quoted in Harcourt to Nyasaland Governor, 22/12/11.
[2] I(i)(a): CGA 1/10/147-55, 28/11/11, CO to BCGA, enclosing McCall's observations.
[3] See Chapter 4, Section 4.5.4.
[4] I(v)(b): MNA A 1/1/2, Hutton to McCall 10/1/11.
[5] I(v)(b): MNA, A 1/2/1, Hutton to McCall, 6/5/13.
[6] I(ix): PRO, CO 879/111, Dunstan to CO, 31/1/12.
[7] I(ix): PRO, CO 879/111, Wallis to USSC, 6/4/12; also in I(v)(b): MNA, A 1/1/3 and I(i)(a): CGA 1/10/485-9.

McCall and the BCGA argued repeatedly about ginning, markets and prices for the extension of African cotton-growing in North Nyasa District, where BCGA took over buying from the Department of Agriculture during 1911. In March 1912, the Director of Agriculture initiated correspondence regarding the BCGA's inactivity in Karonga which the Director attributed to understaffing. This had necessitated his Department "undertaking work which should be discharged by the Association" (I(v)(b): MNA, A 2/1/6, 28/3/12).[1] Following queries about the delay in commissioning the small ginnery at Vua,[2] erected by January 1912, and pressure from the Deputy Governor who slated the Director of Agriculture for not having ensured its early completion,[3] Hutton blamed it on the ALC for losing shafting on the journey from Port Herald: "not a small thing that could disappear in somebody's pocket", as he put it.[4] But dissent between the BCGA, Department of Agriculture and Administration was not just about the time taken to start up a ginnery.

The BCGA felt that Vua was the most suitable place for a buying centre.[5] The Karonga Resident was equally convinced that there should be a market at Karonga.[6] He complained he could not continue buying and stock-piling cotton at home and in the prison, that Vua was not central and had a small population, and that "people of the character of the Wankonde and poor stamina" could not walk to Vua to sell their cotton (I(v)(b): MNA 1/1/3). John Percival, for the BCGA, asserted that in Nigeria, where wages were higher and cotton values lower, the Government did not consider 40 miles too far to the nearest ginnery: "If natives are not to carry cotton from Karonga to a Ginnery

[1] The dismissal of Whitehead, referred to in Chapter 2, Section 2.7, p.78, had added to the understaffing.
[2] McCall had suggested Vua as a suitable site to the BCGA (I(ii)(a): BCGA/AR 1910).
[3] I(v)(b): MNA, A 1/1/3, Deputy Governor to Director of Agriculture, 6/6/12.
[4] I(v)(b): MNA, A 1/2/1, Hutton to McCall, 3/9/12.
[5] I(v)(b): MNA, A 1/1/3, Percival to Director of Agriculture, 3/12/12.
[6] I(v)(b): MNA, A 1/1/3, Resident, Karonga, to Director of Agriculture, 11/11/12.

at Vua, the sooner the Karonga industry dies out and perhaps the better for those incurred in buying Native cotton in that District". Percival showed the BCGA was losing 1³/₈d/lb by buying at Karonga, a loss, "...larger than even a so-called Philanthropic Institution like the BCGA can stand for long" (I(v)(b): MNA, A 1/1/3). Hutton was particularly concerned that the BCGA had not been consulted about prices and yet had to bear the full brunt of payment when other buyers were not willing to deal at those prices.[1]

Further angry exchanges ensued between the BCGA, the CO and the Department of Agriculture regarding the "deuce of a mess with Karonga cotton" because of prices, marketing and transport problems.[2] In another letter, Hutton asked the CO to intervene on its behalf to have a cotton market adjacent to Vua ginnery. The ginnery had been erected by BCGA, against its own better judgement,[3] on the recommendation of the Department of Agriculture.[4] Major Pearce, Acting Governor, accused BCGA of a blinkered approach and lack of confidence in the efforts and goodwill of the Officer Administering the Territory.[5]

Pearce, apparently championing the grower, wrote to the CO on 26th April 1913 that prices should not be lowered because "they provide no more than a bare margin of profit to the cultivator", though he would not expect the BCGA "to regard the matter of cotton in Nyasaland otherwise than from a business point of view".[6] In a further letter to the CO on 10th May 1913 (PRO, CO 879/111), he complained that the BCGA had a warped notion of its importance in Nyasaland. An incensed Hutton retorted

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[1] I(i)(c): CGA 3/2, Serial No.76, Hutton to USSC, 4/12/13.

[2] A particular bone of contention was what the BCGA perceived as McCall's foundationless, malicious refusal to allow the 'Gwendolen' to be used to move seed cotton down the Lake.

[3] I(i)(c): CGA 3/2, Hutton to USSC, 12/6/13.

[4] I(ix): PRO, CO 879/111, Hutton to Colonial Office, 4/2/13, Serial No.77. See also p.280, fn.2.

[5] I(ix): CO 879/111, Pearce to SSC, 22/4/13. The BCGA felt it had enjoyed a much happier relationship with Manning, Governor from 1911-13.

[6] I(i)(a): CGA 1/11/203-31, Pearce to SSC, enc. with CO to BCGA , 11/6/13.

righteously that Pearce completely misunderstood matters - the Association would have had nothing to do with a small country with transport problems and little immediate potential if profits had been its sole interest.[1] Attempting to pacify Hutton, Colonial Secretary Harcourt responded that he was confident that Major Pearce was "fully aware of the semi-philanthropic nature of the objects and methods of the Association",[2] writing to Pearce on the same day: "I am confident that you understand the semi-philanthropic nature of the Association" (I(ix): PRO, CO 879/111).

The Association's pique at not being consulted had the desired effects.[3] During the next few years the prices to growers were fixed after careful deliberation with the Director of Agriculture and the local manager of the BCGA (himself in close touch with his UK office), to the satisfaction of the Governor who believed they were the most liberal which could be offered.[4] The BCGA was well content. Thus, when it claimed in 1915 it would make a serious loss if prices were set too high, there was a price reduction (I(i)(a): CGA 1/12/40509). In that year, as in 1914, if the BCGA had not stepped in, the Government would have been forced to buy, so little competition was there ((CO 879/115, McCall's Report on BCGA, 1914; Terry, 1962, p.67). It appears that the BCGA's accusations, that other firms bought at the same rate as the BCGA only when profits were in the offing, were borne out in Nyasaland.

Hutton wanted the Government to tax heavily all who made

[1] I(i)(c): CGA 3/2, Hutton to USSC, 12/6/13. Compare this attitude, though, with Hutton's comments to McCall three months previously, when the BCGA feared heavy losses because of the price fixed by Government. Then, Hutton proclaimed that the Executive were tired of throwing their money away on Nyasaland and that McCall had got it wrong if he thought the BCGA did not want profits. They had to make a profit or the Association would come to an end (I(v)(b): MNA, A 1/2/1, Hutton to McCall, 4/3/13).

[2] I(i)(a): CGA 1/11/269, CO to BCGA, 16/7/13.

[3] In fact, later correspondence suggested that Percival, BCGA Manager at Port Herald, was partly to blame for the situation by jumping to hasty conclusions (I(ix): PRO, CO 879/111, Pearce to SSC, 10/5/13).

[4] I(i)(a): CGA 1/12/589-93; in SSC to BCGA, 7/8/15, enc. Nya No 128 of 12/6/15.

profits out of misfortunes (I(i)(b): CGA 2/2/25, Hutton 1916). However, the BCGA itself was capable of rather dubious means to secure the cotton crop when there was competition. A.J. Storey, of Blantyre's General Cash Stores, wrote to the Director of Agriculture on 5/9/16 to complain that they had been unable to buy at Lisungwe Cotton Market. The BCGA buyer had told local chiefs they were not free to sell to anyone but the Association. By granting storage space in BCGA sheds before the market opened, they implied that growers must sell only to them (I(v)(b): MNA A 3/1/5).

The following year it appears that the BCGA embarked on a psychological campaign to persuade the Government to grant it special consideration. On 14th May 1917, Hutton wrote to the USSC offering to buy the whole crop with minimal Government aid. He predicted calamity if the Nyasaland crop was not sold: mills might close, there would be a serious shortfall in Government accounts, and grant-in-aid would probably be required again (I(v)(b): MNA 1/2/1). On the same day, Hutton informed McCall he could not guarantee BCGA help as before and that perhaps the solution lay in granting a BCGA buying monopoly, thus maintaining a steady buying price and accumulating a reserve (I(v)(b): MNA A 1/2/1, Hutton to McCall 14/5/17). Later in the year, McCall noted that "Never in the history of native cotton-growing has competition been so keen", that there was no need whatsoever for BCGA assistance and that if the BCGA plan were adopted this would be seen as favouritism by other ginners (I(v)(b): MNA, A 1/2/1, 'Notes on Cotton', 27/10/17).[1]

The next year again saw "spirited competition". The BCGA managed to buy only 12 tons out of 365.[2] The implication to the Department of Agriculture was clear: the BCGA was

[1]There were 16 ginneries in Nyasaland at this time, four owned by the BCGA (I(v)(b): MNA, A 3/2/67, Empire Cotton Growing Circular, 1917).
[2]I(v)(e): MNA, SI/83/19, Report on BCGA, to 31/12/18.

unable to compete when others were in the market. In fact, the Department had recently damned the Association in its response to the 1917 Empire Cotton Growing Committee circular. Taking all credit for starting and organising the native cotton-growing industry before the BCGA came to Nyasaland, the response went on, "Unofficial bodies acting under Government auspices are not understood by the native and are not appreciated by other traders..." and no monopoly should be granted to them (I(v)(b): MNA, A 3/2/67).

By 1914, cotton sales were having a noticeable effect on African standards of living, the government marketing scheme was self-supporting and Duff, Deputy Governor, noted a satisfactory correlation between hut tax revenue and successful African cotton harvests.[1] Until about 1917-18, when production fell, the First World War had surprisingly little effect on the Nyasaland cotton industry, despite the need for porterage (*tenga-tenga*) and the compulsory growing of foodstuffs.[2] Reading McCall's memos on the fine qualities of Nyasaland Upland, especially noted for lustre and suitability for high class mercerised and velvet fabrics (Supplement to Nyasaland Government Gazette, 30/11/16), it is often hard to believe there was a war on. During 1915, Vua ginnery was closed because of its proximity to German East Africa and growing ceased in North Nyasaland. Chiromo and Fort Johnston ginneries ran a short season and European acreages and production fell because 25% of such acreage was used for compulsory food production. But the effects were less than expected.[3]

Other events, though, did leave their mark. The Chilembwe rising in 1915 interfered with seed distribution

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[1] I(i)(a): CGA 1/12/9-13, SSC to BCGA, 30/7/14.

[2] Women's role must have had considerable bearing on this. As noted in District Books, Reports and oral history records, women stepped in as cotton growers when men went to war or migrated for work.

[3] I(ii)(b): BCGA/CM 7/5//18; I(v)(e): MNA SI/83/10, McCall Report on BCGA, 1915. Appendix VI, Table 36, shows little change, apart from in 1917-18, until post-war.

arrangements from Zomba, remedied some of the worst conditions on the Bruce estates but did not put a stop to *thangata*.[1] The prices received by Africans for their cotton crops, and lack of means for betterment, were among the grievances cited as constituent causes of the revolt.[2] John Chilembwe's attack on Magomero estate is not fully explained but is graphically described by White (1987, pp. 135-45). He believes the *thangata* system, Bruce Estates' ban on schools and churches, Chilembwe's preaching that W.J. Livingstone was the anti-Christ, Chilembwe's health worries and African war casualties were all factors in the conflict. There appears to have been no lasting effect on production and, indeed, Chilembwe was little remembered until his revival as a hero-figure in the 1950s. On the other hand, devastating floods in the Lower Shire area in February 1918, which led to damage to the Central African Railway and many deaths, made considerably more impact, leading to keen competition to purchase a reduced crop.[3]

Although the Port Herald-Chiromo and Chiromo-Blantyre railways had relieved some of the pressure, transport for export crops remained a problem during this period, with exorbitant charges, lack of light connecting railways and roads and need for northern and southern extensions to the main railways. An early difficulty was that virtually all transport was in the hands of the ALC, BCAC and Shire Highlands Railway Company, with the latter two more or less under the same management. In addition, the Government was tied down by its agreement to subsidise railway construction with land grants and by the companies' strong representation on the Legislative Council. As John Percival advised BCGA headquarters in 1911, it was not in the interests of ALC or BCAC to have a railway south of Port Herald because both companies had profitable river-stock for the Port Herald to Chinde run.[4]

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[1] For previous comment on this, see p.250, fn.1; p.252, fn.4; p.271; and p.274, fn.4.
[2] Pachai, 1978, p.101; and Shepperson & Price, 1958, p.222.
[3] Agriculture Department AR, 31/3/19; I(ii)(b): BCGA/CM, 4/6/18.
[4] I(i)(c): CGA 3/2/88-9, Percival to BCGA, 6/2/11.

In 1913, it was reported that cotton picked in June/July did not reach Liverpool until the following March or April at the earliest. This meant delays in payment and damage to the crop, and emphasized the need for the proposed Beira-Zambezi and Port Herald-Zambezi lines with connecting Zambezi bridge (I(i)(c): CGA 3/1/7; I(ii)(b): BCGA/CM, 30/1/13). The BCGA and "friends" played a crucial role in the 1913-14 construction of the latter line (Central African Railway) by taking up shares, though war delayed until 1922 the Beira-Zambezi section, for which commercial capital was raised.[1] With inadequate and expensive transport to the coast, Nyasaland's export trade and agricultural wellbeing had suffered.[2] Even with the new line to the ocean, Nyasaland's future remained insecure and vulnerable.[3]

At the end of the First World War, determined efforts to foster commodity production were marred by lack of finance and infrastructure. It appeared that cotton-growing might not be attractive enough to compete with alternative cash sources or overcome difficulties caused by marketing and transport problems and a population debilitated by Spanish influenza and smallpox epidemics from 1918 to 1922. And it was still not clear whether best future prospects lay in small-scale peasant production or in large-scale, heavily capitalised foreign-owned plantations. Those involved in decision-making were still hedging their bets.

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[1] I(ii)(a): BCGA/AR 1913, 1914; I(i)(c): CGA 3/1/5; I(i)(b): CGA 2/2/33, 'Memo on Railways', 1922.

[2] The cost of transport limited cash crops to those of high enough value and low enough bulk or weight. These were not necessarily the most valuable for rotations to conserve and nourish the land; and led to over-reliance on monocropping with its inherent dangers for the land and the economy.

[3] Vail (e.g. 1975 and 1977), more consistently than anyone else, has drawn attention to the desperate financial situation into which Nyasaland was plunged as a result of enforced enslavement to railway interests. The colony had to meet 6% interest guarantee charges for 25 years on £1,200,000 worth of debentures for a strategic railway line outside its own territory; and was later subjected to a crippling contribution to the Zambezi bridge. As Vail succintly put it: "Nyasaland was a Protectorate in which the railways were the Protected" (Vail, 1975, pp.11-12).

5.6 THE 1920s AND 1930s: THE RISE OF AFRICAN COTTON PRODUCTION IN NYASALAND

> "Whether the European is to continue growing cotton indefinitely is very doubtful. As far as I can see he is bound to give place to the native sooner or later, since the parts of the country where cotton is likely to thrive best are the less temperate regions of the Protectorate, where it is doubtful if the European can make a permanent home ... Ultimately it is probable that the European will do the handling and export of the crop and the native will do the growing."
> (I(iv)(h): 15/P4, Sampson, 1922, p.24.)

During the 1920s and 1930s the BCGA played a vital part in promoting cotton production in Nyasaland but, from the time of the Empire Cotton Growing Committee's preliminary report in 1919, the history of cotton-growing in the protectorate became, in part at least, the history of the ECGC.[1] The Corporation's efforts in defining good cultural practices, battling against insect ravages and providing high-quality, disease-resistant strains proved crucial.

Much of the chronicle of cotton production in the 1920s and 1930s can be read from the statistics produced by the BCGA, ECGC, Nyasaland Government, British Government and other sources.[2] Export production figures show that it was not until 1930 that the number of exported bales exceeded those of 1916-17 and 1912-13; and not until the 1934 "Grow More Crops" campaign that exports, until the Second World War, regularly exceeded those peak years of the first two decades of commercial production.[3]

In 1920, 80% of the crop was grown on European-owned plantations using hired or tenant African labour (I(iv)(g): CP1/539; Killby 1924(b)). From 1925, when

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[1] A synopsis of the history of the ECGC in Malawi has been given in Chapter 3, Section 3.4.1.

[2] See Appendix VI, Tables 36 - 42 inclusive, and Figures 3, 4 and 5, for statistics relevant to the '20s and '30s.

[3] Appendix VI, Table 36. See also Table 21, compiled from ECGC and BCGA figures, which shows a similar trend.

African acreages exceeded European cotton acreages for the first time,[1] the history is mainly of local African production.[2] African smallholder cotton acreages for 1916-37 illustrate a fairly steady rise during the period with a low of 3,360 acres in 1920 and a peak of 98,258 in 1936.[3] The number of growers in 1932 was 13,200, reaching an extraordinary 74,845 in 1937, an interest never again approached during the period for which this statistic was recorded.[4]

Many District Residents over the years noted the positive correlation of taxes paid to cotton sold. While it is impossible to assess from a table the source of finance for hut tax payments, the fact that "tax capitaos" were posted at cotton markets certainly ensured that there was a close relationship between the welfare of the industry and local government coffers.[5] Years of improved cotton production, such as 1935 and 1936 in Chikwawa District, led to increased hut taxes in subsequent years, mainly through African settlers moving in to take advantage of good cotton-growing conditions (I(v)(a): MNA, Chikwawa (West Shire) DB II).[6] In addition, 16 year old boys came forward more readily as taxpayers because of cotton money (I(v)(d): NSC 2/1/3, Chikwawa District AR, 1930). Good

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[1] See Appendix VI, Table 36, and Figure 3, p.282.

[2] See Appendix VI, Table 41 for percentages of total crop produced on European and Native Trust Land. Note, though, the high %age of tenant-grown cotton on European land. In Chikwawa District, for example, by 1930, there was reported to be no European agriculture in the district, but European owners of freehold land let blocks of it to natives to grow cotton or maize for payment in the crop at the rate of 360lbs seed cotton in 1930 (I(v)(d): NSC 2/1/3, Chikwawa District AR, 1930). The BCGC AR, 1933-34, noted an apparent revived interest in European cotton-growing but "rather in the direction of encouraging their native tenants to grow the crop than in cultivating it for themselves with paid labour". In the Lower Shire Valley, labour problems, absentee landlordism, price fluctuations and poor agricultural knowledge had all contributed to estate failures.

[3] See Appendix VI, Table 36, and Figure 3, p.282. The peak acreage and production of smallholder cotton-growing in the mid 1930s was noted in the 1938 Bell Report (I(x)(b): CO) as approximating to earlier European cotton farming with worrying continuous cropping, extensive cultivation and loss of cropping balance - all with accompanying vulnerability to insect pests and diseases.

[4] Appendix VI, Table 36.

[5] Appendix VI, Table 37, gives data for 1923-33.

[6] The influx of immigrants from Portuguese East Africa or neighbouring districts aroused worried comments in annual reports that it was leading to critical land pressure (I(v)(d): MNA, NS 3/1/1, Southern Province AR, 1927) and that saturation point with a scarcity of land and labour had been reached (I(v)(d): NSP 2/1/5, Lower Shire District AR, 1935).

cotton years also had a spin-off in expansion of minor local industries, such as dried fish sales, joinery, cycle repair shops and tea canteens (I(v)(d): MNA, NS 3/1/5, Southern Province AR, 1935). Conversely, poor cotton years, caused by low production or low prices, as in 1930 in Katunga's Section of Chikwawa District, created poor tax revenue the next year with much migration from the area and incomers returning to Portuguese territory (I(iv)(a): MNA, Chikwawa (WS) DB IV; I(v)(d): MNA, NSP 2/1/4, Lower Shire AR, 1933).

Not all were eager to use cotton money for taxes. E. Lawrence, DAO, commented on the imprisonment or suspended sentences meted out to "able-bodied delinquents" who had previously grown cotton for tax money but now seemed content to sit in idleness. At the other extreme, he pondered whether the newly formed Native Authorities (1st July 1933) derived any benefit from the African "capitalists" from Blantyre and Cholo Districts who cultivated extensive cotton gardens in Chikwawa (I(v)(d): MNA, NSP 2/1/4, Lower Shire AR, 1933).

Slightly preferential treatment of Lower Shire District cotton-growers over the time of payment of taxes led non-growers to speculate that the Government was attempting gently to coerce people into growing cotton (I(v)(d): MNA, NSP 2/1/2, LS District AR, 1927), a commonly held notion with which the BCGA and Department of Agriculture had some sympathy in other districts. A Machinga District informant tentatively suggested that local people stopped growing cotton in the Upper Shire Districts about 1918, when "people realised that cotton had been introduced so the people should be able to pay tax" (I(xi): ZHP4, 12/1/79).[1]

The fortunes of the cotton industry in various districts

[1]Most informants of the Zomba History Project suggested the decline in cotton production was caused by lack of financial return or being cheated.

can be assessed from acres planted and from seed cotton purchased.[1] Although by 1933-34, agriculturalists realised that not all of the Lower Shire Valley was particularly well-suited to cotton-growing (I(v)(e): MNA, S 1381/D/23), the importance of Chikwawa and Port Herald Districts is immediately apparent, with acreages and purchases considerably higher than for any other area in the 1920s and 1930s. The percentage of cotton produced in the Lower Shire Valley averaged 73% during this time, with a low of 35% in 1921-22 and a high of 98.5% in 1932.[2] Blantyre and Neno Districts have a fairly steady production record; while Liwonde, South Nyasa, Ncheu, Dedza and Dowa Districts all exhibit fairly erratic patterns, though they follow the general trend of dramatically increased acreages from 1935.

Within districts, there were many variations too. The values of the highest and lowest annual seed cotton purchases differed widely: between 1923 and 1933, for example, Port Herald District's best year was 1925, when over £35,500 worth of African grown cotton was purchased compared to the worst year, 1931, when only £6,500 was taken.[3] Within the Lower River District, the percentage of hut-owners growing cotton varied considerably by Section. At the extremes, in 1931, 100% of Mlolo hut-owners grew cotton, whereas in 1932 only 15% of those in Ndamera grew the crop.[4] The size of gardens[5] showed diversity, too, though in no Lower River Section, in 1931-32, was the percentage of "large" gardens (over 3 acres) greater than 5% of the total and, overall in that season, only 126 of a total 2,913 were classed as such.[6] Mandala (Ph.D., 1983, p.150) notes that there had been

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[1] Except where otherwise noted, all figures in this paragraph are from Appendix VI, Tables 39 and 40.
[2] Appendix VI, Table 42.
[3] Appendix VI, Table 39b.
[4] With a widespread drop in percentage between the two years. See Appendix VI, Table 38.
[5] It is common parlance in Malawi to refer to holdings and fields as "gardens". These do not refer to the well-watered, grossly extravagent, "reminders of home" that colonial officers so often contrived to establish in the most arid parts of Africa.
[6] Appendix VI, Table 38.

possibly as many as 1,000 rich, peasant *zunde* holders (of 3 to 100+ acre gardens) in the late 1920s, competing with European and Asian planters on the labour market, making use of Lomwe migrants, village poor and *nomi* labour groups.[1] This number fell during the 1930s.

The relative percentages of male and female growers also varied within districts. In the Lower Shire District, there was a striking fall in percentages of female growers from 18.1% to 3.2%, then rise to 19.3%.[2] Upon this latter figure, Lawrence, Agriculturalist at Port Herald, commented that it "is a high one in a country where the female is popularly, but quite wrongly, supposed to be a poor suppressed creature" (I(v)(b): MNA, A3/2/201, June 1933 survey).

In the early post-war period, the Director of Agriculture, BCGA and ECGC were all aware of the flagging condition of the Nyasaland cotton industry. The Director of Agriculture was wary of attempting to revive cotton cultivation at the expense of food crops.[3] However, deteriorating staple lengths, low average yields of only 63lbs an acre in 1920, nearly quartered African production and halved European acreages between 1915 and 1920, lack of agricultural expertise and inadequate Agriculture Department resources compelled him to seek ECGC expert aid in 1921.[4] H.C. Sampson, the appointed ECGC expert, identified the constraining factors.[5] Internal and external transport were costly, labour inefficient,

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[1] The *zunde* was originally a Sena institution - the public garden of a chief - but came to be extended to wealthy male farmers.

[2] Appendix VI, Table 38a. For an earlier period, the 1913 Agriculture Department AR had stated: "Cotton is largely cultivated by women" (p.8); but M'meta (III: 1982/83) on the Upper Shire, 1903-30, noted a lack of female participation because of superstitions surrounding menstruating women, planting and harvest. Cotton was grown by Lower Shire female heads of household for cash and tax purposes; and by polygamous co-wives as an extra cash source in their food gardens. Mandala (1990, p.171) attributes the mid 1930s rise in Lower Shire women growers to division of large *zunde* holdings among co-wives and departure of males for wage labour.

[3] I(v)(e): MNA, S1/82/20, McCall to Acting Chief Secretary, 26/1/20.

[4] I(v)(b): MNA, A 3/2/59, Director of Agriculture to Chief Secretary, 18/1/21 and 4/8/21.

[5] In I(iv)(h): 15/P4, Sampson, 1922.

grading poor, ginning and baling expensive. There was a lack of up-to-date ginneries and absence of agronomic trials and good farming practices. Many European settlers had no training and Department of Agriculture staff were inexperienced. Only the Director had any previous practical experience of tropical agriculture. In fact, little seemed to have changed since Simpson's 1905 report; and the Director of Agriculture and the BCGA had already noted most of these inhibitory factors.[1]

During the 1920s and 1930s, the concerted efforts of the Department of Agriculture, BCGA and ECGC solved some of the technical problems, though others evolved. By 1935 the BCGA was commercially successful in its African operations and had limited involvement in cotton promotion. It was single-minded in its desire that Nyasaland should increase its growth of the crop. The ECGC and Department of Agriculture had a vision of wider advantages from cotton productivity. The Department asserted that increased cash crop production was a means to improved agricultural methods, better housing and more nutritious diet (I(x)(b): NP, Department of Agriculture AR, 1935). ECGC in Britain surmised that African cotton-growing was a means of alleviating the Protectorate's problems (I(iv)(a): ECGC/ACM, 20/5/36). Its officers in the colony agreed that cotton-growing had an important role "in improving the economic status of the Nyasaland native, and to enable the country to pay its way" (I(iv)(e): CRC/F1/N2.4, Ducker, 1935).

At the start of this period, Europeans grew 80% of the total cotton produced, much at lower elevations where "the climate is malarious and unhealthy, and ... therefore more suitable for native exploitation".[2] However, as previously noted, a major change from mainly large-scale European-controlled estates to almost entirely African

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[1] I(v)(b): MNA, A 3/2/59, Director of Agriculture to Chief Secretary, 18/1/21.

[2] Manchester Guardian Commercial in International Cotton Bulletin, No.2 (6), Dec. 1923, pp.187-88.

production occurred in the 1920s.[1] European cultivation dwindled and white settlers felt increasingly marginalised as the BCGA, ECGC and Department of Agriculture concentrated on the smallholder industry.[2]

There were differing opinions on African capabilities and possible effects of encouraging African cotton production. The protectorate's official handbook was uncomplimentary: "... the average native labourer has for his object the performance of as little work as possible" (Murray, 1922, p.155). Moggridge, a Provincial Commissioner, was ostensibly in favour of African cotton production with Europeans as middlemen. But he feared that, on the one hand, ignorance and negligence would obstruct independent African agriculture and, on the other, that a move towards independent farming might "introduce a potentially dangerous bitterness into relations between some whites and natives".[3] Ponsonby (1926, p.330) thought European "energy, initiative and experience" was essential. Yet the settler-owned Nyasaland Times continually emphasised that the country would never thrive as a white man's land. Nyasaland Chamber of Agriculture and Commerce complained in 1927 that the Governor favoured peasant cotton and tobacco cultivation (I(v)(f): MNA, Hist.Mss. NY 4/1/1, 18/1/27). A few years previously, the Acting Governor had decided "that the future prosperity of Nyasaland depends to a very large extent on native cultivation".[4]

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[1] Palmer (III, 1984, p.20) quotes the percentages of European produced cotton for the decade from 1920-30 as follows:-

1920	84%	1923	69%	1926	26%	1929	1%
1921	86%	1924	65%	1927	17%	1930	2%
1922	88%	1925	27%	1928	7%		

[2] The feelings of the small number of remaining European cotton-growers were expressed in a letter to Nyasaland Times, 8/6/34, on the subject of the 1934 Cotton Bill to regulate the industry. The author complained that the Bill was biased, mixed-up and anti-settler, making no provision for Europeans unless they acted like natives (I(v)(b): MNA, A3/23).

[3] I(iv)(e): CRC/F1/N2, 'Note by Mr. Moggridge, P.C., Nyasaland Protectorate', circa 1921.

[4] I(iv)(e): CRC/F1/N2, R.Rankine, Ag. Governor to Thomas, SSC, 20/2/24. In this, Rankine expressed a contrary view to that of his predecessor, Sir George Smith, who had asserted 4 years before that it was from European capital and industry that cotton expansion would evolve (see quote on p.276).

By 1926 the BCGA was fully committed to indigenous African cultivation, no doubt influenced by its losses - £40,000 up to 1922 - on advances to planters who often diverted them to tobacco crops and who seldom acknowledged BCGA's aid.[1] In 1929, the BCGA turned down a BCAC offer of a profit-sharing relationship in a cotton-growing scheme in Chikwawa District, though it did offer to advance against acres.[2] Its refusal to participate fully was based on not seeing the crop as part of the white man's realm.

Sampson and Wortley, cotton specialist and Director of Agriculture, noted on their 1923 visit to the Lower Shire District that the undernourished local population had managed vastly to increase their cotton acreage. By contrast, European attempts (Oceana Company, Ndinde Marsh scheme, Boby's estates) had ended in failure.[3] African eagerness to grow cotton is clear from the 1925 Garden Census, which recorded that 97.6% of Port Herald households and 76.6% of Chikwawa households grew some cotton (I(v)(b): MNA, A 3/2/233);[4] Further indications were requests for the introduction of the crop and marketing arrangements, such as from West Nyasa Native Association in 1922 (I(v)(b): MNA, A 3/2/68, 9/5/22 minutes); and over 500 Africans attending a meeting on cotton-growing during the BCGA Chairman's 1927 visit. Growers remained enthusiastic despite attempts to sabotage selling by rumours that there would be no buyers (I(i)(b): CGA 2/2/5). Unable perhaps to stomach the idea of African initiative, the Director of Agriculture, in 1924, correlated successful cotton-growing with the presence of European supervisors. In reality, suitable growing

[1] I(v)(b): MNA, A 3/2/67, Director of Agriculture to Lee, Port Herald, 29/5/22; & A 3/2/55, Himbury to Director of Agriculture, 1/11/22.

[2] The scheme ended in embezzlement charges against a BCAC employee in connection with the purchase of cotton on the joint account (I(ii)(b): BCGA/BM, 8/1/29, 15/1/29, 5/2/29).

[3] I(v)(b): MNA, A 3/2/68, Director of Agriculture, 28/6/23, 'Report on a Visit to the Lower Shire District'.

[4] The cotton in the Lower Shire was not just grown in quantity, it was grown well. Sampson remarked that he had never seen better African cultivation than at Port Herald (I(v)(a): MNA, NSP 2/1/1, Lower Shire District AR, 1925-26).

conditions in Chikwawa and Lower Shire District, which showed a 115% increase in production between 1922 and 1923 (compared to 50% in Mlanje, Central Shire, Ncheu, South Nyasa and North Nyasa), were more relevant than European input (I(v)(e): MNA, S1/481/24). Several observers noted that progressive headmen or chiefs also had a positive influence on production.[1]

Transport problems continued to restrict agricultural development, hampering competitive exports of potential rotation crops and shorter-stapled cottons and placing a heavy burden of extravagent projects on Protectorate finances. Ormsby-Gore had noted in 1925 the need for a bridge over the Zambezi, better port facilities and improved railways to prevent a massive efflux of labour migrants (I(iv)(g): CP1/549). However, development tended to be heavily biased towards the interests of the metropole not the local economy. Ducker of the ECGC was convinced that the completion of the Zambezi railway Bridge in 1935 stimulated agricultural activities (I(iv)(e): CRC/F1/N2.4, Ducker, 1935). It did, in that it formed a vital link between transport systems, but it was also unnecessarily long,[2] extortionately expensive for Nyasaland and was perhaps motivated as much by a need to boost the ailing British steel industry as for the Protectorate's benefit.

There were continual calls from the BCGA, ECGC and Government for lower rail rates during this period. There was also controversy over the extension routes to the north and occasional requests for cheap river transport as an alternative to expensive railways. However, there was little success in manipulating the transport system to the territory's benefit until the mid 1930s when the Northern

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[1] For example, I(v)(b): MNA, A 3/2/204, 'Report on Southern Province for Quarter ending 31/3/26', gives credit to Principal Headman Symon for inducing the 700 people under him to produce over 100 tons.

[2] At 2.285 miles, it was briefly the longest in the world, overtaken on 16th December 1935 by the completion of the Huey P. Long Bridge, Louisiana with its 4.35 mile long railway section.

Extension line opened, feeder road improvements were carried out and the railway companies reluctantly offered to reduce freight rates for seed cotton from markets to ginneries (Ducker, 1938).

The railway companies' monopoly severely hindered 1931-34 development plans, which sought to halt the spiralling of "loans to service loans".[1] Nyasaland Railways Ltd. and Shire Highlands Railway Ltd. refused to admit the stark truth that, as private companies with dividends to pay, their rates were considerably higher per ton mile than those in other cotton-growing territories, such as Iraq, Tanganyika, Southern Rhodesia, Uganda and Nigeria.[2] They would not accept that transport rates might be stifling cotton production. Time and again, the disadvantage of privatised communications was brought home to Africans and foreigners trying to establish themselves in a competitive international market.

Marketing arrangements were integral to cotton promotion. The Government attitude was initially one of minimum interference. After 1918, when cotton production did not rise as expected and indeed, acreages and production fell, intervention was adopted.[3] A Government auction system of buying began in 1920.[4] Growers took their cotton to markets to be weighed by Government officials, graded into three grades and auctioned at the day's end. Licensed buyers could bid at auction above a Government fixed minimum price. Government exercised the right to buy if the "fair" minimum was not reached.[5] However, very soon the Government minimum became the auction maximum as "rings" of buyers combined. Many of the buyers were

[1] Described by Nthenda (Ph.D., 1972, p.150) and foreshadowing by several decades the invidious debt cycle in which many new African nations found themselves from the 1960s onwards.
[2] Correspondence on rates is in I(v)(e): MNA, S1/956/30 and S 1381 D/23; and I(v)(b): MNA, A 3/2/56. They are also discussed in Vail (1984 and 1977).
[3] See Appendix VI, Table 36. Figure 4, p.310 shows the almost static graph prior to 1923.
[4] Described in Murray, 1922; I(v)(b): MNA A 3/2/55; and Department of Agriculture AR, 1920.
[5] A system not unlike the EEC Common Agricultural Policy, which guarantees to buy agricultural products at a fixed price if the market price falls below the intervention price.

Indians who had become adept at offering inducements in the form of *bayira* ("presents") of hoes, sugar and salt, as well as cash and credit to African growers. By such means, Indian traders had become intimately interconnected with cotton smallholders. Government attempts to control the market did not break this link.

In 1920, the Government was castigated for intervening to buy the crop, as it had done in 1919, when no bidders offered the fixed prices. Although the BCGA was persuaded to buy at set prices the following year, Himbury reckoned the Government had made a serious mistake in buying and thus artificially supporting the crop (I(ii)(b): BCGA/EM, 31/5/21), which had suffered from absurd speculation when the Liverpool price was high and total lack of interest when it was low (I(ii)(a): BCGA/AR 1921). Winston Churchill (then Colonial Secretary) wrote sternly to Governor Sir George Smith. Although it was just acceptable that the 1919 smallpox epidemic in Port Herald had warranted Government intervention, Churchill saw no excuse for unauthorised mixing of government and business.[1] The metropolitan state could not stand "improper" colonial autonomy.

Fluctuating prices were causing considerable discontent, when the Protectorate Government, CO and BCGA entered into lengthy discussions in 1921-22. These culminated in a new scheme to stabilise prices.[2] The BCGA was granted sole buying rights for peasant-grown cotton from Crown Lands in Karonga, Fort Johnston, Balakas, Neno, Chikwawa, Palombe, Chiromo and Port Herald for a period of five years at fixed prices determined by 15th October the preceding year.[3] Of the conditions attached, the most important was

[1] I(v)(e): MNA, S1/1702/21, Churchill to Smith, 22/8/21. See Chapter 2, Section 2.8, pp.105-07 for further detail on this period.

[2] See Appendix VI, Table 39a for the relative success of this: stability for 3 years, followed by more variable and declining prices offered.

[3] See Chapter 2, Section 2.8, pp.105-107 where the BCGA-Nyasaland Buying Agreement is outlined. Full details are in I(i)(a): CGA 1/13/- files and I(v)(b): MNA, A 3/2/55.

that 50% of any profits should fall to the Protectorate Government and that BCGA was to bear any losses.[1] The Government's ostensible aims were to maintain prices and develop peasant production (I(v)(e): MNA, S1/1702/21). It wanted a guaranteed market for local cotton. More cynically, as Chanock (1972, p.16) suggests, the odium of poor prices was to be deflected from Government. The Government would also benefit from any profits and from a guaranteed source of taxation. BCGA's prospective benefits were manifold. It had a chance of profits. It gained a firm position in a potentially lucrative market. Future Nyasaland Government or CO favours might result. Competition with what it regarded as inferior "common traders" was removed and peculiar status as a "semi-philanthropic" concern enhanced. The patronising and self-serving theory was that Africans could not understand market forces but would enjoy an assured market and stable prices. However, three years of stable prices from 1923 to 1925 were followed by poorer, erratic prices. The industry had become dependent on fixed prices, not necessarily related to world market fluctuations, with no price stabilization fund to assist in poor years.

Reaction to the general principle and details of this BCGA monopoly varied. Churchill disliked the British Treasury's contention that the Nyasaland Government's share of profits should go into a general Treasury fund (I(ii)(b): BCGA/EM, 6/10/22). Hetherwick, an unofficial Legislative Council member, purportedly looking after local African interests, objected in a Legislative Council meeting that profit being credited to revenue might generate African suspicion of Government motives (I(v)(e): MNA, S1/1702/21, Rankine to SSC, 25/4/23). The Department of Agriculture was keen that, "The general principle that the interests of European growers are to be protected should be borne in

[1] See p.106, footnote 4, for the final reckoning.

mind" (I(i)(a): CGA 1/13/177-84).[1] The Nyasaland Associated Chamber of Agriculture and Commerce's reaction was initially divided, but eventually decisively against granting a monopoly (I(v)(f): MNA, Hist.Mss. NY 3/2/4, 27/2/23 & 24/4/23). Ncheu Planters Association, objecting emphatically at first, soon emolliently accepted that it might be a good idea to induce "the idle" to grow cotton provided the monopoly did not extend to areas where European and African cotton-growing interests might conflict (I(v)(b): MNA, A 3/2/55, 13/4/22 & 11/5/22).

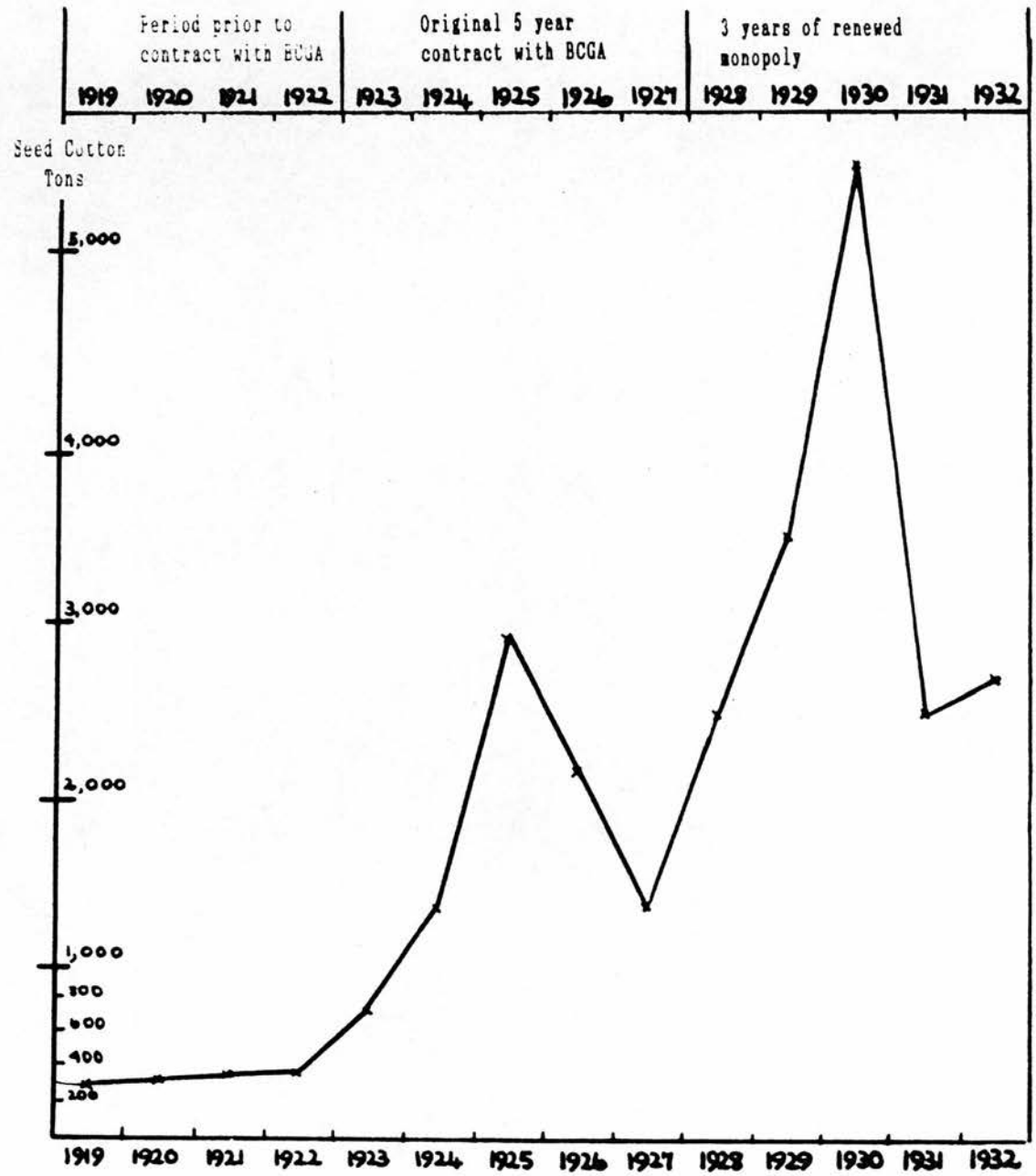
The buying agreement proved an immediate success. £13,500 was paid to African growers in the first year. There were profits to the Government, commission to buyers, employment for carriers and trade for ginners (Agriculture Department AR, 1923).[2] At the end of five years, 8,292 tons of seed cotton at a cost of £147,575 had been purchased from Crown Lands and the scheme was declared an overall success (Agriculture Department AR, 1927-28; I(v)(b): MNA, A 3/2/56). There was disappointment that the arrangement had not extended interest beyond the Lower Shire Valley[3] and especially that, although stable at first, prices had fallen from the initial 1d to 2½d range.[4] But the assured market and general details encouraged a three year renewal from 1928, despite a disappointing 1927 with reductions in gardens and low prices.[5]

The first two years of renewal were very satisfactory. Then the general trade slump, drop in prices,[6] cut in the

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[1]The Director of Agriculture was now eager that BCGA should extend its activities in relation to the European cotton-planting industry (e.g. MNA, A 3/2/67, Dir. of Agric. to Lee, Port Herald, 29/5/22).
[2]See Figure 4, overleaf.
[3]See Appendix VI, Table 39, for seed cotton purchased by district.
[4]See Appendix VI, Table 39a. Lee, BCGA representative at Port Herald, argued with his HQ over prices with Lee wanting 2d/lb instead of 1½d/lb for 1926-27 (I(ii)(b): BCGA/BM, 26/11/26).
[5]As detailed, for example, in I(v)(b): MNA A 3/2/193, Clegg to Director of Agriculture, 20/8/27, re Chikwawa District.
[6]See Appendix VI, Table 39a. Chanock (1972, p.124) quotes the net sum received by growers in 1930 as £22,877; in 1931, £6,519.

NYASALAND COTTON INDUSTRY, 1919-1932



Source: BCGA and Nyasaland Department of Agriculture Annual Reports

Figure 4

number of local cotton markets and refusal to buy non-first grade cotton created a disastrous 1930-31 (Agriculture Department AR, 1930-31). During 1930 there was a chain of complaints - from growers to chiefs, from chiefs to DCs, from DCs to Chief Secretary. The District Commissioner for Dedza took the matter of low prices to heart: "I personally shall be too ashamed even to attempt an explanation to the Lake Shore Chiefs", he wrote in July 1930. A week later he condemned as "treacherous" the way the local population was being treated.[1] Police guards were called to markets for fear of incendiarism.[2] The Governor sent what was virtually a supply and demand economics lecture to be read by District Officers to growers, recently dismissed as incapable of understanding market dynamics, to try to explain the situation (I(v)(e): MNA, S1/956/30, August 1931). It is likely that this homily in classical political economy aroused further resentment.

The Nyasaland Government subsidised by a further $^1/_4$d/lb the price of $^1/_4$d/lb offered by BCGA in 1930-31 in some districts (I(iv)(b): ECGC/AR 1931-32). One of these areas was North Nyasa, where the BCGA stepped in as buyer with a Government subsidy.[3] However, in 1931, the BCGA decided not to renew the contract. It claimed it was time to open the trade to commercial enterprise and competition (Agriculture Department AR, 1930-31). This reversal was not unconnected to BCGA buying at an uneconomic 1d/lb in 1930 in some areas. In principle, Thomas, the Governor, was in agreement with BCGA: "if a crop is to be developed on sound lines it must stand or fall on its own merits

[1] I(v)(e): MNA, S1/956/30, DC, Dedza, 22/7/30; I(v)(b): MNA, A 3/2/56, DC, Dedza, to Director of Agriculture, 26/7/30.

[2] I(iv)(e): CRC/F1/N2, Small to Killby, 21/8/31.

[3] At the behest of the Director of Agriculture, an African smallholder cotton-growing industry had been reestablished in the North Nyasa area, but pink bollworm (see Appendix V, Section I for description) in North Nyasa District had led to a quarantine zone being proclaimed in the District from December 1925 to 1930. The ban was lifted in the hope that regulations would control the pest, that it would give locals a chance to increase their earning powers, halt male emigration and stop estates complaining about a lack of alternative to ailing tobacco (I(v)(b): MNA, A 3/2/78; I(v)(e): MNA, S1/1751/25, 21/11/29).

without adventitious aid".[1] A few months later, no horde of eager buyers having emerged when the BCGA monopoly expired, Thomas complained bitterly to the CO that the Government was even less able than the wealthy BCGA to sustain buying losses and that he felt he had failed the native population by persuading them to grow cotton with the false promise that BCGA would purchase their crop.[2] Perhaps he should have recalled his own homily on free market economics. In the end, BCGA agreed to buy: at a subsidised price in North Nyasa, with markets reduced from 30 to 8, subsidised or free transport and an effort made to explain that some market was better than none.[3] BCGA had successfully imposed its will on a state government weakened by heavy dependence on a cash crop.

The very low price intensified the hut tax deficit and forced many Portuguese East African labourers to take their farmer-employers to court for failure to pay their 6/- a month wages (I(v)(d): MNA, NSP 2/1/3, Lower Shire District AR, 1931).[4] However, in general, the BCGA was impressed at how well price reductions were accepted (I(ii)(b): BCGA/ECM, 3/11/31). It again came to the aid of the Government in 1932. But, at a high-powered meeting of BCGA, ECGC, Director of Agriculture, Chief Secretary, Treasury officials and the Governor in 1933, when all agreed that stabilised prices and fixed transport charges would help the industry, the BCGA declined any further buying monopoly (I(v)(b): MNA, A 3/2/53). The sequence of events from eager acceptance of monopoly to disengagement from it discredits BCGA's philanthropic posture. Subsequent recovery of the market reinforces this point.

In 1933, for the first time for many years, the BCGA were

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[1] I(v)(e): MNA, S1/552/40, Thomas to SSC, 23/1/31. This repeated Churchill's stance.
[2] I(v)(e): S1/1381/23, Thomas to SSC, 2/5/31.
[3] I(v)(b): MNA, A 3/2/77, A 3/2/70, Director of Agriculture to Killby, 21/8/31.
[4] From the 1920s, Sena-speaking refugees had entered the Lower Shire Valley from Mozambique to grow cotton in return for subsistence, permission to settle and 6/- for each month worked, paid at the end of the cotton-growing season.

not sole buyers in the Lower Shire and Chikwawa Districts, where there was a 92% garden increase over 1932 (Agriculture Department AR, 1933). In 1934 the market for cotton improved (I(v)(b): MNA, A 3/2/53).[1] In December 1934, the Association accepted an offer of sole buying rights in South Nyasaland for five years (I(ii)(b): BCGA/EM, 7/12/34), following complaints from the BCGA to the Director of Agriculture about competitors abusing the system.[2] Other buying companies objected to the BCGA's position, to which the BCGA Chairman's confused message was that it wanted all or nothing in Nyasaland but that it did not mind whether or not it had a buying monopoly (I(ii)(b): BCGA/EM, 8/1/35). In the end, the Government decided to open buying to anyone, which quickly led to "the creation of something akin to chaos" in the Lower Shire Valley with a multiplicity of buyers under five company flags at fourteen markets.[3]

During 1935, the BCGA grumbled to the Director of Agriculture and the Governor that it was not appreciated, indeed was disliked because it gave fair prices, was not an ordinary commercial company and resented others gaining from its pioneering efforts.[4] Two matters were now in particular contention. The BCGA resented delay in being granted ginning rights at Balaka to cover the area newly opened by the railway extension. Secondly, there was considerable competition between companies and individuals with excess ginning capacity, each pushing some special reason for better treatment.[5] The BCGA, Lee in particular,

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[1] Appendix VI, Table 22 (and Table 36) shows the impressive production record from 1933-38 (1934-38) with the 1934-35 (1935) figure unbeaten until 1961-62 (1962).

[2] I(v)(e): MNA, S 1381D/23, Lee to Small, 6/9/34, outlines abuses, including touts being sent round growers to say that the BCGA had lowered its prices, women being seized and dragged to buying stations and bribes of tobacco, hoes and money.

[3] Described in I(v)(b): MNA, A 3/2/53, Barker, DAO, Port Herald to Director of Agriculture, 17/8/35.

[4] e.g Lee to Director of Agriculture, 23/4/35 and 17/6/35 in I(v)(b): MNA, A3/2/53; and Himbury and others to the Governor in I(v)(e): MNA, S1/1381.F/23.

[5] The Liverpool Uganda Company promoted itself as the best selling organisation in Uganda, A.L.Bruce Estates as "pioneers of cotton-growing and ginning" and British Central Africa Co. as well-prepared with machinery already bought in advance for a further ginnery .

could not abide this competitive situation, so set about demolishing the standing of other firms. It managed to persuade the Director of Agriculture - by a mixture of pique at its loss-making ventures, sorrow that it was not regarded in the philanthropic light it deserved and emphasis that it had a non-commercial desire to see the local African cultivator get a fair price and a reliable seed supply - that commercial firms would desert the market if it collapsed.

However, all contending Europeans were united against a common enemy: Indian buying agents, whom it was feared would reduce the industry's profitability for Europeans. "Their lower standard of living allows them to accept a lower commission than a European ... [they] appear to have brought touting to a fine art."[1] There was too much money in the cotton industry in good years for European companies to countenance the middleman position being totally appropriated by others. It was a dual racial stratification that was wanted for the cotton industry, not a tripartite one as in Uganda.

Slackness in grading, criticism about touting, laxness of buyers ready to take bags filled with bricks as long as there was a layer of No. 1 cotton on top and chaotic markets characterised 1936 and 1937.[2] This was despite an attempt to control and limit buyers by charging £1 for the first two buyers for a company at market and £3 and £5 for the third and fourth (Blue Book, 1937). So, a further effort was made to improve the marketing situation with a new "right and obligation to buy" auction scheme whereby the successful bidder agreed, before the markets opened, to pay a stated price to the grower for three grades of

[1] I(v)(b): MNA: A3/2/54, B. Charles, AO, Port Herald to Director of Agriculture, 8/11/36.
[2] I(x)(b): Nyasaland Protectorate, Provincial Commissioners' AR, 1936, Southern Province; Department of Agriculture AR, 1937; I(x): CO, Bell Report, 1938. Typical of the steps taken to forestall trouble was Ncheu DC's request for 6 extra police for cotton markets for envisaged pandemonium in 1937. In fact, no help was forthcoming because it transpired that the police were on military guard duty while the KAR were on training (I(v)(d): MNA, NN 1/3/4).

seed cotton at a particular market. The fixed price increased or decreased by $^1/_3$d according to Liverpool values. In this way, it was hoped that the grower would get the best possible price, that market costs would be reduced and that better quality, unmixed cotton would ensue (I(ii)(a): BCGA/AR 1938). There were weaknesses, especially on pricing based on American Middling Futures three months ahead (I(ii)(b): BCGA/EM, 15/10/38), but the main drawback, in Southern Nyasaland, turned out to be unforeseen competition from Portuguese East Africa.

The better price available for cotton in Portuguese territory encouraged Lower Shire Valley growers, especially from Port Herald District, to sell their best cotton there. Lower grades were left for sale in Nyasaland. There, the BCGA, which had the buying contract, on being offered only the lower grades, refused to honour their agreement to buy all properly graded cotton.[1] The social consequences of this were succintly described in the Lower Shire District Annual Report, 1938 (in I(v)(d): MNA, NSP 2/1/7):

> "Surely cotton buyers must realise how unpopular they are with the women when they buy a small quantity of the lower grades of cotton or refuse to buy it. They must know by now that the husband sells the No.1 cotton and gives the lower grades to his wife (or wives) to sell and make what she can. If she can't sell it she is not pleased and the man is still less pleased when his wife demands some cash or credit for cloth !"

Mandala, however, observes that in monogamous marriages the division of labour and profits was more even (1982, p.30), so the refusal to buy lower grades was probably not such a dire problem for all wives. Indeed, Mandala (Ph.D. 1983; & 1990) prefaces his work on the Lower Shire with, "Women remembered the market [1907-40]... as a fair system which helped them improve their economic status *vis-a-vis* their husbands." It had also for many years enabled female heads of household to survive.

[1] I(x)(b): Nyasaland Protectorate, Provincial Commissioners' AR; I(v)(d): MNA, NS 3/1/7, Southern Province AR, 1938.

Reports from other districts indicate some distrust and lack of understanding of the new auction system with its aseptic competition-free atmosphere at cotton markets. Its acceptance was not aided by coinciding with a major price decrease but the general feeling was that the system worked well enough (Agriculture Department AR, 1938). The DC at Chikwawa was more outspoken than most, complaining that markets had been moved to distant places without consultation, including one placed in the middle of the river. On the pathetic prices which were soon to lead to "the Lower River folk ... at last turning to emigration in disgust",[1] he observed that, although he would do his best to ensure cotton was picked, "if they prefer to use their cotton to make themselves mattresses and cushions so that they can be more comfortable at their Sunday beer soirees, I shall not blame them."[2]

These last few years of the 1930s witnessed a massive drop in cotton production (from 17,358 bales in 1937-38 to 5,276 in 1938-39).[3] There was considerable reduction in the percentage grown in the Lower Shire Valley (from 77.5% in 1936 to 44.5% in 1937),[4] and a percentage increase in cotton produced by tenants on European estates (from 7.7% in 1936 to 14.4% in 1937).[5] Much of this changed production base can be attributed to agricultural and ecological factors of weather, flooding and pests, largely beyond the control of peasant farmers or the Department of Agriculture. These were to some extent exacerbated by the ignorance of the decision-makers of the time. All involved in the cotton industry as growers, buyers, administration officers and ginners agreed that 1939 was an unmitigated

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[1]This was a note pencilled in the margin of Chikwawa District AR, 1938 (I(v)(d): MNA, NSC 2/1/5). The Southern Province PC's AR, 1939, also noted: "The native of the Lower River was once a confirmed stay-at-home. He is so no longer" (I(x)(b)).

[2]I(v)(d): MNA, NS 1/2/1, Selous, DC, Chikwawa, to Senior PC, Southern Province, 7/7/38.

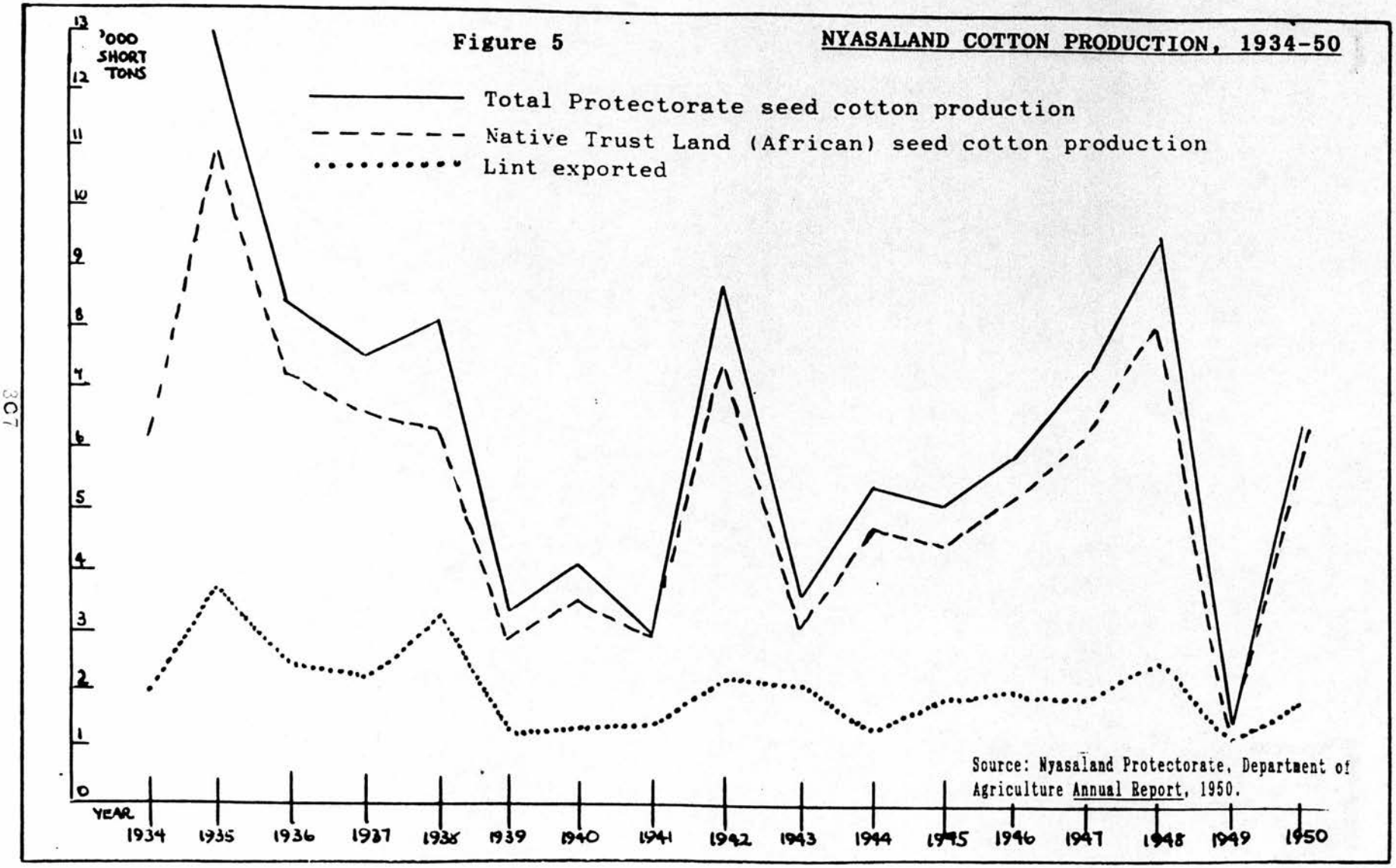
[3]See Appendix VI, Table 22, and Figure 5 overleaf.

[4]See Appendix VI, Table 42. Reduced acreages and low yields were caused by red bollworm and climatic conditions, said the Director of Agriculture (I(ii)(a): BCGA/AR, 1939; Department of Agriculture AR, 1939).

[5]See Appendix VI, Table 41.

Figure 5

NYASALAND COTTON PRODUCTION, 1934-50



Source: Nyasaland Protectorate, Department of Agriculture Annual Report, 1950.

disaster. The sentiments conveyed in Dedza District Annual Report summarised the feelings of many: "One Native Authority expressed the opinion - and I entirely agreed - that cotton is a female-dog of a crop" (I(v)(e): MNA, S1/552/40).

Amongst the agricultural and ecological factors which exercised the BCGA, ECGC, Government and Department of Agriculture during the 1920s and 1930s were the seed supply, cotton varieties, yield per acre, soil erosion, crop rotations, cultural practices, time of planting, laws and ordinances, insect pests and over all, mocking efforts, the climate. Special attention was devoted to keep seed supply pure and so avoid the degenerate stock which arose in Uganda and Nyasaland in earlier years. Enough seed was to be issued in time for planting and more economical seed-use encouraged.[1] The Department of Agriculture and ECGC cooperated in experiments and bulking of new varieties. 'Over the Top', introduced by ECGC staff in 1924, yielded three to four times as well as Nyasaland Upland, giving 222lbs/acre at Makwapala Experiment Station in 1928 (I(iv)(b): ECGC/CR 16/5/28) and proving successful in Lisungwe Valley, Neno (I(v)(a): MNA, Blantyre DB I). 'Foster-Whitehall' was doing well in Port Herald District at this time with yields of 216lbs/acre.[2] A major advance began with the importation in 1929-30 of U4 seed from Southern Rhodesia, originally from Parnell's jassid-resistant, high-yielding stock at Barberton.[3] Bred at Domira Bay, for high yield to combat the prevalent low prices, U4 was multiplied to replace Nyasaland Upland in the Lower Shire in 1932-33. Then it was distributed in the rest of the country, forming the basis of 'Crown Land

[1]Profligate use of seed proved difficult to eradicate, despite seed restrictions imposed. As late as 1965 this was still a problem in many East and Central African countries, as reported to the ECGC when Nye informed them that he had seen as many as 190 seeds to a planting hole (I(iv)(b): ECGC/GM, 9/4/65).

[2]Compare these yields to the Department of Agriculture statistics for 1926 which gave the yields per acre as 60lbs in 1921, 74lbs in 1922, 53lbs in 1923, 66lbs in 1924 and 65lbs in 1925 (I(v)(b): MNA, A 3/2/233).

[3]As referred to in Chapter 3, Section 3.3.4, pp.152-53, and Section 3.4.1, p.166.

Bulk' which dominated cotton supply until 1961. U4 was not immediately recognised as superior to Nyasaland Upland in the Lower Shire Valley. African growers complained in 1937 about its unsuitability and the Agriculture Department acknowledged that, in unfavourable years and with unaltered cultural methods, Nyasaland Upland did appear to yield better (I(v)(d): MNA, NSC 2/1/5, Chikwawa District AR, 1937; NSC 2/1/7, Lower Shire District AR, 1938).

Variety grown had a vital impact on yield, as did cultural practices, especially time of planting. The predicament for Residents and Department of Agriculture and ECGC advisers was that there was no paradigm for optimum yields in the diversity of conditions prevailing in various districts and seasons. It was judged in 1934 that agricultural advice and cotton propaganda work was the "most important work which a District Commissioner can undertake" (I(v)(d): MNA, NS 1/2/3. Circ. No.25). At a Cotton Propaganda Conference the same year it was agreed that the Agriculture Department, aided by DCs, should be carrying the burden of advice and promotion (I(v)(b): MNA, A 3/2/53). There was considerable confusion, though, as to what advice to give. Sometimes a grudging respect for local knowledge was forced upon the supposed experts. In 1933, for example, noting heavy yields from the *dimba*, the Lower Shire DAO remarked that "the native methods of cotton cultivation appear to suit Lower River conditions better than the methods employed on the Experiment station, judging by the yield per acre obtained from both". He hastened to elaborate, perhaps unwittingly handing out more praise, that few Africans would have been foolhardy enough to have even tried to grow on the experimental plot (I(v)(d): MNA, NSP 2/1/4, Lower Shire AR,1933). Five years later, Ducker was forced to conclude that his experience further north in Nyasaland, "bears out in considerable measure the native's contention that his methods of clearing and cultivation do less harm than the

usual European technique does to the soil" (I(iv)(g): CP1/1583, 1938).

The need for complementary crop rotations,[1] to prevent cotton exhausting soil and to safeguard against erosion and drop in yields, was recognised early on by the ECGC and Department of Agriculture.[2] However, high railway rates prevented the development of other suitable export crops. This meant increased emphasis on encouraging good agricultural practices by advice,[3] example, legislation[4] and coercion. In 1923, Wortley (Director of Agriculture) and Sampson (ECGC) visited the Lower Shire. They observed lack of land preparation, late planting, too thick sowing, irregular rows and neglected weeding (I(iv)(g): CP1/449). The following year, when Sampson attempted to enforce the Cotton Pest Ordinance, he was horrified to find that it was difficult to locate many of the reputed 10,000 plots of African-grown cotton in Lower Shire District, so weed-smothered were they (i(iv)(g): CP1/487). Nevertheless, within a few years the DAO at Chiromo was able to report some improvement, suggesting that, because cotton was regarded as a "European" crop, there was a greater disposition to take advice. Not everyone was happy at the amount of attention devoted to cotton, including the Lower River District DAO in 1938 who thought it should command less effort (I(v)(d): MNA, NSP 1/3/3, Lower River, 'Notes on Native Crop', 1938).

[1] A blueprint produced by Frank Barker in the early 1930s - 'The Peasant African Farmer Ideal Agricultural Holding Scheme' - provided a model for a balanced food and cash crop agriculture but was not launched for nearly two decades (I(vii): RHL, Mss.Afr.s.424 ff67-85).

[2] This topic was discussed many times, e.g. in I(iv)(b): BCGC/CR, 3/6/29; I(iv)(g): CP1/1583, 'Conference on Cotton Problems', 1938.

[3] The conception held by the Department of Agriculture of the manner in which advice was received by African cultivators is exemplified in the Report of the Lower Shire and Chikwawa DAO, 1932: "Until the Lower River native is considerably better educated, all advice must be carefully thought out and all probable and possible allowances made for native construction, misconstruction, misinterpretation and inherent inability to do a thing without first thinking it over and talking about it for at least a fortnight."

[4] Cotton legislation was enforced fairly vigorously but did not prevent law-breakers. For example, in 1937 in Chikwawa District there were 504 prosecutions under Cotton Laws, with 17 imprisonments for failure to uproot (I(v)(d): Chikwawa District AR, 1937). In the Lower River District, there were 1,100 convictions for breaking the "dead season" regulations, described as "a pious hope rather than a fact" (Agriculture Department AR, 1937).

One of the banes of the agricultural adviser in Nyasaland was the vexed question of "time of planting", which was inextricably connected to red bollworm and climatic problems. Late planting tended to be blamed for every low yield or discrepancy between estimates and final results.[1] In 1933, particular efforts were made to impress upon growers the benefits of early planting. However, it was only in 1934 that the Department of Agriculture was confident enough to advocate early planting as a general guide (Agriculture Department AR, 1934). By 1935 it was less sure about this. During debate on the question, Ducker of the ECGC had highlighted the medley of practices in the Lower Shire Valley, where prior to 1935 both *dimba* and *mphala* were cultivated. There had been late rains in June to September in five out of eleven previous seasons and African peasant cultivators had discovered before Europeans that cotton sown early tended to be attacked by insects, a notion rejected by DAO, E. Lawrence.[2] Barker, DAO, Port Herald, entered the fray with a letter, expressing apparent pleasure that ECGC officers had moved towards advocating the more rational early planting of cotton. The covert gripe was that the Corporation should have acknowledged <u>his</u> role in ending the evils of late planting.[3] In 1938, however, while the BCGA Annual Report revealed that a special committee had decided to recommend early uprooting and earlier planting, the Agriculture Department Annual Report asserted there was no one optimum time. It doubted "whether anything short of sheer brute force could make the native plant at any other time than the one he himself has chosen." The move from clear advocacy of early planting was consequent on an increase in red bollworm and the submersion of previously seasonally flooded lands of the lower river.[4]

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[1]For example, in I(ii)(a): BCGA/AR 1933; I(v)(d): MNA, NS 3/1/3, Southern Province AR, 1933.
[2]I(v)(b): MNA, A 3/2/65, Ducker to Dir. of Agric., 17/1/34; Lawrence to Dir. of Agric., 30/1/34.
[3]I(v)(b), MNA A 3/2/65, Barker to Small, Dir/Ag., 8/11/34.
[4]See Appendix V, Section I for description of red bollworm.

In 1921,[1] H.C. Sampson had first observed serious red bollworm in the Lower Shire Valley. There appeared to be only two remedies - handpick and destroy the pest; and enforce the "uproot and burn" ordinance (I(iv)(h): CRC,15/P4). In 1924, Sampson recommended to the ECGC East Africa Sub-Committee that, to curb this pest, cotton should be grown as a rotation crop or land lie fallow between successive crops (I(v)(e): MNA, S1/1851/24). This was not carried out and the pest spread in the 1930s, aided by the disappearance of its kidney cotton host, the ending of large-scale burning of bush after the growing season and, most importantly, through the peculiar circumstances of the 1934-37 seasons when Shire River levels rose and atmospheric humidity intensified.[2] In 1934-35 a large area was planted at all dates,[3] picking continued late and uprooting was delayed. This meant there was no "dead season" between the previous crop and the 1935-36 planting. Taking the advice of the entomologist, Smee, that there should be a period of at least six weeks free of crops in which the red bollworm cycle could be broken, a two month close season for Lower Shire Valley cotton was proclaimed in 1936. At the same time, both Ducker and Barker separately urged that a later, January, planting date should be recommended (I(v)(b): MNA A3/2/65). Further north, at Domira Bay Station, an effective close season had led to partial red bollworm control. The overlapping floodland and *mphala* cultivation periods in the Lower River made enforcement there more difficult. It was the same in 1936-37 when there was virtually no close season.

At this time, hydrological changes in Lake Nyasa, for which lake level variation records had been kept since

[1] This is earlier than the 1930s quoted by Mandala in his work (e.g. 1990, p.335, fn140).

[2] Information about these seasons can be found in I(iv)(b): ECGC/AR 1936-37; Agriculture Department AR 1936; I(Iv)(b): ECGC/CR, 19/5/39; and I(v)(b): MNA A 3/2/65.

[3] The season had begun unusually dry with a desperate need for rain, for which local cultivators "have already evoked the aid of the local deity Mbona by the customary offerings of black cloth" (I(v)(b): MNA A 3/2/201, Lower Shire District report, January 1934). At this time, early planting (i.e. December) was the recommended norm in the Lower Shire Valley.

1896 (III, Crossley, 1980), resulted in the Shire rising and onset of high humidity in the Valley.[1] The humidity and lack of close season created conditions in which red bollworm flourished. Its devastations seriously curtailed cotton production in the Lower Shire Valley. There was no clearcut solution. Some advisers recommended late planting with *mphala* cotton discontinued. Others advised early planting with no *dimba* cultivation permitted.[2] In the end, there was no choice. The Lake continued to rise.[3] By 1939 the Director of Agriculture reckoned that 120,000 acres of the best land was lost and the floodland became permanent, stopping dry season cultivation.

The 1938-39 season was calamitous for agriculture in the Lower Shire Valley, especially in the most southern part, where the *dimba* was vital to the economy. The rise of the Lake and subsequent flooding led to the loss of 60% of planting land, deterioration in quality of cotton and migration of many local inhabitants to Southern Rhodesia (I(iv)(b): ECGC/AR 1938-39; I(iv)(g): CP1/1796, Parnell Report, 1939). The *dimba* had been the main cotton producer.[4] Its loss greatly exacerbated the problems of an already overworked *mphala* in a highly populated area,[5] lack of alternative sources of employment and limit to cultivable land without recourse to irrigation or reclamation.[6]

The collapse of the cotton economy in the Lower Shire

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[1]The level of rise was such that by 1938 it was noted that N.A. Chipatula's village was now on an island. "No wonder he suffers from rheumatics", reads the pencilled note in Chikwawa District AR 1938 (IIv)(d): NSC 2/1/5).

[2]Morgan (1953) and Mandala (Ph.D., 1983) both expand on the cultivation of *mphala* (rainfed dry lands, used in the wet season) and *dimba* (riverfed marshes, used in the dry season).

[3]In June 1932, the Lake depth at the sand bar at Liwonde was 20'5"; in June 1940, it was 26' (I(v)(d): MNA NS 1/14/2). See p.166 for flood devastation in early 1939.

[4]Cotton was grown on the *dimba* by both indigenous Mang'anja and immigrant Sena. In 1933, it was estimated that over 50% of 62,000 acres planted to cotton in the Lower Shire Valley was on *dimba* land. In 1938, this had fallen to 17% (III, UNDP, Lockwood Survey, 1970a).

[5]Movement within and from outside the Lower Shire Valley put pressure on the land. In 1953, it was estimated that the maximum carrying capacity of the area was 105 people per square mile; the actual rate was 334/sq.m. (Vail, 1983, p.68).

[6]Morgan (1953) is a useful source on the effects of change in the Lower Shire Valley.

Valley had long-lasting effects on gender and age relationships, admirably discussed by Mandala (1982; 1990; Ph.D.,1983). Men forced into wage employment and migration left women and the elderly with a poorer quality of life on the overcrowded *mphala*. Women, previously heads of households, were encouraged into polygamy and dependence on male income. The status of elders was reduced as their control over institutions and youth labour was destroyed by cash-earning young males.

In the first two decades of the century, peasant cotton production in the Lower Shire Valley had competed with plantations and tenant growing schemes. For about ten years peasant production had triumphed. Then, the last few years of the 1930s witnessed a devastating collapse of cotton production and the struggle to resettle in drier parts or migrate to find work.

5.7 THE FLUCTUATING '40s AND '50s FOR COTTON IN NYASALAND

> "But the number of progressive individuals prepared to make proper farming a permanent livelihood is still pathetically small ..."
> (Department of Agriculture Annual Report, 1953-54, p1.)

Just as in the 1920s and 1930s, much of the tale of the cotton-growing industry of the 1940s and 1950s can be read from statistics. The vagaries of cotton production can be seen graphically in Figure 5 (p.307). A rise in 1942, after the devastating slide of the late 1930s, then a gradual rise from 1945 to a peak in 1948, was followed by a sharp drop in the famine year of 1949. A good crop in 1949-50, succeeded by a very poor year, led into a reasonable four years, poor 1955-58,[1] then, from 1958-59, substantially increased and fairly steady production.[2]

[1]The low 1956-57 yield was the result of weather, stainers, red bollworm, bacterial blight, floods, rats and cyclone 'Edith' (I(iv)(b): ECGC/AR 1957).
[2]Appendix VI, Tables 22 and 36 show similar trends.

During the 1940s, the percentage of seed cotton grown on Native Trust Land, under tenant-growing schemes and on European plantations remained fairly static.[1] The variable percentage by area of seed cotton for 1939-44 had fallen into a more regular pattern for 1966-69 of 75% from the Southern Region, 20% from the Central and 5% from the Northern Region.[2] Most of the production in the south in the 1950s was from the Lower River, 90% from African Trust Land growers and 10% from estates (I(x)(b): Nyasaland Protectorate, Jack Report, 1960). The average return to growers for cotton varied from 47/- in Central Province in 1956 to 195/- in Southern Province in 1958.[3] In 1948, 444 Africans were employed in cotton ginneries, compared to 43,697 in the tea industry (I(x)(a): CO, Economic Survey, 1952).

During this period the percentage of Nyasaland's total budget spent on agriculture remained very low considering the importance of the sector to the country's wellbeing. Dequin (1970, p.85) suggested that 10-15% would have been a suitable starting percentage immediately after the Second World War. In fact, in 1945, it was only 2.7%; and in 1958-59, was still only 10.3%.[4]

Although a good cotton crop in 1940 and better prices had restored some of the Lower Shire Valley's prosperity (I(v)(d): MNA, NSC 2/1/6, Chikwawa District AR, 1940), the Lower Shire District Annual Report for the same year remarked upon the number of rejections for King's African Rifles recruits. This it took to be a reflection of unhealthy conditions and lack of balanced diet (I(v)(d):

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[1] See Appendix VI, Table 41.

[2] See Appendix VI, Table 43.

[3] Average return per grower:

	Cotton			compared to	Tobacco		
	1956	1957	1958		1956	1957	1958
Northern Province	82/-	134/-	176/-		326/-	356/-	407/-
Central Province	47/-	55/-	81/-		197/-	304/-	189/-
Southern Province	70/-	109/-	195/-		85/-	122/-	57/-

(Source: Jack Report, 1960, p.233)

[4] Figures from Appendix VI, Table 45.

MNA, NSP 2/1/9). Throughout the colony, the prognosis for the cotton industry at the start of the 1940s looked gloomy. In response to a CO despatch, on behalf of the ECGC, Nyasaland officials delineated the now time-honoured litany of ills: low prices, red bollworm, stainers, faulty cultivation, flooding of the Shire, soil erosion, loss of land fertility and migration of the more active members of the community (I(iv)(g): CP1/1807, 1940). The needs, in order of importance, were assessed to be control of red bollworm, control of stainers and improved seed to give $1^1/_8$" staple. To all of these the ECGC devoted resources.

In 1946, it was noted that the bulk of Nyasaland cotton was sawginned, good grade, attractive $1^1/_{16}$" to $1^1/_8$" staple - just what Lancashire wanted. The decision, therefore, was to continue with it, while seeking to breed for a combination of the quality of the old Nyasaland Upland and the jassid resistance of U4 (I(iv)(g): CP/S177, 1946). However, the severely limiting insect pest problems demanded immediate action, especially with crops like tea, tobacco and tung rising in importance and threatening the role of cotton.

In 1940-41, Lower River cotton was either grown as a summer crop, planted in November to December and uprooted by the end of July; or as a semi-summer crop, planted in January to February and uprooted in October (I(iv)(b): ECGC/AR 1940-41). Early and late were often planted in contiguous areas, providing conditions of almost permanent cotton plant presence, in which, as noted earlier, red bollworm thrived. Hence there were violent fluctuations in yield. Pearson, the ECGC's entomologist, informed the Director of Agriculture in 1944 that prohibition of growing for a season in the Lower River, or, at the least, in certain zones for a season, was necessary. In Pearson and Mitchell's report on 'Status and Control of Insect Pests of Cotton in the Lower River Districts of

Nyasaland', sponsored by the ECGC, they recommended either dry season irrigated production or early rain-grown planting. The best technique was to be decided by a survey which would also examine the possibilities of floodland reclamation and control of the Shire by levees. Following the suggestion of Pearson and Mitchell that a non-cotton year was a necessary prerequisite to the solution of the red bollworm problem, an experiment was set up in 1948-49 to test this, in cooperation with the Portuguese authorities. However, the experiment was useless. The area chosen was too small: the moth could fly further than the five mile radius around Makanga, the chosen centre for the test (I(iv)(b): ECGC/AR 1950-51).

Pearson and Mitchell had also identified increased interplanting of cotton with food crops as a contributing factor to low yields. They recommended pure stand cropping but, as Morgan (1953, p.467) pointed out, mixed cropping was an essential feature of Lower Shire Valley agriculture, "an adaptation to environmental conditions in terms of non-manuring hoe cultivation". During 1950-51, a pure stand, early planting regime was inaugurated, with uprooting by 31st July, Analysis of the results has produced divergent conclusions. Kettlewell (1965) states there were dramatic improvements, with mean production for 1952-57 20% higher than in the previous six years. The ECGC 1952-53 Annual Report commented that the new regime produced a successful 479lbs of seed cotton an acre in the Lower River District. The ECGC Scientific Advisory Committee accepted Ducker's report of high yields. However, Munro (1958) expressed disappointment at an 18% yield rise, increased stainer damage and lower ginning percentage. Hutchinson (1958, p.368) also noted low ginning outturns as well as serious jassid and bacterial blight. The Jack Report (1960) accepted there was an improvement until 1955, from when excessive rain, stainers and bollworm took their toll. Debenham (1955, p.194) admired the improved yields, of as much as three times

higher than previously, as a result of "two years of persuasion with a modicum of coercion", but was concerned that this bounty had caught the Lower Shire unawares, to the extent that half of it was left unpicked.

The battle against red bollworm dominated cotton affairs in the south of the country and, to a lesser extent, the central area around Domira Bay. However, the Department of Agriculture devoted considerable attention to other agricultural matters during the 1940s and 1950s. Food crop production was encouraged, particularly as an anti-famine measure, and to create an agricultural cash economy. Amongst the measures emphasised were contour ridging, bunding, strip cultivating, clean weeding, early land preparation, an Annual Crop Production Programme, *achikumbi* Master Farmers Scheme,[1] land settlement schemes and the setting up of the Agricultural Research Council of Rhodesia and Nyasaland in 1959. Much of this was regarded as unwanted state control of peasant decisions on use of time and labour. Vigorous enforcement of agricultural laws and ruthless introduction of new methods caused much indigenous unrest. Resistance in places was expressed by refusal to participate in the cotton economy.[2] Discontent at extra work and fear of land encroachment was successfully channelled by nationalist leaders following the founding of the Nyasaland African Congress in 1943,[3] these also becoming factors in the anti-Federation movement. Nationalists singled out cooperating chiefs for criticism. Nyasaland Times for 5th October 1953 recorded that "Chiefs in Cholo, Port Herald, Chikwawa and Chiradzulu districts were molested for enforcing agricultural rules", during a year when the Department of Agriculture put particular emphasis on its 4-point programme of conserving natural

[1] Mwakasungura (1984, p.24) articulated a common objection when he complained that what was needed was a general onslaught, not "exhibitionist antics of money and welfare lavished upon a few".
[2] Women in Port Herald District reacted in this way, according to Mandala's informants (1990, p.235).
[3] In 1948, for example, Nyasaland African Congress members toured villages exhorting headmen and people to show open hostility to the better cultivation campaign (I(v)(d): MNA, NS 3/1/2, Southern Province AR, 1948).

resources, producing more and better food, increasing output and quality of cash crops and blending all into a proper system of farming (Agriculture Department AR,1953). Rejection of interference in agriculture was transmuted into rejection of all unwanted political control.

Worries about land use had existed long before this time, resulting in Forestry Department attempts in the '20s and '30s to demarcate lines beyond which cultivation should not be allowed. E. Lawrence in 1931 suggested measures against soil erosion in the Lower Shire Valley.[1] However, not until the 1944 Native Authority rules were serious efforts made to control erosion. Initially, this was by the construction of storm drains and ridging. Beinart, in his useful synopsis of agricultural conservation measures in the Lower Shire Valley from 1940 to 1960, reports that by 1945 "the people of the lower river were highly suspicious of, and indeed completely opposed to, ridging", with which they had been familiar for at least a decade (1985, p.106). Beinart adds that they produced fairly convincing reasons for the worthlessness of the practice, seemingly borne out by inconclusive experimental results in the 1940s and later confirmed by an investigation by a soil conservation officer in 1957 (Beinart, 1985, p.107 & p.112).[2] It was the experience of many peasants that the colonial state's agricultural policies were as incompetent as they were arbitrary and inconsistent.

The February 1945 Monthly Report of the Agricultural Assistant at Port Herald (I(v)(d): MNA, NSP 1/3/4) announced that in inspected cotton gardens in the area there was no ridging, 40% of cotton was interplanted, and there was no evidence of thinning. In 1947, the Port Herald and Chikwawa District Annual Report (I(v)(d): MNA, NS 3/1/28), acknowledging that a lack of European staff

[1] I(v)(b): MNA, A 3/2/200, 'Soil Erosion on the Lower Shire', by E. Lawrence, DAO, 3/4/31.
[2] It was established by investigation in 1955 that the recommended clean weeding was probably adding to erosion (Vail, 1983, p.69), thus demolishing the worth of another practice.

and three different DCs in one year had not helped, admitted defeat over changing agricultural methods. Past hostility and current "invidious lip service which no more raises the hoe than did the old hostility" had prevailed. Although bunding and box-ridging were reported as quite common in 1948 in the Southern Province Annual Report (I(v)(d): MNA, NS 3/1/2), opposition to compulsory ridging continued throughout the 1950s in those areas, such as the Lower Shire Valley, which had tended to practise flat cultivation.[1] Beinart (1985, p.110) and Schoffeleers (1985) describe how opposition to ridging was often expressed in terms of anger of the Mbona cult.[2] It was also opposed in a more practical way. The Lower Shire District 1942 Annual Report (in I(v)(d): MNA, NSP 2/1/9) alleges that it was easy for a Lower Shire inhabitant to cross the border to Portuguese territory where he could do as he pleased in his garden, without contour ridges, come back into Nyasaland to pay a small tax - and have the advantage of a wife on either side.

The disastrous drought from early December 1948 to early February 1949, at the crucial time for planting, had lasting effects on Government policy.[3] The BCGA, ECGC and Department of Agriculture Annual Reports and files all dwell on the threat and actuality of the famine. Cotton seed issues were stopped in mid January until 31st March when it was realised that foodstuffs were going to be in short supply.[4] At the height of the famine, 58 relief centres in rural areas of the Southern Province provided rations of one pound per person per day, insufficient to provide the energy for thorough planting preparation. The

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[1]Griff Jones' Diary entry for 5/4/51, in fruitier language than should be quoted here, describes the war waged by locals against soil conservation measures. The only legitimate complaint, Jones surmised, was that contour ridges were washed flat in steep hills (I(vii): RHL, Mss.Afr.r.123, Diary, 1951-52).

[2]At a more general level, Schoffeleers (1985) has described the steep rise in possession cults at the time of the collapse of the cotton industry in Nsanje District.

[3]Vaughan (1984) analyses the 1949 famine. She suggests that, although the immediate cause was drought, there was an underlying additional factor of land shortage in Southern Province.

[4]I(iv)(e): CRC/F2/56; I(v)(d): MNA, NSP 1/3/2, Director of Agriculture to SAO, Blantyre, 14/1/49.

result was migration, gangs of youths roaming the countryside stealing and a general "breakdown of old African tradition of family and village loyalty" (I(v)(d): MNA, NS 3/1/3, Provincial Commissioner, Southern Province, AR, 1949). The one bright spot noted in the Southern Province report was that, with the exception of Chikwawa District, indigenous agriculture "became amenable at last to Government's insistence on proper husbandry." Clark (III, 1978) agrees that ridge cultivation was accepted in most areas, the drought creating a desire for self-sufficiency and concern at soil erosion. But the bulk of Agriculture Department work was discredited because of its association with legislation enforcement, impractical recommendations and inadequate understanding of land and labour. Mandala (III, 1973/74) spotlights the refusal of chiefs Ngabu and Chiphwembe to cooperate with colonial officials on agricultural regulations and Mollen Tengani's staunch support, reputed to have been bought for £20, which resulted in a "reign of terror" after the death of the two non-cooperative chiefs in 1950. Tengani banned beer-drinking from August to November and inflicted fines and imprisonment on those who had not ridged by October.[1]

During the 1940s and 1950s, mainly as a result of Pearson and Mitchell's report, feasibility studies were conducted on controlling the level of Lake Nyasa. The ultimate aim was to open up the lower river plain for irrigated cotton, sugar and foodcrops. There was to be concomitant redistribution of population and radical change of land use. The 1947 Post-War Development Commission was followed by the 1948 Kanthack Report, which recommended a barrage at Liwonde to give some control over flooding in the Lower Shire. However, there was no consensus on the causes of flooding or its remedies. The mid 1940s' studies of A.E. Griffin and F. Debenham were followed by other reports and recommendations prior to the major, costly report

[1] In the North, McCracken (1977, p.207) suggests that earlier Mission banning of beer-drinking may have hindered agricultural advance by effectively stopping Tumbuka "hoeing for beer" parties.

commissioned in 1951 from Sir William Halcrow and Partners, British consultant engineers. Published in 1954, Halcrow's report recommended a vastly expensive development plan costing over £75 million. Despite long discussions with the Federal Government and Colonial Development Corporation, little finance was forthcoming from the former, which, in the interests of Rhodesian white settlers, preferred a Kariba scheme, and none at all from the latter. A bund built in 1956 to reduce water levels in the Lower River marshland was of very short-term benefit, being breached in 1957 by heavy rains and storms.

The mechanics of cotton buying and selling remained of importance. In 1940, correspondence between the Director of Agriculture and the Chief Secretary led to the decision that there was no justification at that time for the establishment of a stabilisation fund. It was felt Nyasaland cotton's future as an essential export was in doubt.[1] The pre-war auction system was dropped during the war when certain quantities were required at fixed prices. Between 1942 and 1951, all African Trust Land cotton production was purchased by the Government through ginners as agents, with profits allocated to a cushioning Cotton Fund. The Ministry of Supply or Board of Trade then acquired what was needed at stated prices.[2] A request in 1945 from Chiefs Tengani and Mlolo of Lower Shire that tobacco and cotton prices be notified in advance of garden preparation was turned down as impossible by the Deputy Director of Agriculture.[3] However, price increases in 1950-51 had a positive effect in greater acreages and earlier planting.

In 1951, the Cotton Marketing Board (CMB) was established. Supposedly to give more stability and confidence to growers, it could not compensate for weak incentives to grow, with little for cultivators to purchase once their

[1] e.g. I(v)(e): MNA, S1/552/40, Director of Agriculture to Chief Secretary, 28/6/40.
[2] Jack Report, 1960, p.239; I(iv)(b): ECGC/GM, 3/6/47.
[3] I(vii): RHL, Mss.Brit.Emp.s.332, Creech Jones: African Provincial Council, Southern Province, 10/5/45.

immediate needs were met (Kettlewell, 1965, p.272). There was also no certainty about prices, other than that they were generally inadequate in the eyes of the Nyasaland African Congress:[1] "I have yet to see a native believe what he is told by the Boma about future prices. He responds to those he has experienced, not to those he is told he will get."[2] In 1956, the Tobacco Board, Cotton Board and bean, maize and groundnut board were amalgamated into the Agricultural Production and Marketing Board (APMB). This body was given monopoly powers over smallholder purchases. Between 1955 and 1966, £6.31 million in Marketing Board cash was paid to farmers for cotton, ranging from £0.10 million in 1956 to £1.1 million in 1965 (Dequin, 1970). However, labour migration, cattle-raising and groundnut growing were now more attractive than cotton farming in the Lower Shire Valley.

The role of the BCGA diminished during the 1940s and 1950s. Except for a market loss in drought-ridden 1949 and complaints that the Balaka ginnery had been a loss since construction in 1936 (I(ii)(b): BCGA/CM, 27/20/59), the BCGA profited during 1946-63.[3] Its relationship with Government and ECGC deteriorated over the years, with Hutchinson of the ECGC commenting to his Chairman in 1952 that the Marketing Department found the Association "uncooperative and unimaginative, and they think they are unreasonable in their recent demand for higher ginning charges".[4] The Director of Agriculture agreed, writing of the BCGA to May of the ECGC, on 27th September 1952: "It would now appear to us to be a purely commercial concern." The ECGC's conclusion was that the Association should reconcile itself to being a ginner and not a broker. Certainly, little of Nyasaland's crop came to Britain in the 1950s, mainly because of demand from the Central

[1] I(vii): RHL, Mss.Brit.Emp.s.332, Creech Jones, 'Resolutions passed at 11th Conference of Nyasaland African Congress', Lilongwe, 8th-11th April, 1955.
[2] I(iv)(f): CRC/P2/56 3rd file, Ducker to May, 13/10/52.
[3] See Appendix VI, Table 27.
[4] I(iv)(f): CRC/P2/56 3rd file, Hutchinson to May, 19/8/52.

African Federation (I(iv)(a): CRC/EC minutes). In 1957, for the first time for some years, a proportion of the crop was sold to Britain (I(iv)(a): CRC/ECM, 11/10/57). The previous two seasons' cotton had gone to Gatooma in Southern Rhodesia, much to the disappointment of BCGA Council members who commented that many Lancashire spinners had established yarns from Nyasaland cotton (I(ii)(b): BCGA/CM, 18/12/56). A new rival for Nyasaland cotton was created in 1957 with the establishment of David Whitehead & Sons Ltd. as a local spinning and weaving company with an estimated initial need for 9,000 bales a year.[1]

At the end of this period, Nyasaland was in political upheaval. A state of emergency was declared on March 3rd, 1959, after disturbances dating from the previous October. Amongst the changes sought by the Nyasaland African Congress and H. Kamuzu Banda, who had returned to the country in July 1958, was revision of the agricultural laws which the Federal authorities had enforced with zeal. The Devlin Report on the situation concluded that there was almost universal opposition to the Central African Federation in what had become by 1959, "a police state, where it is not safe for anyone to express approval of the politics of the Congress party ... and where it is unwise to express any but the most restrained criticism of government policy" (I(x)(a): CO, Devlin Report, 1959, p.1).[2]

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[1]The first proposal for a local cotton mill was made by Messrs. D'Almeida & Co. in 1934. The Nyasaland Government supported the application, as did the CO at first. However, this acceptance was later overturned by Board of Trade rejection of the scheme for what the Nyasaland Government believed to be unconvincing reasons. The CO found the most valid of the Board of Trade's objections to be that the mere fact of a factory might be seen as a "threat" to Lancashire cotton industrialists who might retaliate by taking less cotton from Uganda (Nthenda, 1972, pp.103-5). This rejection of a value-added scheme typifies metropolitan fear of losing cheap raw products and of African capital accumulation.

[2]Substitute "disapproval" for "approval" and this sentiment is lamentably appropriate for Malawi today.

5.8 COTTON-GROWING FROM 1960

> "Since the country's natural resources are such that agriculture must be relied upon to provide the prime source of economic growth, Malawi's development policies have revolved around the expansion of this sector, which has been given top priority in the country's development efforts."
> (Building the Nation 1964-74, p.2, commemorative 10th anniversary of independence booklet, published by Department of Information, Malawi.)

The despised Federation was dissolved in December 1963 and Malawi attained independence on 6th July 1964. Elected President in July 1966, Dr. H. Kamuzu Banda became Life President in 1971. The first elections resulted in fifty Malawi Congress Party candidates returned unopposed as the country embarked on its new path with the lowest per capita income of any British colony in Africa (Mkandawire, 1983) and an "extremely vulnerable economy" (Kliest, 1980, p.28). This was to be transformed remarkably quickly into economic growth (Ghai & Radwan, 1983). In common with all other newly-formed African states, Malawi's immediate strategy for economic development was determined by its natural resources, its geographical position, the size of its population and markets and its colonial inheritance. In Malawi's case, the "Cinderella of the Central African Federation", the "'Sleeping Beauty' among our colonies and protectorates",[1] did not wake up to a fine legacy to transform into a positive future. Instead, the country embarked on independence with a history of neglected economic development, poor communications (a rundown railway system and inadequate roads) and hardly a Malawian with a qualification in agriculture (Humphrey, 1964; McLoughlin, 1970, p.35). It also soon appeared that the new black leaders had inherited the old white colonial disregard for the capabilities and desires of the peasant

[1] The former phrase (cited in Debenham, 1955, jacket blurb), a version of Harry Johnston's "this Cinderella among the Protectorates" dedication to British Central Africa (1897), and the latter description in Central African Times, 2/1/04, p.7, in a book review, are typical of the peculiar propensity among colonialists and authors to liken Malawi to fairy tale characters.

backbone of the country.

The statistics reveal a remarkable upturn in cotton's fortunes from about the 1958-59 season,[1] with production and exports remaining high throughout the 1960s and 1970s as yields and acreages both increased, benefitting from new insect spraying regimes. The last remaining cotton estates in the Lower River area, belonging to BCAC, were acquired by the Government in 1962, from which year virtually all of the country's cotton was produced on Trust Land in the Southern Province (Agriculture Department AR, 1962). A survey of 1,218 farms conducted in 1964-65 found that 74% of smallholdings in the Lower Shire Valley grew cotton and that 73% of total farm income for those farmers came from cotton sales.[2] In 1967, over 80% in Mbenje, Lundu, Chapananga, Ngabu and Massea Districts planted cotton but over 50% of holdings in the Valley received £5 or less from cotton sales.[3] It was in Ngabu District that most cotton was produced from the late 1950s, the *makande* soils there proving almost as good as the old *dimba* soils.

Although the percentage of male absentees dropped from 1959 onwards,[4] the role of Nyasaland as a supplier of labour to the Southern African regional economic system, emphasised by Vail (1983), remained a distorting influence on gender and age relationships throughout the territory. The estate sector,[5] which at independence was producing about half of the country's total exports and into which

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[1] See Appendix VI, Tables 22 and 36.

[2] 'Survey of Smallholdings, Chikwawa', National Statistical Office, Zomba, November 1965, quoted in Tables 15-17 in Dequin (1970, pp.49-51).

[3] I(x)(b): Department of Census and Statistics, 'Sample Survey', 1967, pp.7-8. This survey contains a wealth of detail on economics and sociology of agriculture, from recording that the chief home craft is making beer and *kachasu*, to stating that the usual number of hoes on a holding is 2, to claiming that the principal method of saving money is by hiding it.

[4] See Appendix VI, Table 35.

[5] The estate sector increased its share in total agricultural production from 7% in 1964 to 13.2% in 1978 (Ghai & Radwan, 1983, p.79). In 1964, there were 489,600 acres of estate land, of which 89% were British owned, 9% Italian, 3% Greek and 3% other foreign owned (Dequin, 1970). In 1977, estates employed about 130,000 workers (increased by 10,000 by 1981, according to Mwakasungura, 1984, p.58) compared to an estimated 1.1 million smallholders in 1978 (Ghai & Radwan, 1983, p.79).

so much support was poured from the late 1960s, concentrated on tea and tobacco, but was a threat to smallholder cotton because of prioritisation of its inputs. As a result of this imbalance, growth in the smallholder sector, in which most producers were operating at subsistence level only, stagnated or declined in real terms during the '60s and '70s.[1]

In the late 1970s, interest in smallholder agriculture was revived with the inauguration of the National Rural Development Programme. Emphasis shifted away from monolithic major projects. Cotton was an important component in many externally-funded projects but was very susceptible to fluctuations, especially as a result of Government manipulation of peasant decision-making by juggling producer prices for cotton and alternative crops.[2] Vail (1983, pp.74-77) regarded the Government as having by the 1980s largely abandoned the peasantry once more, after what had amounted to little more than a brief flirtation: "The estate sector, long an embarrassment to the colonial state, has blossomed at last; the peasant sector, long the hope of optimistic colonial administrators, is being throttled." Estates flourished, supported by extraction of surpluses from peasants from the late 1960s through the Agricultural Development and Marketing Corporation (ADMARC, previously Farmers' Marketing Board) buying monopoly. Kydd and Christiansen (1982) agree that rapid growth of large-scale agriculture has been at the literal expense of peasant production with ADMARC profits on its cotton account for 1971-80 amounting to 20,760,000 Kwacha. Only 4.3% of total ADMARC profits were devoted to peasant agriculture.

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[1] The estate *versus* smallholder situation is well described by Christiansen (1982) and Kydd (1985). The small cash return to smallholders is apparent from National Sample Survey of Agriculture, 1980/81 figures which quote 15 Kwacha as the average annual return per smallholder from cash crop sales (versus K32 from sale of foodcrops).

[2] Guar beans (which produce "drilling mud" for oil wells, in addition to being used as a binding agent in foodstuffs, such as tomato ketchup and icecream), for example, became the favoured crop for a time in the Shire Valley Agricultural Consolidation Project (SVACP), with cotton prices reduced and guar prices raised to encourage the latter crop to replace the former.

The Nyasaland Protectorate Crop Production Programme of 1961-62 (I(x)(b)) had announced dual objectives. The country should aim for self-sufficiency in food; and cash crops should be stimulated in the interests of the export economy. To achieve these ends, individual farmers were encouraged to learn and use better cultural practices of rotations and soil conservation, with specific advice on cotton planting dates, uprooting, grading and pure stand on ridges. But there was no real encouragement to smallholders. That came in Dunduza Chisiza's Economic Development Plan (1962-65), based on peasant agriculture. However, after his tragic death in 1962, there was no heir capable of ensuring Chisiza's progressive ideas were put into action. His plan was shelved after the 1964 Cabinet crisis when conservatism, rapprochement with the "white South" and an increasingly authoritarian regime took over.

The first Malawi Government Development Plan, 1965-69 (I(x)(b): MG, 1964) emphasised the expansion of agricultural production for the home and overseas markets but gave no particular support to the smallholder farming occupation of the majority of the population. However, the Statement of Development Policies 1971-80 (I(x)(b): Malawi Government Economic Planning Division, 1971) offered slightly more. In addition to its priorities of specialised production of certain export crops for foreign exchange and self-sufficiency in food production, a third aim was to improve the welfare of the rural population. Cynically, it might be said that the welfare notion came last and was not without self-interest. Four elaborate, expensive, integrated rural development projects (IRDPs), and an "agro-support package" of Smallholder Authorities for those not covered by projects, were set up. All have had their critics, amongst whom Kliest (1980, p.38) speaks of the imbalances and growing disparities within projects, with 300% income differences between different categories of farmers. Mwakasungura (1984) records the enormous costs to little effect.

The most important IRDP from the cotton-growing point of view was the Shire Valley Agricultural Development Project (SVADP), which covered Chikwawa and Nsanje Districts in the Southern Region from 1973 to 1978. SVADP was a natural successor to the Chikwawa Cotton Development Project (CCDP) of 1968 to 1973, which was financed by an initial IDA loan of £1.5 million. The aim of CCDP was to increase cotton production and induce the adoption of improved agricultural techniques within a fully integrated agricultural and rural development plan. Extension and credit facilities were provided for 20,000 farm families in Chikwawa South constituency, of which around 100,000 acres were reckoned suitable for rain-fed arable farming.[1] Chilivumbo and Milazi's CCDP Sociological Survey (n.d.) found that the project had a profound economic and stabilising effect on the area. Benefits outweighed unsatisfactory aspects but created an increasing gap between *achikumbi* (progressive farmers) and others.[2] Despite unfavourable weather, sprayed cotton produced yields of 900 lbs an acre and, at the end of the five year period, showed a 39% increase in production over the previous five years. Not an outstanding success, CCDP was considered to have instigated improvement enough to warrant the sequel, SVADP, at a total estimated cost of K11.5 million.

An astounding 5,500 SVADP personnel aimed to increase production of cotton, maize, sorghum, groundnuts, rice and other crops in Chikwawa and Nsanje Districts. Adverse weather meant that crop production targets were not met but the introduction of ULV sprayers, initially on a trial basis in 1971-72, was a success in curbing cotton pests

[1]Details from CCDP 1969 promotional pamphlet and SVADP 1975 Atlas of the Lower Shire Valley. Irrigated farming potential of over 176,000 acres was surveyed by the Lockwood Corporation in 1968-70 but implementation costs proved too prohibitive for immediate action.

[2]Kamlongera (III, 1975) identifies the steps on the farmers' "ladder of progress" in Central Region Lakeshore Development Project: from no credit and group advice on field days for subsistence, part-time farmers growing small amounts of unsprayed cotton, to full credit, farm management and planning advice for "top of the scale" farmers growing fertilised, sprayed cotton in an integrated rotational scheme.

and thus improving yields.[1] However, the importance of cotton diminished in the project's area as other crops, such as guar, were introduced. Indeed, the Lower Shire Valley's short growing season and highly unreliable rainfall, coupled with labour, capital and land constraints, made cotton very vulnerable to replacement by alternatives.

The National Rural Development Programme of 1978, as mentioned earlier, promised more to smallholders but still retained the IRDP and Smallholder Authorities structure of the 1971-80 programme. At the stroke of a pen, and with little else in the way of change, SVADP was transformed into SVACP (Shire Valley Agricultural Consolidation Project). A few years later, the next stage in provision of inputs and services for smallholders was partitioning the country into eight Agricultural Development Divisions. SVACP evolved into Ngabu Agricultural Development Division in the Government's struggle to come to grips with the problem of balancing food production, cash crops and peasant needs and desires.

While all this high-level planning and regional redistribution of government services was being conducted, the scientific and marketing sides of cotton-growing continued to play their essential parts. Cotton breeding and pest problems dominated the research scene, both achieving successful outcomes.[2] In 1954, Albar A637 cotton was first introduced into Nyasaland, selected from Ugandan Albar 51, and in 1961-62 replaced 'Crown Land Bulk' which had provided such good service since 1933. In 1972, Makoka 72 was introduced commercially, having been selected from a large number of crosses made between Albar A637 and MB3 and exotic varieties. Makoka 72 gave 11% more lint than its predecessor, because of its large bolls

[1]ULV = Ultra Low Volume. The hand-held sprayers were of simple construction, producing a high pressure spray, using minimal amounts of water and insecticide.
[2]Cotton breeding data based on CRC Reports and Soko (III, n.d.).

and higher ginning percentage. In addition to this, it had good disease and insect resistance. However, the cotton plant breeders did not relax and the CRC reported in 1975 that an enlarged breeding programme was underway to produce a successor to Makoka 72 with higher yield, better ginning percentage and greater resistance to bacterial blight (I(iv)(b): CRC/AR 1975). At the demise of the CRC, the Department of Agricultural Research continued cotton breeding work, soon producing an improved Makoka 78 for distribution in 1978 to replace Makoka 72.

At the start of the sixties, the BCGA was involved in discussions with the Agricultural Production and Marketing Board (APMB) about the need for a ginnery at Bangula (I(ii)(b): BCGA/CM, 1/11/60). After considering moving their Chiromo or Balaka factories to Bangula, it was decided to build a new one. The logic was that if the BCGA did not act, then the Farmers' Marketing Board (which replaced APMB in 1962) would and the Association might be pushed out of the country (I(ii)(b): BCGA/EM, 16/7/65). The BCGA remained and, in 1967, the Earl of Derby was able to address the BCGA Council with the remark, "We enjoy the most cordial relations with the Farmers' Marketing Board in Malawi, who purchase the whole of the cotton crop" (I(ii)(b): BCGA/CM, 3/3/67). In 1978, there were three ginneries operating in Malawi with 35,000 tons capacity, of which by far the most active was Bangula (I(x)(b): Malawi Government, Ministry of Agriculture, NRDP, 1978, p.71). In 1984, the old BCGA ginnery at Chiromo was on the move to Balaka, where it was agreed that new plant would be erected if cotton supply seemed to warrant it.

In 1960, 75% of Nyasaland's cotton was sold within the Central African Federation (I(x): Nyasaland Protectorate, NIDLB, 1960). But by 1966, the rise in production in Southern Rhodesia meant that only 11% of Malawi's production was destined for that area (III, UNPD/Lockwood,

1970a).[1] The UK market was ready to take more, with UK-bound exports increasing from 2.7 million lbs in 1964, 29% of total exports, to about eight million pounds in 1966, 75% of total exports (III, UNDP/Lockwood, 1970a, p.123). It was estimated that the UK market would take two or three times as much.

In 1971, the Agricultural Development and Marketing Corporation (ADMARC) took over the statutory marketing functions of the Farmers' Marketing Board with an additional developmental agricultural workload and a monopoly in purchase and export of smallholder crops.[2] ADMARC records show cotton as one of the top four crops by value during the 1970s and 1980s. The prices paid to farmers were well below export parities. ADMARC made considerable profits on cotton purchases throughout the 1970s.[3] Although tobacco smallholders were syphoned more than cotton smallholders to support the favoured estate sector, it has been fairly well established by Kydd and Christiansen (1982), Christiansen (1985) and Kydd (1985) that the smallholder sector, in general, subsidised estates from the late 1960s into the 1980s at least.

The increasing needs of David Whitehead & Sons (Malawi) Ltd. for its growing range of textile products have dominated the cotton marketing scene over the past decade. By 1980, 75% of Malawi's cotton was used within the country (III, Chigwa, M.Ag.Sc., 1980), a boon in the years of worldwide inflation, economic stagnation, continuing dominance of US cotton in the world market and declining prices. David Whitehead's original capacity of 7.3 million metres was 30 million by 1984, excluding the expected output from its new plant (Malawi News supplement, 7/7/84). However, ADMARC purchases of cotton had fallen from 23.1 thousand metric tonnes in 1980 to

[1] See pp.204-205 for increased cotton production in Southern Rhodesia.
[2] See Appendix VI, Table 46 for crop purchases, 1960-74, from Lower Shire Valley, showing higher, more consistent production from 1969.
[3] See Appendix VI, Table 47 for ADMARC purchases and profits.

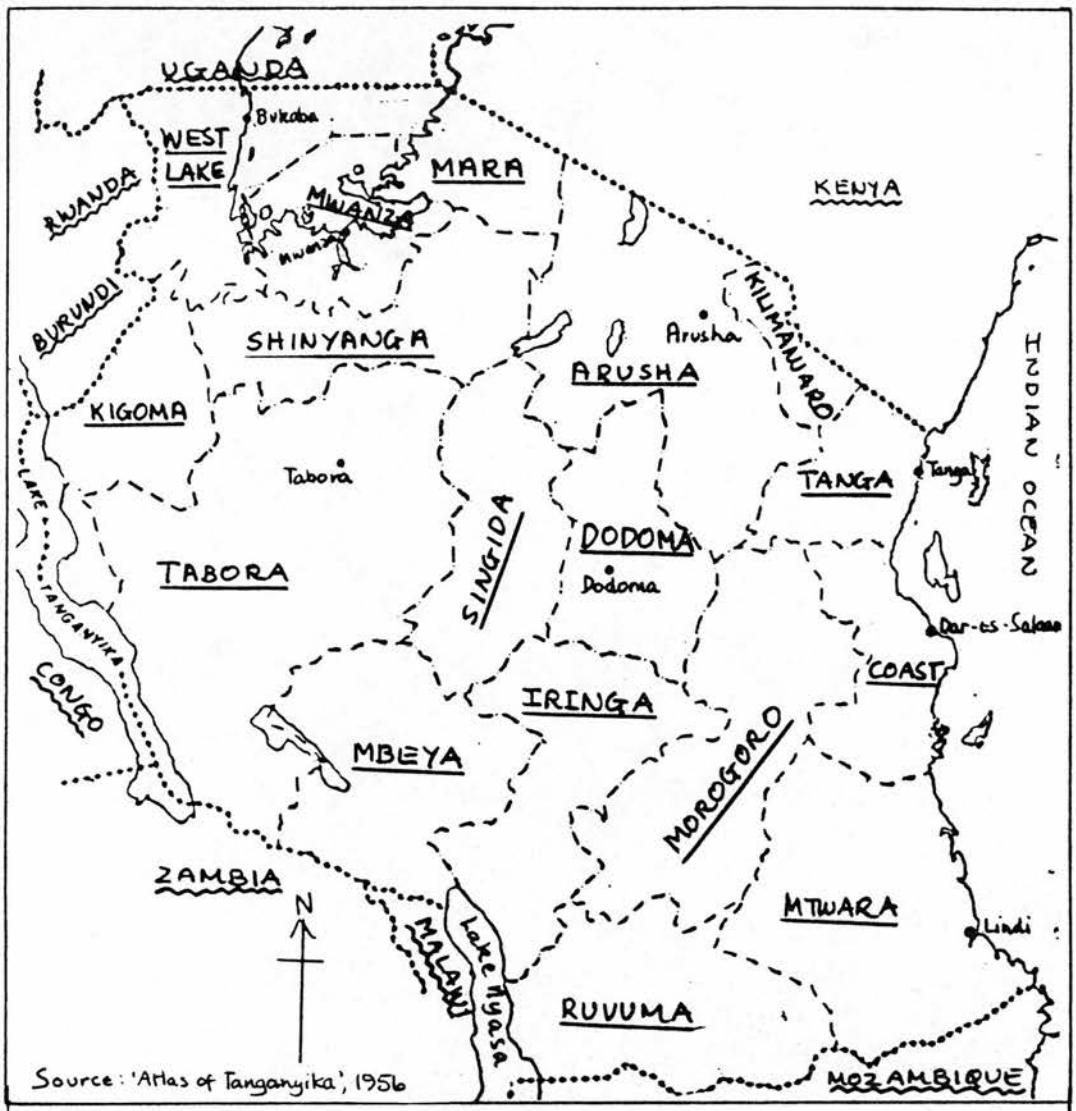
13.4 in 1983 (I(x)(b): Malawi Government Economic Report, 1984, p.18), which was insufficient for local needs and had to be supplemented by imports. Mills and Dean[1] had shown smallholders were responsive to price fluctuations and, in an attempt to boost local production for David Whitehead's new cotton polyester fabric project, cotton prices were increased quite substantially. Seed cotton production doubled between 1983 and 1984, helped by fine weather but also in response to price.

In 1984, David Whitehead Ltd. financed 120 hectares of cotton at Sucoma sugar estate at Nchalo in the Lower Shire Valley,[2] so eager was the firm to increase production.[3] In 1985, cotton prices were increased further to meet the cotton-polyester demand; and the future for smallholder cotton seems assured. But *semper idem*: just as at the beginning of the century, the vagaries and constraints of weather, overworked soils, expensive inputs, Government policy, alternative crops, producer prices and desire to work hard for monetary reward all affected the decision to grow cotton, so it is now. In colonial times, Nyasaland peasants accommodated metropolitan demand for cotton. In this, they were encouraged by a local state determined to extract surplus to help itself and to fulfill its obligations to the mother-country. Only if Malawian smallholders decide to allocate resources to the crop will local needs be met now. To encourage this, the Government must offer smallholders fair monetary rewards, a better standard of living and a sense of worth. The state cannot afford not to nurture a hardworking peasant workforce. "*Mtsinje wopanda miyala susunga madzi*"[4] - a river without rocks does not hold water.

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[1] As quoted in Colman & Garbett (III, pp.31-49).
[2] Sugar production for export was hampered by the inoperable Beira line.
[3] This is Malawi, Vol.4, No.4, April 1984, pp.20-21.
[4] Saying quoted in Catholic bishops' letter of 8/3/92 (Index on Censorship, 5, 1992).

REGIONS OF TANGANYIKA



.....: territorial boundary

Regional names underlined: e.g. ARUSHA

MAP 4

CHAPTER 6

A HISTORY OF COTTON-GROWING IN TANZANIA[1]

6.1 SETTING THE SCENE

> "The cotton plant, whom satire cannot blast,
> Shall bloom the favourite of these realms, and last."
> (Delany to Swift and Sheridan, quoted in a 1929 letter from Kirby, Director of Agriculture, Tanganyika Territory, in I(vi)(c): TNA, S/13853.)

The modern Republic of Tanzania comprises the islands of Zanzibar and Pemba,[2] in addition to the mainland, with which this chapter is chiefly concerned.[3] Tanzania's area of 364,900 square miles is divided into several fairly clearly defined farming zones, of which the most important are a warm, humid, long coastal belt; a semi-temperate, north-east highland area; a hot, moderately dry area between coast and central plateau in the south-east towards Lake Malawi; and the densely-populated Lake Victoria lowlands of north-west Tanzania.[4] Rainfall is immensely varied and uneven, between years and districts, with two distinct rainy periods ("short" and "long") around Lake Victoria and north of Lake Malawi. Altitude varies from sea level to over 19,000', with the greater part of the country consisting of flat or rolling plains. The main modern agricultural problems relate to water supply and maintenance of soil fertility. Both are intimately connected to population settlement patterns which have created a situation where, before colonial

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[1] For the history of just about everything else in Tanzania before independence, Iliffe (1979) provides scholarship and insights of the highest order.

[2] Decker (1869, quoted in Kjekshus, 1977, p.105) stated cotton weaving was the only important handicraft in Zanzibar in the 1850s. In 1869, Fitzgerald reported that *Gossypium* species were grown on the islands but concurred with Kew Gardens' Bulletin of Miscellaneous Information, No.64, April 1892, p.90, that rains precluded commercial possibilities (1970 reprint, p.569).

[3] See Appendix VII, Section (iii), for a brief synopsis of Tanzania's administrative history.

[4] The Sukuma people of this latter area are the largest population group in the country, comprising 12.45% of the population in 1957.

and post-independence governmental attempts to manipulate settlement, two-thirds of the population lived on one-tenth of the land (Dunn, 1949, p.49).

The agricultural sector is the backbone of the economy, employing 5,216,493 out of a total working population of 5,747,096 (Africa South of the Sahara, 1991). Cotton has featured prominently in the export lists since records have been kept and is now also used for domestic textile and oil processing industries. The entire crop is now peasant-grown and most of it is produced in the area south of Lake Victoria. Plantations formerly provided large quantities and, until 1934, the bulk was grown in the eastern, coastal region.

In common with Malawi, cotton in Tanzania was a target of BCGA and ECGC attention,[1] was initially grown by both white planters and African smallholders, was subject to an array of controlling Ordinances and Rules, was found to be a suitable crop in fairly limited areas, was regarded by many as too troublesome and time-consuming a plant to grow for variable reward, was sometimes cultivated only as a result of coercive measures and was promoted as a particularly desirable economic crop, especially during "Plant More Crops" campaigns, by the Colonial Office, territorial administration, Department of Agriculture and District officials. In common, too, was the occasional use of compulsion, often unsuccessfully, to prohibit cotton-growing, not just to encourage it. For example, in Kigoma in Tanganyika and North Nyasa in Nyasaland, forbidding the crop for apparently sound ecological reasons had the effect of creating a strong local demand that cotton production be permitted.

In both territories, one area became the dominant producer - Sukumaland in Tanzania and the Lower Shire Valley in

[1] As will be seen later, the Kolonial-Wirtschaftliches Komitee (KWK), the German equivalent of the BCGA was very active in Tanganyika from about 1900.

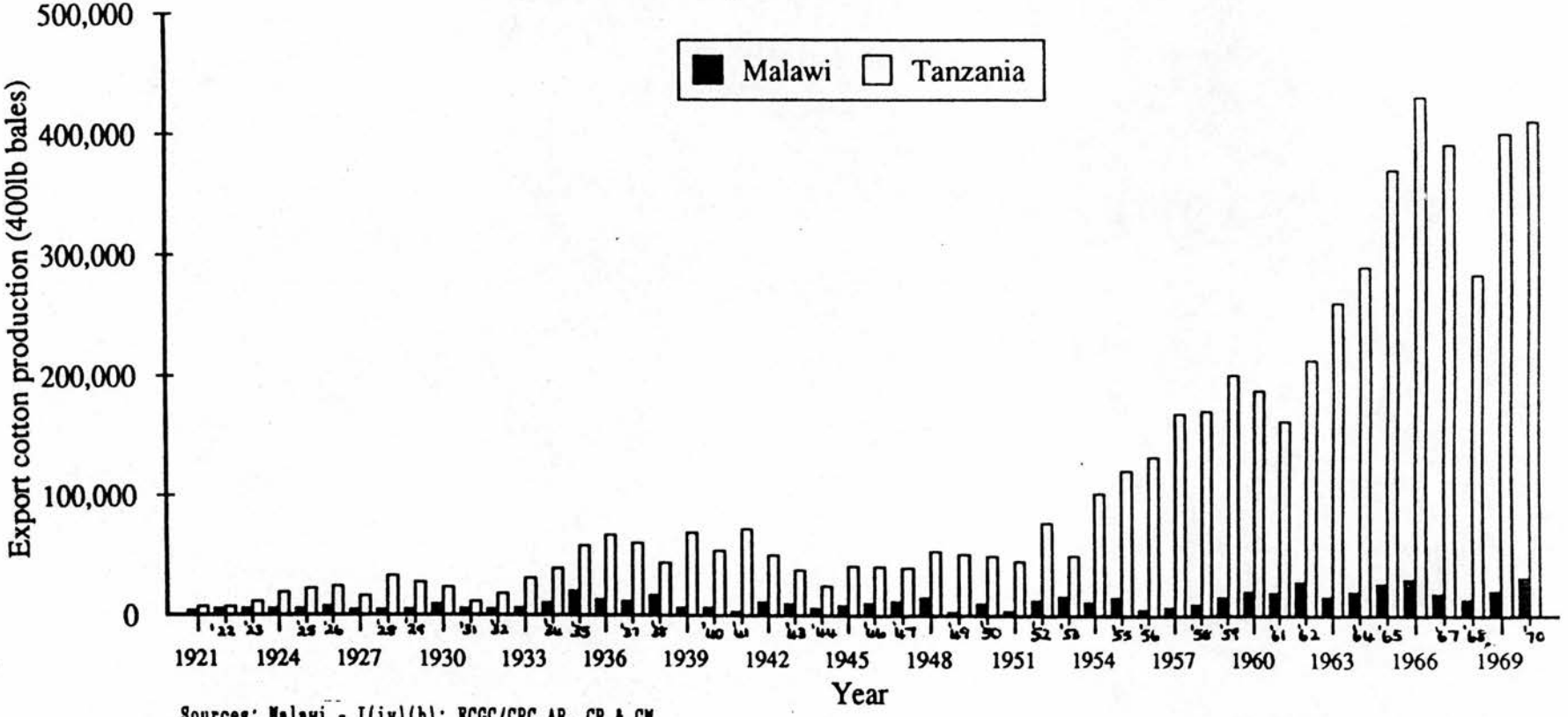
Malawi, with several similarities. Neither was initially regarded as the most favoured area and neither was ideally suited to cotton. Both regions were densely populated, had identifiable pest problems which were overcome (red bollworm in the Lower Shire Valley; jassid in Sukumaland) and exhibited signs of soil erosion and over-utilisation of land, which necessitated careful land use planning and conservation measures. In exercising what Beinart (1985, p.95), in the Malawi context, calls late colonial "technical imagination", colonial administrators devised elaborate schemes for both areas. The major projects for the Lower Shire were more creative than for Sukumaland, no doubt because of the additional powerful water component in the former. Erosion fears, desire for conservation measures, relentless population pressure, food shortages and an apparent need to redistribute the population prompted schemes such as the small Nyamphota Village Land Improvement Scheme in Nyasaland and the much larger Sukumaland Development Scheme. Both involved ambitious attempts at social engineering in a mixed farming development with cotton as a major cash crop - and both failed to stimulate cotton yields as much as expected (Beinart, 1985; Iliffe, 1979).

Despite these aspects in common, there are crucial differences in the history of cotton production in the two territories. The most obvious is apparent from a cursory glance at the graph of cotton exports for 1921-70 (Figure 6, overleaf). In every year, Tanzania's cotton production has been greater than Malawi's - not surprising, perhaps, given the sizes of the territories - and was substantially greater on a regular basis from 1954 onwards.[1] Another vital difference lies in the early colonial backgrounds of the two countries. For its first three decades under foreign control Tanganyika was a

[1]See also Appendix VI, Tables 36 and 49, for cotton production in Tanzania and Malawi. Tables 21 and 22 show comparative production, from different sources, with GBA production greater than Nyasaland's from 1909 and almost twenty times greater in 1965-66.

Figure 6

Malawi and Tanzania
Export cotton production 1921-70



Sources: Malawi - I(iv)(b): BCGC/CRC AR, CR & GM
Tanzania - Department of Agriculture Annual Reports

German colony, whereas Nyasaland was subject to the generally less brutal approach of the British. Thus Nyasaland escaped the more relentless coercion and force of the first decade of cotton-growing in German East Africa which culminated in a long and bloody rebellion by African cultivators.[1] Cooperative societies played a more important role in Tanzania than in Malawi.[2] In Tanzania, ploughing was more popular than in its southern neighbour, especially in the areas newly cleared of tsetse infestation. Finally, although in both lands there was emphasis on cotton as an integral part of the agricultural system, not as a crop to be treated in isolation, there seems to have been a more practical regard for this in official quarters in Tanzania.

6.2 COTTON-GROWING PRIOR TO 1917[3]

> "A good deal has been argued as to whether cotton should be grown in Africa by small farmers (coloured people) or on a large scale on plantations. This problem seems to have been solved by admitting both systems according to the local conditions ... in many places plantations and small farms can exist side by side."
> (III, Schanz, 1910: paper on 'Cotton Growing in German Colonies' for 7th International Cotton Congress, Brussels.)[4]

It is thought that *Gossypium herbaceum* cotton was introduced to East Africa by the Shirazi of Persia between

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[1]This is not to deny that there was brutality and excessively heavy-handed "encouragement" involved in cotton-growing in Nyasaland - there was, but much of it emanated from white plantation owners or foremen rather than from the direct orders of the administration.

[2]So little information does there appear to be on the topic of cooperatives in MNA files, that one wonders whether there is a connection between the gap and the later proscribing of cooperatives during the early years of independence. In 1947 the Southern Province Annual Report noted that many African cooperative societies had been started during the year (I(v)(d): MNA, NS 3/1/1); but, by 1965, according to Mwakasungura (1984, p.51), the 93 cooperative societies existing at independence had been killed because, he alleges, Banda could not tolerate an independent power base.

[3]Useful sources in English for the general history of the German period are Austen (1968), Iliffe (1969; 1979) and Kaniki (1979).

[4]This paper by Moritz Schanz and two reports in I(iv)(g): CRC, CP1/46 and CP1/47 provide invaluable information on cotton-growing in German East Africa.

the tenth and fourteenth centuries (Bartlett, Ph.D., 1974; III, Schanz, 1910) and that knowledge of spinning and weaving passed from the coast to the interior. The Fipa were known for their skills in weaving strong black and white striped cloth, noted by Burton in 1857 and by Livingstone and Cameron in the 1870s; and, in 1890, Kerr-Cross remarked that every Nyiha village "boasts of two or three looms" (St. John, 1970, pp.206-7).

Evidence of older varieties of cotton was found by Prentice, who claims that perennial *hirsutum* survives along the old Arab slave routes and that perennial *barbadense brasiliense* remained as isolated bushes in the remoter parts of Lake Provice, where it was probably the source of Shinyanga spinning and weaving skills up till 1939 (Prentice, 1972, p.5). However, the homegrown cotton cloth industry of Tanzania was only marginally more successful than Malawi's in surviving the influx of cheap manufactured cottons from the mid nineteenth century. By the time German rule was established most cotton was used for mattresses (Malima, Ph.D., 1971),[1] although, even during the Second World War, there was still some spinning and weaving in Rukwa Valley (I(vi)(a): Sumbawanga (Ufipa) DB, Vol.II). Despite the ban on cotton-growing in the area from 1936 to 1959,[2] which inhibited the local trade, at the end of 1974 a weaving industry centre was completed in Rukwa Valley, furnished with hand-looms and traditional Fipa looms (Lyimo, M.A., 1975, Preface).

The German East Africa Company conducted early experiments in plantation cotton production between 1886 and 1888 but the results were disappointing, due to pests, poor prices and sleeping sickness (III, Schanz, 1910; Bartlett, Ph.D.,

[1] A map published by Hans Meyer in 1909, probably based on a 1901 survey, showed that the Germans had found local cotton manufacture in three main areas in East Africa - south of Kilwa, along the Ruvuma River westwards to Lake Nyasa and in a broad corridor between Lakes Nyasa and Tanganyika northwards to Lake Victoria (Kjekshus, 1977, p.107).

[2] The ban was introduced because of insect pest problems and eventually lifted for political reasons, suggests McHenry (Ph.D., 1971, pp.222-224). Cotton was prohibited because the administration had assigned a different role to the area, says Lyimo (M.A., 1975, p.32).

1974, Ch.6). From 1894 no cotton was exported until the beginning of the next century.

The factors which had affected cotton supply to Lancashire mills at the turn of the century were equally destructive to the livelihood of German cotton mills which required an estimated 880 million pounds weight of cotton annually (III, Schanz, 1910, p.23).[1] Ahead of the British industry's efforts which culminated in the BCGA, the German equivalent, Kolonial-Wirtschaftliches Komitee (KWK), was founded in Dresden in 1896 under the chairmanship of manufacturer Karl Supf. The KWK's overall aim was to promote agricultural development, both settler and local, in German colonies.[2] It was instrumental in encouraging cotton production in West and East Africa, setting up a permanent agency with headquarters in Dar-es-Salaam in 1905.

In 1902, KWK sent samples of cotton from the German East African coast to Hamburg, where its quality was approved. This set in train a concerted effort by KWK, German Government, missionaries and District officials over the next decade to stimulate production by provision of transport facilities,[3] ginneries, buying centres, experimental farms, free seed and instruction, bonuses for good cultivation by planters, cotton farm schools for Africans and a cotton inspectorate to encourage good practice. Amani Research Institute was opened in 1902 and became a model for thorough agricultural research in Africa.[4] The Hut Tax of 1897 and Poll Tax of 1905 introduced "incentives" for Africans to enter waged employment or export production.

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[1] See Chapter 2, Section 2.3.

[2] The KWK also hoped that great achievements in tropical agriculture might alter anti-colony public opinion in Germany.

[3] Encouragement to planters in GEA included free transport of cotton to Hamburg (CAT, 18/7/1903, p.9, letter from Ernst Meyer of Blantyre, enclosing a cutting from a German newspaper).

[4] Amani, unfortunately, proved unsuitable for cotton research when it was reopened by the British in 1927.

Early cotton production took four main forms. Two were relatively uncontroversial: local native cultivation on smallholdings, favoured by the KWK as the main future method as a result of the 1886-88 German East Africa Company plantation failures;[1] and large scale company or settler plantations, using African labour, which it was hoped would "induce the native men to undertake agricultural work, which in the tropical part of Africa is otherwise carried on exclusively by women" (III, Schanz, 1910, p.14).[2] More innovative, but soon unsuccessful, was a sharecropping scheme inaugurated by a German planter, Julius Weigand of Nera chiefdom in Mwanza district, in which he cultivated his own cotton with African labourers whom he encouraged to grow cotton in adjacent plots for sale to him (Austen, 1968, p.56).[3] The fourth method of promoting cotton production, using coercion and force on communal schemes and plantations, had widespread and devastating effects in that it provided major contributory motivation for the Maji Maji rising of 1905-07, as a direct consequence of which up to an estimated 300,000 people may have died,[4] many from famine as a result of the "scorched earth" policy of both sides.

"The cause of all the trouble was the swindling of the witch doctors of Upogoro," claimed Kilosa District Book (IIvi)(a): TNA). Other informants and sources are more realistic in placing the blame for the Maji Maji Rising on the brutality exercised by the Germans on cotton schemes (I(xi): MMRP 1/68/2/1, Msongozi); on "khamsa ishirini" or the twenty (sometimes twenty five) strokes inflicted on those who failed to comply with compulsory cotton-growing orders (I(xi): MMRP 2/68/1/1, Kilosa Town and 7/68/2/1, Lindi District); and on open detestation of the German

[1] P. Mullendorf in Manchester Chamber of Commerce Monthly Record, Vol.XIII, 1902, pp.241-2.

[2] In 1910, there were 12 cotton plantations totalling about 215,000 acres, 24 other plantations which had taken up cotton as an intermediate crop and 17 medium and small planters growing cotton (III, Schanz, 1910, pp.17-18).

[3] Weigand did well out of the scheme, paying growers 1d/lb and selling at 1/- a pound in Hamburg in 1906.

[4] Figure from Iliffe, 1979, p.200, quoting from a 1979 Ph.D. thesis by G. Gwassa on the topic.

colonial regime and its methods of forced labour (I(xi): MMRP 7/68/1/1, Lukuledi Valley).

The outbreak of violence began with a symbolic uprooting of three cotton plants in Rufiji Valley (Iliffe, 1979, p.168), ostensibly as a straightforward protest against a cotton picking order. However, it had more deep-rooted origins in general grievances against being compelled to work for 28 days a year for minimal return on cotton plots established at each headman's headquarters on the southern coast. The scheme, originally devised for Togoland, was introduced unsuccessfully to northern coastal districts by Governor Guntzen in 1902. It failed dismally in Dar-es-Salaam, Kilwa and Lindi Districts. But, as Iliffe notes (1967, pp.499-500), the protest was not about cotton *per se*, which was popular in Rufiji Valley soon after the revolt when there was no compulsion to grow it. It was against unacceptable German pressure to grow for very poor returns.

Despite these troubles, Karl Supf of the KWK reported in 1907 (IFCATI, 1907) that cotton production was increasing both as an African crop and on large plantations. Moreover, forced labour had not ended with the Maji Maji Rising. Gunzert, district official in the Lake region from 1907 to 1916, misused his position and funds to inaugurate "cotton drives", particularly in 1910-11 when he attempted to enforce cultivation of Upland cotton in Mwanza area (Manyanda, M.A., 1974; Austen, 1968, pp.98-100). Though the KWK in Sukumaland in 1910 found that compulsion was superfluous, with the local population keen to grow cotton (McCall, Ph.D., 1980, p.227), Gunzert's "use of military personnel to enforce cotton as well as peanut growing took some brutal forms" (Austen, 1968, p.100).

The German East African cotton industry continued to expand. From 7 ginneries in 1907, and 15 in 1909 with

77 gins and 10 hydraulic presses (I(ii)(c): Stark, 1909), there were 38 in 1913 (I(iv)(g): CRC, CP1/47). From less than half a ton of cotton produced in 1902, 3,000 tons were grown in 1913-14. The Mpanganya cotton school, founded by the KWK in 1905 and taken over by the Government in 1910, was followed by the establishment of several others to instruct local cultivators in supposedly superior methods and to supply seed. Between 1910 and 1914 six additional cotton research stations and three general experiment stations were founded (Gann, 1975, p.242). In 1910 the KWK guaranteed a minimum buying price, though this was abandoned as too costly a few years later (Malima, Ph.D., 1971); and Cotton Ordinances were enacted to control seed importation[1] and to enforce burning of crop residues after harvest, aimed particularly at combatting pink bollworm, identified as the chief pest (III, Schanz, 1920; I(iv)(g): CRC, CP1/46).

By 1910 there was a formal division of labour between the KWK and the colonial administration. The KWK was charged with technical aspects of cultivation, ginning, purchasing, giving prizes, making loans and overall control and inspection of growing. The German colonial officers administered experimental stations and conducted campaigns against diseases, such as "Krankel Krankheit" (curly leaf disease), identified in 1909 as the most insidious. With a large portion of its 400,000 marks annual expense coming from voluntary taxation of the German trade, an important part of the KWK's cotton promotional work involved ensuring that Germany was fully aware of the value and importance of the efforts of the KWK and colonial administration.

Despite a setback in cotton expansion in 1911, caused by good North American harvests (Seidman, 1970, p.9), cotton was a major crop on European plantations in 1912, covering

[1]By 1912-13 Upland cotton was favoured by African growers and Nyasaland Upland varieties took most prizes at the 1914 Exhibition.

22.8% by area and providing 9.7% of exports by value (Silver, 1981, p.7). Until 1913, large estates, often utilising steam ploughs because of expensive, scarce labour and tsetse-infested acreages barring hand labour and ox-ploughs, remained popular (Kirby, 1930). The German Colonial Secretary, Dernburg, favoured large-scale, highly capitalised plantations and German spinners took an active interest in their development (Bryceson, 1980, p.290; Todd, 1915, Ch.IX).[1] However, even by 1910 when 21,795 European acres were planted to pure stand cotton on 165 plantations and 13,306 acres had cotton as a catchcrop between rubber or sisal (Kirby, 1930, p.170), it was becoming clear that heavy investments were not bringing adequate return. The problems lay in expensive European supervision, inappropriate soils, lack of rotations, wrong varieties and unsuitably deep ploughing exposing less fertile sub-soil and hastening erosion. Cotton was still regarded as an experimental crop, needing support, when the Reichstag estimates for 1913 included a 200,000 mark grant for three years for cotton-growing in German East Africa (Naval Intelligence Division, 1920, p.236). In the same year KWK declared a total loss of 300,000 marks on ginneries, loans and awards (I(iv)(g): CRC, CP1/47).

Rechenberg, German East African Governor from 1906 to 1912 and proponent of a liberal market incentives policy, disagreed with many of his compatriots, including his predecessor in office, about the virtues and advantages of European settlement. He stressed that he saw future progress through African cash crop production. With the Governor's encouragement, aided by KWK and missions, and the blessing of a converted Secretary of State for the Colonies, smallholder cotton production increased rapidly, especially during 1910-12 in the Rufiji Valley and

[1]Many spinning firms owned their own plantations and Leipzig Cotton Spinning Company had already added a 7,500 acre ex-KWK experimental farm to its massive estates in 1908 (III, Schanz, 1910, p.17).

Mwanza.[1] By 1913, African cultivated acres (47,000) exceeded European estate acreage (32,000) for the first time (Seidman, 1970, p.10). As in Nyasaland, prices were the greatest inducement to increased productivity with the Rufiji Valley propaganda effort confirming that bonuses and a guaranteed minimum price were the most acceptable incentives (Raum, 1965, p.189). By 1914, at the commencement of the war which stopped export production till Armistice, cotton exports were ten times greater than they had been in 1902. Forced labour for agriculture was illegal by then and the Central Railway Line had opened up the entire width of the country from Dar-es-Salaam to Kigoma *via* Morogoro and Tabora.

The effects of the First World War on population and crop production were disastrous.[2] Disease and famine led to loss of life and disruption of administration and the economy.[3] But very soon after formation of the Provisional Civil Administration, under Byatt,[4] the BCGA was asked to help the territory. On 9th January 1917, the Association agreed to accede to the Colonial Office's request that assistance be given in handling Mwanza district cotton by providing ginning, baling, shipping, financing and sale supervision facilities (I(ii)(b): BCGA/CM, 9/1/17). And, despite the ongoing state of war, in August 1917 an Agricultural Officer was assigned to Mwanza to promote the local cotton crop.

Looking back on the German period, the attention given to

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[1]Rechenberg, flouting the desires of the district officer and Sukuma people, had actually favoured groundnuts as the cash crop for Sukumaland (Iliffe, 1969, p.168).

[2]See Appendix VII, (iii)(b) for a brief comment on the war in German East Africa.

[3]The First World War was not the only debilitating event. Bryceson (1980, p.296) describes a situation of increasing incidence of famine during the course of German colonial rule, with food production suffering from adverse natural conditions, enforced cash crop production and deliberate creation of famine conditions as a "pacification" measure.

[4]Byatt, later Governor, headed the administration until 1924. He had three major aims - to destroy the German presence, to discourage new settlers and to reestablish order - all of which he accomplished in an atmosphere of "economic stagnation owing to worldwide depression, Treasury parsimony, and his own lethargy" (Iliffe, 1979, p.262). Lethargic he may have been, and wary of radical change, but Byatt succeeded in restoring order and trade.

agriculture in general and cotton in particular by KWK and the German administration in East Africa compares very favourably with that of the BCGA and British administration in British colonies. The German record on experiments and pest control is admirable and, at the end of German rule, less than 1% of the land had been alienated. However, the lasting memory of German rule to many Africans was of its brutality and forced labour.

6.3 COTTON PRODUCTION FROM 1918: THE FIRST TWO DECADES UNDER BRITISH MANDATE.[1]

> "The drum of the chief calls to plant cotton.
> Gird up your loins, clean the fields,
> Then even the European will not be angry.
> On the day you get your money
> You will buy what you like,
> Cattle, or boots to put on."
> (Kisukuma song, recorded by Hans Koritschoner(1937, p.62)

After the First World War, with Britain administering Tanganyika Territory under a League of Nations mandate, cash crop production was encouraged despite the uncertain future. Professor Zimmermann, Director of the Amani Institute, had apparently concluded that, with the exception of Lindi District,[2] cotton was unlikely to be successful in the territory because of its uncertain, irregular rainfall.[3] The war had certainly curbed production but Byatt procured seed from Uganda for distribution in Mwanza and Shinyanga districts. In 1919, Worsley informed the BCGA that he believed cotton-growing prospects were good, provided the industry was kept in Government hands to avoid the problems commercialisation had created in Uganda (I(ii)(b): BCGA/CM, 4/2/19). A Cotton Ordinance in 1920 imposed control on seed

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[1] The involvement of the ECGC with Tanganyika Territory is outlined in Chapter 3, Section 3.4.2.
[2] German faith in this area was translated practically. By 1914, 18 km of the Lindi Cotton Transport Railway had been completed, with another 22 km projected.
[3] I(iv)(g): CRC, CP1/46, 6/2/1918.

importation, supply and distribution, on cultural practices, markets and ginneries.

Keynotes of the 1920s are that peasant cotton-growing outstripped estate production,[1] that a Department of Agriculture was set up in 1921 with expansion of cotton-growing as one of its chief objectives and that a policy decision was taken that emphasis would be on cotton-growing as a native industry.[2] In addition, the 1920s saw Egyptian cotton replaced by Upland varieties, the Eastern Province lose its place as the major cotton-growing area to Lake Province[3] and the introduction of cotton and ploughs to areas such as Shinyanga where German opinion had been that cotton would not grow. A lack of roads hindered development in Sukumaland but the 1928 Tabora-Mwanza rail link opened an area of high cotton-growing potential. Overall, cotton production increased very satisfactorily.[4]

H. Worsley, after a brief visit in 1920, and Major Hastings Horne, after a longer sojourn in 1920-21, reported on cotton-growing prospects to the BCGA and ECGC respectively. Worsley stressed that a seed supply and an Agricultural Officer were urgent needs. In this he was supported by BCGA reports on the inferior quality of cotton brought to Mwanza ginnery which the BCGA leased for two years until, much to the Association's chagrin and dissatisfaction, it was sold to an Indian firm by the Controller of Enemy Property (I(i)(b): CGA 2/1/2;

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[1] Tanganyika Territory's Annual Report for 1921 had acknowledged, "cotton is unlikely to survive for long as a non-native industry". By 1927, non-native production (mainly by Greeks in Morogoro and Kilosa) was reduced to 26% of the total (I(vi)(c): TNA, S/10858, Kirby to BCGC, 25/8/28).

[2] The German administration had never quite made up its mind on this; and the British had the same difficulty. Although the Agriculture Department, BCGC and BCGA were all in favour of smallholder production by 1926, Governor Cameron in his covering despatch with the Orde-Brown Labour Report on Tanganyika Territory, 1926, noted that the Government was neutral on whether or not peasant cultivation should be extended. Cameron pointed out that inducement to Africans to cultivate on their own account would mean that non-native extension of crop production would cease.

[3] See Appendix VI, Table 49.

[4] I(vi)(c): TNA, S/10844, Himbury (BCGA) to Kirby (Director of Agriculture), 21/5/29 - "If you go on like this you will very soon outstrip Nigeria and become our second most important Empire field for the American growth."

I(ii)(a): BCGA/AR 1921; I(iv)(g): CRC, CP1/255).[1] Major Horne, in a series of letters[2] and a final report,[3] examined prospects for cotton-growing, particularly in the four areas identified as most suitable in German documents - Lindi and Kilwa; Morogoro and Kilosa; Mwanza and Lake areas; and Rufiji River. Horne was scathing about the standard of German supervision of cotton-growing (I(iv)(g): CRC, CP1/283); but was equally disparaging in his dismissal of the new Agriculture Department as totally inadequate (I(iv)(g): CRC, CP1/284). In his comments on Rufiji River, Horne praised locals' eagerness to plant cotton on their own account (I(iv)(g): CRC, CP1/278) but also noted that its ideal transport and suitable soil made this the most favourable area for plantations (I(iv)(g): CRC, CP1/312). For Kilwa District, Horne recommended ginneries be erected for a potentially successful African-grown crop. On Mwanza District, the Major's interviews and observations led him to condemn European growers and Asian buyers as a bad influence on production though he agreed that cotton could be ideal as an economic crop for "a strong, energetic, docile and easily handled race" (Horne, 1922, p.9; CP1/300). Horne was convinced that cotton could become the leading economic crop, "the means of bringing civilisation, comfort, and even health, to the people" (Horne, 1922, p.5). His final report contained a range of suggestions. He recommended strengthening the Agriculture Department and creating a separate Cotton Branch,[4] which would control seed distribution. He saw a need for scientific research. He favoured use of good, strong implements instead of flimsy local hoes. He wanted ginneries to be run by private enterprise in most cases,

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[1] The BCGA was outbid fairly at auction. The Association then decided to build its own ginnery at a cost of £20,000, depsite the uncertain future of the territory (I(ii)(a): BCGA/AR 1922).

[2] Circulated to the BCGC as CP1/272, CP1/278, CP1/282, CP1/283, CP1/284, CP1/285, CP1/286, CP1/300, CP1/312 and CP1/313.

[3] Horne (1922) in main bibliography, Section IV.

[4] Wood, the first BCGC cotton specialist based in Tanganyika Territory, agreed on the need for a larger Agriculture department, but not for a separate Cotton Branch which might deflect from the aim of having cotton as a fully integrated rotation crop (I(iv)(g): CRC, CP1/422, Wood's 1st Report, to December 1922).

and more erected. He believed that the old cotton experiment stations should be repaired and reopened; that growing should be properly supervised; that the German practice of bonuses to chiefs and headmen should continue; that the KWK system of guaranteed fixed price should be used; that the practice of Indian middlemen of advancing money on potential African cotton crops was two-edged, stimulating production but creating debt; that capricious rainfall was the only serious difficulty in several areas; and that a viable cotton industry would increase the Empire's output and create demand for imports.[1]

Over the next few years, the territory's Annual Reports and Department of Agriculture Annual Reports commented on attempts to eliminate middlemen by setting up a short-lived auction system with the Agriculture Department as intermediary. However, this and concentration on African production was hindered by lack of staff. The situation was not improved by arguments between the ECGC and the Department regarding their respective roles, which led to the ECGC's temporary withdrawal from Tanganyika.[2] Although Tolland's description of the requirements for improvement in Tanganyika Territory was far too simplistic and ignored any innate agricultural or economic sophistication - "To obtain success in educating the native to join in the Commercial development of the Empire we must proceed slowly, as in the education of a child. He must be taught things in the simplest way, guided through difficulties and guarded against mistakes and loss" (Tolland, 1923, p.443) - to impart the benefits of research and modern knowledge of cotton-growing to the local communities required more staff than was available.

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[1]The question of "wants" was one not really tackled by Horne in his otherwise thorough, if patronising, report. Alec Haarer, posted to Tanganyika Territory in 1921, commenting on cotton left unpicked, wrote of one old man who got 130/- on the first market day in 1922: "He said there was nothing worthwhile to spend it on in the bazaar and he did not want more wives" (I(vii): RHL, Mss.Afr.s 1144, Haarer). Indian traders in the Lower Shire Valley, Malawi, as noted in Chapter 5, brought matching of needs to cotton-growing to a fine art, lending for goods against future crops.

[2]See Chapter 3, Section 3.4.2, p.172. The root of the trouble was the personality clash between Wood and Kirby.

Nevertheless, against the odds of shortstaffing and transport difficulties, which particularly hindered Mwanza crop production, cotton flourished. Throughout the twenties the Agriculture Department was concerned about seed distribution, timeous planting and enforcement of uprrooting and burning regulations.[1] Although cotton was the second most profitable African-grown crop from 1921, next to coffee, the Department was anxious to avoid the perils of the "one-crop native" of Uganda. It attempted, fairly successfully, to encourage cotton as a rotation crop in ordinary plantings. In 1925, Tanganyikan cotton was 75% African peasant grown, with the proportion steadily increasing (I(ii)(a): BCGA/AR 1925).

Not every attempt to augment output was successful. In 1924, 124 ploughs were issued by the Agriculture Department to small groups of African growers in Shinyanga District, but by 1929 ploughing was largely in the hands of chiefs and Native Authorities, which was not the intention (I(vi)(a): Shinyanga DB, Vol.I). An Agriculture Department communal cotton planting experiment in Tabora District failed within two years because of transport difficulties and lack of incentive to harvest (Tanganyika Territory, Annual Reports). In another instance, one ton of seed was purchased from Uganda for distribution in Biharamulo Sub-District but Chief Kasusura complained that villagers' food supplies would have been endangered if proper attention had been given to land preparation for cotton, so, not surprisingly, the resultant crop, bought by the BCGA in 1926 at the Government's request, was disappointing (I(vi)(b): TNA, 215/82, Part I, 106a). The District Agricultural Officer and the District Officer continued to disagree on the wisdom of introducing cotton to Biharamulo, with further failures in 1927 and 1928 leading the Acting District Officer to proclaim that only

[1]The regularity of agricultural law-breaking led an observer to pronounce, "The Chief's Courts are veritable Cotton Calendars" (I(vi)(c): TNA, S/10858, circa 1927, unsigned).

compulsion would give a satisfactory crop.[1] The District Agricultural Officer, on the other hand, insisted that results would have been better if the District Officer had given the introduction some support (I(vi)(b): TNA, 215/82/Part I, 173-205). The Department of Agriculture and the administration persevered with Biharamulo. However, without additional instructors, the small irregular, badly-planted and maintained plots,[2] which were often left unpicked, failed dismally. The answer suggested once more, in 1930, was "something stronger than persuasion" if the idea of making Biharamulo a cotton area was not to be abandoned.[3] Despite the BCGA pioneer ginnery erected in 1927 and continued campaigning, the drive to promote cotton-growing had to be abandoned. The local menfolk preferred to go to Uganda to earn their tax money.[4]

It was years of compulsion, or what the Department of Agriculture preferred to describe as "strong advice",[5] coupled with poor prices, that led to Morogoro's place as prime cotton producer being taken over by Mwanza. In the Rufiji Valley, cotton and food crops came to be regarded as opposing, not complementary. Wakefield, Director of Agriculture, noted in Morogoro Provincial Book Volume IV, 1928, that "Governmental interest has produced a state of mind wherein cotton is regarded as a punishment crop". This was a great disappointment to the Department, which was promoting cotton as a land cleansing crop, and to the administration, which had benefitted from a positive correlation between cotton-growing and tax-paying

[1]Circular No.81 of 1927, Chief Secretary to all Provincial Commissioners, 20/12/27, insisted that no compulsion was to be exercised over cotton-growing by District Officers or by Native Authorities and that restrictions must be enforced with leniency (I(vi)(c): TNA, S/10858/30).

[2]"Many so-called cotton-shambas do not attain the proportions of a hearth-rug", wrote the Acting District Officer, Biharamulo, to the Provincial Commissioner, Bukoba (I(vi)(b): TNA, 215/82/Part I/239).

[3]I(vi)(b): TNA, 215/82/Part I/249, Acting Director of Agriculture to Provincial Commissioner, Bukoba, 29/1/30.

[4]I(vi)(b): TNA, 215/82/Part II/231, A.S. Saville, District Agricultural Officer, on 'Cotton in Biharamulo'. A similar report by L.C. Edwards, DAO, is in Bukoba DB, Volume I.

[5]I(vi)(c): TNA, S/10858, Memo on cotton policy by Wolfe, Acting Director of Agriculture, 18/11/27.

(I(vi)(c): TNA, S/10844). In Lindi District, too, there was a lack of progress, crops remaining fairly static throughout the 1920s. This was attributed to agricultural mismanagement (wrong time of planting, too many seeds, too wide spacing, shading from other crops), inadequate returns, lack of confidence in buyers and absence of local administrative encouragement: "...in the minds of officials and natives alike the cotton industry is associated with complexities and abnormalities, and there is engendered feverish excitement and a feeling of insecurity ... cotton is linked in the minds of these natives with the Government, taxation, askaris, fines and restrictions."[1]

Noteworthy features of the 1930s were the "plant more crops" campaign, the start of the Agriculture Department's battle against soil erosion, the renewal of the ECGC's links with the territory, the severing of direct BCGA operations, the continuing desire of an understaffed Department of Agriculture to integrate cotton into a balanced agriculture system,[2] the repression of middlemen in marketing, the continuing decline of non-native cotton production,[3] the decreasing UK market and increase in exports to India and Japan.[4] There was also a dramatic increase in Lake Province production from 7,011 bales in 1931 to a peak 42,678 bales in 1936, with Eastern Province production dropping to a half or a third of the Lake's from 1934.[5]

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[1] I(vi)(c): TNA, S/10047 Ia, 'Inquiry into Lack of Progress in Lindi Area 1929', signed Kingsley Latham, DAO, Lindi.

[2] This included the move to have cotton as an anti-famine crop because of its drought-resistance and cash-earning capacity (e.g. I(vi)(c), TNA, S/12951, 178/53, Sturdy, SAO i/c North Western Circle to PC, Lake Province, 10/1/38). Swynnerton, later Director of Agriculture in Kenya, remembered cotton as a compulsory food crop in Sukumaland of Lake Province, because it would usually come through in a drought year and gave cash to buy food. On the question of integrated agriculture, Swynnerton described Tanganyikan agriculture as "very much administrative agriculture rather than farming", claiming that the aim seemed to be either increased production or soil conservation, rarely to broaden the base (I(vii): RHL, Mss.Afr.s.1426).

[3] Down to 10% in 1936 (I(ii)(a): BCGA/AR 1936).

[4] From Tanganyika Territory ARs.

[5] See Appendix VI, Table 49.

The 1930s started badly for cotton with low prices for all crops, discontent among growers and much cotton left unpicked in 1931 (I(ii)(a): BCGA/AR 1931). The crop was unpopular in Mwanza because of restrictions, controls and heavily fluctuating prices.[1] In Eastern Province, there were objections from African growers that they were made to grade while non-African growers did not have to and got higher prices.[2] The Chief Secretary refused to sanction tax being paid in cotton and suggested to the Provincial Commissioner that the remedies for the depressed cotton industry in Rufiji District lay with the PC himself who should improve matters by personal contact, exhortation, cooperation with Agricultural Officers and encouragement of women as growers.[3]

It was in this situation of declining production, disgruntlement and low prices that the metropolitan government, colonial government and Department of Agriculture launched their "plant more crops" campaign. E.H. Harrison and Sir Stewart Syme, appointed in 1929 and 1931 as Director of Agriculture and Governor, respectively, exhorted cultivators to double or treble output of cash crops for export to compensate for low prices, while not neglecting food crops, and so prevent a return to subsistence living.[4] Much was taken for granted - above all, that the population and land had the excess capacity for increased growth; but it was hoped that the "cumulative effect of repeated admonitions" (Circular 36, 1931) and insistence on Hut and Poll Tax payments would breed results.

The Secretary of State for the Colonies had written to the Governor in December 1931: "I am anxious that cotton cultivation should be developed in places where natives have no more profitable crop" (I(vi)(c): TNA, S/10844).

[1] I(vi)(c): TNA, S/19642, Vol.I, Minutes of Cotton Advisory Board, 17/12/31.
[2] I(vi)(c): TNA, S/10047 III, Cotton Advisory Board, Eastern Province.
[3] I(vi)(c): TNA, S/10844, Chief Secretary to PC, Eastern Province, 16/8/30.
[4] I(vi)(b): TNA, 215/20/67, Circular No.36 of 1931, 'Production of Native Economic Crops'.

This was tackled with varied results. The Director of Agriculture in 1935 expressed his hope that increased cotton acreage would lead to 100,000 bales annual production within a few years (I(ii)(b): BCGA/CM, 3/9/35). In fact, it was to be nineteen years before this target was reached.

Compulsion and persuasion were both used in the campaign. In Mwanza and Kwimba Districts, it was decided to compel local taxpayers to grow half an acre of cotton as one of two crops for sale.[1] In Morogoro District, "overenthusiastic" staff drew complaints of excessive pressure in their attempts to draw Africans from the hills to plant cotton on the plains, their methods officially described as "part-way between encouragement and exhortion with a bias against the tax defaulter".[2] However unsavoury the means, they brought the desired result and Webster noted in December 1935 that tax collection had increased 40%.[3]

Pressure to grow cotton was sometimes exercised for dubious reasons. For example, the Iringa Provincial Commissioner decided on cotton as the cash crop for the Mwaya, in addition to rice, on the grounds that "cotton is preferable as coffee growing tends to laziness while cotton keeps them busy".[4] But devious means were also used to escape the administrative hold. H.C. Barker relates a tale, possibly apocryphal, of how the Wazanaki gained exemption from cotton cultivation by cooking 70% of the issued seed in boiling water, so that when the Agricultural Officer saw the germination percentage he

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[1] I(vi)(b): TNA, 215/20/67, DAO, Mwanza, to DO, Mwanza, 25/10/31.

[2] I(vi)(a): Morogoro DB, Vol.I, G.F. Webster, PC, Eastern Province, 1936 Memo.

[3] An interesting note in Bagamoyo District Book records mission involvement in encouraging cotton-growing. In cooperation with Liverpool Uganda Company, Mandera Mission kept prices above the minimum fixed price in 1938, so that there would not be a drop in African income. Mandera Mission owned 3 buying posts and an up-to-date ginnery employing about 70 people and earning enough for the upkeep of the mission and numerous outschools. Originally at Bagamoyo, the ginnery was moved as a result of Department of Agriculture objections that Bagamoyo was not central enough.

[4] I(vi)(c): TNA, S/13478, PC, Iringa to Chief Secretary, 14/2/30.

removed the district from the list of suitable areas (Ivi)(a): Musoma DB, Vol.I). In other cases, such as Rungwe District, although cotton proved successful and desired, growing was abandoned by Government order to protect neighbouring Nyasaland from possible spread of disease. Local needs were subordinated.

There were successes, as in Maswa District, where the Acting District Officer wrote to the Provincial Commissioner to inform him that the rush to cotton market was like an English fair day, so successful in one case that the Indian buyers ran out of money in the first week (I(vi)(c): TNA, S/12951, 9/10/33). There were equally spectacular failures. The Provincial Commissioner wrote of Kasulu in 1934: "My attempt (to expand cotton) inaugurated in strife, and carried on through obstruction and distrust, ended in comparative failure." And Mbulu District Book records of the Wambugwe - the "laughing stock of the neighbourhood, the scorn of alien residents in their country and the despair of District Officers" - that of the cotton seed given to 1,500 males (the women not being allowed to cultivate by local custom) by the incoming District Officer in January 1934, less than 30% was planted, less than 25% of that produced anything and the people deliberately drove their stock through the cotton "for a change of diet."

An unfortunate side-effect of increased production was the possibility of exhaustion and erosion of the soil, but E.H. Harrison, Director of Agriculture at the start of the concerted campaign, was aware of the problem. Already, by 1930, it had been officially noted that soil erosion was menacing certain areas (Berry & Townshend, 1973, p.241). Harrison, keenly interested in the problem, then gaining international prominence, wrote treatises on conservation methods, set up demonstration plots and encouraged experiments on soil and water loss. However, lack of political will and of fully researched scientific

knowledge of particular combinations of circumstances prevented the implementation of any coherent soil conservation policy until the 1940s.

Having never fully severed its links with Tanganyika Territory after its quarrel with the Department of Agriculture and administration, it was relatively easy for the ECGC to recommence direct operations in the country when personnel changed. The ECGC was encouraged by Milligan's 1931 report that cotton prospects were very promising and Harrison was eager to cooperate - not least because his understaffed, underfunded Department needed the Corporation's resources to subsidise Mpanganya, Morogoro, Lubaga and Ukiriguru experiment stations. Over the next decades, the ECGC's input of subsidies, research and training was vital to the acceleration of cotton production and, through Kingolwira Settlement Scheme, to promotion of mixed farming as an alternative to shifting cultivation. Although only a temporary success, the Department praised the ECGC's assistance on the latter as being of greater importance than cotton yield and quality advances (I(vi)(c): TNA, S/19496, Vol.I, Memo).

Just as the Corporation was reasserting its position in Tanganyika Territory, the BCGA was withdrawing. In 1930, the Association became the target of an attack from the Acting District Officer, Kwimba, who alleged the BCGA was not paying enough for local cotton and not encouraging African cotton-growing (I(vi)(c): TNA, S/10047 Ia). Much similar antipathy towards the Association from other officials, including the Director of Agriculture, was discussed at a BCGA Executive meeting in September 1931 (I(ii)(b): BCGA/EM, 1/9/31). The result was a letter to the Colonial Office pettishly threatening to retire from the territory if they were not wanted. In November 1933, the BCGA debated selling leases on its ginneries to interested Indian clients, apparently for no finer a reason than that it disliked the new competition in the

territory. Profits had by now overridden alleged philanthropy as the essence of the Association. A year later, Sir William Himbury confirmed that the Government's granting of licences to Indians meant untenable losses to the BCGA (I(ii)(b): BCGA/CM, 6/11/34). However, although the BCGA's two ginneries in Mwanza Province were sold, and the ill-fated Biharamulo buildings and plant donated to the Government, the Association retained a supervisory role in providing two inspecting engineers (I(ii)(b): BCGA/EM, 21/8/34, 9/11/34).

The BCGA was not the only organisation to suffer from increased competition in cotton buying. The British East Africa Corporation withdrew from Tabora because of the "almost incredible" prices being paid by Indians for cotton (I(vi)(c): TNA, S/10556, 51-51), though the Provincial Commissioner complained that the BEAC hampered production by paying less than it should (I(vi)(c): TNA, S/10250, 9/10/30). And, during 1933 and 1934, the Tanganyika Cotton Company Ltd. and East Africa Cotton Company Ltd. argued about their relative merits as buyers (I(vi)(c): TNA S/10844, Vol.III).

By the early 1930s, it was clear to the administration that some form of control was needed over the increased production and expansion of buying interest. Thus, the 1933 Cotton (Amendment) Ordinance was introduced to restrict ginning to district of origin of cotton in a similar zoning scheme to Uganda's, set a minimum price for African-grown seed cotton and arrange for fair maximum ginning charges. Most of this was in the interests of established ginners and began the squeeze on middlemen who increasingly became the Government's scapegoat for all the industry's ills. Peasant interests, as usual, had low priority.

In 1927 a European-dominated Cotton Advisory Board had

been established.[1] Its remit was to advise the Government on matters concerning ginneries and cotton markets but it was unable to curb the increasing irregularities and haphazard competition of the mid 1930s, lacked the confidence of the majority of those involved in the industry and ended up unable to give disinterested advice to the administration. One of the main accusations fired against it, particularly by middlemen in the cotton buying trade who felt their interests were not represented, was that the Board's deliberations were unnecessarily secret. However, a leaked report from the Cotton Advisory Board meeting on 13th March 1935 confirmed the fears of middlemen that the Department of Agriculture intended to eliminate them from the cotton industry by the simple means of refusing reapplications for the approximately 135 cotton stores in Eastern and Lake Province whose licences were due to expire between 1935 and 1938. Without these stores and licences to trade, the middlemen would be defunct.

This led to a storm of angry signed and anonymous letters to the Government.[2] Arguments were put forward by Kimamba Cotton Stores, Eastern Province Cotton Buyers' Association and Mwanza Chamber of Commerce in an attempt to appeal to the administrations's conscience and economic sense. Kimamba Stores asserted that eliminating cotton stores would lead to a privileged, unaccomodating class of ginners, not in tune with the spirit of trusteeship. The President of Eastern Province Cotton Buyers' Association

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[1]The racial structure was alluded to in a letter from the Director of Agriculture to the Chief Secretary on 26/2/35 when he rejected the PC's recommendation for a new member - Mr. D.R. Patel, for whom the Director appeared to have high regard (vide letters in TNA, S/10844 Vol.IV) - on the grounds that it would be unwise to have a preponderance of Patels, apart from which, "Mr. D.S. Patel's mode of speech is so rapid that it is extremely difficult to follow him" (I(vi)(c): TNA, S/10047, Vol.III, 501-2).

[2]I(vi)(c): TNA, S/10844, Vol.III contains a wide selection of these, including those mentioned in this paragraph, except where other sources are cited.

condemned the Agriculture Department as anti-Indian[1] and unfeeling in its attempt to be rid of vital middlemen whose pioneering efforts, at the Government's insistence, had established the industry and been a source of inspiration to growers in adverse times. "The middleman is the backbone of the industry", there all the year round, the Cotton Buyers' Association declared in one of its numerous letters (I(vi)(c): TNA, S/19642). Mwanza Chamber of Commerce, appealing to European materialism, proclaimed that middlemen would lose capital for no good reason in an unfair, unjust move to exclude now those who had helped develop cotton-growing in the past. The Director of Agriculture was unmoved. Middlemen must be reduced to prevent malpractices (I(vi)(c): TNA, S/19642, 6/4/35, to Chief Secretary). Moreover, he declared, there was no record that his Department had ever sought their help; middlemen had not materially assisted the industry for several years, were a cause of anxiety and uncertainty to growers whom they cheated and had little to lose because their stores were often worth less than £100. Harrison summed up his position: "The middlemen's right to exist is not challenged; but his right to batten on an industry he cannot demonstrate that he serves is challenged" (I(vi)(c): TNA, S/10844 Vol.III, 12/4/35). There is no doubt that many middlemen were guilty of malpractices, just as many growers cheated when they could, but the crux circled around, but never quite broached by middlemen, was the question of the extent to which the Director was actually concerned with African cotton-growers and the extent to which he was acting on behalf of large ginning concerns.

Two years later the Director of Agriculture was equally scathing about ginners as being out for what they could get (I(vi)(c): TNA, S/10844, Vol.IV, to Chief Secretary,

[1]There was a racial division in the Tanganyika cotton industry, just as there was in other East and Central African countries and in Uganda in particular: a stratum of white administration and ginning companies, a stratum of Asian middleman as buyers and a stratum of African growers.

15/9/37). By then, the 1937 Cotton Ordinance had been promulgated, giving Departmental control over seed, quarantine, cultivation, ginning and baling, purchase of African-grown cotton, quality and hours of sale. The Ordinance permitted an assortment of further rules on growing, inspection, building, transportation and markets. The preamble asserted that enormous strides in the industry, especially by non-European growers, necessitated such intimate control by the Director of Agriculture. Three comments on the Ordinance sum up the consensus of feeling against it. The first, handwritten in red ink on the draft copy of the bill, muses: "Stalin Hitler and Mussolini would be enthusiastic. This is indeed state control vested in a dictator or his nominee" (I(vi)(c): TNA, S/24312). The second rejects the "vast and arbitrary" powers given to the Director of Agriculture, berates the Government for breaking faith with non-native growers by putting Native authorities over the heads of Indian and European cotton buyers and declares the bill "a hasty and unconsidered piece of work which will have the effect of discouraging rather than encouraging the cotton industry" (Tanganyika Opinion, 26/4/37). The third, from F. Leslie Orme in Liverpool to the Director of Agriculture, asserts that as a result of the price differential between native and non-native cotton, the African grower is in effect paying part of the cost of processing non-African cotton (I(vi)(c): TNA, S/10844 Vol.IV, 22/7/37).[1]

By the end of the 1930s, the cotton industry was well established, though the two major producing areas had limitations. The Eastern and Southern Provinces were regarded as agriculturally more suitable for cotton but production was said, in typically colonial fashion, to be limited by less industrious people, with wider employment choices anyway. The Lake Province, which provided the

[1]See end of previous chapter for the situation half a century later in Malawi, where the small grower ends up supporting the estate sector.

bulk of export cotton, was beginning to suffer from overcrowding and falling fertility with a lack of water supplies and tsetse infestation inhibiting spread into other areas. In a general comment on the future of cotton-growing, the Director of Agriculture decided that high, as well as low, producer prices retarded production.[1] To overcome this, it was going to be necessary to provide merchandise to take advantage of potential earnings from cotton.[2] As Harrison put it in Tanganyika Territory's 1934 Annual Report: "Agricultural problems are not altogether agricultural."

6.4 COTTON-GROWING IN TANGANYIKA TERRITORY, 1939-1961, FROM WORLD WAR TO INDEPENDENCE.

> "We have all got to think of our colonies as estates, which if left undeveloped would leave the inhabitants on a miserable bare subsistence standard of living."
> (A.J. Wakefield, Director of Agriculture, July 1940, in I(iv)(h): 14/P10.)

High production in 1941 of 72,766 bales of cotton was followed by a mediocre average of 47,000 bales a year until 1954 when the number of bales doubled from the previous year.[3] Production continued to increase throughout the 1950s, breaking the 200,000 bale barrier in 1959. Thus, Tanganyika played a useful part in satisfying Britain's post-war requirement for cotton. A memo from the Colonial Office on 9th December 1950 to officers administering Kenya, Nyasaland, Tanganyika,

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[1] Ormsby-Gore had expressed a contrary view on price stimulus on West African oil palm production, regarding high prices as an incentive to increase production but, paradoxically, also seeing low prices as motivation because more had to be produced to achieve the same financial gain as before (quoted in Tanganyika Territory Department of Agriculture Monthly Letter for November 1926).

[2] Wood, the first ECGC cotton specialist in the country, had disparagingly noted the problem of lack of incentive in his 1924 report (p.35): "Left to himself, the native, who has, in general, little knowledge of currency or the meaning of prices, would be content to cultivate, or rather to get his womenfolk to cultivate, his "shamba", or little holding, with his ordinary food crops, exchanging any surplus with the local Indian or Arab trader for a piece of cloth or the blade of a hoe."

[3] Appendix VI, Table 49 details these figures, with similar statistics in Table 22.

Uganda and Nigeria explained the serious position in the UK following the United States' new strict export control. "Though no publicity must be given to this fact," the CO explained that unemployment in Lancashire seemed inevitable. To combat this, the colonies were asked to make export of cotton a priority (I(vi)(c): TNA, S/10844, Vol.VI), to honour their duty to the metropole.

As was the case in Malawi, the colonial government intervened as buyer when internal cotton markets collapsed during the Second World War as a result of shipping shortages and restricted overseas markets.[1] When the Raw Cotton Commission (RCC) became the sole importer of cotton to the UK in 1941, the Tanganyikan Government bought on behalf of it until the formation of the Lint and Seed Marketing Board in 1952. For geographical reasons, the Lake Province crop was marketed through the Uganda Lint Marketing Board. Unlike sisal, cotton was not regarded as an essential product during the war,[2] so plantation work and food production took precedence over cotton-growing. Cotton farmer income was very low as a result. In 1941, for example, an acre of cotton gave 15/- for the year, but taxes were 10/- a year (Bowles, 1979). Under the May 1942 Defence Regulations, Native Authorities had control over what crops were to be grown, thus limiting peasant choice and giving a fore-taste of the further imposition of external decision-making through a series of rules, 1945-57, designed to promote rural change but which hit at the economic and social roots of life (Iliffe, 1970, pp.3-6).

The BCGA and ECGC continued to operate during the war. With peculiarly short memory, in acceding to the Tanganyika Government's request for engineers, the Chairman of the BCGA remarked that "a particular feature

[1]Profits made by the Government in war-time cotton marketing were placed in an Agricultural Development Fund.

[2]Tanganyikan cotton was not essential because the US had surpluses which were two hundred times the size of Tanganyika's annual production in the 1930s (Bowles, 1979, p.167).

of the Government of Tanganyika was that they were very appreciative of what the Association was doing to help the cotton industry there ... the Government had never been lacking in appreciation of anything done for them" (I(ii)(b): BCGA/EM, 26/3/40). The Corporation's main effort was in seconding staff to relieve Department of Agriculture officers for more essential agricultural work. However, ECGC cotton work had its own importance in aiming at high jassid resistance and improved ginning percentage in its breeding programme and in ensuring that cotton was part of a farming scheme in its more general agronomic programme (Peat, 1946).[1]

The post-war period was dominated by Orders and Schemes, many of which affected cotton production, and by the flowering of Cooperative Societies in Lake Province. In 1946 and 1947 there was a rash of Native Authority orders, designed to increase export growth or as conservation measures. Thus, instructions were given to plant certain acreages of cotton a year, to tie-ridge, and to uproot and burn cotton residues. The most wide-ranging and radical plan, as far as cotton was concerned, was the Sukumaland Development Scheme (SDS) with its component Sukumaland Cotton Development Project, one of eleven schemes to deal with "problem areas".[2]

"A qualified success" (Fuggles-Couchman, 1964), a "costly failure" (McCall, Ph.D., 1980, p.233), a success only in so far as it "coincided with African drives towards capitalism and colonisation" (Iliffe, 1979, p.474) and "the cause of the incessant famines because the people ... forgot food crops. When they got the money from the sale of cotton they spent it on beer drinking" (interview with Mzee Ngoka in Manyanda, M.A., 1974, p.88) are some of the comments made retrospectively on the Sukumaland Scheme.

[1] See Chapter 3, Section 3.4.2 for further discussion of the ECGC in Tanganyika during this period.
[2] The University of Oxford Development Records Project's Aide Memoire. The Development of Sukumaland contains comments on the scheme by Colonial Service officers and wives in Sukumaland at the time: more "vox pop" than rigorous analysis, most of the reminiscences are disappointingly barren.

The Tanganyika Territory Annual Report for 1947 summarised the aims of SDS as being, firstly, to redistribute stock and human population and, secondly, to accelerate the adoption of improved methods of husbandry in a balanced system of mixed farming in order to increase productivity. The first objective was met by clearing bush and providing water supplies in previously unoccupied parts of Geita, Maswa and Shinyanga districts for the overspill from overcrowded Mwanza and Kwimba districts. Financed in part by Government cotton sales profits, this land reclamation component of the scheme was popular. However, the second objective was not fully met. There were efforts at soil and water conservation, but overstocking remained a problem. Evidence from experiments at Ukiriguru, Lake Province, showed the value of manuring and tie-ridging (I(iv)(b): ECGC/AR 1949-50), and the new UK46 variety proved superior to its predecessors in yield and disease resistance (I(iv)(b): ECGC/AR 1952-53); but cotton yields did not increase as expected. Above all, the mass of enforcement orders antagonised the population and fuelled resistance to rules, regulations and taxes.

It was the implementation of N.V. Rounce's sentiments,[1] that "the African will have to be compelled to help himself" (quoted in Maguire, 1969, p.28), that caused so much local dissatisfaction with the Scheme. The Department of Agriculture and administration were in theory against compulsion to grow economic crops, except in very special circumstances, as noted in the territory's Annual Report 1948; but the SDS was marked by orders and restrictions on every aspect of agricultural life. The restrictive legislation was eventually abandoned in November 1958 in the face of civil disobedience, much of it spurred on by TANU political activists, not as devastating as the Maji Maji rebellion half a century before but motivated by the same hatred of foreign intervention in social and economic life. As the Agriculture

[1]Rounce was Senior Agricultural Officer at Mwanza.

Department Annual Report for 1958 sedately put it: "There has been strong reaction in Sukumaland and in some other parts of the territory against Native Authority natural resource rules and regulations."

The Sukumaland smallholder reacted much more favourably to more subtle persuasion through credit facilities, spread of innovation through extension workers and demonstration, directed research, cooperatives and, above all, increased prices.[1] The Department of Agriculture's "focal point" approach took over, with its emphasis on trying to nurture a few "master farmers" (Bowles, 1979; McCall, Ph.D., 1980), viewed cynically by some, such as Iliffe, as a hasty attempt to develop a class of wealthy farmers to stabilise rural areas. The attention given to this small, elite group soon became a bone of contention.

Although cooperatives had begun decades earlier in the coffee industry and the first Cooperatives Ordinance had been passed in 1932, it was not until the 1950s that the cooperative movement became important in the cotton industry and in Sukumaland.[2] This was surprisingly late, especially given the structure of Sukuma society which was well accustomed to cooperative effort in labour organisation. The name most closely associated with cooperatives in the Lake Victoria region is Paul Bomani.[3] First employed in 1947 as Treasurer-Accountant of Mwanza African Traders Cooperative Society (MATCS), Bomani became Secretary in 1949 after revealing forgeries and illegalities in its operations. He directed the cooperative's attention towards cotton marketing to provide an alternative to the Asian monopoly buying system, against which complaints of exploitation and cheating were continually made. By 1952, MATCS's

[1] See, for example, the increases in production following cotton price rises in 1951, 1952 and 1954, as detailed in Appendix VI, Table 49.

[2] Maguire (1969) is an excellent source of information on the cooperative movement in Sukumaland.

[3] Bomani was nominated to the Legislative Council in 1954 and went on to become an M.P. and Minister after independence.

interests were almost entirely in cotton. It eventually took over from the village groups' watch-dog committees which had hired or bought scales to check cotton buyers' activities in the battle for a fair deal. In 1953, 38 Lake Province primary cooperative societies handled 13% of the cotton crop. Bomani brought primary groups together in Lake Province Growers' Association, gaining full recognition from the Government Cooperative Department with the formation of Victoria Federation of Cooperative Unions (VFCU) in 1955. From 1959, the VFCU, reputedly the largest cooperative union in Africa, was granted monopoly rights on seed cotton purchases and handled the entire crop through 250 primary societies. The first VFCU ginnery was opened in 1956; and, by 1965, 65% of the crop was ginned by VFCU - a remarkable achievement.

The cooperative movement ended up with three tiers. Primary cooperatives collected seed cotton, graded it, paid growers and delivered cotton to the ginneries. Secondary cooperatives arranged for bags, transport and supervision of the primary societies. And the VFCU was at the apex as policy-maker and owner of ginneries. Both primary and secondary societies were paid a service charge per pound of cotton handled. Ostensibly economic in activity, the cooperative movement could not fail to be political in drawing attention to the plight in which the masses of cotton growers had been placed, victims of flagrant cheating by Asian buyers and of European neglect - the bottom of the racial heap. However, the cooperatives were not without critics, particularly of their increasing "bureaucratization", corruption and staffing problems. It was not long before they were seen by many as just another paid instrument of Government policy.

During the 1940s and 1950s, attempts were made to restore vigour to the cotton-growing industry in Eastern Province,

but to little avail.[1] Impetus was given by a new improved strain of cotton produced at Ilonga Research Station and by improved prices.[2] But, despite the plea for increased supplies by the Governor, Sir Edward Twining, in a speech at Kilosa in 1951 - "for the sake of our country Tanganyika and for the sake of the Empire of which we are a part as that Empire needs Empire cotton" - and his attempt to shame growers by suggesting that their drinking habits had made them inefficient and lazy, production remained fairly static until 1957 (I(vi)(c): TNA, S/10844, Vol.VI). Production rose in 1957 and Hutchinson regarded Eastern Province as "most promising of the small producers" if insecticides against bollworm, a jassid resistant variety, early planting and good cultivation continued to be used (1958, p.373).

Marketing underwent major changes in the 1950s. In 1950, with the termination of the Raw Cotton Commission's long-term contract to buy Tanganyikan cotton and the resultant necessity to negotiate sales in a highly competitive market, it was necessary to restructure the industry. Thus, the Lint and Seed Marketing Board (LSMB) came into being under the Lint and Seed Marketing Ordinance of 1952. It operated through and was advised by the Lake Province Cotton Committee (set up in 1949 and taken over by South East Lake County Council in 1955) and by Eastern Province Cotton Committee (set up in 1950 and replaced by an Advisory Committee in 1959).[3] The LSMB took over from the Government all responsibility for the cotton industry. It became the duty of the Board to buy all cotton lint and

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[1] See Appendix VI, Table 49 for Eastern Province's relatively poor record.

[2] A particular bugbear in Eastern Province had been that non-native cotton was treated more favourably than African-grown, in that the former did not have to be graded and received higher prices. The administration's argument was that economies of scale meant a better return could be given to plantation cotton. This unfairness was corrected in 1951.

[3] The work and objectives of the Cotton Committees were to improve methods of husbandry, preserve soil fertility and to ensure the producer had confidence in marketing.

seed from ginners,[1] to sell it,[2] provide services of value to the industry, hold profits on behalf of producers in a price stabilisation fund and generally promote the industry (I(x)(b): Tanganyika Territory, LSMB, 1954). The LSMB also helped to bolster up Britain's sterling balances by investing its large 1953 and 1954 profits in the UK (Bowles, 1979, p.16). The Korean War boom had helped create these profits and the £4.7 million gained in 1955. Reserves were later used for price subsidies.

Kriesel *et al* (1970, p.47), in common with most commentators, praise the LSMB as the most efficiently run of all major marketing boards, but a few have found various aspects to criticise. Lavish expenditure, on offices and on expatriate staff, has been resented by some. Malima (Ph.D., 1971, p.94), for example, writes of an expatriate LSMB employee who was alleged to have had sufficient home leave baggage allowances "to ship stones from Tanzania to Britain to be able to build a stone house in Britain at the end of his ten year contract." Almost certainly an exaggeration, this story, nevertheless, is indicative of the resentment which built up in some circles against more than adequately recompensed parastatal employees.

A Cotton Ordinance in 1955 established a Cotton Board of independent persons to set formulae for prices. The Ordinance also detailed the duties of the Department of Agriculture with respect to cotton production, amongst which were to distribute seed, coordinate and conduct research, encourage and advise growers, and enforce burning and uprooting regulations.

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[1] A Committee of Inquiry to examine the basis of ginners' costs and remuneration found in 1953 that the then current price formula should continue in use with ginners' remuneration fixed at 8 cents/lb. Ginners bought, at prices set by the Director of Agriculture prior to planting, at zoned markets, gazetted under Cotton Ordinances, to which growers brought headloads of cotton. Cooperative societies later took over collection and bagging of cotton.

[2] The LSMB usually sold at periodical auctions but also, on occasion, entered into private treaties or sold by tender.

In 1959, a major Report on the Cotton Industry in Tanganyika was commissioned from Cooper Brothers.[1] Their remit was to review the organisation and economics of the cotton industry. The massive volume detailed the structure fairly uncritically, though it did conclude that the ginnery formula had not been an incentive to efficiency or to economy in costs,[2] that ginners should be free to arrange their own affairs, that there should be a negotiated price for each grade of cotton at which the LSMB would purchase from ginners and that the Cotton Board should be disbanded and reconstituted as a tribunal. It was not in the terms of reference to take into account the political desires of African growers to have a greater say in the industry, so this was not tackled.

From 1954 cotton production soared in Lake Province, with much of the credit for this due to ECGC seed issues, seed dressing and farming improvements (including tie-ridging[3] and early planting and weeding[4]), in addition to increased acreage.[5] Peat, ECGC officer, commented in 1955 that a major breakthrough in ECGC breeding work at Ukiriguru had come with finding strains that were suited both to good conditions on the Research Station and to poorer conditions in surrounding areas (I(iv)(a): CRC/SAC Mins., 22/7/55). Hutchinson noted that, by 1958, the improved seed had proved to have higher yield potential, jassid resistance, bacterial blight resistance, yet had not lost

[1] Copy of report consulted in I(vi)(b): TNA, 215/665/Vol.V.

[2] From 1960, there was negotiation between VFCU and Lake Province Ginners' Association to establish fair ginning prices, but the IBRD report of 1961 noted that these were then in deadlock.

[3] It is interesting to note that there was not in much of Sukumaland the antipathy to ordinary ridging found in parts of Nyasaland. Ridge cultivation had long been customary in Sukumaland, though laid up and down the hill rather than across it. Tie-ridging, however, was not previously practised and when no longer compulsory it tended to be dropped as being too labour-intensive at the busiest time of the year. In a survey in Geita District, Uchendu & Anthony (1974, p.63) reported that 100% of a sample of 60 farmers were aware of the practice but only one actually carried it out.

[4] Hankins (Ph.D., 1974) managed to write an entire thesis on the topic of early planting and came to the conclusion that, though experiments have confirmed a correlation between planting date and yield of cotton grown under ideal conditions, there seems no reason to continue to encourage farmers to plant early for the simple reason that few plant late !

[5] The IBRD (1967) Report later criticised the Government for pursuing two incompatible aims of intensification of cotton production on existing land and opening up new land when Sukumaland social organisation was geared towards population mobility and expansion (p.76).

the length and fineness of staple of previous varieties (1958, p.373).[1]

However, the IBRD reports cast a worried glance at the hidden cost of improved yield: "Increased cotton production has thus been mainly achieved at the expense of soil fertility in the new areas, which are steadily deteriorating towards the overcrowded and worn-out condition of central Sukumaland" (1961, p.367). And Rotenham (1968, pp.80-81) drew attention to the vicious cycle which cotton expansion had set in motion in Sukumaland.[2] Land used for cotton reduced the grazing area; profits from cotton were used to buy more cattle, which led to higher grazing density, additional erosion damage and lower performance per animal, creating a need for more cotton to be grown to produce cash for more cattle. Thus, the man/land equilibrium of the old shifting cultivation system was destroyed. Cattle treated as prestige items, and used instead of banks, aggravated the erosion situation, already in danger because of increased population pressure and intensive farming methods.

The market for Tanganyikan cotton changed substantially between 1940 and 1960. The loss of the Japanese market was compensated by increased quantities bought by India and West Germany. The UK market decreased to the extent that only 3% of the total was taken by Britain in 1960.[3]

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[1] Brown, commenting on the 5 multi-line seed issues being worked on, noted that the original "Mwanza Local" seed on which research and selection work had been started at Ukiriguru in 1939 was a heterogenous mixture resulting from introductions made since the beginning of the century. He reckoned that by the 1950s the cotton industry was producing £1.5 million greater value per annum than if no improvement had been made.

[2] Ruthenberg (1976) gives a similar analysis. See Chapter 4, p.191, footnote 1.

[3] Tanganyika Territory ARs give the values of markets in £'000s. In 1960, the percentages by value to various markets were:- UK 3%; India 23%; South Africa 1%; West Germany 16%; Netherlands 7%; Belgium 4%.

6.5 TANZANIAN COTTON-GROWING SINCE INDEPENDENCE

> "All of our farmers are in areas which can produce two or three or even more ... food and cash crops ... And because the main aim of development is to get more food, and more money for our other needs, our purpose must be to increase production of these agricultural crops."
>
> (Julius K. Nyerere, The Arusha Declaration, 1967)

At independence in late 1961, the Tanzanian economy was dominated by agriculture which provided 40% of the GDP and 80% of exports. Crop production was mainly by peasants using simple implements on small plots. Cotton, produced entirely by smallholders, was one of the top three export crops.

Complaints about quality dogged the early post-independence years.[1] However, Tanzanian cotton, purchased by 22 countries with Hong Kong the largest consumer (Bellamy, 1963),[2] continued to thrive throughout the 1960s and into the 1970s, before production started to decline.[3] From an estimated 310 lbs seed cotton per acre in 1949/50, average yields of 492 lbs an acre were recorded from Sukumaland farmers in the late 1960s. The ECGC attributed this to more advanced farming methods and to cooperation between research staff, Marketing Board officials, agricultural officers, extension workers and farmers (I(iv)(b): CRC/AR 1967). Certainly, the Corporation's research work at Ukiriguru and Ilonga played a major part in sustaining and improving yields, even though farmers often get only about 30% of experiment

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[1] For example, I(vi)(b): TNA 215/665, Vol.V contains a letter from the Assistant Secretary of the LSMB to VFCU Ltd., dated 5/9/62, complaining of poor grading and lower quality which is attributed to the lack of care in the larger 5-10 acre fields becoming more common.

[2] Hong Kong was a major foreign market from the mid 1950s. In order to benefit from Empire preference in the UK market, Hong Kong textiles had to include at least 25% of raw cotton from Empire sources (Porter, 1970).

[3] See Appendix VI, Tables 49 and 22. Cotton became first placed export in 1966 (Lele, 1975).

station yields.[1]

However, despite the increased production, the real income of cotton growers in Tanzania fell substantially from 1963 to 1983.[2] Taking 1963 to have an index of 100, the index in 1983 was 57, nearly halved.[3] The real producer price indices for cotton almost quartered between 1963 and 1983 (Bryceson, 1986, p.14); and the export volume, apart from an increase in 1976, fell from 1975 to 1984 (Bryceson, 1986, p.17).[4]

The declining situation in the cotton-growing industry was part of an overall economic crisis. The balance of trade began to deteriorate from 1973; and, from 1978, the Tanzanian economy was dominated by a chronic, large trade deficit (Stewart, 1985, pp.13-14). The 36.2% reduction in marketed production of cotton from 1970 to 1982 (extrapolated from Stewart, 1985, p.26, Table 2.8) added to the crisis which threatened every sector of life. In searching for reasons for the reduction in cotton production at this time, economists and agriculturalists have put forward many suggestions, including the weather (the usual culprit cited, but, in this case, referring particularly to drought years in 1973-74 and 1979-80), villagisation, closing of cooperative societies and the LSMB, low level of development expenditure on agriculture (about 15%), ineffective extension services, transport

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[1]Despite the lower yields outside research and experiment fields, Ukiriguru Resarch Note No. 10, cited by Malima (Ph.D., 1971 p.56), reckons that about 30% of increased yields can be attributed to the work of research stations.

[2]See Appendix VI, Table 50 for further detail.

[3]This assumes that 40% of farmer income is from subsistence production, all the rest from cotton.

[4]Taking 1963=100, the export volumes for subsequent years were:-

1974	101	1977	83	1980	65	1983	82
1975	78	1978	96	1981	91	1984	56
1976	113	1979	64	1982	79		

network in disrepair, limited fuel supply,[1] shortage of spare parts for lorries and tractors and a lack of incentives to grow crops for sale. None on its own would explain the depressed situation. Together, they presented insurmountable odds.

Returning to the beginning of the post independence era, although the 1960s were good years for cotton, there were localised failures even then. Results were poor from the Eastern cotton growing areas of Kilosa and Morogoro, where better paid alternatives (only 15% of growers were satisfied with price in a survey) and lack of labour led to stagnation (Minde, M.Sc., 1979). There was also failure in the Western cotton growing zone in 1963, when the Government provided 160 tractors to VFCU to service a cotton block farm scheme which hinged on centralised tractor facilities (Lele, 1975, p.35). Mismanagement and inability to work enough land led to disaster. At the end of the first season, compared to farmer returns outside the scheme, yields were three times less per acre at a cost six times higher per acre on the block farms. The crop continued to do best in the Western cotton growing area, at a small-scale family level, hoe-cultivated on 1-4 acres. For a few years peasant cotton-growing appeared to be making a worthy contribution to two of the objectives sought in the Arusha Declaration: expansion of the foreign exchange earning role of the agricultural sector and increasing rural incomes. Since 1968, there have also been four local textile mills - Tasini, Kilimanjaro, Friendship and Mwanza - to absorb at least 10% of the output.

A feature of the 1960s was the effort put into research

[1] Daily News, 2/11/84, p5, carried a report on the lack of diesel and industrial oil for lorries, tractors and ginneries, which had brought the cotton industry to a standstill. Of the 75,000 litres of fuel needed each week for the Tanzania Cotton Authority to move the crop, only 20,000 litres was being provided. The result was painfully obvious: cotton rotting in yards and an extreme shortage of cloth in the country. Ironically, a new mill to produce cotton-polyester fabrics had recently been commissioned at Morogoro.

and extension work. Ruthenberg (1964, pp.172-3) believed that yields could be doubled from the late 1950s by correct spacing, early planting, early thinning and timely weeding, fertilising, tie-ridging and complete picking. These and other recommendations emanated mainly from the work of the ECGC/CRC at Ukiriguru and Ilonga. Peat and Brown (I(iv)(h): 1960, 14/P34) concluded that tie-ridging increased yields and controlled erosion, while timely planting and early weeding were most important of other cultural practices. Le Mare (III, 1969) advised that, while the use of fertilisers was not a substitute for good farming, their careful use could be effective where standards of crop husbandry were high.[1] Spence and Smithson (III, 1966) warned of the dangers of planting too early, leading to reaping when it was still wet, but pointed out the high yields of 1,300 and 2,000 lbs of seed cotton an acre under test conditions using recommended practices including early planting.

Putting the research into practice, however, was another matter entirely. Berry and Townshend (1973, p.245) quote Conyers' 1971 study which demonstrated there were 200 different agricultural systems in use in Tanzania at that time, so, clearly, blanket recommendations would not necessarily produce the desired results. In Sukumaland, there were many variations but at least two major cotton-growing systems in operation. In the hills and more populated areas, split ridges were remade each year; and in more sparsely populated Maswa and Shinyanga, seed was sown on the flat, with preparation by plough and tractor. Collinson, based at Ukiriguru, conducted many farm surveys to supply sociological, economic and agricultural detail for extension advisers and research workers to enable farmers' needs and capabilities to be assessed and served more accurately.

[1]Use of fertilisers needed careful advice and monitoring. A little knowledge was often dangerous. Agricultural workers in the Western cotton growing area, and no doubt elsewhere, found that there was a belief that if a little fertiliser did a little good for one crop, then a lot would do even more for others, which was seldom the case.

Even when the needs of areas were carefully defined there were two major impediments to recommendations being put into practice. The first, pointed out by Bowers (III, n.d., p.9), was that there was "so much unused capacity for increasing cotton production in the traditional system that improved practices were not necessary for a modest rise in standard of living." The amount of unused capacity was not great in many cases, but the financial incentives for extra inputs were not adequate enough to encourage a change in agricultural method. Secondly, as suggested by Keregero, De Vries and Bartlett (1977, pp.13-13), amongst others, "Cotton growers may resist adopting extension recommendations because they are inappropriate to their situation." It is often the case that new practices are too labour-intensive at the busiest time of the agricultural year.

Important features of the 1970s were decentralisation of Government administration with the formation of Regional and District Development Directorates, the launch of villagisation,[1] a change in the marketing system and the start of a strenuous Government and TANU campaign to improve cotton quality and quantity, with the emphasis on fertilisers and insecticides rather than on increased acreage (Daily News, Mwanza supplement, 28/6/72). However, as noted earlier, production fell.

In 1974-75 the World Bank Geita Cotton Project to increase cotton output was launched. By 1978, it was exceedingly unpopular because of enforcement of regulations and concentration on a few chosen groups of supposedly

[1]There have been several attempts at what might be termed "villagisation" in Tanzania. Before independence, scattered homesteads was the usual rural settlement pattern, though the British administration favoured nucleated settlements large enough to act as a focus for services and control. Between 1963 and 1965 about 40 supervised, badly-planned and over-capitalised settlement schemes were established. Then, between 1967 and 1973, there was induced, organised settlement to create *ujamaa* villages, as described in the Arusha Declaration and 'Socialism and Rural Development' policy booklet (both in Nyerere, 1968). A new phase was entered with Nyerere's statement at the 1973 TANU National Conference: "to live in villages is an order". It is this enforced villagisation, which ultimately proved unsuccessful in practice, that dominated the 1970s.

"progressive" farmers (McCall, Ph.D., 1980, p.250). Indeed, despite the pervading ideology of decentralisation and self-reliance, the 1970s were marked by coercion and compulsion. In Morogoro District in 1977-78, seventeen farmers in Doma Village were sentenced to three months imprisonment with hard labour for refusing to cultivate the one acre of cotton required (Minde, M.Sc., 1979, p.106). Moreover, Minde noted that nearly 60% of cotton-growers in Morogoro Region had stopped and restarted cotton growing because of fear of imprisonment. Ingle (1970, pp.84-85) suggested that records and village surveys show that the use of force to secure participation in development projects is expected and legitimate; but the reaction of peasants to villagisation suggests this is far from welcomed. Although within a few years, economic and ecological factors had resulted in a reversal of the policy, by the end of 1976, 90% of Tanzanians were in *ujamaa* or development villages. This had been achieved only in the face of considerable passive and some active resistance, with a widening rift between peasants and TANU in many areas.

The Government also intervened to change the marketing system. Cooperatives were greatly encouraged immediately after independence and, though the 1966 'Report of the Presidential Special Committee of Enquiry into Cooperative Movement and Marketing Boards' found widespread discontent with their affairs, the VFCU was transformed into Nyanza Cooperative Union with increased functions. However, in the 1970s, weaknesses in management, transport organisation and storage facilities worsened. In 1975, the decision was taken to abolish cooperative unions. Villages became multipurpose cooperative societies under the Village and Ujamaa Villages Act of 1975 and crop parastatal organisations were to handle marketing.

Cotton cooperatives had already been undermined by the Tanzania Cotton Authority (TCA), established in 1973 to

replace the LSMB. TCA differed from LSMB in that it was empowered to open up its own farms, with eight established by the end of 1976. The TCA's remit was otherwise familiar from the functions of cooperative societies and the LSMB: to ensure quick and efficient purchase and transportation of the cotton crop, provide farm inputs and run educational campaigns. Using meetings, cinema shows, radio, newspapers, posters, booklets and demonstration farms, TCA advised farmers to plant early, space correctly, use 5 seeds to a hole, thin and weed timeously, fertilise, use insecticide spray, pick at the right time, grade properly and, finally, uproot and burn. However, there were weaknesses in the parastatal marketing institutions and they found themselves unable to cope with transport, storage and processing (Stewart, 1985, p.46). The TCA was the largest of them all, but deteriorating international terms of trade and reduced marketing margins, worsened by the abolition of export taxes in the early 1980s, led to a TCA overdraft of 1,468 million Tanzanian shillings in November 1982 (Stewart, 1985, p.82).

The National Economic Survival Plan 1981 and Structural Adjustment Plan 1982 attempted to tackle the deteriorating financial position of the country. Laws to bring back cooperatives, rationalisation of crop authorities, attention to pricing policy, ackowledgement of the vital nature of smallholders and a new Agricultural Policy were all initiated (III, Rugumisa, 1986). The BCGA was commissioned to conduct a Tanzania Cotton Industry Rehabilitation Survey in 1982; and, following the 1983-84 Budget, devaluation of the shilling increased agricultural producer prices. Soon, Crop Authorities, including TCA, were replaced by Crop Boards and cooperatives were reestablished, with greater Party (now Chama cha Mapinduzi (CCM)) involvement.

Tanzania in the 1990s is still battling against economic

and ecological odds to raise total production in exports and food crops. Cotton is a peasant-grown crop in thirteen of the twenty-five regions (Daily News, 29/8/88, p.4); and the country still needs as much as can be produced for foreign exchange and for her own textile mills. The time for enforcement, which has been a feature of the history of cotton-growing in Tanzania since German times, has long passed but keen producer prices, coupled with adequate research and extension advice, will help to make the crop an attractive choice for smallholders looking to improve their income and status. But, above all, the transport and administrative infrastructure must be nurtured to avoid repeats of the untenable position of the 1980s when so much cotton was left unpicked or rotting and the Daily News reported, on 2nd November 1984, that the TCA owed transporters 8.4 million shillings and peasants 15.4 million shillings.

CHAPTER 7

DRAWING THE THREADS TOGETHER: SUMMARY AND CONCLUSIONS

"History is a tangled skein ..."
(Henry Adams)[1]

7.1 RÉSUMÉ

The Rise of King Cotton.[2]

Cotton is the world's premier vegetable fibre and has valuable by-products. Early British attempts to create alternative commercial sources of cotton in Africa, fuelled by humanitarian and economic interests, failed. By the mid 19th century, America was supplying 80% of Britain's raw cotton needs, a dangerous dependence felt even before the American Civil War caused the first great "Cotton Famine". "The sun never sets upon the cotton soils of British territory"[3] was the belief that inspired the Cotton Supply Association (CSA) (1857-72), but the CSA had achieved no permanent success in its raw material search before cheap, abundant cotton from America bred complacency once more.

However, at the end of the 19th century, high prices and short supply, resulting from boll weevil depredations, competition from other countries and crops, speculation and shortage of US plantation labour, created panic. In tune with the era of "new imperialism", manufacturers looked to Africa again.

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[1] From The Education of Henry Adams (1907, p.30).
[2] Detailed in Chapter 1, pp.1-32.
[3] Cotton Supply Reporter, 15/1/1861.

The British Cotton Growing Association.[1]

The BCGA was established in 1902 to supply Lancashire by extending cotton-growing. There was a lack of coherence in its attitudes and actions, clearly contradictory and inconsistent in many areas. Yet, the BCGA still operates today. Compared to the short-lived Cotton Supply Association, this longevity is attributed to the wider support it attracted in its early years, foundation at a time of interest in imperial development and more active involvement in prospective cotton-growing countries, mainly in Africa.

Early BCGA operations included lobbying for better transport facilities, sending "experts" to advise on cotton cultivation and forging strong relationships with the Colonial Office (CO) and colonial administrators. Its early insistence that cotton was "a black man's crop" was not matched by its divergent actions, often in cooperation with local trading concerns and administrations, in giving white planters advances to encourage cotton production. The Association incurred heavy losses on its loan account and on investments in cotton plantation companies.

Connected problems dominated the BCGA in its early years. The first was a lack of financial security. Lancashire was slower than expected in fulfilling its promises of practical support. Also, BCGA repeatedly had to prepare strong economic and moral cases to persuade the British Government to give capital support for potential imperial, colonial and domestic benefits. The dichotomous, "semi-philanthropic, semi-commercial" nature of BCGA also created difficulties. This was used to advantage to gain privileged treatment from the CO and colonial governments. However, it meant the organisation had to compete with fully commercial concerns when the cotton market was booming while taking risks and acting in a supportive

[1]Detailed in Chapter 2, pp.33-121.

capacity when flagging markets caused commercial firms to withdraw. BCGA officials continually complained about this self-inflicted ambivalence. The organisation seemed unable to decide which role would best suit its own ends. Should it go fully commercial and compete for profits in the market-place ? Or should it concentrate on laying foundations for future benefit by claiming to be working solely in the interests of planters, smallholders, local governments, British Government or Lancashire industrialists (the beneficiary in accordance with whichever group it was seeking to impress) ? It is hard to escape the conclusion that BCGA tried to be "all things to all men". Not surprisingly, it was periodically suspected of being two-faced. The resolution of these problems and contradictions began in the 1920s when the BCGA became successful as a cotton buyer and ginner. It was not until 1936, however, that dividends were paid and that the BCGA began to emerge as a fully commercial organisation. Earlier, it was loath to forfeit its "philanthropic" appeal to the CO and colonial governments.

To its own ultimate benefit, the Association was successful in increasing cotton-growing and production. It maintained demand for African cottons in Lancashire, after initial difficulty in persuading buyers of its suitability. It increased local government revenue and prospects by entering into controversial buying agreements (as in Nyasaland) and supported smallholder cotton-growing when more commercial concerns pulled out. However, contraction of the British cotton industry after the First World War, with loss of export markets to India and Japan, was never reversed. BCGA was unable to remedy this and accepted Japanese and Indian buying competition philosophically: buyers would be diminishing the American supply if they were not taking the African harvest. After the Second World War, particularly from the 1952 world textile recession, the British textile manufacturing situation deteriorated. There was added competition for

raw materials and in finished products from local African spinning and weaving operations. Although BCGA continued to profit from post-independence African cotton, this was mainly from ginning operations and was not reflected in any improvement in the British textile industry it had set out to maintain.

The Empire Cotton Growing Corporation.[1]

Born in 1921 out of the troubled cotton supply situation at the end of the previous decade, the ECGC's remit was similar to the BCGA's - to extend and promote cotton cultivation. Its methods, however, were educational and scientific, leaving the commercial work to the BCGA; and its finances were considerably more secure, with nearly £1 million of public funds and a levy on cotton invoices.

The ECGC had no altruism *versus* profits clash. It was non-profit-making but made no claims to altruism. When its cotton industry support ended in 1957, finances from overseas governments supplemented its income and, by the late 1960s, its declared function was to aid overseas countries. Its capital consumed, the Corporation reluctantly wound up in 1976.

The Corporation's major areas of activity were in education, publications, as a transport lobby, providing studentships and grants, sending experts to advise in cotton-growing countries and, above all, in science and research. Its workers and experiment stations created a model for commodity-based research, although the Corporation stressed, with particular fervour rather belatedly in 1973, that cotton must fit into rural patterns.

The Corporation played an important role in African

[1]Detailed in Chapter 3, pp.122-179.

agriculture. In Malawi, it maintained a good relationship with the Department of Agriculture; in Tanzania, it had a more volatile one. In most aspects, the Corporation fulfilled its remit well, doing much to increase cotton production in East and Central Africa. Historically, though, ECGC operations had the character of expertise from on high, not to be challenged by African peasants who were generally assumed to be incapable of forming fully rational views of their own. However, crop research and breeding work is never-ending. There is no perfect and final solution. It remains to be seen whether governments are willing to devote adequate funds to Agriculture Departments to continue and improve on the Corporation's job.

The Economic and Agricultural Situation in British Territories in Africa.[1]

In the colonial-metropolitan exchange, Britain required both raw materials and overseas markets for its manufactures, thus retaining in the metropolis more value-added activity and the benefits of multiple back-linkages. Colonial governments, therefore, were required to stimulate peasant cash needs, just as their obligation to make colonial state finances independent of UK Treasury subvention necessitated stimulation of import-export trade. There was a fragile, superficial symbiosis, supposedly designed to produce both colonial well-being and metropolitan prosperity. Despite some local state autonomy, British colonialism ensured redistribution of indigenous resources to foreigners. Colonial Office desires for African interests to be taken into account were faint-hearted compared to the British Treasury's defence of British interests: "... the British housewife's margarine supply was more important than the role of the Tanganyikan peasant" (Throup, 1987, p.19). Exploitation,

[1]Detailed in Chapter 4, pp.180-236.

uneven export sector development and smothering of indigenous rural capitalism were perhaps inevitable, given the inherent imbalance of metropolitan-colonial exchange and metropolitan and colonial government inexperience, ignorance and fear.

Peasant rationality was constantly undervalued. Colonial agricultural policy was built on Eurocentric assumptions which discredited or ignored African agricultural knowledge. The gap between research and smallholder cotton yields was not usually a result of failure to communicate with farmers. Sometimes advisers failed to grasp that new cottons should be treated as new crops, needing radical farming change. There was often lack of knowledge of conditions outside experiment station boundaries. Frequently there was a lack of financial incentive for peasants to undertake new tasks in cultivating an already labour-intensive crop, suffering a proliferation of time-consuming regulations, often introduced for political rather than technical reasons.

BCGA and ECGC were involved to varying extent in what are now Zimbabwe, Zambia, Kenya and Uganda. Their roles differed but both maintained a facade of undiluted disinterested aid. However, commercial or national self-interest played a major part in their attitudes and policies, which were often paternalistic at best and based on racist epistemologies at worst. In Zimbabwe, early BCGA enthusiasm soon turned to disillusion but interest continued; and the ECGC, after early pessimism, was present from 1923 to 1942. In Zambia, the BCGA gave loans through the ALC and sent an expert in 1910; while the ECGC's early attitude was hesitant and limited until 1939 when it left, not to return till 1967. In Kenya, the BCGA was involved directly and indirectly until 1922 when it finally gave up. Despite Government attempts to entice ECGC, it remained unimpressed by Kenyan prospects. In Uganda, the BCGA was interested from the start, supplying

some of the earliest seed and commenting vociferously at every opportunity, but operated through BEAC until 1914 when it became a direct operator. The BCGA campaigned as vigorously in its indirect role, especially in lobbying the CO, as it did where it had direct involvement. Thus, in Uganda the apparent early non-involvement of BCGA is in reality a case of BCGA working through other agencies to achieve its objectives. ECGC's input peaked in Uganda with the establishment of Namulonge Research Station in 1950.

Transport problems, severe pest damage, lack of suitable varieties and price fluctuations made cotton a highly speculative, fairly unsuccessful crop in both colonial Rhodesias. In both territories cotton was regarded (essentially for political reasons) as more suitable for European farmers than for indigenous smallholders. This was eventually reversed in Southern Rhodesia but not in Northern Rhodesia. It was not until the major pest control breakthrough of the 1960s that cotton really prospered. Its success in Zimbabwe was outstanding from the 1960s; in Zambia, it has never attained much success. In Kenya, prospects looked favourable but a white settler dominated economy and easier ways to make money prevented development of a cotton industry. In Uganda, despite scepticism in many quarters, highly successful peasant cotton-growing developed very quickly at the beginning of the century. Of various reasons postulated for this, perhaps the most cogent is that the country was regarded from the start as unsuitable for large-scale white settlement, so considerably more effort was expended on building a thriving peasant economy. A racially stratified structure of European rule, Asian enterprise and African labour evolved in the Ugandan cotton industry.

A History of Cotton-Growing in Malawi.[1]

Early in the history of cotton production in Malawi, there were missionary arguments about plethora or scarcity. During the last decade of the 19th century European planters, mostly in the Shire Highlands, dominated the administration's agricultural reasoning. African agricultural capacity was virtually ignored. However, the dessication of the River Shire created ideal planting conditions in the Lower Shire Valley. There was early appreciation that, if transport problems could be solved, cotton could be suited to both plantation and African smallholder production.

Labour supply, the "cotton expert"'s critical 1905 report of chaos and bad practice, the appointment of a Director of Agriculture with an interest in cotton and the 1910 Cotton Ordinance's regulation of seed and marketing dominated the early years of this century. During the second decade, European and African cotton production both expanded. The BCGA was undecided on planter *versus* smallholder promotion (financing planters while declaring cotton was a "black man's crop"). The Ndinde Marsh scheme for white cotton planters failed dismally, yet the plantocracy remained influential. BCGA and the Director of Agriculture argued about North Nyasa District, transport problems continued and the CO eventually intervened as peace-maker between the BCGA and the colonial government. The government appeared undecided about development of a pro-peasant policy, the Director of Agriculture swayed between pro- and anti- settler attitudes and tobacco began to prove more lucrative than cotton for European settlers.

Dominating the 1920s and 1930s were the rise of African cotton production, which overtook European production in 1925, and concomitant effects on the local economy.

[1]Detailed in Chapter 5, pp.238-333.

Other aspects were the importance of the Lower Shire Valley, constraints on production (transport costs, poor grading, no rotations, lack of knowledge) identified by "expert" Sampson, the railway companies' monopoly and the Government's marketing control. The granting of the BCGA monopoly aroused much controversy. It proved initially successful for all concerned. But BCGA disengaged when it was no longer in its interests to continue. Overriding all at the end of this period was the ecological disaster in the Lower Shire Valley, caused by hydrological changes in Lake Nyasa, which led to the collapse of the smallholder cotton industry after ten years of triumph over plantation growth.

The battle against red bollworm, unrest at vigorous enforcement of agricultural laws, opposition to ridging, the alternative attractions of labour migration and groundnut cultivation in the south and feasibility studies on the Lower River were features of the 1940s and 1950s. From 1958-59, cotton production steadily increased. Post-independence emphasis on the non-cotton estate sector has been offset to some extent by the integration and promotion of cotton in externally-funded Rural Development Projects. However, labour, capital and land constraints have made cotton particularly vulnerable to fluctuating prices. While cotton profits have helped to support the estate sector, the growing demand from the local textile industry and from overseas is not sated.

A History of Cotton-growing in Tanzania.[1]

Despite Tanzania's much greater cotton production and different early colonial background, it has much in common with Malawi - both attracted BCGA and ECGC attention, cotton was initially planter and smallholder grown, one area emerged as dominant in the cotton sector. The

[1]Detailed in Chapter 6, pp.335-379.

efforts of German administrators and the Kolonial-Wirtschaftliches Komitee (KWK) compared favourably in many respects with the situation in British colonies. The German scientific record on agriculture was generally good. But it was marred by brutally enforced labour practices, which led to the 1905-07 Maji Maji rising. This did not end forced labour, any more than the Nyasaland Chilembwe rising ended *thangata*.

By 1910, it was becoming clear that estate cotton production was not an economic proposition but there was official opposition to African cash crop production. By 1925, under British administration, 75% of cotton in Tanganyika Territory was peasant-grown, with Lake Province taking over from Eastern Province as the prime producer. Developments were hampered by understaffing of the Department of Agriculture, set up in 1921 with cotton promotion a chief objective. The Department was particularly concerned in the 1920s with seed distribution, timeous planting and enforcement of uprooting and burning regulations. After a false start and early withdrawal in pique, the ECGC recommenced direct operations in the 1930s, just as the BCGA was assuming a supervisory rather than a practical role. Other features of this time were the battle to repress middlemen, the "plant more crops" campaign, a declining UK market and the 1937 Cotton Ordinance which vested considerable powers in the Department of Agriculture.

The rise of the cooperative movement and the Sukumaland Development Scheme marked the 1940s and 1950s. There was considerable antagonism to the proliferation of rules and regulations but from 1954 cotton production soared in Lake Province. Much of the credit can be attributed to ECGC seed issues and cultural advice, despite a problem in translating research findings into action.

Since independence, yields have improved but real income

of cotton growers has fallen. From 1970, there has been a reduction in marketed production. Amongst the reasons mooted have been the weather, villagisation, change in the marketing system, transport problems and low level of development expenditure. Overall, there is a need for more investment in the agricultural sector, higher producer prices and radically improved means of moving cotton from farmers' yards to cotton mills or ports.

7.2 CONCLUSIONS

> "... broad generalisations ... can be illustrated only by local examples ... which are rarely true of all parts of the country at any one time."
>
> (Iliffe, 1969, p.142)

Cotton cannot be looked at in isolation. Not only is the history of cotton-growing in East and Central Africa part of general agricultural history, it impinges upon social, economic and political affairs. The topic is as much a component of dialogue on Africa's future as it is an integral part of the continent's colonial and pre-colonial past. There are dangers in drawing facile conclusions and making glib generalisations, where what happened last year, or on the next patch of land to that under scrutiny, may bear little resemblance to the current situation. However, examining the history of cotton-growing in East and Central Africa does reveal some recurrent themes.

In each country examined, cotton had been grown in pre-colonial times, though often in a more hardy, perennial form than was cultivated later, and there was evidence of spinning and weaving industries which, in most cases, had collapsed by the early colonial period, unable to compete with cheap, imported manufactures. In all countries,

there was foreign pressure to grow cotton,[1] initially from missions, trading companies, colonial governments, local officials and the BCGA (or KWK in German East Africa). They all sought to secure a supply of raw material for metropolitan industry and to generate local revenue and trade. Varying amounts of pressure were used to achieve these ends. Persuasion and coercion included tax demands, punishment or the threat of it, legislation, financial incentives and failure to provide alternative means of raising cash. Interestingly, there was often an area where cotton-growing was prohibited, or alternatively where coercion was lifted, which immediately increased the attractions of the crop to the local population. In modern times, encouragement to grow cotton has been based on the provision of consumer goods, advice packages and producer price incentives.

In all but Uganda, the crop was tested thoroughly for large-scale European plantation growth, but found wanting sooner or later because of agricultural difficulties, labour shortages or more attractive competing crops. Although the BCGA and KWK both claimed to favour peasant production from an early stage, their actions belied this. Seed was provided to both Africans and Europeans; and planters were induced to grow the crop by provision of facilities, including cash advances. BCGA capitalised cotton cultivation companies. Planters generally feared the growth of independent peasant cotton-growing, seeing this as a threat to their labour supply. However, tenant cotton-growing, subject to European control, brought considerable resale profits. Throughout East and Central Africa, cotton became a "black man's crop", this being the most expedient, least costly method of providing for British mills. It was usually grown, as it still is, on a family, smallholder basis, with negligible amounts of

[1]Much early pressure stemmed from "England's bread hangs by Lancashire's thread" (notice in Bolton mill, 1951, according to a mill-worker reminiscing on a BBC chat show, 22/3/91) - or its German equivalent.

hired labour and few purchased technical inputs.

In each country surveyed, one or two areas, not always the most suitable from an agricultural point of view, came to dominate production. In each, there was also a strenuous struggle to overcome pest and disease problems and to come to terms with an erratic climate producing regular floods and droughts. Smallholders had to work with nature, not against it, and soon discarded regulation and advice from office agriculturalists about times of planting and cultural practice if their own experience suggested the theory was wrong for the area or conditions. Extension officers were often faced with scepticism, lip-service to recommendations or outright refusal to comply.

In all the countries observed, missions played some part in the early stages by introducing seed, bulking seed, encouraging local growth and ginning; but, throughout East and Central Africa, BCGA and ECGC intervention was crucial in establishing commercial cotton-growing. There were not direct operations in all countries at all times, but all received advice and interest. The BCGA's pioneering work promoted cotton production in many districts, which were later able to take advantage of the ECGC's experimental and research work producing high-yielding, disease and pest-resistant varieties. The roles of the two organisations in transport lobbying also helped to open up the continent, although this was not between regions. Routes were developed to establish overseas links to suit metropolitan needs.

Economies of scale in the cotton production industry are found in ginning not growing. This led to early and extensive licensing and zoning legislation to curb proliferation of facilities. Government restrictions resulted in a high rate of utilisation per gin. With fewer gins and a less competitive cotton market, prices to producers could be lowered. Marketing mechanisms

proved an ideal way to exploit systematically the peasantry, generate revenue and control profits.

Cultivation Ordinances and Rules throughout the region, often very sternly followed up with imprisonment and fines for non-observance, were justified by reference to technical criteria, such as seed quality or erosion prevention. There was often little scientific or research evidence to support them. For example, cotton was accused of hastening soil erosion and exhaustion. Extreme mono-cropping and extension into marginal lands certainly increases the likelihood of erosion and desertification. But if cotton had not been established as a cash crop in many areas, then an even more deleterious alternative might have been. However, exaggerated fears of land degradation gave governments a good excuse for further state intervention and control. In East and Central Africa, these controls came to be severely resented, forming part of the Nationalists' grievance base, not least because of their Eurocentric disdain for African agricultural practices and the extra work they entailed. The 1950s strength of TANU in Sukumaland and the 1953 Nyasaland disturbances were consequent upon attempts at agrarian control.

It is difficult to quantify to what extent cotton-growing inhibited food production. Credence has to be given to the rationale of smallholders who will not deliberately starve to produce a cash crop. However, food crops suffered against competing labour demands of cotton. There was always a risk that cotton would not bring in enough cash to purchase staples in the food market. Peasants were at the mercy of foreign cotton users until local spinning and weaving operations were opened. Even then, world demand and government policy affected markets.

There were substantial but uneven benefits to most participants in cotton-growing in East and Central Africa.

The BCGA fulfilled its remit to find additional cotton supplies for Lancashire. It made the most of its idealistic stance as "semi-philanthropic" for as long as it could, but, even when proclaiming its disinterestedness, was accruing attractive profits. The British Government gained from keeping Lancashire happy and from seeing colonies and protectorates becoming more financially self-sufficient. The British steel industry was helped by cotton increasing the need, or giving an excuse, for new or improved railways and related projects like major bridge building. Markets were opened up for British manufactures. ECGC staff were well looked after, and the Corporation was proud of its elite status and its success in the experimental and basic research tasks it had been set. At local level, District coffers and Colony and Protectorate Treasuries gained from the proceeds of cotton-growing, while local crafts and small industries proliferated at times of cotton boom. When peasants were forced to grow cotton, they had little choice but to grow, riot, flee or resist more passively by tricks and subterfuge. But, for much of this century in East and Central Africa, cotton-growing was a means for smallholders to draw above bare subsistence level, to earn cash without having to migrate or choose a less appealing alternative. This was at the cost of strict regulations, often rigorously enforced,[1] and considerable human input to grow one of the world's most labour-intensive crops. It was also in the face of limited horizons, imposed by governments determined that cotton would not create an "excess" of rural wealth. Colonialism ensured peasant accumulation was very restricted. There was race and class bias against African growers. Economic power was retained by Europeans, with only occasional

[1] Farseeing Directors of Agriculture like P.B. Garnett of Nyasaland were rare. McCracken (1983, p.189, fn.90) quotes a memo from Garnett to Chief Secretary, Zomba, 9/4/48: "It is indisputable that the rate of development of the African peoples must be highly dependent on the attitudes and goodwill on the part of the native population towards agricultural enlightenment and I feel that there is a real danger that this will be forfeited and replaced by sullen if not more lively antagonism in the face of irksome controls and restrictions ..."

devolution of wealth to others, usually non-native, such as Asian middlemen and traders.

However, it was not enough for BCGA and ECGC to have helped ensure a supply of raw material for Lancashire. Neither's record was perfect and ultimately they failed to sustain the British textile manufacturing they had been established to support. But the decline of British textiles cannot be blamed on BCGA or ECGC. It was caused by profound global factors, not the organisations' errors or defaults. Reduction in export demand for manufactures was the principle cause, with failure to modernise a likely secondary reason. A chronic lack of investment in manufacturing structure, research and development, education and training, marketing and marketing development have been identified by the TGWU as reasons for the industry's failure to compete in the modern world. This compares unfavourably with other European countries where textile manufacturers have received long-term governmental financial assistance. The UK government's answer to industrial ills has been to seek greater protectionism, though enlightened self-interest might indicate the opposite as a solution. The UK, dependent on trade, needs a strengthened world economy. This will not occur while developing countries face increasing import bills, debts and trade barriers. In colonial times, value-added commodity processing was hindered as much as possible to ensure metropolitan demand for cheap raw products and need for markets was met. Monocultural economies created dependency on the vagaries of international markets and dictates. In post-colonial times, protectionist policies against imports to industrialised nations serve the same end.

The smallholder's decision on whether or not to grow cotton was and is based on benefit, not just financial, but taking into account technical, personal, cultural and environmental variables. The producer price, the depth

of desire for cash, the availability or otherwise of alternative crops and the ease with which it can be marketed are all important factors. Governments exert considerable control over choice by manipulating prices; by controlling licensing, ginning and marketing, directly or through parastatals; by employing relevant advisers; and by sanctioning projects. Producer prices are also affected by world market demand and the amount of cotton grown elsehwere. The continuing demand for East and Central African cotton for domestic and foreign markets can only be met if the rural sector is cooperative and well-resourced. Higher yields and higher producer prices are both essential.

Finally, in the process of meeting the demand for cotton, care must be taken of the land, by rotations and good cultural practices, to ensure that the land will continue to take care of the people. As Samuel Simpson, the Nyasaland "cotton expert", acknowledged in 1905, "... we have upset the balance of nature by establishing hundreds of thousands of plants, of the same order, at the same stage of growth, in close proximity" (I(ii)(c): Simpson, p.16). The difficulty is in defining good agricultural methods. Till the 1960s, in many cases till today, there has been an overriding faith in "the expert". BCGA and ECGC firmly believed that this mythical person (non-African, of course) would find a perfect cotton, ideal varieties, the best time of planting, the finest cultivation techniques, the solution to every pest, disease and problem. In the 1930s and 1940s, prevention and cure for erosion was expected from conservation "experts" (non-indigenous). After the Second World War came the era of extravagent land use, development and resettlement plans (planned and at least partially funded by outside sources) - again as "final solutions" to remedy agricultural and social ills. However, ecological disasters, climatic changes, genetic mutations and the realities of rural life have all now impinged on the

technical consciousness. The world has become more sceptical about technical expertise as the universal solvent of all problems. It is clear that there can be no final scientific or technological paradigm for African cotton-growing, any more than for any other crop. If anything approaching the optimum is ever found, it will only be through working with, not against, the African smallholder producers whom BCGA, ECGC and Departments of Agriculture seldom consulted.

APPENDIX I

TAXONOMY OF COTTON[1]

KINGDOM	Plantae
SUB-KINGDOM	Embryophyta
DIVISION	Spermatophyta
CLASS	Angiospermae
SUB-CLASS	Dicotyledones
ORDER	Malvales
FAMILY	Malvaceae
GENUS	*Gossypium*

Wild lintless species of the genus:

Section[2]	Where found	Genome possessed[3]
1. Sturtiana	Australia	C
2. Erioxyla	Mexico, S.California	D
3. Klotzchiana	Galapagos Islands, Peru, Western Mexico	D
4. Thurberana	Arizona, Mexico	D
5. Anomala	South African desert fringes, Sahara borders, Cape Verde Islands, (Southern Arabia)[4]	B
6. Stocksiana	The Sind, South-eastern Arabian peninsula, Somalia, Sudan and desert regions south to Central Tanzania	E

[1]Based on Cobley (1956), Harland (1939), Hutchinson (1959), Hutchinson, Silow and Stephens (1947), Purseglove (1968), Watt (1907).

[2]Using cytological, archaeological, genetic and geographical evidence, Hutchinson, Silow and Stephens (1947) grouped the cottons of the world into 20 species in 8 sections. Since then, further species have been discovered (e.g. Phillips (1976) notes 34), but these 8 sections are still recognised. Sections 1-7 are diploid species with a haploid chromosome number of 13; Section 8 is tetraploid with a haploid chromosome number of 26.

[3]Phillips (1976, p. 196) also notes a single species of the F genome, found in eastern Africa.

[4]Cobley (1956) and Purseglove (1968) do not agree with Hutchinson, Silow and Stephens (1947) in placing a Southern Arabian wild lintless species in this section.

Old World wild and cultivated linted species:

Section	Where found	Genome possessed
7. Herbacea	Old World tropics	A

New World wild and cultivated linted species:

Section	Where found	Genome possessed
8. Hirsuta	New World (origin in Central America, but now spread throughout the world)	AD

Species cultivated for lint production:

In Section 7, Herbacea: *Gossypium herbaceum*
Gossypium arboreum

In Section 8, Hirsuta: *Gossypium hirsutum*
Gossypium barbadense

Varieties cultivated in Africa for lint production:

(i) *Gossypium herbaceum* var. *africanum*
(ii) *Gossypium herbaceum* var. *acerifolium*
(iii) *Gossypium herbaceum* var. *persicum*
(iv) *Gossypium arboreum* race *soudanense*
(v) *Gossypium arboreum* var. *indicum*
(vi) *Gossypium barbadense* var. *brasiliense*
(vii) *Gossypium hirsutum* var. *punctatum*
(viii) *Gossypium hirsutum* var. *latifolium*

APPENDIX II

NOTES ON LINT-PRODUCING COTTONS OF RELEVANCE TO AFRICA[1]

I OLD WORLD LINTED COTTONS - *Gossypium herbaceum* and *Gossypium arboreum*

G. herbaceum and *G. arboreum*, diploid species with a haploid chromosome number of 13, belong to the A-genomed Herbacea section of the genus. Occurring wild throughout the Old World tropics, they have a long history of cultivation in India, Persia, China and Japan. Unlike the members of the other six sections of Old World *Gossypium*, these species have seeds with true spinnable lint hairs. The modern Asiatic cottons - short staple ($^1/_4$"-$^3/_4$"), strong, poor quality, not usually grown for world markets - derive from them.

There has been considerable controversy over the early history of these cottons. Chevalier suggested that the site of domestication of Old World cotton was at the edge of the Sahara during a wetter era (1938; in Munson, 1976, p.187). But Hutchinson, Silow and Stephens (1947, p.70) proposed that the ancient trade routes between Africa and India carried eastwards the African *G. anomalum* ancestors of the Indus valley cottons. They describe this species as differing little from its wild prototypes save in bearing "primitive lint, probably not much more than $^1/_2$ inch long, and grey, brown, or rust coloured", but do not satisfactorily explain why the domestication process had occurred or why Arabian seafarers would have thought this worth introducing "as a curiosity" to the Indus civilisation.

Early peripheral use in the Sind textile industry was followed, Hutchinson *et al* argue, by an appreciation of cotton's superiority over wool and flax in the hot climate, leading to its development for craftsmen and its later spread along the Persian coast. The collapse of the Indus civilisation in the middle of the 3rd millenium B.C. meant that the Persian Gulf and Peninsular Indian cotton areas became separated by a desert barrier, in which circumstances the species distinction between *G. herbaceum* and *G. arboreum* probably became established through genetic divergence. The supposition was that these cottons reached Africa through the coastal trade routes, with *G. arboreum* forming the basis of the Meroitic cotton trade and *G. herbaceum* race *acerifolium* subsequently becoming the main cultivated species in Africa prior to the introduction of New World cottons.

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[1]This appendix is based mainly on Cobley (1956), Hutchinson (1959), Hutchinson, Silow and Stephens (1947), Phillips (1976), and Purseglove (1968), all of whom acknowledge a debt to earlier botanists, such as de Candolle (1882), Watt (1907) and Harland (1936).

In 1954, Hutchinson decided that a form of one of the Asiatic cottons - *G. herbaceum* race *africanum* - is truly wild in the arid bushveld of southern Africa and not an escape from cultivation as he and his co-workers had thought in 1947.[1] This plant shows the essential characters of a true cotton and is thus hailed as the modern representative of the wild ancestor of all diploid cottons. From this wild plant evolved the perennial, primitive, cultivated race *acerifolium*. There is, though, no incontrovertible evidence that cotton was originally domesticated in Africa. On the contrary, botanical relationships, the complex of ancient trade routes and the probability of a more favourable climate in the past led Hutchinson (1959) to propose Southern Arabia as the probable locality of first domestication, with India providing the environment for the later development of perennial *G. arboreum* from *G. herbaceum*.

Not all botanists accept these conclusions. Stephens[2] continued to believe *G. herbaceum* var. *africanum* to be an escape from ancient African cultivation, while Nicholson (1960) asserted that *G. herbaceum* var. *africanum* and var. *acerifolium* were both descendants from common cultivated A genome ancestors, now extinct, which had evolved in Southern Ethiopia. Hyams (1971, p.102) also aired this idea but discounted it on the basis of Vavilov's designation of Central Asia as the centre from which *G. herbaceum* cultivars were disseminated. Baker (1962) came to no firm conclusion: while not denying the possibility of African domestication, though not necessarily in the western Sudan of Murdock's 1959 suggestion, he was more in favour of the idea that *G. herbaceum* may have been domesticated in Asia. Purseglove (1968) holds that Nicholson offers the best solution, though he does raise the awkward question of why the crop remained unknown in Egypt for so long if it was of such ancient cultivation in northern Africa, where it would need to have been grown around 4,000 B.C. to fit the genetic jigsaw.

Whatever the truth about ancient origins, the plant began as a perennial, the annual habit having been selected for cultivation. This change has not been dated accurately, though Marco Polo remarked in 1290 that there were, at that time, perennial cottons in India but annual forms in Chinese Turkestan.[3] Certainly, the establishment of the supremacy of annuals would have been earlier in areas where severe winters would limit the spread of perennials.

The most primitive of Old World linted cottons, *G. herbaceum africanum*, is a bushy perennial with seed hairs

[1] Proved, says Hutchinson (1954, p.229), by taxonomic studies of red bollworm and Sudan bollworm and host plant research.

[2] S.G. Stephens: North Carolina Agricultural Experiment Station, Technical Bulletin 131 (1958), quoted in Baker (1962).

[3] Reported in Hutchinson (1959), p.15.

clearly differentiated into lint and fuzz. The mutation for lint production is believed to have occurred in this plant, considered by many botanists to be the common ancestor of the diploid cultivated cottons. It is found truly wild, not merely an escape from cultivation, in Southern Africa.

The perennial *G. herbaceum acerifolium*, once the main cultivated species in Africa, no longer of commercial importance, is the most primitive of the cultivated *herbaceum* cottons. As seen above, it is not known when or where it was originally domesticated - Ethiopia, Southern Arabia and India are amongst the contenders - but it was spread by Muslims to West Africa. It is regarded as the most likely candidate to be the "wool-bearing" tree of Tylos on the Persian Gulf, described in 350 B.C. by Theophrastus, the Greek philosopher.[1]

G. herbaceum persicum evolved as an annual capable of cropping within the cold winter limitations of Iran. The first cotton cultivated in the Nile delta, it was spread by Muslims around the Mediterranean.

The Barbosa account of the use of cotton in the Sofala region around 1514[2] and Sir John Kirk's (1860) (and David Livingstone's) "thonje kaja" probably refer to *G. arboreum* types, of which two have been of importance in Africa.

G. arboreum soudanense is a perennial, taken to Africa from India early enough to be recognised as the most likely cotton to have been grown two thousand years ago by the Meroe people, Africa's first spinners and weavers of cotton. This plant spread to West Africa, where it is now grown solely for domestic use. It produces scanty lint.

G. arboreum indicum was taken from India to the East African coast in the sixteenth century. Annual forms are still grown in India.

The Old World cottons were supplanted as sources of textile fibre in Africa by New World introductions, mainly made in the eighteenth and nineteenth centuries.

II NEW WORLD LINTED COTTONS - *Gossypium hirsutum* and *Gossypium barbadense*

G. hirsutum and *G. barbadense*, allo-tetraploid species with a haploid chromosome number of 26, belong to the AD-genomed Hirsuta section of the genus. Modern cytological and genotypological studies (e.g. as reported by Hyams,

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[1] See Chapter 1, p.4.

[2] See Chapter 1, p.5.

1971; Phillips, 1976; and Purseglove, 1968 - who quote Fryxell, 1965 and 1966, as authority) suggest that this section probably arose from a chance cross of linted Old World 'A' genome (possibly from seed which had floated from Africa[1]) and wild New World 'D' genome plants in northern South America during Pleistocene times. Hyams (1971, p.106) contends that the Early Farmer people of the Peruvian littoral domesticated the hybrid for hand-spinning in the 3rd millennium B.C. and its use spread into Central America. Certainly, at some stage, an Old World linted diploid cotton must have crossed with a New World lintless diploid cotton to produce the New World tetraploid cottons.

Conjecture and controversy over origins have ranged from theories that the 'A' and 'D' species hybridized before the ancient Mesozoic era separation of South America and Africa (Hutchinson,1962), to Stebbins' 1947 conjecture of travel of 'A' genome seed via China and Alaska, to Harland's 1939 hypothesis of ancient origin occurring on a Pacific land bridge in late Cretaceous or early Tertiary times,[2] to Purseglove's 1960 and 1963 theories (as described in Purseglove, 1968, p.344) that the Antartic was a bridge or a home for the Old World plant, to the unlikely proposal that the New World tetraploids arose much later after *G. herbaceum* had been introduced by pre- or post-Columbian man to South America. Whatever their origin - and it is easier to accept theories of ancient origin based on a chance interaction of 'A' and 'D' genome cottons before the break-up of Godwanaland or during an epoch when there was less ocean between land-masses - these two cultivated New World species provide the bulk of the world's cotton production, producing around 95% of the crop in recent decades.

Early introductions of these cottons to Africa include *G. barbadense brasiliense*, whose paths across the continent can still be traced along the old slave routes; and *G. hirsutum punctatum* and *G. hirsutum marie-galante*, the former introduced to Senegal at the end of the eighteenth century (or, end of the seventeenth century, says Purseglove, 1968, p.334) and the latter to the Gold Coast by the Basle Mission in the mid nineteenth century (Hutchinson, 1959). Perennial *G. barbadense* and *G. hirsutum* gradually supplanted *G. arboreum* and *G. herbaceum* as sources of cotton in Africa. They themselves were replaced by annual types of *G. hirsutum* (Upland) and *G. barbadense* (Sea Island and Egyptian).

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[1] Considering the small size of cotton seeds, this seems, at first glance, a fairly wild theory. However, Phillips (1976, p.197) believes this a plausible explanation because tests have shown that cotton seed remains viable after 2 to 9 months immersed in sea water. Earlier than this, Purseglove (1968, p.343) reported that Fryxell in a personal communication, 1966, had found that cotton seeds germinated after three years in sea water. Purseglove reckoned that the gourd similarly floated from Africa to South America (1965, p.344); but the likelihood of a gourd travelling such a distance is more believable.

[2] As described in I(iv)(g): CRC, CP1/269.

G. barbadense is a perennial or annual shrub, 1 - 3 metres high, originating in tropical South America. The annual habit was introduced after seed from the West Indies was grown in South Carolina in 1786[1]. This species produces the very finest quality lint, including that of the Sea Island cotton of the West Indies, the Egyptian type of the Nile Valley, and the coarser, but related, Ishan cotton of southern Nigeria. Sea Island cotton lint is creamy white, silky, lustrous, stronger and finer than others, with a very long staple length of 2"+. Egyptian cotton lint - originating from Jumel's 1820 introduction to Cairo of a single perennial plant (possibly derived from Nigerian Ishan stock, *G. barbadense vitfolium*, which travelled by trade and slave routes to the Sudan[2]) and the crossing of its progeny with Sea Island cotton in 1850 - is shorter, less fine and of poorer colour.

G. hirsutum has perennial and annual forms, the most important in recent times being the annual Upland types (so called because they often flourish on more elevated land), first selected in the southeastern United States from *G. hirsutum latifolium*, which had been introduced from Mexico about 1700. *G. hirsutum latifolium* is an annual subshrub, 1 - 1.5 metres high, with few or no vegetative branches. Its seeds bear copious strong lint, either short staple ($^1/_2$ "-1") or long staple (1"-$1^1/_2$"). Until Whitney's 1793 saw gin invention, and the rise in demand from the Lancashire cotton industry, Upland cotton was limited limited mainly to American home use. Now, American Upland cotton types are grown throughout the world, providing the bulk of cotton in world trade and used to produce medium quality yarns.

This century's cotton growing industry of Africa south of the Sahara is founded on hybridization of American Upland, *G. hirsutum latifolium* and *punctatum*, followed by natural and artificial selection to provide commercial African Upland varieties.

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[1]Columbus recorded cotton-growing in South and Central America and in the West Indies. However, Brooks (1898) claimed it was first cultivated for fibre in 1621; and De Candolle (1882) commented that a bale of North American cotton was confiscated at Liverpool in 1774 on the grounds that it did not grow there.

[2]Hutchinson (1959) is disputed by Stephens (1974), who postulates a Mediterranean origin via the Spanish-South American trade route (Phillips, 1976, p. 199).

APPENDIX III

TECHNICAL TERMS

1. **BALES**

To reduce bulk for transporting, lint is baled under pressure into weights which vary according to country and sometimes according to years. Approximate rounded weights are 400 lbs (generally in Commonwealth countries), 500 lbs in the USA, 700-800 lbs in Egypt and 480 lbs in other parts of the world. These varying bale weights can make statistical comparisons between countries and between years more difficult than they appear at first glance.

Sample of Weights and Sizes of Cotton Bales

Country	Gross lbs.	Net lbs.	Overall size in inches
British West Indies	410	400	40 x 42 x 26
Kenya	410	400	41 x 27 x 27
Nyasaland (a)	459	448	54 x 22 x 21
Nyasaland (b)	430	416	40 x 27 x 25
Tanganyika	412	400	41 x 28 x 25
Uganda	412	400	41 x 27 x 25
USA square	515	490	60 x 20 x 27
USA round	250	247	36 x 22 diam.
USSR	397	390	39 x 24 x 28

(Source: The Cotton Year Book 1944, p. 44)

2. **CENTRES OF DIVERSITY**

The notion of centres of diversity is important to N.I. Vavilov's controversial 1926 concept (as detailed, for example in Bull. Appl. Bot. Pl.-Breed., 16, pp.1-245), based on his expeditions to Afghanistan, Abyssinia and Mexico, that every species of crop plant has been taken into cultivation in a recognisable region, usually very mountainous, where the modern plant displays a maximum of variation. Vavilov named Ethiopia as the sole centre of origin of crops in Africa; but it seems more than likely, despite the lack of unimpeachable evidence, that plants were domesticated elsewhere on the continent and that his centres were secondary areas of development. Although much of Vavilov's theory was later refuted, sometimes with the aid of his own later work - e.g. by Darlington (1969), Harlan, de Wet and Stemler (1976) and Shaw (1976) - Vavilov set a fine example in disciplined, extensive studies. He died in prison in the early 1940s, an "enemy of the people", charged with damaging Leningrad Military Region's landing grounds by sowing weed seeds at airports (Popovsky, 1984, p.146).

3. COTTONSEED

Cottonseed is a by-product of cotton production which has developed an industry in its own right. Its two most important products are cottonseed oil and cottonseed cake or meal. One short ton of crushed seed, processed in the US in the 1960s, gave roughly 315 lbs of oil and 900 lbs of cake or meal.

4. COTTONSEED CAKE

Cottonseed cake is one of the residues from the oil-making process. Either as cake, or ground into meal, it is used as a high protein supplement for cattle. With the gossypol rendered harmless by processing, it can be fed to non-ruminant animals. Cotton seed contains 16-20% protein.

5. COTTONSEED OIL

One of the main high grade oils of commerce, cottonseed oil is used for cooking and salads and in the manufacture of margarine and soap. The oil content varies according to species and growing conditions - Egyptian and Sea Island types having the highest oil content of 22-24%, Upland cottons with about 19.5% and cultivated Indian cottons with 18.5%.

6. COTTON FUTURES

Futures is the commercial term for trading contracts to deliver or receive an agreed quantity of a commodity at a stated time in the future. Between 20 and 40 commodities, many of them staple agricultural products subject to constantly fluctuating prices, are traded in world futures markets. Speculators bear the risk of falling prices in the hope of profit, with the result that the market becomes more stable for producers. Weld & Co., Liverpool Cotton Brokers, distributed a pamphlet in 1905 in which they stated, "futures contract is to trade what currency is to general commerce of the world."

Until the communications developments of the 1830s, nobody knew how much cotton would arrive at Liverpool until it was physically present. This naturally led to much speculation. News of prospective cotton shipments, still carried by sailing vessel, was known in advance with the establishment of the Cunard Line trans-Atlantic mail service. This created an 'Arrivals Market' of paper contracts, developed by John Rew into a prototype Futures market with his organisation of a watch for ships. The 1866 trans-Atlantic cable meant that John Rew could buy and sell in a much more refined way, hedging his purchases against speculative contracts, creating the cotton futures system. Cotton futures trading was taken up in New York in 1870.

7. FUZZ

These are very short unconvoluted fibres, circular in cross-section, strongly attached to the seed coat. They cannot be spun. Some varieties have fuzzless seeds; American Upland types have white fuzz over the whole seed, while Egyptian types have coloured fuzz at one end only.

8. GINNING

This is the process whereby lint is removed from seed and fuzz. The seed is reginned for by-products.

9. GINNING PERCENTAGE

The ginning % is the amount of lint as a percentage of the seed cotton from which it comes. The weight of lint divided by the amount of seed cotton, multiplied by 100, gives the percentage for a sample of seed cotton. The normal range is 25%-40%, with 32-37% common in East Africa.

10. GINS

These are the machines which separate lint from seed and fuzz. The earliest mechanical device for this process was the hand-operated Indian churcka gin with two rollers through which the lint, but not the seed, could pass.

The cotton industry was revolutionised by the saw gin, invented by Eli Whitney in 1793 and improved by Hogden Holmes in 1796. The principle of the saw gin, mainly used for shorter staple American Upland cottons, has changed little since the eighteenth century. Its main component is a series of notch-edged circular metal saws which rotate at high speed, ripping the lint from the seeds.

For longer staple, finer cottons, a power-driven roller gin is used. This model, based on the churcka gin principle, less damaging than the saw gin, has leather covered revolving cylinders rotating in oppposite directions. This is the most common gin in East Africa. It gives a lower output but is much gentler on the longest staple cotton.

11. GOSSYPOL

Gossypol - a polyphenol (pigment), found in cotton seed, which can be toxic to non-ruminant animals - was first isolated in 1886. In the 1950s Chinese scientists associated the consumption of food cooked in crude cotton seed oil with high male infertility. This led to clinical trials, reported in the Chinese Medical Journal (92, pp.417-28) in 1978, which demonstrated the 99% effectiveness of gossypol in

inducing azoospermia or severe oligospermia in about 4,000 men. In 1981, similar effects were noted on 8,806 men. Thus, gossypol may prove the basis - in itself, or for the production of a synthetic analogue - for a male contraceptive or for a locally acting female contraceptive (The Lancet, May 19th 1984, pp.1108-9; The Observer, 6th October 1985; Fogg, 1984; Hawkes, 1979).

Work in India (reported in The Observer, 6th October 1985) suggests that gossypol may be of use against tropical parasitic diseases, such as malaria and Chagas' disease. Similar investigations in Russia (noted by Wiseman, 1985) stress the immuno-suppressive and anti-viral properties of gossypol and its derivatives.

12. GRADING

African smallholder cotton is usually sold in two grades, which generally command different prices - clean *versus* stained or dirty. The cleanness of East and Central African cotton has been one of its most commendable features, but it does involve considerable care and labour in production. Cotton may be stained by insects, fungi or bacteria, any of which may weaken the staple and create problems in the dyeing process. Cotton is made dirty by leaf or trash, which cause problems in spinning and dyeing.

13. LINT

These are the longer twisted fibres, evenly attached to the seed and easily removable. The convolutions are what make spinning possible. The lint hairs, white or creamy-coloured, reach maximum length after the first 25 days of boll development. Seed cotton is ginned to produce lint cotton for spinning and weaving.

14. LINT QUALITY

Lint quality varies considerably. It is generally classified according to the following eight criteria.

(a) Staple length. The longer the lint, the better the quality is the general rule. Fibrograph examination gives accurate measurements, but Vale (1951, p.4) and Cotton Year Book (1921, p.17) describe how to judge staple length by taking a tuft of raw cotton, gripping the ends with thumb and forefinger of each hand, pulling and discarding until left with a remainder which gives the average length of staple for the whole bale. The length of a cotton fibre is one to three thousand times its diameter.

Staple, divided into four or five bands, is the main basis of classification of commercial cottons:-

SHORT	- under $^{7}/_{8}$" (sometimes $^{13}/_{16}$")
MEDIUM	- $^{7}/_{8}$"-$^{31}/_{32}$"
MEDIUM-LONG	- 1"-$1^{3}/_{32}$"
LONG	- $1^{1}/_{8}$"-$1^{5}/_{16}$"
EXTRA-LONG	- $1^{3}/_{8}$" and over

Short staple cotton is produced mainly by *G. Herbaceum* and *G. arboreum* in India, Pakistan and China and accounts for about 15% of the world's production. Medium and medium-long staple, produced by Upland cultivars of *G. hirsutum*, accounts for 75-80% of world cotton. Long and extra-long come mainly from *G. barbadense*, often grown under irrigation.

(b) Fineness. Fine hairs with a small diameter give stronger yarns for a given staple length. Fineness in association with long staple length is particularly prized.

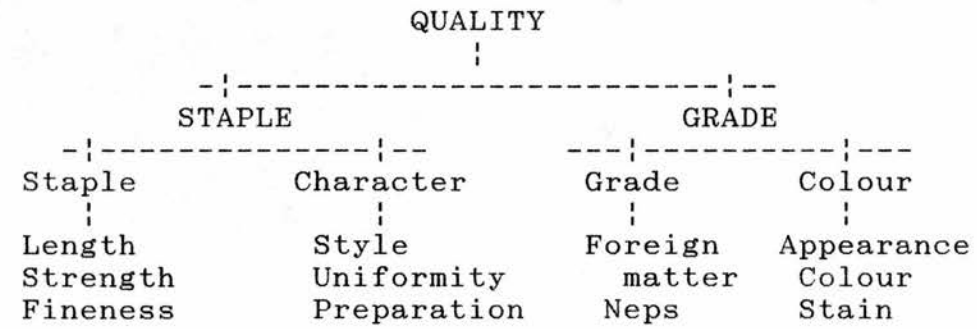
(c) Maturity. Maturity is measured by assessing the degree of secondary cellulose thickening on the inner fibre wall. Immature lint has 25% or more of thin-walled hairs and is associated with neppiness which causes manufacturing problems.

(d) Fibre strength. This is measured by determining the breaking strain of unspun fibres.

(e) Yarn strength. This measures the ability of cotton to form a strong thread, which is determined by fibre strength, length, fineness and convolutions.

(f) Uniformity. This is accomplished by growing pure strains and by careful sorting, ginning and classifying.

(g) Absence of faults. The best quality cotton is free from foreign matter, neps (tangled knots due to immaturity), motes (immature seeds or aborted ovules) and insect, fungal, bacterial or weather damage.



15. MANUFACTURING PROCESS

After ginning and baling, the cotton is taken to factories for manufacturing. The bales are opened, contents separated and any impurities removed. The fibres are then formed into ropes, or slivers, which are drawn between rollers and sometimes combed. Sufficient twist is inserted to make firm threads, which may be combined to make folded yarn. This is then "finished", ready for the next processes of spinning, doubling, finishing and making up and, finally, weaving.

16. NEPS

"The curse of Lancashire", neps are caused by immaturity of the seed wall. They act like tangled knots, damaging ginning equipment. Originally thought to be a ginning problem, the Shirley Institute identified it as of physiological, mycological or genetic origin. Evenson, a young botanist employed by the ECGC, at the instigation of Joseph Hutchinson, found the neps came from a soft spot in the seed coat where water enters for germination. Breeders were able to breed this out, at the cost of slower germination.

17. SEED COTTON

This is the term for raw, unginned cotton. It is the seeds with lint and fuzz attached, picked from fully opened bolls which have had some time to dry out. After ginning to remove the lint, the cotton is then reginned for seed or oil.

APPENDIX IV

COTTON BOTANY AND HUSBANDRY

1. **COTTON PLANT LIFE CYCLE**

The cotton plant is a weak perennial treated as an annual and uprooted in less than a year. Commercial cotton is always grown from seed. It is generally grown in rotation and is the first crop after a fallow period.

2. **COTTON PLANT CHARACTERISTICS**

Breeding and selection have led to a multiplicity of varieties, so the following comments are very generalised.

Roots: Root length varies according to soil and climate, but the plant usually has a long tap root (average length 3'), with laterals, which grows rapidly if soil penetration is easy. In non-alluvial soils the roots may stay in the top 12" of soil, but they often reach 7'-15' in more favourable conditions and 20' under irrigation.

Stems and branches: The main stem grows rapidly - at night in hotter areas, where water stress inhibits elongation during sunlight hours. It has a dimorphic branching system with lower nodes producing vegetative branches and upper nodes producing reproductive branches. The main stem becomes woody as the plant ages.

Leaves: The leaves vary in shape, size and texture. Those varieties with hairy leaves are able to ward off attacks by leaf-sucking insects.

Flowers: Temperature is the main environmental factor affecting flower development, the first of which are produced 8-10 weeks after planting. The flowers are borne singly on short stalks, with the earliest lower down on the plant and then following upwards and outwards. Five large petals - whitish or light yellow in American Upland cottons, deeper yellow with a red/purple spot at the base in *G. barbadense* types - crumple after three days and fall. Upland varieties tend to have more widely opening flowers.

Bolls: The fruits, called bolls, are spherical or ovoid leathery capsules, growing to full size of 4-6 cm long about 25 days after flower opening. American Upland bolls are light green and smooth; *G. barbadense* bolls are darker green with the surface pitted with oil glands. The bolls split at maturity to expose the linted seeds. The fibres dry out on exposure to air. The number of bolls which reach maturity, and the

number which are picked, varies considerably but only 3-4 fruits per plant need mature in order to attain the average yield per acre of most rainfed cotton in Africa.

Seeds: Depending on variety, each boll contains 5-11 seeds in 3-5 locules. The epidermis of the seed coat bears lint and fuzz. Upland seeds are dark brown, about 1cm. long and a hundred of them weigh 10-13 grams.

3. COTTON PLANT ECOLOGY

Cotton, about 50% of which is grown commercially in the 30°-40° latitude belt, is a remarkably adaptive plant, being successfully grown under semi-arid, arid irrigated and semi-humid conditions. The wide range of varieties means that the following notes are not specific to any one type but provide a general background to the optimum conditions required for cotton crops grown in East and Central Africa.

Altitude. Cotton is seldom successful much above 4,500' in tropical Africa (above 3,000' in India). In some parts of Africa, insect damage, particularly by stainers, is increased at lower altitudes.

Temperature. The cotton plant is sun-loving and cannot tolerate shade. The optimum temperature for seed germination is 94°F, for seedling growth is 75-85°F, and for later growth is 90°F. Night temperatures much below 60°F lead to poor quality short staple cotton, probably because of reduced cellulose production.

Rainfall and water Cotton is intolerant of very high rainfall which discolours lint, leads to fungal and bacterial rots and causes the roots to become waterlogged. On the other hand, it can tolerate drought fairly well and recover after water stress. The ideal for rainfed cotton is between 30"-60" rain during the growing season. During the early stages after planting, the water requirement is very low. The water demand rises during flowering, falling a couple of months later as the leaves become senescent and are shed. It is essential to have a dry period when the bolls ripen and open.

Soil. The cotton plant grows successfully in a wide variety of soils, from sandy loam to heavy clay, though its preference is for deep well-drained soil with a high water holding capacity. It fares less well in virgin land, inadequately drained soil and where the pH is less than 5.00-5.50.

4. COTTON PLANT HUSBANDRY

Apart from some early attempts at plantation and European estate grown cotton, the situation now, as it was for most of the period covered by this work, is that the bulk of raingrown cotton in Africa is grown by smallholders with family help, sometimes with hired labour. It is a very labour-intensive crop requiring land preparation (clearing, tilling, ridging, and, sometimes, terracing); planting; fertiliser and insecticide application; thinning; weedings; picking, sorting and grading; transporting to selling point; and, finally, uprooting and burning.

The following table, adapted from Ruthenberg (1968, p.75), gives an indication of the labour input required for cotton *versus* other crops. No allowance is made for fertiliser or insecticide application.

LABOUR INPUT FOR THE CULTIVATION OF CERTAIN CROPS IN TWO DISTRICTS OF TANZANIA (in hours per acre)

Type of Crop:	Cotton	Maize-Sorghum	Cotton	Maize-Sorghum-*Leguminosae*
District:	Shinyanga	Shinyanga	Kwimba	Kwimba
Method of Cultivation:	flat	flat	ridge	ridge
Phase:				
1)Levelling	-	-	50	50
2)Ridging & planting	-	-	100	110
3)Ploughing[a] & planting	50	40	-	-
4)Cultivation & planting	50	40	150	160
5)1st hoeing[b]	160	130	70	70
6)2nd hoeing	90	90	40	30
7)3rd hoeing	40	-	70	-
8)Weeding	290	220	180	100
9)1st harvesting	150	60	90	40
10)2nd harvesting	90	-	50	50
11)3rd harvesting	10	-	20	20
12)Harvest	250	60	160	110
13)Post-harvest work	30	-	110	10
TOTALS	620	320	600	380

[a] Ploughing usually done with three people; [b] Includes thinning.

Land preparation. The land is cultivated to the depth necessary to control weeds. Depending on the area and local advice, the land may be ridged or tie-ridged.

Tie-ridging conserves soil and water, raises yields in semi-arid regions and checks rain-induced soil erosion by holding the rain in basins formed by cross-tieing or cross-barring furrowed land. A fairly fine, firm seedbed is prepared for sowing, sometimes for interplanting with short-term crops, such as groundnuts or beans.

Time of planting. In areas with a single rainy season, the advice is to plant as soon as adequate rain has fallen; where there are two distinct rainy seasons, the practice is to plant towards the end of the first. Incentives have been tried, with little success, to persuade farmers to plant early enough to obtain maximum yields. The critical factors are to ensure that there is adequate water at crucial stages and that the bolls open in dry weather.

TIMES OF PLANTING AND PICKING FOR EAST AND CENTRAL AFRICA IN THE 1950s
(Source: ICAC, 1956, Quarterly Statistical Bulletin)

	Principal Planting Dates	Picking Times
Kenya	May-Aug	Dec-Feb
Mozambique	Oct-Apr	June-Aug
Nyasaland - North	May-June	Nov-Dec
Nyasaland - South	Dec-Jan	June-July
S. Rhodesia	Oct-Dec	Apr-June
Tanganyika - Lake Province	Nov-Jan	Apr-Aug
Tanganyika - Eastern Province	Feb-Apr	July-Oct
Uganda	June-Aug	Dec-Mar

Spacing and depth of planting. To avoid the slight risk of cross-fertilisation and to ensure uniformity, seeds are usually supplied annually from stocks produced away from the main production centres. About 10-15 lbs seed will cover an acre, almost always hand-planted. Planting depth is $^{3}/_{4}$"-1", with 5-10 seeds per hole, later thinned. Optimum spacing depends on soil, climate, cultivar and risk of pests and diseases. The following table gives more recent planting advice.

	Distance between rows	Distance between hills within row	No. of plants/ hill after thinning
N.& E. Uganda	2'	6"	1
Rest of "	3'	1'	2
Western Tanzania	3'	15"	2
Coastal "	3'	1'	1
Coastal Kenya	3'	18"	2
Rest of "	3'	1'	2

(Source: Acland, 1971, p.101)

Fertilisers and Manures. Much of the cotton in the tropics is grown without the use of fertilisers or manure, though experiments have shown that these can improve yields. Porter & Richmond (1960, p.20) remark: "...the native cotton farmers in areas south of the Sahara are not at present of the temperament to invest in fertiliser, even if supplies and production credit were locally available."

Cattle manure applied at a rate of 3-5 tons/acre gives good yield increases but farmers often feel that cotton does not have priority for this. Nitrogen, in the form of 1-2 cwt of sulphate of ammonia for an acre, is the usual recommendation, though this may mean increased need for insecticides. Nitrogen deficiency results in chlorosis, poor growth and increased boll shedding. Phosphate at the rate of 2 cwt/acre produces direct and residual responses on some soils, but is usually unnecessary on recently cleared land. Potassium and boron may both be deficient on some soils, the latter being difficult to correct because of the toxicity of boron if applied in excess.

A complicating factor in assessing the worth of fertilisers, particularly nitrogen, is that cotton is a poor indicator plant. Vigorous, bushy, green plants may yield less well than puny, non-vegetative, apparently "sickly" plants.

Harvesting. Mechanical harvesting began in the US in the 1940s but has so far proved impracticable in East and Central Africa. Picking by hand begins about six months after planting and has to be continued regularly to ensure that open cotton is not left in the field. Heavy-yielding cotton, cropped by a good picker on an experimental station, is brought in at a rate of 100 lbs of seed cotton a day; a smallholder would be more likely to harvest about 20 lbs a day.

After picking, the cotton is cleaned and sorted before being taken to the ginnery or selling station in 60-70 lb bags (not made of sisal which creates problems in ginning and spinning if it contaminates the cotton).

The final operation, often governed by Ordinance, is the prevention of disease and pests being carried forward to the next season, by uprooting old plants and destruction of stalks.

Yields. Cotton yields vary enormously - from below 50 lbs per acre (rain-grown in poor years in East Africa) to 3,000 lbs per acre (irrigated in California).

YIELDS OF COTTON IN LBS PER ACRE

	1934-38 (ave.)	1955	1956	1957	1958
USA	212	417	409	390	469
China	207	211	186	233	322
USSR	292	484	581	536	643
India	88	93	101	105	102
Brazil	165	163	149	173	149
Peru	439	454	395	402	412
Egypt	478	391	433	474	493

(Source: The Cotton Year Book 1959)

YIELDS OF LINT FOR SELECTED AFRICAN COUNTRIES
(in lbs per acre)

	Uganda, rain-grown	Nyasaland, rain-grown	Tanganyika, Lake Province rain-grown	Kenya, Nyanza Province rain-grown
Average, 5 yrs to:				
1953-54	98	97	167	56
1954-55	69	110	142	60
1955-56	91	51	143	62
1965-66	80	87	269	54
1966-67	79	115	291	63
1967-68	64	108	239	51

(Sources: I(iv)(b): CRC/CR & GM)

5. BREEDING

In the first decade of this century in Africa, the introduced American Upland cottons became totally mixed and interbred, though distinctive types - for example, Buganda Local, Mwanza Local and Nyasaland Upland - arose in most territories. It was soon realised that well-planned and conducted breeding programmes would be vital to support the commercial cotton industry. These have been conducted in East and Central Africa by ECGC/CRC and Government Agriculture Departments, the earliest being the Ugandan selection work which began about 1916.

The general aim of breeding research is to produce uniform high-yielding cotton of acceptable quality, suited to the picking method to be used. Yield is affected by number, size and weight of bolls, ginning percentage, diseases, pests, climate and soil - giving wide scope to the elements to be considered by an imaginative plant breeder.

Selection and hybridization are both vital to successful breeding, with knowledge of variation and differentiation within the genus as a whole fundamental to the development of lint characters to meet modern demands, which include the development of a glandless-seeded cotton and reduction in the use of chlorinated hydrocarbon and organophosphate insecticides.

APPENDIX V

MAJOR PESTS AND DISEASES OF COTTON IN EAST AND CENTRAL AFRICA

I PESTS[1]

Pearson (1958) estimated that 150 species of pests afflict cotton in Africa. Bollworms, the caterpillars of moths, are amongst the most damaging. Leaf, stem and bud sucking bugs are another devastating group. The thirteen insect pests identified here are those of greatest importance in East and Central Africa this century.

(i) American (or Cotton) Bollworm (*Heliothis armigera*): The adults are small brown night flying moths which are attracted to cotton fields at flowering time, although maize and pigeon peas are their preferred crops. The larvae from their eggs are $1^1/_2$" when fully grown, green, brown or yellow with pale stripes on the side. Damage from young larvae causes shedding of unopened flower buds and bolls. More mature bolls are the target of older larvae. Early spraying with DDT and endosulfan is the recommended treatment.

(ii) Aphids (*Aphis gossypii*): Aphids are small black, yellow or green sucking insects which attach themselves to young shoots and the undersides of young leaves, generally during dry weather. Damage to the plants is usually minimal, although high speed spinning machinery can be damaged if honey dew from aphids lands on the lint before picking.

(iii) Calidea (*Calidea dregii*): This is a brightly coloured bug which feeds on bolls, mainly in areas surrounded by bush. Control is effected by the use of carbaryl and BHC.

(iv) False Codling Moth (*Cryptophlebia leucotreta*): There is no good control for this occasional pest in Uganda and western Kenya. It attacks full size bolls.

(v) Jassids (*Empoasca* spp., mainly *Empoasca facialis* in Africa other than Sudan): These small, light green sucking bugs damage leaves which curl downwards, redden at the margins and may be shed. The toxic saliva of the nymphs creates this problem of "leaf burn". Hairy leaved varieties of cotton are not so susceptible; DDT can be used as a control if hairless varieties are cultivated.

[1]This section is based mainly on Acland (1971), Jeffries (1964), Pearson (1958) and Purseglove (1968).

(vi) Lygus (*Lygus vosseleri*): This 1/4" long brown bug, which can be effectively controlled by DDT, tends to be a pest in wetter areas. It sucks buds and young bolls. Sorghum is another host plant to Lygus, creating large outbreaks after the sorghum harvest.

(vii) Pink Bollworm (*Pectinophora gossypiella*): This serious pest was first reported in India in 1842 and wreaked havoc on cotton production in many parts of East and Central Africa before the introduction of a "close season" for cotton growing. It is still a problem where cotton is in the ground for most of the year. The pink bollworm is 1/2" long when mature. The larvae hollow out the bolls, pupating in the boll or in the soil.

(viii) Red Bollworm (*Diparopsis castanea* or *D. watersi*): This bollworm spread to Southern Tanzania from Mozambique in 1946 and led to a 150 mile wide quarantine belt being set up. The pupae can remain dormant in the soil for long periods.

(ix) Red Cotton Mite (*Tetranychus telarnis*) and Tea Mite (*Hemitarsonemus latus*): These tiny mites cause localised problems of leaf fall preceded by mottling, reddening and withering.

(x) Root knot nematodes: These are very common but can become a significant factor in the presence of Fusarium wilt.[1]

(xi) Seed bugs (*Oxycarenus* spp.): These tiny bugs attack opened bolls in an attempt to suck the seeds. They cause discolouration in seed cotton and failure of seed germination. To minimise damage, bolls need to be picked at shortish intervals and spread in the sun.

(xii) Spiny bollworm (*Earias* spp.): The larvae, 3/4" when full grown, eat bolls and young shoots. They have no dormant phase, and few alternate hosts, so control by "close season" is fairly effective when combined with endosulfan or carbaryl spraying.

(xiii) Stainers (*Dysdercus* spp.): These sucking bugs are an insidious pest in drier areas. They pierce the cotton boll and inject *Nematospora* fungus with the salivary juices. This causes staining of the lint and, if the attack comes at an early stage in boll development, can cause shedding or mummification of bolls. Carbaryl can be used to control stainers.

(xiv) Boll Weevil (*Anthonomus grandis*) is indigenous in Mexico and became a devastating pest throughout the United States cotton belt after a rapid spread after first observation in Southern Texas in 1892. It attacks young squares, bolls and terminal buds.

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[1]See Appendix V, Section II.

II DISEASES OF COTTON

Cotton may be afflicted by fungal, bacterial or viral disease. The most common scenario is of young seedlings attacked by a complex of diseases, often exacerbated by adverse climatic, soil and genetic factors. The following three diseases are the most commonly reported in East and Central Africa, though others may be of localised importance at certain times.

(i) Bacterial Blight. This bacterial disease, caused by *Xanthomonas malvacearum*, is widespread with heavy outbreaks reported in wet conditions. It is spread by bacteria on seed coats or by infected plant debris, so can be partially controlled by mercurial or copper fungicide seed dressings, by a close season and also by breeding for resistance. The disease attacks the soft tissue of the plant at any stage, producing water-soaked lesions on seedlings (seedling blight), leaves of older plants (angular leaf spot), stems and branches (blackarm) and bolls (bacterial boll rot).

(ii) Fusarium Wilt. This fungal disease, caused by *Fusarium oxysporum*, spread by infected seed, plant residues and soil, is very difficult to control. It leads to stunting and leaf shed; and seems to be associated with roots damaged by nematodes. It created a serious problem in Tanzania in the 1950s and 1960s, when the development of resistant varieties was adopted as one of the main objectives of the cotton breeding programme at Ukiriguru.[1]

(iii) Verticillium Wilt. Cold, wet weather predisposes towards attack of this fungal disease, caused by *Verticillium dahliae*. Spread by infected soil, many East African varieties have resistance to this disease which causes stunting and shedding of leaves, buds and bolls.

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[1]See Western Research Centre, Ukiriguru, unpublished Progress Reports, especially Ukiriguru Progress Report No. 4, Fusarium Wilt of Cotton: The Present Situation.

APPENDIX VI

STATISTICS

Note. Attempting to compile meaningful tables of statistics has proved exceedingly difficult, most of all because of a lack of uniformity in the weights and measures quoted in the primary and secondary sources available. Some tables show weights of seed cotton in cwts, some in tons, some in lbs, some in centals, some in metric tons; some use bales as a measure - bales of 400 lbs, 478 lbs, 480 lbs, 500 lbs, in metric weights or of unstated quantity; other sources give weights and measures for linted cotton, not seed cotton. Added to this, years quoted may be calendar, financial or agricultural. To frustrate matters further, even when the weights, measures and years are directly comparable, it is seldom the case that figures between tables agree.

The figures in the following tables have been standardised to a common base, noted at the head of each table, and the most apparently reliable sources have been used. They show trends rather than precise figures.

TABLE 1

WORLD PER CAPITA CONSUMPTION OF APPAREL FIBRES, 1948-60
(from UN, FAO in 3 year moving averages in lbs.)

	Ave. 1948-50	Ave. 1951-55	1956	1957	1958	1959	1960
Cotton	6.00	6.83	7.28	7.19	7.30	7.36	7.45
Wool	1.00	0.96	1.01	0.99	1.01	1.04	1.06
Rayon & Acetate	1.19	1.60	1.90	1.83	1.83	1.83	1.90
Other	.04	1.13	0.26	1.31	1.35	1.42	1.51

(Source: Cotton Year Book 1962, p.49)

TABLE 2

DESTINATION OF COTTON PIECE GOODS FROM BRITAIN, 1820-1900
(as percentage of total)

Year	Europe & USA	"Underdeveloped world" (formal & informal empire)	Other countries
1820	60.4	31.8	7.8
1840	29.5	66.7	3.8
1860	19.0	73.3	7.7
1880	9.8	82.0	8.2
1900	7.1	86.3	6.6

(from Hobsbawm, 1969, p.146)

TABLE 3

RISE IN AMERICAN DOMESTIC CONSUMPTION OF COTTON, 1890-1918
(%age of American grown cotton consumed locally)

Years	%	Years	%	Years	%
1890-95	31.2%	1910-11	35.6%	1914-15	40.2%
1896-1900	33.5%	1911-12	33.5%	1915-16	53.0%
1901-05	36.2%	1912-13	38.2%	1916-17	54.0%
1906-10	38.1%	1913-14	37.8%	1917-18	58.0%

(Source: I(vi)(g), CP1/129, Empire Cotton Growing Committee Draft Report, 1919)

TABLE 4

BRITISH COTTON INDUSTRY 1781-1859: RAW COTTON IMPORTED INTO AND CONSUMED IN THE UK/GB(GB only prior to 1815)
(in million lbs.)

Year	Import	Year	Import	Year	Import	Year	Import
1781	5.10	1801	54.20	1821	137.40	1841	437.09
1782	11.40	1802	56.62	1822	143.43	1842	473.98
1783	9.56	1803	52.25	1823	183.31	1843	581.30
1784	11.28	1804	61.36	1824	141.04	1844	554.20
1785	17.99	1805	58.88	1825	202.55	1845	606.60
1786	19.15	1806	57.52	1826	162.89	1846	614.30
1787	22.18	1807	72.75	1827	249.80	1847	441.40
1788	19.61	1808	41.96[a]	1828	208.99	1848	576.60
1789	32.28	1809	88.46	1829	204.10	1849	629.90
1790	30.60	1810	123.70	1830	269.62	1850	588.20
1791	28.34	1811	90.31	1831	273.25	1851	658.90
1792	33.42	1812	61.29[b]	1832	259.41	1852	739.60
1793	17.87	1813[c]		1833	293.68	1853	760.90
1794	23.01	1814	53.78	1834	302.94	1854	776.10
1795	25.21	1815	93.93	1835	326.41	1855	839.10
1796	31.43	1816	88.18	1836	363.68	1856	891.40
1797	22.75	1817	118.15	1837	368.44	1857	826.00
1798	31.28	1818	163.59	1838	455.04	1858	905.60
1799	42.53	1819	134.53	1839	352.00	1859	976.60
1800	51.60	1820	152.83	1840	528.14		

[a] American embargo on foreign trade.
[b] Start of 1812-14 war.
[c] Records destroyed by fire.

(Source: Mann, 1860/1968 edition, pp. 93-94)

TABLE 5

LANCASHIRE RAW COTTON CONSUMPTION, 1924-38
(in million lbs.)

1924	1,369	1929	1,498	1934	1,322
1925	1,609	1930	1,272	1935	1,262
1926	1,509	1931	985	1936	1,391
1927	1,557	1932	1,257	1937	1,431
1928	1,520	1933	1,177	1938	1,109

(Source: Kirby, 1974, p.159)

TABLE 6

VALUE OF RAW COTTON IMPORTS INTO THE UK, 1896-1919
(in £ sterling)

	British West Africa	US	Egypt	TOTAL
1896	-	£27 mill.	£6 mill.	£36 m.
1900	£938	£30 mill.	£9 mill.	£40 m.
1904	£15,099	£40 mill.	£11 mill.	£54 m.
1908	£66,780	£39 mill.	£13 mill.	£55 m.
1912	£122,092	£55 mill.	£20 mill.	£80 m.
1916	£259,451	£60 mill.	£19 mill.	£84 m.
1919	£554,053	£125 mill.	£50 mill.	£190 m.

(Source: Davies, 1973, from Annual Statements of Trade of the World.)

TABLE 7

IMPORTS OF RAW COTTON INTO UK, 1930-53
(in millions of lbs)

	Imported from Empire (incs. Sudan, excludes India and Pakistan)	Total retained imports	% from Empire
Ave. 1930-34	75	1189	6.3
" 1935-39	107	1336	8.0
" 1940-44	101	1039	9.8
" 1945-49	134	833	16.1
1950	180	1005	17.9
1951	253	1010	25.0
1952	177	587	30.1
1953	187	741	25.2

(Source: I(iv)(b), CRC/CR & GM)

TABLE 8

IMPORTS OF RAW COTTON INTO UK: SAMPLE 5-YEARLY AVERAGES FROM SELECTED SOURCES (expressed in millions of lbs) AND THOSE AVERAGES EXPRESSED AS PERCENTAGES OF TOTAL IMPORTS OF RAW COTTON

	1906-10	1921-25	1928-32	1946-50
Egypt	375(17.7%)	267(20.7%)	262(19.8%)	178(20.3%)
Other African	6 (0.3%)	41 (3.1%)	72 (5.5%)	174(19.8%)
TOTAL AFRICAN	381(18.0%)	308(23.8%)	334(25.3%)	352(40.1%)
USA	1588(74.8%)	825(63.8%)	693(52.4%)	237(27.0%)
Brazil	30 (1.4%)	21 (1.6%)	38 (2.9%)	147(16.8%)
Peru	20 (0.9%)	73 (5.6%)	75 (5.7%)	45 (5.1%)
India & Pakistan	86 (4.1%)	61 (4.7%)	97 (7.3%)	55 (6.3%)
Other	18 (0.8%)	6 (0.5%)	85 (6.4%)	41 (4.7%)
TOTAL NON-AFRICAN	1742(82.0%)	986(76.2%)	988(74.7%)	525(59.9%)
TOTAL	2123 (100%)	1294 (100%)	1322 (100%)	877 (100%)

(Sources: I(iv)(b), CRC/CR & GM; International Cotton Advisory Committee.)

TABLE 9

IMPORTS OF COTTON BY SELECTED PRINCIPAL IMPORTING COUNTRIES, 1924-1935
(in '000 bales)

	USA	Japan	France	Fed. Rep. of Germany	UK	Italy
1924-25	303	2820	1302	1156	3003	929
1925-26	314	3288	1469	1555	3676	1093
1926-27	382	3220	1592	1260	3333	1104
1827-28	321	2412	1516	1890	2963	964
1928-29	442	2973	1454	1416	3011	1072
1929-30	368	2659	1635	1452	3058	1128
1930-31	99	2758	1665	1328	2385	944
1931-32	107	3383	1033	1147	2196	786
1932-33	124	3072	1097	1418	2520	877
1933-34	137	3510	1589	1669	2825	1014
1934-35	107	3522	902	1231	2507	732

(Source: Cotton Quarterly Statistical Bulletin, Vol.9 No.3, 1956, p.33)

TABLE 10

UK COTTON PRICES 1871-1913

(Extract of Index Nos. for cotton, with index numbers for all textiles and general goods for comparison; Year 1900 =100; based on Liverpool prices)

Year	Cotton	All Textiles	General
1871	135.1	146.4	135.6
1872	162.6	166.5	145.2
1873	153.7	161.9	151.9
1874	139.0	151.1	146.9
1875	133.1	147.3	146.4
1876	115.9	137.9	137.1
1877	111.2	135.2	140.4
1878	107.3	131.4	131.1
1879	105.7	123.0	125.0
1880	112.7	130.0	129.0
1881	112.2	127.6	126.6
1882	112.3	123.4	127.7
1883	111.4	119.1	125.9
1884	109.1	115.2	114.1
1885	109.8	108.9	107.0
1886	95.5	99.9	101.0
1887	96.2	102.7	98.8
1888	99.1	101.2	101.8
1889	101.1	105.1	103.4
1890	102.3	105.4	103.3
1891	99.1	101.4	106.9
1892	91.6	95.6	101.1
1893	93.0	96.4	99.4
1894	79.1	88.6	93.5
1895	74.4	84.3	90.7
1896	88.7	92.9	88.2
1897	80.1	86.8	90.1
1898	68.9	80.0	93.2
1899	73.0	82.9	92.2
1900	100.0	100.0	100.0
1901	98.6	93.3	96.7
1902	97.3	92.3	96.4
1903	107.3	101.7	96.9
1904	119.9	112.9	98.2
1905	101.5	106.7	97.6
1906	119.2	121.1	100.8
1907	126.8	127.4	106.0
1908	116.1	109.8	103.0
1909	118.4	112.4	104.1
1910	155.9	136.2	108.8
1911	138.3	128.9	109.4
1912	122.6	119.6	114.9
1913	139.5	135.0	116.5

(Source: Todd, 1915, pp 431-2)

TABLE 11

BRITISH RAW COTTON PRICES, 1790-1945

(In overlapping eleven-year averages, 1840/50=100; with wheat and wool prices for comparison)

Years	Cotton	Wool	Wheat
Pre-1793	406.8	121.3	83.3
1790-1800	510.8	125.2	111.9
1795-1805	546.6	153.9	139.4
1800-1810	489.4	187.2	159.1
1805-1815	430.5	198.6	167.0
1810-1820	367.5	188.3	163.8
1815-1825	266.8	155.1	126.2
1820-1830	161.5	106.5	110.5
1825-1835	147.8	108.1	106.8
1830-1840	148.3	128.0	105.7
1835-1845	128.7	120.9	103.3
1840-1850	100.0	100.0	100.0
1845-1855	97.3	106.7	98.4
1850-1860	113.9	136.2	97.8
1855-1865	224.5	172.0	96.5
1860-1870	265.8	180.7	94.1
1865-1875	201.5	182.1	98.2
1870-1880	141.6	160.5	93.1
1875-1885	115.6	117.1	80.6
1880-1890	108.4	95.2	67.1
1885-1895	90.9	89.1	55.0
1890-1900	78.9	84.7	52.5
1895-1905	85.6	79.0	51.0
1900-1910	108.4	81.3	54.4
1905-1915	116.8	100.5	62.8
1910-1920	217.9	138.7	96.6
1915-1925	268.9	147.4	113.2
1920-1930	226.2	128.2	94.8
1925-1935	149.8	99.4	65.1
1930-1940	115.2	90.9	52.1
1935-1945	146.7	143.5	85.6

(Source: Rostow, 1951, p.72)

TABLE 12

UK COTTON YARN AND CLOTH EXPORT TRADE, 1913-61

YEAR	YARN		CLOTH	
	Quantity(lbs)	Value (£)	Volume(sq.yds)	Value(£)
1913	210,099,000	15,006,291	7,075,252,000	97,775,885
1914	178,527,800	11,973,956	5,735,854,700	79,182,763
1915	188,178,700	10,312,934	4,748,904,600	64,702,574
1916	172,192,800	13,432,761	5,255,503,900	88,793,778
1917	133,153,480	16,708,035	4,979,076,900	112,787,619
1918	101,793,700	21,409,710	3,695,772,100	138,521,491
1919	162,665,500	33,911,554	3,528,756,500	178,955,943
1920	147,432,400	47,585,814	4,760,000,000	315,717,631
1921	145,894,900	23,924,879	3,038,246,200	137,132,298
1922	201,953,000	26,474,623	4,312,667,000	142,436,751
1923	145,017,400	21,010,689	4,323,865,600	138,251,864
1924	163,056,400	27,782,126	4,585,096,400	153,448,106
1925	189,531,200	30,501,416	4,636,720,200	150,627,835
1926	168,526,800	21,781,178	3,922,796,700	116,052,953
1927	200,464,700	23,608,368	4,189,109,600	109,995,715
1928	169,206,900	22,566,494	3,968,198,300	107,298,462
1929	166,637,700	20,753,279	3,764,852,400	61,305,421
1930	136,987,505	14,469,350	2,490,549,400	99,263,987
1931	133,516,300	10,895,216	1,790,233,800	37,327,672
1932	141,463,100	10,419,740	2,302,687,300	43,614,893
1933	135,111,400	10,075,995	2,116,720,000	40,234,252
1934	130,427,600	10,236,061	2,059,760,000	39,820,026
1935	141,674,600	11,161,702	2,013,429,000	39,531,954
1936	150,924,800	11,849,446	1,993,068,000	40,318,839
1937	159,028,800	13,694,406	2,023,083,000	44,768,650
1938	122,950,200	9,674,911	1,447,997,000	31,961,174
1939	113,661,700	8,946,246	1,462,421,000	31,892,988
1940	66,706,100	7,446,238	1,045,383,000	32,142,055
1941	28,851,800	4,483,002	846,177,000	29,912,910
1942	18,751,700	3,394,346	530,974,000	24,395,037
1943	19,216,800	3,342,329	398,758,000	20,279,765
1944	19,619,600	3,286,395	465,662,000	24,162,772
1945	16,102,500	2,915,856	469,492,000	28,778,816
1946	19,371,100	3,783,422	528,817,000	40,384,004
1947	26,667,600	6,788,619	539,328,000	49,480,062
1948	59,061,900	16,766,982	761,414,000	85,795,099
1949	82,030,800	23,546,971	903,548,000	105,687,822
1950	70,974,500	25,543,343	822,375,000	100,258,799
1951	65,494,000	31,782,084	865,153,000	132,191,722
1952	35,721,900	17,749,951	710,813,000	100,835,564
1953	41,895,700	16,999,517	709,057,000	87,928,460
1954	40,460,798	17,326,854	637,272,000	81,927,497
1955	35,572,377	14,937,579	554,537,000	70,613,717
1956	35,791,991	15,079,353	474,280,000	60,930,250
1957	37,630,310	16,800,858	455,760,000	59,960,513
1958	26,797,390	10,813,932	384,078,000	51,012,994
1959	22,944,000	8,451,966	347,422,000	45,433,821
1960	21,122,247	8,532,103	327,181,000	44,042,198
1961	14,658,048	5,770,811	286,660,000	40,893,408

(Source: The Cotton Year Book 1962)

TABLE 13

AVERAGE EXPORTS OF COTTON PIECE GOODS FROM UK (in millions of square yards) PER QUARTER YEAR and AMOUNT AND PERCENTAGE EXPORTED TO BRITISH EAST AFRICA (BEA) AND BRITISH WEST AFRICA (BWA)

Quarterly average for years	Total exports	Total to BEA and BWA	% to BEA and BWA
1937-39	391.7	29.0	7.4
1950	205.6	38.3	18.6
1951	216.0	36.0	16.6
1952	177.7	49.1	27.6
1953	177.2	44.0	24.8

(Source: I(iv)(b), CRC/CR & GM from Cotton Board Quarterly Statistical Review.)

TABLE 14

WORLD'S COTTON PRODUCTION, 1800-1890

(in '000s of bales of approximately 500 lbs each; in 10 year and five year averages)

Annual Average for years	USA	All other	World	% USA
1800-10	140	920	1060	13.20
1811-20	231	941	1172	19.70
1821-30	566	975	1541	36.72
1831-40	1123	1194	2317	48.46
1841-50	1953	739	2692	72.54
1851-60	3242	974	4216	76.89
1861-70	2186	2841	5027	43.48
1871-75	3623	3187	6810	53.20
1876-80	5036	2776	7812	64.46
1881-85	5867	3337	9224	63.60
1886-90	7232	3770	11002	65.73

(Source: International Cotton Bulletin, Vol.1, No.1, September 1922, p.91)

TABLE 15

WORLD'S COTTON CROP RETURNS IN '000 BALES, 1899-1915

Years	US	India	Egypt	Brazil etc.[a]	TOTAL	USA as % of total
1899-90	7314	3361	431	270	11376	64.29
1890-91	8655	3022	545	300	12522	69.12
1891-92	9038	2869	625	310	12842	70.38
1892-93	6717	2751	684	438	10590	63.43
1893-94	7527	2995	707	542	11771	63.95
1894-95	9893	2656	610	460	13619	72.64
1895-96	7162	3296	695	770	11923	60.07
1896-97	8714	2999	778	1010	13501	64.54
1897-98	11181	2844	919	1015	15959	70.06
1898-99	11235	3477	730	1000	16442	68.33
1899-1900	9440	3099	855	1000	14394	65.58
1900-01	10425	3377	711	900	15513	67.20
1901-02	10701	4122	864	1052	16739	63.93
1902-03	10758	4183	768	2804	17913	60.05
1903-04	10124	4471	797	2760	18152	55.77
1904-05	13557	4061	843	2172	20633	65.71
1905-06	11320	4797	798	2542	19457	58.18
1906-07	13550	5197	923	2803	22473	60.29
1907-08	11582	4445	908	2916	19851	58.34
1908-09	13829	4779	898	2885	22391	61.76
1909-10	10651	5317	673	2768	19409	54.88
1910-11[b]	12132	4587	984	6334	24027	50.49
1911-12	16043	4178	965	6374	27560	58.21
1912-13	14129	4692	969	7716	27506	51.37
1913-14	14885	6149	970	7796	29800	49.95
1914-15	15607	4703	812	6973	28095	55.55

[a] 1901-02 "Brazil etc." figure includes China and Asiatic Russia; 1902-03 onwards figures for "Brazil etc." includes all other countries.

[b] International Cotton Bulletin figures for 1910-11 onwards disagree with those used from Hutton in this table. Using Bulletin figures, the relevant percentages of American grown as a proportion of the total would be: 1910-11 63.47%; 1911-12 56.72%; 1912-13 54.79%; 1913-14 62%; 1914-15 50.47%.

(Source: I(i)(b), CGA 2/2/25, Hutton, 1916, The Effects of the War on Cotton-Growing in the British Empire, using Annual Cotton Handbooks as original source.)

TABLE 16

WORLD'S COTTON PRODUCTION, 1915-21 and 1924-47 (in '000s of bales - c.500 lbs for 1915-21 & unstated for 1924-47)

Years	USA	Other	World	% USA
1915-16	11450	11228	22678	50.48
1916-17	11302	9668	20970	53.89
1917-18	12041	8420	20461	58.84
1918-19	11421	11602	23023	49.60
1919-20	13440	8347	21787	61.68
1920-21	8340	7253	15593	53.48
5 year aves.				
for 1924-28	15172	10410	25582	59.31
for 1934-38	12505	16330	28835	43.36
1937-38	18412	18333	36745	50.11
1938-39	11665	15844	27509	42.40
1939-40	11418	15908	27326	41.78
1940-41	12315	16405	28720	42.88
1941-42	10628	14988	25616	41.49
1942-43	12534	13048	25582	49.00
1943-44	11075	13446	24521	45.17
1944-45	11919	11472	23391	50.96
1945-46	8772	11481	20253	43.31
1946-47	8640	12860	21500	40.19

(Sources: International Cotton Bulletin, Vol.1, No.1, September 1922, p.91, for 1915-21; The Cotton Year Book 1947, p.46, for 1924-47.)

TABLE 17

COMPARISON OF GERMAN, FRENCH, PORTUGUESE, ITALIAN AND BRITISH AFRICAN COTTON CROPS, 1902-13

(converted to 500 lb bales)

	German		French	Portuguese		Italian	British
Year	Togo.	E.A.		Angola	E.A.	Eritrea	Africa
1902	88	2	-	226	-	-	260
1903	141	41	-	151	-	-	2360
1904	476	545	-	564	-	-	5523
1905	589	831	85	471	310	453	8460
1906	851	830	267	251	188	1260	11694
1907	1237	1019	763	413	241	2339	19466
1908	1844	1189	658	226	461	1683	18203
1909	2247	2284	996	341	303	2584	22864
1910	2044	2740	1443	635	292	3978	30383
1911	2277	4754	1625	547	444	4873	43676
1912	2424	8279	1894	428	655	2018	50846
1913	2215	9644	1944	761	2056	c.880	50184

(Based on Todd, 1915.)

TABLE 18

ANNUAL PRODUCTION OF COTTON IN AFRICA EXCLUDING EGYPT (in '000S of bales) AND AFRICAN PRODUCTION AS PERCENTAGE OF TOTAL FREE WORLD PRODUCTION, 1909-53

Season	African production	African as % of total	Season	African production	African as % of total
1909-10	42	.27	1931-32	565	2.37
1910-11	56	.32	1932-33	513	2.62
1911-12	53	.25	1933-34	515	2.36
1912-13	65	.32	1934-35	699	3.74
1913-14	55	.26	1935-36	819	3.66
1914-15	55	.24	1936-37	946	3.80
1915-16	58	.36	1937-38	1046	3.32
1916-17	63	.36	1938-39	1007	4.33
1917-18	46	.27	1939-40	970	4.13
1918-19	56	.33	1940-41	1178	4.60
1919-20	87	.47	1941-42	949	4.15
1920-21	134	.72	1942-43	827	3.68
1921-22	98	.72	1943-44	766	3.41
1922-23	149	.90	1944-45	1143	5.31
1923-24	227	1.31	1945-46	882	5.04
1924-25	309	1.40	1946-47	904	5.21
1925-26	382	1.54	1947-48	895	4.37
1926-27	341	1.33	1948-49	1233	5.10
1927-28	321	1.54	1949-50	1227	5.00
1928-29	432	1.90	1950-51	1442	6.50
1929-30	312	1.36	1951-52	1403	4.91
1930-31	414	1.90	1952-53	1447	5.02

(Sources: Kroese, 1955, pp.69-70; and International Cotton Advisory Committee.)

TABLE 19

MAIN COUNTRIES OF DESTINATION FOR RAW COTTON EXPORTS FROM TWO AFRICAN TERRITORIES (Tanganyika and Uganda), 1949-53

(in '000 bales)

Destination country	1949		1950		1951		1952		1953	
	Tan	Ug	Tan	Ug	Tan	Ug	Tan	Ug	Tan	Ug
F.R.G.	.2	.8	.1	.3	1.2	32.8	1.8	39.3	3.3	32.2
France	0	12.8	.1	0	0	4.2	1.4	3.1	1.4	.8
Hong Kong	.5	.5	0	.4	.8	2.2	2.3	23.1	2.4	12.0
India	39.3	173	21.2	183	18.6	138	13.4	123.2	17.1	161.7
Japan	.2	22.2	-	7.0	1.0	4.0	1.6	35.6	4.7	11.3
Neth'lands	-	2.4	0	-	0	2.2	2.0	4.1	.2	8.9
U.K.	8.8	77.8	6.4	91.4	13.7	98.3	27.1	78.5	29.8	38.2

(Source: Cotton Quarterly Statistical Bulletin, 1956, Vol.9, No.3, Tables 62 & 63, p.106.)

TABLE 20

TOTAL EMPIRE COTTON CROPS FOR 1919-54, EXCLUDING INDIA
(in bales of 400 lbs.)

Years	Crop	Years	Crop	Years	Crop
1918-19	84,797	1930-31	378,919	1942-43	565,509
1919-20	100,790	1931-32	482,277	1943-44	494,333
1920-21	166,154	1932-33	517,419	1944-45	726,400
1921-22	112,795	1933-34	559,172	1945-46	572,701
1922-23	174,612	1934-35	727,981	1946-47	612,822
1923-24	263,178	1935-36	753,609	1947-48	550,925
1924-25	360,523	1936-37	841,022	1948-49	863,330
1925-26	432,935	1937-38	884,298	1949-50	854,726
1926-27	355,248	1938-39	762,352	1950-51	1,054,778
1927-28	358,137	1939-40	746,822	1951-52	976,622
1928-29	464,856	1940-41	882,278	1952-53	1,017,117
1929-30	412,169	1941-42	669,942	1953-54	1,228,085

(Sources: I(iv)(b), ECGC/AR, CR & GM)
(Note: The figures for years 1924-25 to 1928-29 differ slightly, according to ECGC source.)

TABLE 21

SELECTED AFRICAN COTTON CROPS, 1902-1918
(in 400lb. bales)

Year	British West Africa	Uganda	British East Africa	Nyasa-land	German East Africa	TOTAL BRITISH AFRICA
1902	25	-	-	(2)	2.5	325
1903	750	----------150*----		(142)	51	2900
1904	2550	(54)	850*(72)	(713)	681	6904
1905	4550	(240)	2000*(249)	(1942)	1039	10574
1906	7500	500	200	2200	1038	14618
1907	11600	2000	200	2500	1274	24333
1908	6400	4000	300	2100	1486	22754
1909	13000	5000	300	2800	2855	28580
1910	6700	12000	400	3000	3425	37979
1911	6800	20000	500	5000	5943	54595
1912	11890	29000	900	6800	10349	63557
1913	16300	26000	1000	6800	12055	62730
1914	14850	42000	500	8000	16500	
1915	7600	25200	300	9000		
1916	20300	25100	200	8500		
1917	11900	24000	200	6500		
1918	6200	23000	200	5000		

* Includes Uganda, British East Africa and Nyasaland.
(Sources: Todd, 1915, pp.200-01 for 1902-13; BCGA Annual Reports for 1914-18 and for bracketed Uganda, BEA and Nyasaland entries.)

TABLE 22

SELECTED EAST AND CENTRAL AFRICAN COTTON CROPS, 1918-75

(in 400 lb bales)

Years	Uganda	Kenya	Nyasaland/ Malawi	Tanganyika/ Tanzania
1918-19	36,530	100	2,591	-
1919-20	47,694	100	2,026	-
1920-21	81,365	500	4,615	7,327
1921-22	48,290	417	5,422	7,175
1922-23	88,046	1,200	4,036	11,434
1923-24	128,604	1,653	6,873	18,793
1924-25	196,038	2,250	7,718	21,724
1925-26	180,859	2,046	4,976	24,280
1926-27	131,728	1,232	2,792	15,966
1927-28	138,486	1,241	4,470	32,954
1928-29	204,057	1,984	6,095	27,785
1929-30	129,969	1,518	9,331	23,135
1930-31	191,305	783	4,205	11,351
1931-32	203,265	1,744	5,067	18,039
1932-33	294,828	4,276	5,942	30,834
1933-34	285,986	6,749	10,713	39,009
1934-35	253,242	8,773	21,006	58,540
1935-36	321,348	15,783	13,730	67,369
1936-37	338,391	22,166	13,908	61,783
1937-38	417,179	19,610	17,358	44,636
1938-39	303,893	9,976	5,276	64,106
1939-40	296,672	11,622	6,526	65,314
1940-41	368,898	15,094	5,376	72,766
1941-42	236,370	12,269	14,392	51,017
1942-43	112,849	5,453	5,552	38,309
1943-44	191,870	6,330	8,450	24,797
1944-45	272,064	5,384	8,302	40,421
1945-46	228,709	5,015	9,050	41,028
1946-47	231,745	5,148	11,166	39,963
1947-48	170,066	4,860	12,852	53,764
1948-49	391,240	9,714	2,392	51,308
1949-50	339,788	7,973	10,408	49,715
1950-51	346,465	13,824	3,884	47,464
1951-52	380,304	16,493	12,675	77,763
1952-53	320,147	9,411	15,854	50,638
1953-54	397,631	17,027	11,308	102,638
1954-55	299,935	12,963	15,407	122,058
1955-56	363,675	16,297	5,734	133,591
1956-57	372,433	8,182	7,000	169,061
1957-58	350,972	11,547	9,180	171,433
1958-59	400,962	17,378	15,649	202,093
1959-60	360,573	19,174	20,354	188,571
1960-61	371,318	15,694	19,564	166,885
1961-62	181,247	9,187	30,226	218,515
1962-63	358,476	15,302	17,726	262,000
1963-64	379,000	17,300	22,100	293,200
1964-65	437,900	22,800	36,900	369,400
1965-66	445,100	23,400	23,000	435,600

TABLE 22, cont.

Years	Uganda	Kenya	Malawi	Tanzania
1966-67	427,800	23,900	22,000	392,000
1967-68	344,800	20,000	21,200	283,800
1968-69	421,200	23,200	31,400	393,900
1969-70	467,800	27,700	36,600	415,000
1970-71	411,000	30,200	38,200	355,000
1971-72	n.a.	n.a.	39,200	425,000
1972-73	"	"	28,500	372,000
1973-74	"	"	37,800	382,000
1974-75	"	"	28,000	270,000

(Sources: I(iv)(b), ECGC/ and CRC/AR, CR & GM)

TABLE 23

RECORD COTTON CROPS PRIOR TO 1949 AND BETWEEN 1950 AND 1972 FOR SIX AFRICAN COUNTRIES
(in 400 lb bales)

Countries	(a) Season prior to 1949 (b) Season after 1949	(a) Amount (b) Amount
Kenya	(a) 1936-37	(a) 22,166
	(b) 1970-71	(b) 30,200
Nyasaland/	(a) 1934-35	(a) 21,006
Malawi	(b) 1971-72	(b) 39,200
Nigeria	(a) 1940-41	(a) 73,295
	(b) 1969-70	(b) 504,000
Sudan	(a) 1944-45	(a) 374,296
	(b) 1971-72	(b) 1,347,000
Tanganyika/	(a) 1940-41	(a) 72,766
Tanzania	(b) 1965-66	(b) 435,600
Uganda	(a) 1937-38	(a) 417,179
	(b) 1969-70	(b) 467,800

(Sources: I(iv)(b), ECGC/ and CRC/AR, CR & GM)

TABLE 24

CURRENT SITUATION (1920 OR 1924) AND PROSPECTS FOR COTTON-GROWING IN FIVE AFRICAN TERRITORIES, as assessed by W. Himbury in 1921 and 1925

Colony or Protectorate	Area (sq.miles)	Population (mills.)	Soil	Climatic conditions	400lb bales in (a)1920 (b)1924	Cotton Quality
UGANDA	110,300	3.0	Very Good	Good	(a) 52,000	Very Good
(Prospects: increased production to 500,000 bales/annum minimum.)						
NYASALAND	39,573	1.2	Good	Good	(a) 4,000	Good
(Prospects: 100,000 bales/annum minimum; improved transport needed.)						
TANGANYIKA TERRITORY	365,000	4.1	Good	Favourable	(b) 17,500	Good
(Prospects: very favourable; possible 250,000 bales/annum minimum.)						
NORTHERN RHODESIA	291,000	1.0	Excellent	Good	(b) 500	Very Good
(Prospects: very favourable; possible 100,000 bales/annum minimum.)						
SOUTHERN RHODESIA	149,000	.9	Excellent	Good	(b) 1,600	Very Good
(Prospects: 100,000 bales/annum; cheaper, better transport essential.)						

(Sources: I(i)(b): CGA 2/2/37 & 2/2/45, HIMBURY, 1921 and 1925.)

TABLE 25

BALES HANDLED BY THE BRITISH COTTON GROWING ASSOCIATION, 1910-1939

Year	No. of Bales	Value of Bales
1910	21,388	£296,160
1911	27,673	£373,583
1912	40,094	£507,122
1913	47,446	£661,227
1914	38,694	£456,147
1915	48,087	£627,763
1916	40,730	£788,061
1917	39,191	£1,415,644
1918	29,190	£1,410,837
1919	30,881	£1,494,921
1920	23,513	£1,699,144
1921	63,966	£1,597,702
1922	67,386	£1,628,778
1923	54,606	£1,588,480
1924	59,583	£1,922,097
1925	84,320	£2,502,967
1926	135,522	£3,368,740
1927	171,600	£5,012,084
1928	124,182	£4,160,049
1929	124,790	£3,683,567
1930	89,350	£1,785,979
1931	121,362	£1,338,657
1932	149,855	£1,976,243
1933	110,570	£1,595,630
1934	138,276	£2,189,056
1935	137,311	£2,111,800
1936	182,631	£2,989,235
1937	176,945	£2,919,759
1938	157,112	£1,985,969
1939	181,567	£2,426,743

(Sources: BCGA Annual Reports)

TABLE 26

BRITISH COTTON GROWING ASSOCIATION ACCOUNTS: "Income and Expenditure" and "Overseas Branches" Balances, 1938-46

Year	Income & Expenditure Account	Branches Account	Year	Income & Expenditure Account	Branches Account
1938	+£17,678	+£10,768	1943	+£21,402	+£20,721
1939	+£16,685	+£ 8,251	1944	+£23,652	+£14,225
1940	+£22,983	+£30,709	1945	+£24,276	+£12,728
1941	+£20,567	+£37,203	1946	+£26,820	+£24,987
1942	+£17,491	+£21,546			

(Source: I(ii)(b): BCGA/EM, 1939-47)

TABLE 27

BRITISH COTTON GROWING ASSOCIATION ACCOUNTS: BALANCES ON BRANCHES ACCOUNTS FOR NIGERIA, NYASALAND AND UGANDA, 1947-63.

Year	NIGERIA	NYASALAND	UGANDA
1946	+ £16,027	+ £ 4,684	+ £ 4,276
1947	+ £15,786	+ £ 7,082	+ £ 6,468
1948	- £ 5,995	+ £14,827	+ £ 7,486
1949	+ £26,338	- £694	+ £16,550
1950	+ £54,792	+ £10,578	+ £ 4,979
1951	+ £65,855	+ £ 2,889	+ £11,428
1952	+ £97,098	+ £16,043	+ £21,827
1953	+ £119,483	+ £16,067	+ £24,882
1954	+ £131,450	+ £ 8,153	+ £37,048
1955	+ £193,874	+ £17,056	+ £14,262
1957	+ £132,777	+ £ 6,493	+ £31,252
1958	+ £304,755	+ £ 9,283	+ £21,361
1959	+ £194,549	+ £17,146	+ £29,207
1960	+ £221,370	+ £14,901	+ £21,487
1961	+ £367,693	+ £18,266	+ £23,469
1962	+ £138,231	+ £15,964	- £13,150
1963	+ £318,133	+ £30,842	+ £23,922

(Note: 1956 omitted)

(Sources: I(ii)(b): BCGA/EM, 1946-63)

TABLE 28

EMPIRE COTTON GROWING CORPORATION: ESTIMATES OF EXPENDITURE IN THE FORM OF ASSISTANCE TO COTTON-GROWING COUNTRIES, 1923-75

Year	Tanganyika/ Tanzania	Nyasaland/ Malawi	Total assistance to cotton-growing countries[1]	Estimated TOTAL ECGC/CRC EXPENDITURE
1923-24	£ 8,412*	£ 4,465*	£18,984	£35,665*
1924-25	£ 2,186	£ 3,155	£11,341*	£74,823*
1925-26	£ 486	£ 4,288*	£19,973	£93,283
1926-27	-	£ 2,879	£26,908	£71,955
1927-28	-	£ 3,041	£30,942	£146,300
1928-29	£ 2,000	£ 3,937	£42,132	£101,482*
1929-30	-	£ 3,086	£55,027	£84,158*
1930-31	-	£ 3,718	£34,847	£82,808
1931-32	-	£ 3,586	£45,923	£76,936
1932-33	-	£ 3,310	£62,447	£77,374
1933-34	-	£ 3,489	£62,585	£79,545
1934-35	£ 1,000	£ 4,594	£60,101	£77,266
1935-36	£ 9,240	£ 3,820	£69,066	£88,976
1936-37	£ 5,952	£ 3,692	£47,535	£77,922*
1937-38	£ 5,485	£ 4,530	£54,928	£85,863*
1938-39	£ 5,136	£ 6,761	£60,013	£89,877
1939-40	£ 7,767	£ 8,192	£69,815[2]	£100,436
1940-41	£11,550	£ 6,824		£76,329
1941-42	£10,554	£ 5,192		£75,684
1942-43	£ 9,549	£ 6,710		£67,511*
1943-44	£ 9,386	£ 7,542	£41,178	£73,203*
1944-45	£ 9,378	£ 6,792	£38,801	£69,767*
1945-46	£ 9,557	£ 5,679		£65,682
1946-47	£ 9,318	£ 5,320	£36,616	£69,947*
1947-48	£ 5,832	£ 9,464	£39,593	£83,740*
1948-49	£ 6,422	£ 7,965	£39,874	£80,367*
1949-50	£ 6,464	£ 7,543		£91,353
1950-51	£ 6,289	£ 9,559		£97,175
1951-52	£ 9,280	£ 9,100		£80,000
1952-53	£11,400	£ 6,770		£79,180
1953-54	£11,200	£ 7,700		£83,650
1954-55	£10,550	£ 6,600		£82,650
1955-56	£11,900	£11,000		£154,800
1956-57	£11,500	£ 5,400		£161,600
1957-58	£11,500	£ 2,800		£169,875
1958-59	£14,300	£ 3,000		£170,600
1961	£16,500	£ 2,200	£166,300	£200,000
1962	£17,000	£ 2,700	£199,500	£223,500
1963	£22,000	£ 2,700	£127,100	£244,500
1964	£23,000	£ 2,700		£258,000
1965	£23,000	£ 3,000		£274,500
1966	£23,500	£ 1,800		£271,500
1967	£26,000	£ 200		£277,100
1968	£26,500	£ 200		£281,800

Table 28, cont.

Year	Tanzania	Malawi	Total Exp.
1969	£32,300	£ 200	£319,000
1970	£34,400	£ 7,000	£336,800
1971	£46,080*	£12,693	£339,513*
1972	£47,200	£16,000	£310,400
1973	£51,000	£21,400	£320,900
1974	£62,895*	£29,741	£342,149*
1975	£56,475*	£33,480	£343,689*

[1]For the years 1923-41 and 1942-49, the greatest expenditure overseas was in South Africa, with a maximum amount of £21,527 spent in 1938-39. In September 1949 land and laboratories at Barberton were given to the South African Government. The top expenditure for other years was in Tanganyika in 1923-24 & 1941-42; in Sudan, 1949-52; and in Uganda (excluding finance for Namulonge Cotton Research Station), 1961-67.

[2]The accounts showed this column erratically after 1939-40.

*These figures show actual amounts spent, not estimates like the others in the table.

(Sources:I(iv)(a): BCGC/BCM, CRC/BCM; I(iv)(b): BCGC/CR, BCGC/GM, CRC/CR and CRC/GM.)

TABLE 29

EMPIRE COTTON GROWING CORPORATION: SAMPLE YEARS' EXPENDITURE COMMITMENTS - 1924-25, 1926-27, 1961.[1]

Assistance to cotton-growing countries:	1924-25	1926-27	1961
Tanganyika	£2,186		£16,500
Nyasaland	£3,155	£2,879	£ 2,200
Queensland/Australia	£2,490	£4,262	
South Africa	£3,510	£7,505	
Swaziland		£2,000	
Sudan		£2,105	£22,500
Southern Rhodesia		£2,100	
Northern Rhodesia		£ 900	
Uganda		£ 596	£31,000
Nigeria		£3,661	£17,500
Fiji		£ 900	
Kenya			£ 3,300
Aden			£ 8,000
West Indies			£ 2,800
Head Office	£10,755	£12,811	£23,900
Studentships[1]	£ 1,127	£ 1,797	£ 3,000
Research (Trinidad, West Indies, Universities)[2]	£ 5,410	£27,583	
Journal	£ 650	£ 835	
Indian Central Cotton Commission	£ 100	£ 100	
Empire Exhibition	£ 2,250		
Sundries/contingencies	£ 100		£ 1,800
Mechanical Transport		£ 1,921	
Cost of Namulonge			£60,000
Overseas tours			£ 2,500
Spinning Tests			£ 5,000
TOTAL:	£31,733	£71,955	£200,000

[1]Includes grants as well, for 1961. [2]Grants to Cambridge, Manchester and Rothamsted continued until 30/9/57. (Sources: I(iv)(a): BCGC/BM)

*For 1924-25 & 1926-27, actual expenditure was considerably more. See Table 30.

TABLE 30

EMPIRE COTTON GROWING CORPORATION/COTTON RESEARCH CORPORATION: INCOME AND EXPENDITURE ESTIMATES, 1923-1975

Year	Levy Income	Total Income	Expenditure	
1923-24		£90,939[1]	£35,665[1]	
1924-25	£45,000	£122,025[1]	£74,823[1]	
1925-26		£134,295[1]	£93,284[1]	
1926-27	£73,992	£120,956[1]	£103,684[1]	
1927-28	£79,827	£139,833[1]	£146,300[1]	
1928-29	£54,402[1]	£114,781[1]	£101,482[1]	
1929-30	£34,881[1]	£95,417[1]	£84,157[1]	
1930-31	£19,224	£82,808	£82,808	
1931-32	£ 9,469	£76,636	£76,936	
1932-33	£10,554	£63,463	£77,374	
1933-34	£10,712	£74,669	£79,545	
1934-35	£10,490	£72,230	£77,266	
1935-36	n.a.	£73,048	£88,976	
1936-37	£10,930	£73,652	£77,922[1]	
1937-38	£13,295	£74,830	£85,863[1]	
1938-39	£12,546	£75,878	£89,877	
1939-40	£10,950	£74,110	£100,436	
1940-41	n.a.	£77,185	£76,329[1]	
1941-42	£12,600	£77,880	£75,684	
1942-43	£ 8,621	£72,745	£67,511[1]	
1943-44	£ 6,022	£73,203	£73,203[1]	
1944-45	£ 6,919	£69,767	£69,767[1]	
1945-46	n.a.	£63,225	£65,682	
1946-47	£ 5,720	£65,230	£65,160	
1947-48	£ 6,139	£74,219	£83,740[1]	
1948-49	£20,046[1]	£77,990	£80,367[1]	
1949-50	£18,000	£91,693	£91,353	
1950-51	£18,000	£94,816	£97,175('51-'52, £80,000;	
1952-53	£32,000	£85,800	£79,180 other figs. n/a)	
1953-54	£32,000	£88,000	£83,650	
1954-55	£32,000	£88,000	£82,650	
1955-56	£32,000	£145,006	£154,800	
1956-57	£32,000	£160,635	£161,600	
1957-58		£161,375	£169,875	
1958-59		£181,362	£170,600	
1961		£193,000	£200,000	
1962		£223,500	£223,500	Capital Withdrawn
1963		£225,300	£244,500	---
1964		£222,000	£258,000	
1965		£227,300	£274,500	£47,200
1966		£235,000	£271,500	£36,500
1967		£269,080	£277,100	£ 8,020
1968		£262,600	£281,800	£19,200
1969		£231,535	£319,900	£88,365
1970		£230,515	£336,800	£106,285
1971		£260,900	£339,513[1]	£78,613
1971		£128,940	£310,400	£181,460
1973		£120,220	£320,900	£200,680
1974		£169,283	£342,149[1]	£172,866
1975		£171,298	£343,689[1]	£172,391

[1]Includes Cotton Board grant of £18,000; figures in this column from now on are Cotton Board Grants, with the 1952-57 figures being the five-year averages. [1]Actual figures, not estimates.

(Sources: I(iv)(b): ECGC/CR, ECGC/GM, CRC/CR and CRC/GM.)

TABLE 31

EMPIRE COTTON GROWING CORPORATION/COTTON RESEARCH CORPORATION: FINANCE FROM OVERSEAS GOVERNMENTS, 1954-75

(From 1954-59, finance for Cotton Research Station, Namulonge; from 1961, grants for general cotton work.)

	1954-55	1955-56	1956-57	1957-58	1958-59	1961
Sudan	£2,051	£2,051	£2,051	£2,050	£22,000	£22,000
Aden				£5,325	£ 5,362	£ 6,000
Uganda	£15,864	£15,402	£9,090	£53,000	£53,000	£53,000
Tanganyika	£ 2,905	£ 2,820	£1,664	£14,000	£14,000	£14,000
Nigeria	£ 2,234	£ 2,169	£1,281	£24,000	£24,000	£24,000
Kenya	£670	£651	£384	£2,000	£2,000	£2,000
Nyasaland	£670	£651	£384	£2,000	£2,000	£2,000

	1962	1963	1964	1965	1966
Sudan	£32,350	£32,600	£27,000	£27,000	£27,000
Aden	£ 5,600	£ 4,800	£ 4,800	£ 4,300	£ 1,450
Uganda	£56,750	£58,000	£58,000	£58,000	£58,000
Tanzania	£21,000	£21,000	£21,000	£21,000	£21,000
Nigeria	£28,700	£25,000	£25,000	£25,000	£25,000
Kenya	£ 3,000	£ 3,000	£ 3,000	£ 3,000	£ 6,000
Malawi	£ 3,000	£ 3,000	£ 3,000	£ 3,000	£ 3,000
Swaziland		£ 600	£ 1,200	£ 1,200	£ 1,200

	1967	1968	1969	1970	1971
Sudan	£23,600	£23,800	£17,700	£13,200	£10,163
S. Arabia[1]	£ 1,360	£ 1,190	£ 1,240	£ 1,090	£ 1,400
Uganda	£75,000	£75,000	£70,000	£70,000	£70,000
Tanzania	£25,470	£26,550	£19,335	£19,320	£25,636
Nigeria	£24,370	£23,100	£15,590	£13,050	£11,929
Kenya	£ 8,020	£ 6,330	£ 6,315	£ 7,725	£ 8,939
Malawi	£ 1,340	£ 1,230	£ 870	£ 4,360	£ 7,022
Swaziland	£ 2,000	£ 2,000	£ 1,755	£ 2,705	£ 3,336
Zambia	£ 3,820	£ 4,560	£ 3,280	£ 5,705	£ 6,391
Botswana				£ 1,010	

[1]South Yemen in this row, from 1969.

	1972	1973	1974	1975
Sudan	£6,000	£6,000	£6,000	£6,000
S. Yemen	£1,260	£1,310	£1,240	£1,250
Uganda	£5,670	£5,100	-	-
Tanzania	£5,150	£4,550	£5,300	£4,720
Nigeria	£6,000	£3,170	£3,100	£3,670
Kenya	£1,270	£1,300	£1,290	-
Malawi	£1,360	£1,380	£1,390	£1,280
Swaziland	£1,130	£1,180	£1,230	£1,230
Zambia	£1,100	£1,220	£1,150	£1,090

(Source: I(iv)(a): ECGC/ECM and CRC/ECM)

TABLE 32

ECGC/CRC SPECIALIST STAFF IN OVERSEAS COUNTRIES: SAMPLE YEARS - 1939, 1952 AND 1973

Country	Specialist cotton staff in 1939	1952	1973
Sudan	4	7	2
Uganda	-	13	11
Tanganyika	-	5	9
Kenya	-	1	3
Nyasaland	5	3	4
Northern Rhodesia	1	-	2
Southern Rhodesia	4	-	-
South Africa & Swaziland	12	-	-
Nigeria	-	4	4
West Indies	6	2	-
TOTAL:	32	35	35

(Source: I(iv)(h): Misc.1 for 1939 and 1952; I(iv)(a): CRC/ACM for 1973)

TABLE 33

INCREASE IN EMPIRE PRODUCTION AS ASSESSED BY EMPIRE COTTON GROWING CORPORATION, 1918-51.

Years	Empire production (in bales)	% (1918-21=100)
1918-21	117,000	100
1921-24	183,000	156
1924-27	382,000	326
1927-30	411,000	351
1930-33	459,000	392
1933-36	680,000	581
1936-39	829,000	708
1939-42	766,000	654
1942-45	595,000	508
1945-48	578,000	494
1948-51	923,000	788

(Source: I(iv)(h): Misc. 1)

TABLE 34

REVENUE AND EXPENDITURE, BRITISH CENTRAL AFRICA PROTECTORATE/NYASALAND, 1900-1910

Year	Revenue	Expenditure	Year	Revenue	Expenditure
1900-1	£49,214	£78,366	1905-6	£76,738	£108,682
1901-2	£51,704	£107,439	1906-7	£82,078	£111,535
1902-3	£67,477	£107,257	1907-8	£75,197	£105,587
1903-4	£75,895	£102,527	1908-9	£80,534	£103,032
1904-5	£67,553	£122,771	1909-10	£76,647	£108,728

(Source: I(x)(a): Colonial Office, Annual Colonial Reports)

TABLE 35

MALAWI
ABSENTEE RATE OF MALES, AGED 15-49, BY QUINQUENNIUM, 1909-73 (indicator of migration rates)

Years	% of males absent from the territory	Years	% of males absent from the territory
1909-13	33.6	1944-48	30.0
1914-18	26.2	1949-53	33.9
1919-23	21.5	1954-58	31.1
1924-28	29.0	1959-63	23.6
1929-33	27.7	1964-68	17.6
1934-38	31.2	1969-73	16.7
1939-43	34.8		

(Source: III, Colman and Garbett, 1976, p.114)

TABLE 36

MALAWI COTTON PRODUCTION 1901-1977

YEAR	ACRES EUROPEAN	ACRES AFRICAN	No.OF AFRICAN GROWERS	VALUE OF EXPORTS £	No.OF BALES EXPORT
1901-1902	60	-	-	-	-
1902-1903	580	-	-	3	1.73
1903-1904	7,000	-	-	1,777	141
1904-1905	21,900	-	-	5,914	713
1905-1906	10,012	-	-	16,180	1,941
1906-1907	7,017	-	-	15,345	1,315
1907-1908	8,659	-	-	13,998	1,008
1908-1909	8,975	-	-	28,355	1,890
1909-1910	12,752	-	-	26,209	2,147
1910-1911	14,892*	-	-	58,687	4,342
1911-1912	24,055	-	-	44,199	3,399
1912-1913	25,697	-	-	80,939	8,093
1913-1914	26,137	-	-	65,486	6,002
1914-1915	24,006	-	-	72,068	6,621
1915-1916	29,578	-	-	65,586	7,663
1916-1917	27,342	5,720	-	127,131	8,656
1917-1918	28,372	11,610	-	39,947	2,166
1918-1919	18,141	5,820	-	156,031	6,677
1919-1920	12,658	4,350	-	55,475	2,325
1920	18,274	3,360	-	86,483	2,284
1921	26,529	4,210	-	66,560	3,688
1922	26,545	3,550	-	72,920	5,569
1923	20,948	9,460	-	85,649	5,456
1924	26,120	13,900	-	120,564	5,573
1925	17,541	30,300	-	96,245	5,729
1926	13,358	38,300	-	93,243	7,712
1927	2,545	12,900	-	45,834	4,625
1928	1,046	14,781	-	58,264	4,464
1929	1,219	34,740	-	62,661	5,304
1930	761	39,188	-	72,881	9,495
1931	225	30,821	-	37,729	5,659
1932	265	33,575	13,260	34,916	5,237
1933	246	29,994	26,242	50,014	6,059
1934	1,501	40,151	28,970	102,876	10,368
1935	2,067	82,391	70,199	204,851	20,485
1936	1,997	98,258	66,159	133,007	13,300
1937	949	91,863	74,845	105,721	11,572
1938	608	-	47,058	99,953	17,134
1939	147	-	-	37,254	6,386
1940	111	-	34,228	38,693	6,633
1941	157	-	34,064	18,238	3,126
1942	243	-	42,096	66,855	11,460
1943	98	-	38,599	100,028	10,047
1944	112	-	48,474	77,991	6,317
1945	-	-	36,200	117,000	8,600
1946	210	-	36,900	128,000	10,565
1947	358	-	34,800	192,000	11,753
1948	855	-	45,700	369,000	15,230

TABLE 36 cont.

Year	ACRES EUROPEAN	ACRES AFRICAN	No. OF AFRICAN GROWERS	VALUE OF EXPORTS £	No. OF BALES EXPORT
1949	700	-	23,700	218,000	2,965
1950	-	-	38,500	335,000	9,927
1951	-	69,172	31,300	330,000	3,977
1952	-	40,558	41,700	744,000	12,675
1953	-	56,852	46,900	788,000	16,182
1954	-	42,489	43,800	557,000	11,488
1955	-	51,621	44,500	728,000	15,407
1956	-	36,826	31,200	245,000	5,150
1957	-	24,650	23,700	299,000	6,816
1958	-	32,112	26,200	354,000	9,317
1959	-	33,869	28,800	594,000	15,649
1960	-	51,236	35,300	802,000	20,354
1961	-	81,710	47,327	-	19,564
1962	-	90,471	48,985	-	28,545
1963	-	90,238	55,056	-	15,600
1964	-	94,030	-	870,000	20,005
1965	-	101,125	-	1,138,000	26,645
1966	-	130,054	-	1,227,500	30,320
1967	-	139,453	-	656,500	18,625
1968	-	-	-	630,000	13,680
1969	-	-	-	864,500	20,975
1970	-	-	-	1,388,500	32,225
1971	-	-	-	-	26,510
1972	-	-	-	-	26,330
1973	-	-	-	-	13,585
1974	-	-	-	-	13,700
1975	-	-	-	-	12,055
1976	-	-	-	-	11,155
1977	-	-	-	-	11,230

* There are discrepancies between sources for many of the figures in this table, but a more notable one here. The acreage is 23,314, according to MNA, S1/557/20.

(Sources: I(x)(b): 1920-38 Blue Books; I(v)(c): COM 2/11, Bell Commission; I(x)(b), Jack Report; I(v)(b): MNA, A 3/2/231; I(x)(a): CO, Economic Survey, 1952; I(x)(b): MG, Economic Planning Division, 1971; I(v)(e): MNA, S1/1702/21; Department of Agriculture, Annual Reports; I(x)(a): CO, Colonial Reports.)

TABLE 37

QUANTITY OF COTTON PURCHASED, PRICE PAID, HUT TAXES COLLECTED, LOWER SHIRE VALLEY, NYASALAND, 1923-1933

Year	Tons	Value	Taxes paid	Year	Tons	Value	Taxes paid
1923	471	£9,175	£15,600	1929	2116	£37,390	£23,151
1924	662	£12,089	£18,604	1930	2586	£22,867	£24,533
1925	1678	£36,734	£26,162	1931	1126	£6,915	£20,638
1926	1278	£20,048	£21,900	1932	1974	£10,859	£16,722[1]
1927	708	£10,291	£21,596	1933	1995	£12,151	£19,397[2]
1928	1522	£25,000	£23,653				

[1] Includes 1931 arrears.
[2] Includes 1932 arrears.

(Sources: I(v)(b): MNA, A 3/2/205; I(v)(d): MNA,NSP 2/1/4)

TABLE 38

LOWER RIVER DISTRICT, NYASALAND
COMPARISON OF PERCENTAGE OF HUT OWNERS GROWING COTTON IN 1931 AND 1932 and SIZE OF GARDENS BY SECTION.

Section	Hut owners	% growing cotton		number of gardens (1931-32)		
		1931	1932	large[1]	small	total
Tengani	7454	46	20	12	1496	1508
Ngabu	1250	68	41	8	506	514
Nachikadza	3846	55	38	13	1493	1506
Ndamera	4395	30	15	32	641	673
Chimombo	3991	26	18	3	723	726
Chipwembwe	1596	64	57	-	937	937
Mlolo	3283	100	86	126	2787	2913

[1] Over 3 acres is defined as large.

(Sources: I(v)(b): MNA, A 3/2/205 and Nyasaland Department of Agriculture Annual Reports)

TABLE 38a

LOWER SHIRE DISTRICT, 1930-33, COTTON-GROWERS BY SEX

Year	Male	Female	TOTAL
1930-31	10,759	2,383	13,142
1931-32	8,284	272	8,556
1932-33	13,482	3,227	16,709

(Source: MNA, as for Table 38)

TABLE 39

COMPARISON OF SEED COTTON PURCHASED FROM AFRICAN GROWERS ACCORDING TO DISTRICTS, 1923-1933

(Quantity in lbs)

Year	Port Herald	Chikwawa	Blantyre & Neno	Mlanje	South Nyasa
1923	1,072,946	169,197	117,327	136,675	32,400
1924	1,539,963	286,432	202,042	185,668	225,219
1925	3,636,344	1,170,208	342,973	189,974	318,675
1926	2,603,578	1,551,121	429,161	198,195	26,593
1927	1,548,030	986,742	382,374	56,578	8,759
1928	3,086,068	1,991,099	398,172	22,896	3,601
1929	5,175,849	3,797,125	458,823	31,367	39,811
1930	5,185,829	5,415,755	683,535	62,453	58,536
1931	2,522,701	2,330,409	494,948	7,472	5,862
1932	4,421,866	1,527,297	95,032	0	0
1933	4,508,000	1,819,207	358,707	0	0

Year	Liwonde	Ncheu*	Dedza*	Dowa	Kota-Kota
1923	0	0	0	0	0
1924	24,985	0	0	0	0
1925	138,683	115,195	115,195	27,260	2,863
1926	7,758	45,619	43,619	27,219	0
1927	24,587	47,704	47,704	18,765	0
1928	18,837	42,193	23,527	82,289	0
1929	40,019	104,722	114,190	212,882	0
1930	53,242	130,267	274,828	193,139	0
1931	0	36,816	58,950	90,443	0
1932	0	0	0	0	0
1933	9,530	172,567	11,400	0	0

*The figures for Ncheu and Dedza for 1925-27 appear as shown here in different sources.

(Sources: I(v)(e): MNA, S 1381D/23 and I(v)(d): MNA, NN 1/3/3, Acting Chief Secretary to Senior Provincial Commissioner, Southern Province, 22/6/34.)

TABLE 39a

MAXIMUM AND MINIMUM PRICES OFFERED BY BUYERS PER POUND OF COTTON, 1923-1933, NYASALAND[1]

Year	Minimum	Maximum	Year	Minimum	Maximum
1923	1d	2 1/2d	1929	3/4d	2d
1924	1d	2 1/2d	1930	1/4d	1d
1925	1d	2 1/2d	1931	1/4d	5/8d
1926	3/4d	2d	1932	1/4d	3/4d
1927	1/2d	1 3/4d	1933	1/2d	7/8d
1928	3/4d	2d			

[1]Prices varied according to district and between grades within districts. Cheaper transport facilities meant that prices offered in Port Herald and Chikwawa were invariably higher than those for other districts.

(Sources: As for Table 39)

TABLE 39b

HIGHEST AND LOWEST VALUES OF AFRICAN GROWN COTTON PURCHASED BY DISTRICT AND BY YEAR, 1923-1933, NYASALAND

District	Highest value		Lowest value	
	Year	Value	Year	Value
Port Herald	1925	£35,527	1931	£6,560
Chikwawa	1929	£22,169	1923	£1,118
Blantyre & Neno	1929	£3,449	1923	£858
Mlanje	1925	£1,498	1931	£15
South Nyasa	1925	£2,438	1931	£12
Liwonde	1925	£1,061	1926	£51
Ncheu	1925	£863	1931	£77
Dedza	1925	£863	1931	£115
Dowa	1929	£1,421	1927	£108

(Sources: As for Table 39)

TABLE 40

NYASALAND AFRICAN COTTON PRODUCTION, 1927-36
(in acres per district)

District	1927	1928	1929	1930	1931
Blantyre	123	27	99	317	274
Central Shire	1,620	877	1,933	1,916	2,476
Chikwawa	3,140	5,453	12,369	17,416	12,941
Chiradzulu	-	-	-	-	-
Cholo	-	-	-	-	-
Dedza	175	86	506	819	324
Dowa	74	323	946	619	510
Lower Shire	7,220	17,947	17,934	16,667	14,010
Mlanje	222	60	134	202	37
Ncheu	149	120	466	418	212
North Nyasa	-	-	-	440	37
South Nyasa	37	9	174	187	-
Upper Shire	102	48	174	173	-
Zomba	-	-	-	-	-
TOTALS	12,862	14,950	34,735	39,174	30,821

District	1932	1933	1934	1935	1936
Blantyre	75	133	228	1,096	2,394
Central Shire	448	1,422	988	4,015	10,653
Chikwawa	8,487	7,997	15,483	21,320	26,523
Chiradzulu	-	-	-	195	-
Cholo	-	-	-	24	2,041
Dedza	-	50	244	2,451	3,239
Dowa	-	-	900	3,319	2,221
Lower Shire	24,565	19,600	21,430	29,649	33,038
Mlanje	-	-	472	3,305	3,622
Ncheu	-	750	160	1,546	1,299
North Nyasa	-	-	204	552	695
South Nyasa	-	-	-	2,075	2,858
Upper Shire	-	42	32	1,135	1,277
Zomba	-	-	10	146	-
TOTALS	33,575	29,994	40,151	71,627	88,986

(Source: I(v)(c): MNA, COM 2/11)

TABLE 41

PERCENTAGE OF SEED COTTON PRODUCED BY AFRICANS ON NATIVE TRUST LAND (NTL), BY AFRICAN TENANTS AND BY EUROPEAN ESTATES, 1930-1950, IN NYASALAND

YEAR	NTL %	TENANT %	EUROPEAN %
1930	98.1	1.9*	
1931	98.9	1.1*	
1932	98.1	1.9*	
1933	96.8	3.2*	
1934	93.9	6.1*	
1935	97.3	2.7*	
1936	92.3	7.7*	
1937	85.6	14.4*	
1938	77.4	22.0	0.6
1939	81.9	17.7	0.4
1940	85.4	14.3	0.3
1941	86.0	13.6	0.4
1942	85.0	14.8	0.2
1943	85.3	14.5	0.2
1945[1]	86.5	13.3	0.2
1946	88.2	11.1	0.7
1947	85.6	13.6	0.8
1948	88.6	9.0	2.4
1949	80.1	17.4	2.5
1950	87.4	12.6	-

*European and Tenant not differentiated.
[1]1944 figures omitted.
(Sources: Derived from Ducker (1932; 1938); and I(x)(a): CO, 1952, Economic Survey, p.47.)

TABLE 42
NYASALAND COTTON PRODUCTION 1909-1939
PERCENTAGE OF COTTON GROWN IN LOWER SHIRE VALLEY

YEAR	%	YEAR	%	YEAR	%
1909-1910	61.1	1920-1921	68.9	1930	86.9
1910-1911	54.6	1921-1922	35.0	1931	87.4
1911-1912	50.3	1922-1923	66.4	1932	98.5
1912-1913	2.2	1923	73.9	1933	92.0
1913-1914	58.8	1924	63.0	1934	92.0
1914-1915	75.7	1925	74.1	1935	70.4
1915-1916	52.5	1926	83.6	1936	77.5
1916-1917	60.5	1927	81.5	1937	44.5
1917-1918	56.0	1928	91.1	1938	47.5
1918-1919	86.0	1929	87.2	1939	40.5
1919-1920	73.3				

(Abstracted from Mandala, 1982, p.28. Original data from Department of Agriculture files)

TABLE 43

PRODUCTION OF SEED COTTON IN TONS AND PERCENTAGES BY AREA, 1939-1944 AND 1966-1969, NYASALAND.

YEAR	LOWER RIVER tons	%	CENTRAL AREAS tons	%	NORTH NYASA tons	%	TOTAL tons
1939	1,357	47.5	1,255	44.0	242	8.5	2,854
1940	2,349	66.8	807	22.9	364	10.3	3,520
1941	1,477	51.0	1,062	36.6	362	12.4	2,901
1942	6,247	81.2	1,138	14.8	306	4.0	7,691
1943	2,245	65.8	814	23.9	352	10.3	3,411
1944	4,654	86.0	507	9.4	248	4.6	5,409

(Source: derived from Ducker (1946))

YEAR	SOUTH tons	%	CENTRAL tons	%	NORTH tons	%	TOTAL tons
1966	10,069	79.0	2,382	18.7	294	2.3	12,745
1967	8,688	73.6	2,262	19.2	853	7.2	11,803
1968	8,460	74.0	2,326	20.4	639	5.6	11,425
1969	13,393	78.5	3,125	18.3	536	3.2	17,054

(Source: derived from I(x)(b): Ministry of Agriculture (1970), Guide to Agricultural Production in Malawi 1969-70)

TABLE 44

MAIN COUNTRIES OF DESTINATION FOR NYASALAND COTTON IN 1938, 1949 AND 1950, in £'000 value of cotton taken.

Country	1938	1949	1950
UK	54	152	316
Portugal	15		
Portuguese East Africa*	11	43	11
Belgium	9		
France	7		
India	3		
Southern Rhodesia		24	
Germany			7
TOTAL	99.9	218.3	335

*For reconsignment
(Source: I(x)(a): CO, 1952 Economic Survey, p.60)

TABLE 45

NYASALAND, 1945-1962
PERCENTAGE OF TOTAL BUDGET SPENT ON AGRICULTURE

YEAR	%	YEAR	%
1945	2.7	1954-1955	8.7
1946	6.1	1955-1956	9.1
1947	5.8	1956-1957	7.3
1948	5.3	1957-1958	9.2
1949	6.3	1958-1959	10.3
1950	5.5	1959-1960	8.7
1951	7.5	1960-1961	10.5
1952	7.0	1961-1962	10.1
1953-1954*	5.7		

(Source: Dequin, 1970)

* 18 month period

TABLE 46

ADMARC SEED COTTON CROP PURCHASES FROM LOWER SHIRE VALLEY 1960-1974 (IN SHORT TONS)

YEAR	SEED COTTON	YEAR	SEED COTTON
1960	11,026	1968	5,608
1961	10,292	1969	11,984
1962	17,068	1970	16,074
1963	8,899	1971	15,977
1964	13,073	1972	16,731
1965	18,925	1973	11,214
1966	9,503	1974	16,709est.
1967	7,176		

(Source: SVADP, Atlas, 1975)

TABLE 47
MALAWI: ADMARC PURCHASES AND PROFITS

YEAR	VOLUME OF CROP PURCHASED (in 'ooo lbs)	ADMARC NET PROFITS ON COTTON AT 1980 PRICES (in million Kwacha)
1970-1971	50,306	-
1971-1972	49,220	1.6
1972-1973	48,120	1.9
1973-1974	35,726	2.8
1974-1975	47,358	5.1
1975-1976	39,264	0.7
1976-1977	39,468	2.6
1977-1978	-	1.7
1978-1979	-	1.4
1979-1980	-	0.5
1980-1981	-	(0.8) loss
1981-1982	-	2.4

(Sources: For Volumes - I(x)(b): MG, Min.Agr., NRDP, 1978; For Profits - Christiansen, 1985, p.467)

TABLE 48

COTTON PRODUCTION IN GERMAN EAST AFRICA, 1902-1913

YEAR	BALES	YEAR	BALES
1902	2	1908	1,485
1903	512	1909	2,855
1904	525	1910	3,425
1905	525	1911	12,238
1906	525	1912	5,943
1907	2,875	1913	16,500

(Source: Aman, 1927.)

TABLE 49

TANZANIA: COTTON PRODUCTION 1921-1970 - TOTAL BALES PRODUCTION, PRODUCTION IN LAKE PROVINCE AND EASTERN PROVINCE, PERCENTAGE LAKE PROVINCE AND PRODUCER PRICE IN LAKE PROVINCE

YEAR	LAKE PROVINCE	% LAKE PROVINCE of Total	EASTERN PROVINCE	TOTAL Bales	Price in cents/lb Seed Cotton GRADE A in Lake Province MAX	MIN
1921	805	11	4,296	7,328	-	-
1922	2,902	40	3,369	7,175	27.7	20.0
1923	4,518	40	5,444	11,434	-	-
1924	5,863	31	9,706	18,794	29.1	20.0
1925	9,711	43	7,662	22,474	26.8	23.6
1926	8,257	34	13,605	24,281	22.7	18.6
1927	7,649	48	7,099	15,966	28.2	17.3
1928	12,253	37	18,767	32,954	20.0	14.5
1929	7,477	27	17,456	27,785	18.6	15.9
1930	8,593	37	13,228	23,135	14.1	7.7
1931	7,011	62	3,917	11,351	7.3	3.6
1932	7,747	43	8,565	18,040	10.0	6.8
1933	15,090	49	14,113	30,835	10.9	7.7
1934	26,625	68	10,849	39,009	10.9	10.5
1935	39,705	68	14,805	58,548	12.3	10.0
1936	42,678	63	15,684	67,369	-	
1937	30,799	51	20,931	60,798	-	
1938	21,521	49	16,828	44,250	-	
1939	39,673	57	14,615	70,000	-	
1940	40,273	73	12,749	55,000	-	
1941	50,115	69	8,346	72,766	-	
1942	33,721	66	9,166	51,017	-	
1943	24,800	65	10,550	38,309	12.0	
1944	17,185	69	5,944	24,797	12.5	
1945	35,388	85	4,833	41,418	14.0	
1946	33,817	82	6,221	41,028	15.0	

TABLE 49, cont.

Year	Lake Province	% Lake Province of Total	Eastern Province	Total BALES	Price Grade A cents/lb, Lake Province
1947	32,250	81	6,636	39,963	16.0
1948	45,381	84	7,205	53,823	24.0
1949	37,361	73	12,579	51,310	24.0
1950	38,905	78	8,433	49,715	25.0
1951	42,349	93	3,047	45,511	34.0
1952	70,298	90	6,723	77,763	50.0
1953	38,600	76	9,927	50,638	50.0
1954	90,849	89	8,966	102,638	60.0
1955	108,843	89	8,439	122,058	60.0
1956	121,304	91	8,730	133,591	55.0
1957	151,322	90	12,500	169,061	52.0
1958	151,608	88	14,421	171,433	52.0
1959	182,949	91	13,313	201,608	50.0
1960	160,970	85	16,547	188,571	50.0
1961	158,375	97	3,640	163,236	55.0
1962	195,782	92	2,908	213,807	55.0
1963	237,900	91	17,642	260,509	50.0
1964	256,000	88	18,078	290,114	50.0
1965	325,622	88	22,250	370,069	48.0
1966	381,402	89	-	430,221	46.0
1967	375,360	96	-	390,960	46.0
1968	273,840	96	-	283,800	48.0
1969	384,000	96	-	399,960	50.0
1970	400,000	98	-	410,000	50.0

(Sources: Based on Bartlett, Ph.D., 1974, Table7, pp.299-300; mainly from Department of Agriculture Annual Reports)

TABLE 50

TANZANIA: ESTIMATED REAL INCOME OF COTTON PRODUCERS, 1963-1983.

(Assumes 40% of income from subsistence production; and rest solely from cotton)
(Index: 1963 = 100)

Year		Year		Year	
1963	100	1970	78	1977	62
1964	94	1971	77	1978	63
1965	90	1972	73	1979	62
1966	84	1973	69	1980	64
1967	82	1974	65	1981	59
1968	80	1975	58	1982	59
1969	75	1976	65	1983	57

(Source: Bryceson, 1986, page 21.)

APPENDIX VII

NOTES ON ADMINISTRATION OF TANZANIA AND MALAWI

(i) ADMINISTRATIVE DIVISIONS OF BRITISH CENTRAL AFRICA PROTECTORATE/NYASALAND/MALAWI

David Livingstone's appointment from February 1858 to 1863 as Consul over a vaguely defined area of the Eastern African coast and interior came to include Malawi by virtue of his travels there. But it was not until 1883 with the appointment of Captain Foot that a Consul was assigned specifically to the Malawi area of the territories north of the Zambesi and adjacent to the west side of Lake Nyasa. Foot arrived at Blantyre, where he intended to reside, in early 1884, but died in August of that year.

Acting Consul Lawrence Goodrich and Consul A.G.S. Hawes preceded Acting Consul John Buchanan who declared a British Protectorate over the Shire Highlands on 21st September 1889, after H.H. "Harry" Johnston had concluded various treaties that summer. On 14th May 1891 a British protectorate was proclaimed over "Nyasaland Districts" with administration by the Foreign Office through a Commissioner - Harry Johnston, in the first instance.

The name British Central Africa Protectorate became official on 22nd February 1893, control moving from the Foreign Office to the Colonial Office in 1904. The old name of Nyasaland Protectorate was revived in 1907 when Legislative and Executive Councils were established with direct representation of planters and indirect African representation by a Government-nominated white missionary.

The boundary divisions and names of administrative spheres changed many times from 1894 to 1971, as detailed in Government Notices, GN 29/1910, GN 198/1911, GN 275/1913, GN 276/1913, GN 115/1914, GN 73/1921, GN 147/1921, GN 148/1921, GN 73/1922, GN 264/1923, GN 281/1925, GN 7/1931, GN 53/1934, GN 30/1945, GN 57/1946, GN 185/1946, GN 2/1950, GN 158/1950, GN 50/1951, GN 189/1951, GN 207/1954, GN 170/1955, GN 80/1960, GN 102/1961, GN 163/1964, GN 96/1968, GN 3/1970, GN 109/1971. A few of the more important changes are detailed below.

By the 1894 District Boundaries Regulations, the following districts were created on 1/1/1895:

North Nyasa	West Nyasa	Marimba	Central Angoniland
South Nyasa	Upper Shire	Zomba	Blantyre
West Shire	Mlanje	Ruo	Lower Shire

In 1921, Provincial Administration commenced with three provinces covering 18 districts, rationalised in 1923 into:
Southern Province:- South Nyasa, Upper Shire, Zomba, Cholo, Chikwawa, Central Shire, Lower Shire, Chiradzulu, Blantyre, Mlanje
Central Province:- Ncheu, Dedza, Dowa, Lilongwe, Fort Manning, Kotakota
Northern Province:- North Nyasa, Mombera, West Nyasa, Kasungu

For much of this time, District Administration was of the form described for Chikwawa District 1929, with 7 Principal Headmen, 1 or 2 Councillors for each Headman's Section and 254 Village Headmen (I(v)(d): MNA, NSC 2/1/3).

Between 1931 and 1945, the country was divided into a Southern Province of 12,296 square miles and a Northern Province of 25,300 square miles. It reverted to 3 provinces again in 1945, with 20 districts, designated as follows by the end of 1960:
Southern Province:- Fort Johnston, Kasupe, Zomba, Blantyre (rural), Blantyre (urban), Cholo, Mlanje, Chikwawa, Port Herald
Central Province:- Ncheu, Dedza, Lilongwe, Fort Manning, Dowa, Kasungu, Kotakota
Northern Province:- Karonga, Rumpi, Nkata Bay, Mzimba

In 1964, Malawi was divided into 23 districts and Provinces were replaced by Regions. In 1971, the administrative spheres were:

Southern Region	Central Region	Northern Region
Fort Johnston	Ncheu	Karonga
Kasupe	Dedza	Rumpi
Zomba	Lilongwe	Nkata Bay
Cholo	Fort Manning	Mzimba
Mlanje	Dowa	Chitipa
Chikwawa	Kasungu	
Port Herald	Kota-Kota	
Blantyre	Nchisi	
Chiradzulu	Salima	
Mwanza		

Under the Land Acts of 1965 and 1970, three types of land are defined in Malawi - private (freehold, leasehold, certificate of claim or registered as private), comprising 15% of the territory in 1894 and 2.1% in 1977; customary land (previously known as Trust Land and before that as Crown Land), into which category the majority of the land falls, and which has the Head of State as general trustee and administration by local chiefs and village headmen; and public land, acquired by the Government (11% in 1961, 18% in 1977).

(ii) SOME MALAWI PLACE-NAME CHANGES

Pre-Independence	Post-Independence
Cholo	Thyolo
Deep Bay	Chilumba
Fort Hill	Chitipa
Fort Johnston	Mangochi
Fort Manning	Mchinji
Kasupe	Machinga
Kotakota	Nkhotakota
Lake Nyasa	Lake Malawi
Mlanje	Mulanje
Murchison Falls	Kholombidzo Falls
North Nyasa District	Karonga District
Ntondwe	Thondwe
Ncheu	Ntcheu
Palombe	Phalombe
Port Herald	Nsanje
Rumpi	Rumphi
Tuchila	Thuchila
Vipya	Viphya
Visanza	Ntchisi

(iii) ADMINISTRATIVE/DISTRICT CHANGES IN TANGANYIKA

(a) Lake Area and Province/Districts.

In German times, Mwanza Region consisted of Maswa and Musoma sub-districts. In 1926, Maswa, Musoma and Mwanza Districts were formed into Mwanza Region, later Mwanza Province. In 1932, Lake Province was created from Mwanza Province, Biharamulo and Bukoba with Shinyanga District added later. In 1962, the Provinces reverted to Regions (Lake Province thus becoming Lake Region), subdivided in May 1963 into Mwanza Region, Mara Region etc.

In 1931 the Provinces and Districts were divided as follows:

Province	Districts
Mwanza	Mwanza, Maswa, Musoma, Kwimba
Bukoba	Bukoba, Biharamulo
Tabora	Tabora, Kahama, Nzega, Shinyanga
Kigoma	Kigoma, Kasulu, Kibondo, Ufipa
Iringa	Iringa, Njombe, Rungwe, Mbeya
Mahenge	Mahenge, Songea
Lindi	Lindi, Mikindani, Kilwa, Masasi, Tunduru, Newala
Eastern	Dar-es-Salaam, Rufiji, Bagamoyo, Morogoro, Kilosa
Central	Dodoma, Singida, Kondoa, Manyoni
Tanga	Tanga, Usambara, Pangani, Handeni, Pare
Northern	Arusha, Masai, Mbuli, Moshi

In 1963, the nine provinces were reorganized into 17 regions:- West Lake, Mara, Mwanza, Arusha, Kilimanjaro, Tanga, Coast, Morogoro, Dodoma, Singida, Shinyanga, Kigoma, Tabora, Mbeya, Iringa, Ruvuma and Mtwara.

(b) General.

Various German societies became interested in East Africa during the last quarter of the nineteenth century. Dr. Karl Peters founded the Society for German Colonisation in 1884, in which year he made twelve questionable treaties with local chiefs.[1] In 1886, the German Protectorate of Deutsch Ost-Afrika, declared by Bismarck the previous year, was recognised by Britain.

In 1891, the German Government took over administration of the area, which included Ruanda and Burundi, from the German East Africa Company. Existing local rulers or appointees were used to maintain rule over the people. In 1904, the Governor's Council was established with District Officers under the Governor.

The opinions of Germans were divided on the role that German East Africa should perform in the First World War.[2] Governor Schnee was on the side of neutrality to try to forestall African rebellion but the views of Defence Force Commander, Colonel Lettow-Vorbeck, prevailed. East Africa became the scene of a full-scale campaign designed to attract enemy troops away from more crucial battle-fields. Smuts' imperial troops captured Moshi in March 1916 and by the end of the year all of German East Africa north of the Central Railway was occupied by British or Belgian troops. The German forces were driven south of the Central Railway, then into Portuguese Territory over the Rovuma River and, finally, into Northern Rhodesia in November 1918 when the armistice was declared.

On 1st January 1917, a Provisional Civil Administration, headed by H.A. Byatt, later Governor, was appointed over the northern part of the territory under British control, with the area extended as troops advanced. By March 1918 it covered most of German East Africa.

The name became Tanganyika Territory in 1919, when a League of Nations mandate was allocated to Britain to rule most of the area of what is now mainland Tanzania.[1] This mandate was held until 1947 when the country's international status changed to a Trust Territory of the United Nations. In December 1961 the country became independent as Tanganyika and adopted a republican form of government in 1962. In 1964, the political union of Tanganyika and Zanzibar created Tanzania.

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[1] Peters reregistered his company as 'Karl Peters and Company' and later as Deutsch-Ostafrikanische Gesellschaft (DOAG) or German East African Company (I(vii): RHL, Mss.Afr.s.948, ff1-54).

[2] This section on the war is based on Iliffe, 1979, Ch.8 and Marsh & Kingsnorth, 1965, pp.224-226.

[1] Kigoma was administered by Belgium from 1919-21.

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I(iv)(c) CRC/D_: Deeds & Charters
I(iv)(d) BCGA/BOT/ECGC Box file
I(iv)(e) CRC/F1/_: File Series 1
I(iv)(f) CRC/F2/_: File Series 2
I(iv)(g) Circulated Papers - CP1, CP2, CP/S
I(iv)(h) Pamphlets & Books in CRC Library

I(v) MNA, Zomba
I(v)(a) District Books
I(v)(b) Department of Agriculture files
I(v)(c) Commissions
I(v)(d) NC & NN & NS
I(v)(e) Secretariat files
I(v)(f) Hist. Mss. Collection

I(vi) TNA, Dar-es-Salaam
I(vi)(a) Regional & District Books
I(vi)(b) Provincial & District Records
I(vi)(c) Secretariat files

I(vii) RHL, Oxford

I(viii) EUL Special Collection

I(ix) PRO, London

I(x) Official/Government Publications
I(x)(a) Official/Government, Great Britain
I(x)(b) " " non-GB

I(xi) Miscellaneous

II NEWSPAPERS & PERIODICALS
III UNPUBLISHED THESES, DISSERTATIONS, PAPERS, INTERVIEWS
IV BOOKS, PAMPHLETS AND ARTICLES

BCGA: British Cotton Growing Association
BCGC: Empire Cotton Growing Corporation
MNA: Malawi National Archives
RHL: Rhodes House Library
CRC: Cotton Research Corporation
EUL: Edinburgh University Library
PRO: Public Record Office
TNA: Tanzania National Archives

I ARCHIVAL SOURCE MATERIAL

I(i) BRITISH COTTON GROWING ASSOCIATION: records deposited in Birmingham University Library, England.

A selection of British Cotton Growing Association papers was bought from the estate of the late J. Arthur Hutton by Birmingham University Library in 1974. The collection is housed in the Heslop Room, University Library, Birmingham.

A catalogue of the papers was compiled by William A. Wardle in 1977, filed as Book No. 1046973 in the Heslop Room. Some of the papers themselves do not bear catalogue numbers or have been incorrectly recorded, but Wardle's catalogue numbers, and, where relevant, page numbers in bound volumes, are used here as identification.

In addition to the following material, the BUL collection also contains CGA 1/6 (Large Folio Bound Volume of Minutes of Meetings of the India Committee), CGA 1/7 (Minutes of Meetings of the West Indies Committee), CGA 1/8 (Minutes of Meetings of the West African Committee) and CGA 2/3 (Command Papers).

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I(i)(a) CGA 1/ series

CGA 1/1 Bound Volume of Minutes of Conferences held at the Colonial Office, 14th April 1904 to 23rd November 1916.

CGA 1/2 Reports of Deputations to London and Meetings at the Colonial Office, 13th October 1904 - 1912.

CGA 1/3 Minutes of the Meetings of the Organisation Committee, 5th October 1904 - 1913.

CGA 1/4 Minutes of Meetings of the Manchester Sub-Committee.

CGA 1/5 BCGA Sub-Committees.

CGA 1/9 Bound volume of letters from the Colonial Office to the BCGA, with enclosures, 23rd March 1910 to 1st August 1911.

CGA 1/10 Bound volume of letters from the Colonial Office to BCGA, 12th August 1911 to 4th January 1913.

CGA 1/11 Bound volume of letters from the Colonial Office to BCGA, 4th January 1913 to 9th July 1914.

CGA 1/12 Bound volume of letters from the Colonial Office to BCGA, 11th July 1914 to 13th March 1916.

CGA 1/13 Bound volume of letters from the Colonial Office to BCGA, 5th February 1921 to 24th June 1925.

CGA 1/14/1 & 1/14/1a Letter from Hutton to M. Guichard of Compagnie Francaise de l'Afrique Occidentale.

I(i)(b) CGA 2/ series

CGA 2/1 Formally published material (most fairly readily available elsewhere), including:

CGA 2/1/2 TEWSON, F.W. 'The British Cotton Growing Association, 1904-54' (pamphlet published for 1954 Golden Jubilee). Manuscript copy.

CGA 2/1/3 FISHER, E. 'Hints on the Cultivation and Harvesting of Cotton'. (1904).

CGA 2/1/4 REED, J. Howard. 'Cotton Growing within the British Empire'. Reprinted from the Cooperative Wholesale Societies 'Annual', 1911.

CGA 2/1/5 DUNSTAN, Wyndham R. ed. 'Papers and Reports on Cotton Cultivation'. Presented to the International Congress of Tropical Agriculture, Brussels, May 1910. Published by International Association of Tropical Agriculture and Colonial Development, Paris, 1911. Papers inc.
Lamb, P.H. : 'Uganda'
McCall, J.S.J. : 'Nyasaland'
MacDonald, A.C.: 'British East Africa'
Nobbs, Eric A. : 'Southern Rhodesia'
Wright, E,H.S. : 'Northeastern & Morthwestern Rhodesia'

CGA 2/1/6 HIMBURY, W.H. 'The Part Played by Our Empire in the Production of Raw Cotton'. Paper read before the Empire Textile Conference, Wembley, 10/6/24. Reprinted from 'The Journal of the Textile Institute', Vol. XV, No. 6, June 1924.

CGA 2/1/7 BURNHAM, Capt. G.S. 'Cotton Growing in the British Empire and Exotic Countries'. 1925, Sherratt & Hughes, Manchester.

CGA 2/2 BCGA Publications (pamphlets etc.), including:

CGA 2/2/1 HUTTON, J. Arthur. 'Cotton Growing in British Colonies'. Paper read before the International Cotton Congress, Manchester, 5-9 June 1905. BCGA Publication No. 6, Manchester, March 1906.

CGA 2/2/2 HUTTON, J. Arthur. 'The Work of the British Cotton Growing Association'. Read at the 3rd International Congress of Tropical Agriculture, held at Imperial Institute, London, June 23rd, 1914. BCGA Publication No. 57, June 1914.

CGA 2/2/25 HUTTON, J. Arthur. 'The Effects of the War on Cotton-Growing in the British Empire'. Read before RSA, 26th January 1916. BCGA Publication No. 61, January 1916.

CGA 2/2/27 'MEMO on the Development of Cotton Growing in the British Empire'. BCGA Publication No. 63, December 1916.

CGA 2/2/28 HUTTON, J. Arthur. 'The Development of the Cotton-Growing Resources of the Empire'. Paper read before the 'Manchester Athenaeum', 16th February 1917. BCGA Publication No. 64, February 1917.

CGA 2/2/33 'MEMORANDUM on Railways for Nigeria, Uganda, the Sudan and Nyasaland'. BCGA Publication No. 70, April 1920.

CGA 2/2/36 'Speeches at a Banquet given to the Rt. Hon. Winston S. Churchill, M.P., H.M. Secretary of State for the Colonies', 7th June 1921 at Midland Hotel, Manchester. BCGA Publication No. 74, July 1921.

CGA 2/2/37 HIMBURY, W.H. 'The Exploration and Development of New Cotton Fields within the British Empire'. Reprint of paper presented to the World Cotton Conference, June 1921. BCGA Publication No. 75, September 1921.

CGA 2/2/40 'Speeches at a Banquet given to the Rt. Hon. the Earl of Derby, HM Secretary of State for War', 1st June 1923 at Midland Hotel, Manchester. BCGA Publication No. 80, June 1923.

CGA 2/2/42 HIMBURY, W.H. 'The Empire, Lancashire and Cotton'. Reprinted from 'The Empire Review', No. 275, December 1923. BCGA Publication No. 82, February 1924.

CGA 2/2/45 HIMBURY, W.H. 'Memorandum on Cotton Growing submitted to the Committee on Industry and Trade'. BCGA Publication No. 86, Private and Confidential, 29th April 1925.

CGA 2/2/49 'Transport in Africa' etc. BCGA Publication No. 90, November 1925.

CGA 2/2/53 HIMBURY, Sir William. 'Some Promising Empire Cotton Fields. With Special Reference to a Recent Trip, through India, Uganda and the Sudan'. Reprinted from 'United Empire'. Paper read, with lantern illustrations, at meeting of the Royal Colonial Institute, 16th November 1926. BCGA Publication No. 95, December 1926.

CGA 2/2/54 'Speeches at Banquet given to Major the Hon. W.G.A. Ormsby-Gore, M.P., Parliamentary Under-Secretary of State for the Colonies', on 19th November 1926 at Midland Hotel, Manchester. BCGA Publication No. 96, December 1926.

CGA 2/2/58 HIMBURY, Sir William. 'Northern Rhodesia, Southern Rhodesia and Nyasaland as sources for Increasing our Raw Cotton Supplies'. BCGA Publication No. 100, September 1927.

CGA 2/2/90 'Speeches at Luncheon to His Excellency Sir Harold B. Kittermaster' (Governor and Commander-in-Chief of the Nyasaland Protectorate), on 12th July 1937 at Midland Hotel, Manchester. BCGA Publication No. 134, August 1937.

CGA 2/2/101 HIMBURY, Sir William. 'Cotton: A Lancashire Contribution to the Empire. How Cultivation has been Introduced and Fostered in many Territories - and the Results'. Reprinted from 'The Crown Colonies'. February 1944. BCGA Publication No. 149, April 1944.

CGA 2/4 Printed, but not published, BCGA materials, including:

CGA 2/4/5 Pamphlet discussing the crisis in Lancashire and the remedial steps required, February 1905.

CGA 2/4/17 'Work of the BCGA'. Report prepared by Mr. Henry Higson (England) for the 5th International Cotton Congress, Paris, June 1908. ("Confidential - Not to be given to Press.")

CGA 2/4/22 'Summary of Report to Board of Trade of the Empire Cotton Growing Commission' ("Not to be published before 22nd January 1920")

CGA 2/4/25 Empire Cotton Growing Committee. 'Future Organisation' (1920)

I(i)(c) CGA 3/ series

CGA 3/1 Unprinted Reports

CGA 3/1/1 COLONIAL OFFICE, 'Statement', dated 24th April 1902.

CGA 3/1/4 BCGA. 'Reports of Interviews and Deputations to London up to and including July 20th and 21st, 1904.'

CGA 3/1/5 JOLLY, A.P. 'British East Africa. Cotton. Transport and Trading'. Incomplete report, 1905.

CGA 3/1/6 COLONIAL OFFICE. 'Draft Memorandum', dated 31st March 1909.

CGA 3/1/7 'Special Meeting of the Council of the BCGA to meet His Excellency Brigadier-General Sir William Manning' (late Governor of Nyasaland). "Confidential. For the use of the Executive Committee only."

CGA 3/1/9 Evidence to be given by J. Arthur Hutton on Nyasaland and Northern Rhodesia.

CGA 3/1/14 EMPIRE COTTON GROWING COMMITTEE. 'Minutes of Evidence', taken before the Board of Trade on Growth of Cotton in the British Empire.

CGA 3/1/15 HUTTON, J.A. 'Memo on Fine Cotton Supply in the Immediate Future' (c. 1917). Typescript.

CGA 3/1/17 McCONNEL, John W. 'Report on the Cotton Supplies of the British Empire after the War.' Marked "Not for Publication."

CGA 3/1/21 BCGA. 451st meeting of Council, held 25th March 1952.

CGA 3/1/22 BCGA Register of Certificates of Occupancy in Nigeria, Uganda and Nyasaland.

CGA 3/2 'BCGA Correspondence in connection with the Conferences held at the Colonial Office, March 1904 to November 1916'. (Reprinted for the information of the Empire Cotton Committee, February 1918.)

CGA Adds 20 'Report on Port Herald Cotton', from Fred Moir of African Lakes Corporation to BCGA, dated 10th March 1909.

CGA Adds 72 'Reports (and letter) from Nigerian Governors to the Marquis of Crewe, Colonial Secretary', dated 23rd October 1908.

CGA Supplementary material not catalogued (CGA Supp.)
HUTTON, J. Arthur. Day Books (3) for 1904-08.

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I(ii) BRITISH COTTON GROWING ASSOCIATION: records at Ralli House, LIVERPOOL, England

The British Cotton Growing Association became a subsidiary of Ralli International in 1972, with its ultimate parent company in Cargill Incorporated of Minneapolis, USA. The office moved several times in the '60s and 70s, "shedding" some of its valuable company records on each occasion, before settling at Ralli House, Old Hall Street, Liverpool. A previous researcher had, unfortunately, "borrowed" irreplaceable Minute Books and about 25 volumes of reports. I was able to trace and use the Minute Books and some of the other volumes; and I recommended to BCGA that they attempt to retrieve the rest of their archive and seek advice from the Business Archives Council on its future safekeeping.

The bulk of the archive consists of six Council Meeting Minute Books, ten Executive Committee Meeting Minute Books and bound volumes of pamphlets, circulars and reports covering the period 1901-72. During the Second World War, damage to premises in December 1941 aroused fears that the enormous amount of papers, account books, etc. might cause a conflagration, so 5-6 tons was disposed of immediately and only the past 7 years "essentials" were kept.

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I(ii)(a)

ANNUAL REPORTS OF BRITISH COTTON GROWING ASSOCIATION (referred to in text as BCGA/AR):

'Report of the Work of the Unincorporated Association for the Year ending August 31st, 1904', BCGA, Manchester.
'First Annual Report, for Year ending August 31st, 1905', Manchester.
'Second Annual Report, for Year ending August 31st, 1906', Manchester.
'Third Annual Report, for 16 months ending December 31st, 1907', Manchester.
'Fourth Annual Report, for 12 months ending December 31st, 1908', Manchester.
'Fifth Annual Report, for 12 months ending December 31st, 1909', Manchester.
'Sixth Annual Report, for 12 months ending December 31st, 1910', Manchester.
'Seventh Annual Report, for 12 months ending December 31st, 1911', Manchester.

'Eighth Annual Report, for 12 months ending December 31st, 1912', Manchester.
'Ninth Annual Report, for 12 months ending December 31st, 1913', Manchester.
'Tenth Annual Report, for 12 months ending December 31st, 1914', Manchester.
'Eleventh Annual Report, for 12 months ending December 31st, 1915', Manchester.
'Fourteenth Annual Report, for 12 months ending December 31st, 1918', Manchester.
'Fifteenth Annual Report, for 12 months ending December 31st, 1919', Manchester.
'Sixteenth Annual Report, for 12 months ending December 31st, 1920', Manchester.
'Seventeenth Annual Report, for 12 months ending December 31st, 1921', Manchester.
'Eighteenth Annual Report, for 12 months ending December 31st, 1922', Manchester.
'Nineteenth Annual Report, for 12 months ending December 31st, 1923', Manchester.
'Twentieth Annual Report, for 12 months ending December 31st, 1924', Manchester.
'21st Annual Report, for 12 months ending December 31st, 1925', Manchester.
'25th Annual Report, for 12 months ending December 31st, 1929', Manchester.
'26th Annual Report, for 12 months ending December 31st, 1930', Manchester.
'27th Annual Report, for 12 months ending December 31st, 1931', Manchester.
'28th Annual Report, for 12 months ending December 31st, 1932', Manchester.
'29th Annual Report, for 12 months ending December 31st, 1933', Manchester.
'31st Annual Report, for 12 months ending December 31st, 1935', Manchester.
'32nd Annual Report, for 12 months ending December 31st, 1936', Manchester.
'33rd Annual Report, for 12 months ending December 31st, 1937', Manchester.
'34th Annual Report, for 12 months ending December 31st, 1938', Manchester.
'35th Annual Report, for 12 months ending December 31st, 1939', Manchester.

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I(ii)(b) BCGA MINUTE BOOKS

BRITISH COTTON GROWING ASSOCIATION MINUTE BOOK (referred to in text as BCGA/M) for February 18th, 1902 - October 13th, 1903.

BRITISH COTTON GROWING ASSOCIATION COUNCIL MINUTES (referred to in text as BCGA/CM):

Volume I	27/9/04 - 7/12/15
Volume II	2/5/16 - 3/2/25
Volume III	3/3/25 - 1/12/31
Volume IV	5/1/32 - 7/2/39
Volume V	7/3/39 - 18/12/56
Volume VI	8/3/57 - 26/3/68

BRITISH COTTON GROWING ASSOCIATION EXECUTIVE COMMITTEE MINUTES (referred to in text as BCGA/EM):

Volume 1	Starting with meeting of 9th January 1908.
Volume 2	Starting with meeting of 25th July 1912.
Volume 3	Starting with meeting of 26th July 1918.
Volume 4	Starting with meeting of 3rd December 1920.
Volume 5	Starting with meeting of 7th April 1925.
Volume 6	Starting with meeting of 27th March 1931.
Volume 7	Starting with meeting of 25th January 1938.
Volume 8	Starting with meeting of 23rd December 1947.
Volume 9	Starting with meeting of 25th August 1953.
Volume 10	Starting with meeting of 28th June 1960; ending with meeting of 16th July 1965.

I(ii)(c)

BRITISH COTTON GROWING ASSOCIATION miscellaneous material in Liverpool archive.

ATKINS, J.C. 'The Supply of Cotton'. Paper read at the First International Congress of Cotton Spinners and Manufacturers, Zurich, May 23rd - 28th, 1904. Manchester. (in BCGA Reports 1904)

ATKINS, John C. 'The Story of the British Cotton-Growing Association'. Appeared in Magazine of Commerce and reprinted in The Textile Mercury, 24/03/06. BCGA Publication No. 7 (March 1906).

'BEA AND UGANDA. Interesting Information in Tabloid Form'. In BCGA Reports 1914.

BRAND, E. 'Report on Prospects of Growing Cotton in the EAP'. Cd 1767-10, No. 606, Miscellaneous Series. Diplomatic and Consular Reports, Africa. HMSO, London, 1904 (in BCGA Reports 1906).

BRITISH COTTON GROWING ASSOCIATION. 'Correspondence etc.', Oldham, 1902 (in BCGA Reports, 1903 volume).

BRITISH COTTON GROWING ASSOCIATION. 'Correspondence etc. No. 2. March 1903'. 2nd Edition, Oldham, 1903 (in BCGA Bound Volume of Pamphlets, 1903-07).

BRITISH COTTON GROWING ASSOCIATION. Newspaper Cuttings File.

BRITISH COTTON GROWING ASSOCIATION. 'Report of Annual Meeting and Dinner', held on 9th October 1903 (in BCGA Bound Volume of Pamphlets 1903-07).

BRITISH COTTON GROWING ASSOCIATION. 'Report of Proceedings at the 24th Annual Meeting of Shareholders....' on 14th June 1929. Publication No. 109, June 1929.

BRITISH COTTON GROWING ASSOCIATION. 'Report of Proceedings at the 25th Annual Meeting of Shareholders....' on 29th May 1930. Publication No. 113, June 1930.

BRITISH COTTON GROWING ASSOCIATION. 'Report of Proceedings at the 27th Annual Meeting of Shareholders....' on 7th June 1932. Publication No. 119, June 1932.

BRITISH COTTON GROWING ASSOCIATION. 'Report of Proceedings at the 28th Annual Meeting of Shareholders....' on 26th May 1933. Publication No. 121, May 1933.

BRITISH COTTON GROWING ASSOCIATION. 'Report of Proceedings at the 31st Annual Meeting of Shareholders....' on 15th May 1936. Publication No. 131, May 1936.

BRITISH COTTON GROWING ASSOCIATION. 'Grant In Aid from Imperial Funds'. From 29th October 1912. Publication No. 52.

BRITISH COTTON GROWING ASSOCIATION. 'Memorandum on the Work of the British Cotton Growing Association in Various Colonies'. Publication No. 33. Confidential. March 1909.

COTTON SUPPLY ASSOCIATION. 'Cotton Culture in New or Partially Developed Sources of Supply'. Report of proceedings at a conference held on 13th August 1862 between a deputation from the Cotton Supply Association and Commissioners with other representatives of countries showing raw cottons in the International Exhibition. Manchester, 1862 (in BCGA Reports 1907).

DAWE, M.T. 'A Simple Guide for Peasant Growers on the Cultivation of Cotton in Uganda'. Uganda Protectorate Leaflet No. 18 issued in native languages, 1908 (in BCGA Reports 1909-10).

DUNSTAN, Prof. Wyndham R. 'Memorandum on Cotton Cultivation'. Laid before Economic Section of British Association at Cambridge on 22nd August 1904 as supplement to HUTTON, 'The Cotton Crisis'.

EAST AFRICA PROTECTORATE. 'General Information as to the East Africa Protectorate', London, HMSO, 1904 (in BCGA Reports 1903-04).

EMIGRANTS' INFORMATION OFFICE. (1903) 'General Information as to the British Central Africa Protectorate'. London, HMSO (in BCGA Reports 1904-05).

HIMBURY, W.H. 'Southern and Central African Tour 1927'. Diary notes of Sir William Himbury, Manchester, October 1927.

HIMBURY, W.H. 'Kenya, Uganda and Tanganyika 1926'. Diary notes of Mr. W.H. Himbury, June 1926. (Typescript copy with insert photographs).

HUTTON, J. Arthur. 'The Cotton Crisis'. Paper read before the Economic Section of the British Association, Cambridge, August 22nd 1904. Manchester.

HUTTON, J. Arthur. 'The Work of the British Cotton Growing Association'. Read before the Manchester Statistical Society, February 10th 1904.

JOHNSTON, Sir Harry. 'Handbook to British Central Africa', British Central Africa Company Ltd., London. Prob. 1904 (in BCGA Reports 1903-04).

MACARA, Sir Charles W. 'The Cotton Industry'. Reprinted from Revue Economique Internationale, Brussels, July 1913 (in BCGA Reports 1913).

MANCHESTER CITY NEWS, 8/10/1921, Royal Exchange Special.

MARLBOROUGH, Duke of. 'Cotton Cultivation Within the Empire'. A speech by the Duke of Marlborough and reply of the Secretary of State for the Colonies, House of Lords, May 10th 1906 (in BCGA Reports 1906).

McCALL, J. Stewart. Nyasaland Protectorate, Department of Agriculture. 'Some Problems Connected with the Introduction and Cultivation of Exotic Cottons in Nyasaland'. Government Printer, Zomba, Bulletin No. 1 of 1911 (in BCGA Reports 1911-12).

MOREL, E.D. 'The Empire's Cotton Supply'. A publication of 'The West African Mail', the official organ of BCGA in West Africa. 3 articles published 3/4/1903 , 10/4/1903, 17/4/1903 (in BCGA Reports 1903).

MOREL, Edmund D. 'Empire-Grown Cotton'. Reprinted from the Cooperative Wholesale Societies' "Annual" for 1904. Manchester (in BCGA Reports 1903-04).

OLDHAM Incorporated Chamber of Commerce. 'Report of Committee on Increased Growth of Cotton'. Presented to and adopted by the Council on November 18th, 1901. Oldham, 1901 (in BCGA reports 1903).

REES, J.D. 'Nyasaland and the Shire Highlands Railway'. Information for Intending Settlers. British Central Africa Company (in BCGA Reports 1914).

SIMPSON, Samuel. 'Report on the Cotton-Growing Industry', transmitted to Wallis, Acting Commissioner, on 12th August 1905. Colonial Office 1905, African No. 792, British Central Africa Protectorate (also in Institute of Commonwealth Studies as Microfilm M678 of CO 879/89).

STARK, Emil. 'Cotton Cultivation in the German Colonies'. Report of the Colonial Economical Committee for the 6th International Cotton Congress at Milan, May 1909 (in BCGA Reports 1909).

THOMPSON, William. '"Doing Nothing" or Empire-Grown Cotton for Empire Manufacture ?' Manchester 1917 (in BCGA Reports 1917).

TRADAX Gestion S.A. (Geneva, Switzerland). 'The World of Cargill' (n.d.)

UGANDA PROTECTORATE. 'Cotton Prospects in 1913', by Director of Agriculture. Government Printer, Uganda (in BCGA Reports 1913-14A).

WATTS, Isaac. 'The Cotton Supply Association: Its Origin and Progress'. Manchester, 1871 (in BCGA Reports 1905).

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I(iii) BRITISH COTTON GROWING ASSOCIATION: records held by INSTITUTE OF COMMONWEALTH STUDIES, LONDON

Four volumes of pamphlets were presented on permanent loan to the Institute of Commonwealth Studies by the West India Committee of the British Cotton Growing Association. The majority of the pamphlets are available elsewhere, and are not noted here, but the following were consulted at ICS.

Volume I.

Pamphlet 1. 'The Growth of Cotton, Can it be increased - especially within the BE ?' Discusses question referred to a Special Committee by the Council of Oldham Chamber. Oldham, 1901.

Pamphlet 2. Letters to Colonial Office, with enclosures of 'Increased Growth of Cotton', 1903, and 'Important Meeting in Manchester, January 28th 1903'.

Pamphlet 4. 'First Annual Report [of BCGA] to be presented at the Meeting of Subscribers to be held on October 9th 1903'.

Pamphlet 15. The BCGA's 'Charter of Incorporation, Dated August 27th, 1904'.

Pamphlet 17. BCGA 'Banquet' to celebrate Incorporation of the Association by Royal Charter, held at Midland Hotel, Manchester, November 12th, 1904.

Pamphlet 19. 'Handbook of an Exhibition illustrating British Cotton Cultivation and the Commercial Uses of Cotton', held at Imperial Institute of the UK, the Colonies and India, in conjunction with BCGA, in June and July 1905. London, 1905.

Volume III

Pamphlet 11. HOWARTH, William. 'Characteristics of Cotton Required by the Spinner, and Present Defects in the Raw Material'. Presented to the World Cotton Conference, June 1921. BCGA Publication No. 76.

Volume IV

Pamphlet 10. HIMBURY, William. 'Empire Cotton Supplies'. Paper read before Textile Institute, Manchester, 31st October 1922. Reprinted from Journal of the Textile Institute, Vol. XIII, No. 12. Manchester.

I(iv) EMPIRE COTTON GROWING CORPORATION (later COTTON RESEARCH CORPORATION): archive and library held by Nottingham University, England.

Prior to final surrender of its Royal Charter on 25th October 1977, the Cotton Research Corporation (CRC) (until 5th July 1966, Empire Cotton Growing Corporation (ECGC)) decided, in 1975, to deposit its voluminous archive and library in Nottingham University Manuscripts Department. The wish of the Cotton Research Corporation was that its records would be kept within fairly easy travelling distance of London. Reading University had been unable to accommodate the vast amount of material on offer, so Nottingham University (in the first instance, the Agricultural Department at Sutton Bonington) was given second option. The archive has been sorted by Alan Cameron of the Manuscripts Department, using the CRC's own file headings and notations, also used here to identify documents.

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I(iv)(a)

MINUTES OF MEETINGS OF EMPIRE COTTON GROWING CORPORATION AND COTTON RESEARCH CORPORATION

ADMINISTRATIVE COUNCIL MINUTES, from preliminary meeting on 21st February 1921 to approval of final accounts on 10th October 1977 (referred to in text as ECGC/ACM or CRC/ACM).

EAST AFRICA SUB-COMMITTEE MINUTES, from first meeting on 12th May 1922 (referred to in text as ECGC/EASubM).

EXECUTIVE COMMITTEE MINUTES, in five volumes, from first meeting on 27th March 1922 to 26th March 1974 (referred to in text as ECGC/ECM or CRC/ECM).

SCIENTIFIC ADVISORY COMMITTEE MINUTES, from first meeting on 8th October 1937 (referred to in text as ECGC/SACM).

SOUTHERN AFRICA SUB-COMMITTEE MINUTES, from first meeting on 12th May 1922 (referred to in text as ECGC/SASubM).

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I(iv)(b)

ECGC/CRC COUNCIL REPORTS, ANNUAL REPORTS AND GENERAL MEETINGS (referred to in text as ECGC/CR, ECGC/AR, CRC/AR, ECGC/GM and CRC/GM).

ECGC COUNCIL REPORTS AND GENERAL MEETINGS, 1921-24. Bound volume. Includes reports of Administrative Council, reports of Executive Committee and reports of First, Second and Third Annual General Meetings.
ECGC COUNCIL REPORTS AND GENERAL MEETINGS, 1925-28. Includes reports of Administrative Council, Executive Committee and reports of Fourth, Fifth, Sixth and Seventh Annual General Meetings.

ADMINISTRATIVE COUNCIL REPORT adopted at 8th Annual General Meeting on 3rd June 1929.

ECGC ANNUAL REPORT for 1928-29, submitted at 9th Annual General Meeting.
ECGC ANNUAL REPORT for 1929-30, submitted at 10th Annual General Meeting.
ECGC ANNUAL REPORT for 1930-31, submitted at 11th Annual General Meeting.
ECGC ANNUAL REPORT for 1931-32, submitted at 12th Annual General Meeting.
ECGC ANNUAL REPORT for 1932-33, submitted at 13th Annual General Meeting.
ECGC ANNUAL REPORT for 1933-34, submitted at 14th Annual General Meeting.
ECGC ANNUAL REPORT for 1934-35, submitted at 15th Annual General Meeting.
ECGC ANNUAL REPORT for 1935-36, submitted at 16th Annual General Meeting.
ECGC ANNUAL REPORT for 1936-37, submitted at 17th Annual General Meeting.
ECGC ANNUAL REPORT for 1937-38, submitted at 18th Annual General Meeting.
ECGC ANNUAL REPORT for 1938-39, submitted at 19th Annual General Meeting.
ECGC ANNUAL REPORT for 1939-40, submitted at 20th Annual General Meeting.
ECGC ANNUAL REPORT for 1940-41, submitted at 21st Annual General Meeting.
ECGC ANNUAL REPORT for 1941-42, submitted at 22nd Annual General Meeting.
ECGC ANNUAL REPORT for 1942-43, submitted at 23rd Annual General Meeting.
ECGC ANNUAL REPORT for 1943-44, submitted at 24th Annual General Meeting.
ECGC ANNUAL REPORT for 1944-45, submitted at 25th Annual General Meeting.
ECGC ANNUAL REPORT for 1945-46, submitted at 26th Annual General Meeting.
ECGC ANNUAL REPORT for 1946-47, submitted at 27th Annual General Meeting.
ECGC ANNUAL REPORT for 1947-48, submitted at 28th Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/50, submitted at 29th Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/51, submitted at 30th Annual General Meeting.

ECGC ANNUAL REPORT for Year ending 31/3/52, submitted at 31st Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/53, submitted at 32nd Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/54, submitted at 33rd Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/55, submitted at 34th Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/56, submitted at 35th Annual General Meeting.
ECGC ANNUAL REPORT for Year ending 31/3/57.
ECGC ANNUAL REPORT for Year ending 31/3/58.
ECGC ANNUAL REPORT for Year ending 31/3/59.
ECGC ANNUAL REPORT for Year ending 31/3/60.
ECGC ANNUAL REPORT for 9 months ending 31/12/60.
ECGC ANNUAL REPORT for 1961.
ECGC ANNUAL REPORT for 1962.
ECGC ANNUAL REPORT for 1963.
ECGC ANNUAL REPORT for 1964.
ECGC ANNUAL REPORT for 1965.
ECGC/CRC ANNUAL REPORT for 1966.
CRC ANNUAL REPORT for 1967.
CRC ANNUAL REPORT FOR 1968.
CRC ANNUAL REPORT FOR 1969.
CRC ANNUAL REPORT FOR 1970.
CRC ANNUAL REPORT for 1971.
CRC ANNUAL REPORT FOR 1972.
CRC ANNUAL REPORT FOR 1973.
CRC ANNUAL REPORT FOR 1974.
CRC ANNUAL REPORT for 1975 (FINAL REPORT).

REPORT OF 8th ANNUAL GENERAL MEETING, 3rd June 1929.
REPORT OF 9TH ANNUAL GENERAL MEETING, 29th May 1930.
REPORT OF 10th ANNUAL GENERAL MEETING, 20th May 1931.
REPORT OF 11th ANNUAL GENERAL MEETING, 26th May 1932.
REPORT OF 12th ANNUAL GENERAL MEETING, 26th May 1933.
REPORT OF 13th ANNUAL GENERAL MEETING, 14th June 1934.
REPORT OF 14th ANNUAL GENERAL MEETING, 28th May 1935.
REPORT OF 15th ANNUAL GENERAL MEETING, 20th May 1936.
REPORT OF 16th ANNUAL GENERAL MEETING, 25th May 1937.
REPORT OF 17th ANNUAL GENERAL MEETING, 25th May 1938.
REPORT OF 18th ANNUAL GENERAL MEETING, 19th May 1939.
REPORT OF 19th ANNUAL GENERAL MEETING, 28th May 1940.
REPORT OF 20th ANNUAL GENERAL MEETING, 27th May 1941.
REPORT OF 21st ANNUAL GENERAL MEETING, 2nd June 1942.
REPORT OF 22nd ANNUAL GENERAL MEETING, 1st June 1943.
REPORT OF 23rd ANNUAL GENERAL MEETING, 6th May 1944.
REPORT OF 24th ANNUAL GENERAL MEETING, 5th June 1945.
REPORT OF 25th ANNUAL GENERAL MEETING, 25th June 1946.
REPORT OF 26th ANNUAL GENERAL MEETING, 3rd June 1947.
REPORT OF 27th ANNUAL GENERAL MEETING, 6th July 1948.
REPORT OF 28th ANNUAL GENERAL MEETING, 12th July 1949.
REPORT OF 29th ANNUAL GENERAL MEETING, 16th June 1950.
REPORT OF 30th ANNUAL GENERAL MEETING, 10th July 1951.
REPORT OF 31st ANNUAL GENERAL MEETING, 8th July 1952.
REPORT OF 32nd ANNUAL GENERAL MEETING, 26th June 1953.
REPORT OF 33rd ANNUAL GENERAL MEETING, 9th July 1954.

REPORT OF 34th ANNUAL GENERAL MEETING, 1955.
REPORT OF 35th ANNUAL GENERAL MEETING, 12th June 1956.
REPORT OF 38th ANNUAL GENERAL MEETING, 9th June 1959.
REPORT OF 39th ANNUAL GENERAL MEETING, 21st June 1960.
REPORT OF 40th ANNUAL GENERAL MEETING, 7th April 1961.
REPORT OF 41st ANNUAL GENERAL MEETING, 13th April 1962.
REPORT OF 44th ANNUAL GENERAL MEETING, 9th April 1965.
REPORT OF 45th ANNUAL GENERAL MEETING, 29th March 1966.
REPORT OF 50th ANNUAL GENERAL MEETING, 27th April, 1971.

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CRC/D1-7 DEEDS AND CHARTERS

CRC/D1 Draft Charter (approved 11th October 1921).
CRC/D2 Charter of Incorporation, dated 1st November 1921, and amendments.
CRC/D3 Amendments to Charter, up to May 1971.
CRC/D5 Schedule of alterations, 5th June 1966.
CRC/D6 Winding up papers and surrender of Charter (25/10/1977)

I(iv)(d)

CRC Box File, labelled BCGA/BoT Report/ECG Committee

Contents include memos, reports, Acts and correspondence on BCGA, Empire Cotton Growing Committee, Cotton Industry Acts 1933 and 1938 and pamphlets as follows:

McCONNEL, John. 'The ECGC and the BCGA'. 30th June 1920.

McCONNEL, John. 'The Report of the Empire Cotton Growing Committee'. 25th February 1920.

'RAW MATERIALS BOARD. Cotton. Board of Trade Memorandum, 9th November 1918'.

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CRC File Series 1 (files containing letters, memos, pamphlets, reports, notes, newspaper cuttings etc.).: file labels - CRC/F1/__ .

CRC/F1/B1 British Cotton Growing Association, 1910 to 1943: publications, BCGA investments, grants, reports of meetings, letters. (1 file)
Includes:
HIMBURY, W. 'The Work of the BCGA', 27th August 1929.
HIMBURY, W. Typescript extract of foreword to Cotton and its Production, W.Johnson, 1926.

CRC/F1/BOT/T2 'Cotton Production in the Empire': memo prepared for President of Board of Trade by ECGC. (1 file)

CRC/F1/C1 Staffing of field officer posts, 1917-43. (1 file)

CRC/F1/C4 Formation of ECGC, 1910-43. (2 files)

CRC/F1/K1 Kenya, 1921-43. (1 file)

CRC/F1/L3 Legislation regarding cotton growing within the Empire, 1921-43. (1 file)

CRC/F1/N2 General correspondence with British Central Africa Company and Nyasaland, 1920-43. Includes reports on cotton growing, correspondence with Nyasaland Chamber of Agriculture and Commerce, Colonial Office and Blantyre and East Africa Ltd. and, in particular, the following publications:

McCALL, J. Stewart J. (1916) 'Memorandum on the Production of Long Staple Upland Cotton'. Supplement to Nyasaland Government Gazette of 30/11/16. Department of Agriculture No. 1 of 1916.

WORTLEY, E.J. (1923) 'Report to the Nyasaland Government on a Visit to the Lower Shire District'. (Visit by Wortley, Director of Agriculture, and H.C. Sampson, Cotton Specialist.)

CRC/F1/N2.4 DUCKER, H.C. (1935) 'Cotton Growing in Nyasaland', for 'Times Trade and Engineering Supplement' from Ducker's report to Council.

CRC/F1/O1 Organisation Sub-Committee, 1920-4. (1 file)

CRC/F1/R2 Scientific Advisory Committee, 1920-43. (4 file boxes)

CRC/F1/T1 Tanganyika, general. (5 files)
Includes advisory reports by Milligan (1931) and Parnell (1939 and 1942).

CRC/F1/T4 Letters re Trustees Meetings, 1923-43

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<u>CRC File Index Series 2: continuation of File Series 1, with new numbering and category system.</u> File labels -
CRC/F2/__/__ /__ .
CRC/F2/2/_ /_ Policy.
CRC/F2/2/1 /_ Erection of mills in the colonies.
CRC/F2/5/_/_ Finance.

CRC/F2/5/6/_	Grants from Overseas Governments.
CRC/F2/5/6/1	" " Kenya.
CRC/F2/5/6/2	" " Malawi.
CRC/F2/5/6/7	" " Tanzania.
CRC/F2/5/6/8	" " Uganda.
CRC/F2/5/6/9	" " Zambia.
CRC/F2/12/_/-	Staff.
CRC/F2/12/2/-	Staff abroad, general.
CRC/F2/18/_/_	Conferences.
CRC/F2/20/3/23-32	Annual Reports for 1965-74, noted above at I(iv)(b).
CRC/F2/23/_/_	Commonwealth Office.
CRC/F2/24/_/_	British Cotton Growing Association, general.
CRC/F2/25/_/_	Research, general.
CRC/F2/40/_/_	Namulonge.
CRC/F2/41/_/_	Shambat.
CRC/F2/54/_/_	Kenya
CRC/F2/56/_/_	Nyasaland/Malawi.
CRC/F2/56/1/_	Nyasaland/Malawi crops, including Monthly Reports from 1946 to October 1975.
CRC/F2/56/8/_	Malawi- Research File, including Report of visit to Malawi in 1973 by G.W. Cooke of Rothamsted Experimental Station.
CRC/F2/57/_/_	Northern Rhodesia/Zambia.
CRC/F2/58/_/_	Southern Rhodesia.
CRC/F2/62/_/_	Tanganyika/Tanzania.
CRC/F2/63/_/_	Uganda.

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ECGC/CRC CIRCULATED PAPERS

Three series of papers were circulated to officers and committees of the Empire Cotton Growing Corporation/Cotton Research Corporation between 1923 and 1976. Series 1, with identifying marks CP1/1 to CP1/3190, consists of over three thousand documents circulated between 1923 and 1966; series 2, with identifying marks CP2/1 to CP2/145, was circulated between 1966 and 1976; and series 3, CP3/S1 to CP3/S473, consists of Scientific Advisory Committee papers circulated between 1923 and 1976.

Circulated Papers, Series 1.

CP1/6	'MEMORANDUM on the Development of Cotton Growing in the British Empire' (to the Prime Minister from BCGA). (Prob. 1916).
CP1/7	BCGA Publication No.60 (15th December 1915). To Under-Secretary of State for the Colonies.
CP1/22	HUTTON, J. Arthur. (c. 1916) 'Notes on the development of Cotton Growing in New Districts or on raising new varieties in old districts'.

CP1/29 EMPIRE COTTON GROWING COMMITTEE. (1917) 'Cotton Growing in Nyasaland'.

CP1/32 BALLS, W. Laurence. 'The Cotton Crop Considered as a Living Organism. Introductory Remarks.'

CP1/33 HUTTON, J. Arthur. (15th January 1918). Letter to Prof. John A. Todd, Empire Cotton Growing Committee. 'Unsuccessful companies and planters BCGA has been associated with'.

CP1/35a EMPIRE COTTON GROWING COMMITTEE. (1917) 'Report on Cotton Growing in Uganda'. Enclosure to despatch to Secretary of State, No. 313 of 15/11/1917.

CP1/39 EMPIRE COTTON GROWING COMMITTEE. (1917) 'Report on Cotton Growing in South Africa'.

CP1/46 BYALL, A.A. (1918) Letter to Secretary of State for the Colonies, from Byall [not Byatt, as might be expected] (Administrator, GEA) dated 6th February 1918, enclosing GERMAN EAST AFRICA No.15 Report on cotton growing.

CP1/47 WAR TRADE INTELLIGENCE DEPARTMENT. (1918) Report on cotton growing in German East Africa prepared from reports of the German Colonial Cotton Committee.

CP1/51 DE SEGUNDO, Ed. C. (1918) 'Some Cotton Seed Products in Their Relation to Present Day Needs'. Paper read at meeting of Society of Chemical Industry (London Section) on 25th March 1918.

CP1/53 EMPIRE COTTON GROWING COMMITTEE. (c. 1918) 'Memorandum as to the Work of the Imperial Institute in Connection with British Cotton Cultivation'.

CP1/58 EMPIRE COTTON GROWING COMMITTEE. (c. 1918) 'Rebutting evidence offered by Mr. W.H. Himbury: General Manager: British Cotton Growing Association to the Evidence given by Mr. D.F. Basden and Major Leggett, regarding cotton growing in Uganda.'

CP1/59 BRITISH EAST AFRICA CORPORATION LTD. (1916) Letter from J.I. Cox, Mombasa, to BEAC Ltd. London. No. 383/16 of 3rd April 1916.

CP1/107 NORTH CHARTERLAND EXPLORATION COMPANY. (1919) 'Memorandum by the North Charterland Exploration Company (1910) Ltd.', dated 15th February 1919, to Empire Cotton Growing Committee.

CP1/123 SIMPSON, S. (1919) 'Precis of evidence on Uganda to be given before the Empire Cotton Growing Committee on 25th June 1919 by S. Simpson, Director of Agriculture since 1912'.

CP1/129 EMPIRE COTTON GROWING COMMITTEE. (1919) 'Draft Report as at 30th July 1919'.

CP1/141 EMPIRE COTTON GROWING COMMITTEE. (1919) 'Empire Survey for the Report': Uganda and South Africa.

CP1/142 EMPIRE COTTON GROWING COMMITTEE. (1919) 'Empire Survey for the Report': West Indies, Egypt, Sudan, East Africa, Nyasaland and Rhodesia, Nigeria.

CP1/153 COLONIAL OFFICE. (1919) 'Circular from the Colonial Office to Colonial Governors', dated 11th June 1919. On Empire Cotton Growing Committee.

CP1/168 WARNER, Sir Frank. (1919) 'Report by Sir Frank Warner, KBE, on the Proceedings at the World Cotton Conference held at New Orleans, October 13th to 16th, 1919'. To President of Board of Trade.

CP1/171 EMPIRE COTTON GROWING COMMITTEE. (1919) 'Cotton Growing in the Belgian Congo'. Extract from letter from H.M. Ambassador at Brussels, dated 17th November, 1919.

CP1/184 METEOROLOGICAL OFFICE. (1920) 'Climates of the British Empire suitable for the cultivation of Cotton', dated 30th January 1920.

CP1/190 EMPIRE COTTON GROWING COMMITTEE. (1920) 'Despatch on Cotton Growing in Southern Rhodesia'.

CP1/194 EMPIRE COTTON GROWING COMMITTEE. (1920) Cable received 25th March 1920 from Blantyre, re. export taxes.

CP1/195 'BLUEPRINT of Structure of ECGC Council'.

CP1/197 COLONIAL OFFICE. (1920). Letter to ECGC, dated 1st April 1920, regarding 'Increased Taxation in Nyasaland'.

CP1/236 EMPIRE COTTON GROWING COMMITTEE (1920) 'Future Organisation'.

CP1/255 WORSLEY, H. (1920) Letter from Worsley to BCGA, dated 8th September 1920, regarding 'Tanganyika Territory, Mwanza District'.

CP1/272 HORNE, Major Hastings. (1920) Letters re. Tanganyika, dated 18th and 26th November 1920.

CP1/278 HORNE, Major Hastings. (1920) Letter dated 17th December 1920, re. Tanganyika, to Board of Trade.

CP1/282 HORNE, Major Hastings. (1920) Letter dated 7th December 1920, re. Tanganyika, to Board of Trade.

CP1/283 HORNE, Major Hastings. (1920) Letter dated 8th December 1920, re. Morogoro District, Tanganyika.

CP1/284 HORNE, Major Hastings. (1920) Letter dated 12th December 1920, re Kilosa District, Tanganyika.

CP1/285 HORNE, Major Hastings. (1920) Copy of statement made to Horne by Mr. A. Scutari of Kilosa, Tanganyika.

CP1/286 HORNE, Major Hastings. (1920) Copy of letter dated 12th December 1920, re. interview with Russian Pole who had farmed at Kilossa for 16 years.

CP1/290 ECGC. (1920) 'Budget, 1920-21'.

CP1/300 HORNE, Major Hastings. (1920/21) Report on Tabora District, Tanganyika, dated 26th December 1920. Report on Mwanza District, Tanganyika, dated 3rd January 1921. Report on Schirati District, dated 8th January 1921. Report on Musoma District, dated 15th January 1921. Report on Bukoba, dated 22nd January 1921. Report on Nyanza Province, Kenya, dated 25th January 1921.

CP1/306 TANGANYIKA COTTON ORDINANCE 1920.

CP1/307 BRITISH SOUTH AFRICA COMPANY. (c.1920) Reports on cotton growing possibilities of Southern and Northern Rhodesia, addressed to ECGC. (Similar items in CP1/469).

CP1/312 HORNE, Major Hastings. (1921) Report on Rufiji District, Tanganyika, dated 4th March 1921.

CP1/313 HORNE, Major Hastings. (1921) Report on Kilwa District, dated 10th March 1921.

CP1/359 ECGC. (c. 1922) 'Notes on Agricultural Staffs of the Cotton-growing Dominions and Protectorates, and on the existing facilities for research and experimental work.'

CP1/379 WOOD, R. Cecil. (1922) Copy of 1st letter received from Wood on a tour in Tanganyika Territory, 27/8/22.

CP1/380 SAMPSON, H.C. (1922) 'Outline of Programme of Work to be undertaken in Nyasaland'.

CP1/394 LEGGETT, Sir Humphrey. (1922) 'Precis of a letter received from Sir Humphrey Leggett, Chairman of the British East Africa Corporation, December 18th, 1922'.

CP1/407 ECGC. (1923) Letter to Council and M.P.s regarding Cotton Industries Bill.

CP1/413 SAMPSON, H.C. (1923) 'Proposals for a Cotton experimental Station in Nyasaland'.

CP1/417 ECGC. (1923) 'Estimate of Commitments, 1/4/23 - 31/3/24'.

CP1/422 WOOD, R.C. (1923) Reports received from Wood, the Corporation's Cotton Specialist in Tanganyika Territory.

CP1/449 WORTLEY, E.J. (1923) 'Copy of a Report to the Nyasaland Government on a visit to the Lower Shire District'.

CP1/450 SAMPSON, H.C. (1923) 'Report on a short tour made in June/July 1923 in North East Rhodesia'.

CP1/469 ECGC. (1923) 'Precis of papers relating to the Present Position in Northern and Southern Rhodesia'.

CP1/473 ECGC. (1924) 'Commitments for 1st April 1924 to 31st March 1925'.

CP1/487 SAMPSON, H.C. (1924) 'Progress Report of the Work in Nyasaland'.

CP1/508 ECGC. (1924) Mechanical Transport Sub-Committee Report.

CP1/513 SAMPSON, H.C. (1924) Report on Makwapala Cotton Station for quarter ending 31st March 1924.

CP1/535 ECGC. (1924) Office note on Northern Rhodesia.

CP1/548 ECGC. (1925) 'Empire Cotton Crops 1918-19 to 1923-24'.

CP1/549 ORMSBY-GORE, Hon. W.G.A. (1925) Address given by Ormsby-Gore (Under-Secretary of State for the Colonies) to members of the Administrative Council of ECGC at 25th February 1925 meeting, regarding his recent tour in Eastern Africa.

CP1/582 ECGC. (1925) 'Note on Cotton Seed Supply in Africa'.

CP1/595 SAMPSON, H.C. (1925) 'Report on Visit to North Eastern Rhodesia, July 1925'.

CP1/611 NYASALAND Governor. (1925) Summary of despatch received from Governor of Nyasaland, forwarded by Colonial Office.

CP1/697 ECGC. (1927) 'Preliminary outline of a Memorandum on the Principal activities of the Corporation'.

CP1/701 ECGC MECHANICAL TRANSPORT SUB COMMITTEE. (1927) 'Recent Developments in Mechanical transport suitable for use in Tropical Dependencies'.

CP1/719 ECGC. (1927) 'Cotton Growing in Southern Africa and the Rhodesias'. Report of Addison and Jeffery tour in 1927.

CP1/759 ECGC. (1928) 'Review of the Situation in the Principal Cotton-Growing Territories of the Empire, and a Summary of the Main Activities of the Corporation since their Formation.'

CP1/845 BRITISH COTTON INDUSTRY RESEARCH ASSOCIATION. (1929) Copy of letter to ECGC, dated 21st October 1929.

CP1/904 CONFERENCE PAPERS. (1929/30) Papers for Conference of Workers on Problems Connected with Cotton-Growing. Includes F.T. Peirce of Shirley Institute on 'General Problems in the Investigation of Cotton Quality' and G.G., Glegg of Shirley Institute on 'Immaturity of Cotton'.

CP1/905 FOSTER, Arthur and CURRIE, James. (1930) 'Note on present position of Premier Cotton Estates of South Africa Ltd.'

CP1/958 ECGC. (1932) 'Revenue and Expenditure Account for year ended 31/3/31'.

CP1/1075 'THE INDIAN CENTRAL COMMITTEE. Its Objects, Activities and Achievements'.

CP1/1153 HARLAND, S.C. (1933) 'Report on a Visit to the Soviet Union, August 9th - October 24th 1933'.

CP1/1222 ECGC ADMINISTRATIVE COUNCIL. (1935) Report of meeting of 7th February 1935.

CP1/1230 KENYA GOVERNMENT. (1935) 'Proposal from the Government for the development of cotton-growing'.

CP1/1293 NORTHERN RHODESIA GOVERNMENT. (c. 1935) 'Summary of Memorandum by the Director of Agriculture on Cotton-Growing by Natives.'

CP1/1333 CURRIE, Sir James. (1936) 'Empire Cotton Production: A Review of progress'.

CP1/1341 ECGC. (1936) 'Cotton Production in Kenya'.

CP1/1515 MUNRO, Prof. J.W. (c. 1937) 'Cotton Pest Control Work in Southern and Central Africa and the Rhodesias.' Report on a tour undertaken, March-July 1937. Pub. ECGC, London.

CP1/1568 HUTCHINSON, J.B. (1938) 'Note on a Policy of Introduction of New Varieties into Cotton Growing Countries in Africa'.

CP1/1583 ECGC. (1938) 'Conference on Cotton-growing Problems'. Includes 'Interaction between the Cotton Plant and the Fertility and Physical Condition of the Soil in Nyasaland' (H.C. Ducker), 'Agricultural and Economic Factors Influencing the Cotton Output of a Country', 'Mixed Planting in Cotton Cultivation' (Agriculture Dept.,Tanganyika Territory), 'Cotton Problems in Kenya' (Kenya Agriculture Dept.) and 'Some Problems in Genetics, Whose Solution Would Help the Plant Breeders' (J.B. Hutchinson).

CP1/1647 Published report of CP1/1583.

CP1/1713 ECGC SCIENTIFIC ADVISORY COMMITTEE. (1939) 'Note on the Corporation's General Policy'.

CP1/1757 ENGLEDOW, F.L. (1939) 'Scientific Advisory Committee. Policy in Plant Breeding'. (Also circulated as CP/S6.)

CP1/1759 EVANS, Sir Geoffrey. (1939) 'Note on the Economics of Cotton Growing by Peasants'. (Also circulated as CP/S8.)

CP1/1760 PICKARD, Sir Robert. (1939) 'Desirable Characteristics in Cotton'. (Also circulated as CP/S9.)

CP1/1761 SHIRLEY INSTITUTE. (1939) Reprint from a bulletin re. spinning values. (Also circulated as CP/S10.)

CP1/1762 MILLIGAN, S. (1939) 'The Corporation's Policy as regards Cultivation Problems'. (Also circulated as CP/S11.)

CP1/1776 NOWELL, W. (1939) 'Diseases of Cotton'. (Also circulated as CP/S12.)

CP1/1777 MUNRO, J.W. (1939) 'Policy in Pest Control'. (Also circulated as CP/S13.)

CP1/1778 CROWTHER, E.M. (1939) 'Research Policy in Relation to Soil Problems'. (Also circulated as CP/S14.)

CP1/1788 ECGC SCIENTIIFC ADVISORY COMMITTEE. (1939) 'Summary re. research and experimentation'. (Also circulated as CP/S16a.)

CP1/1796 PARNELL, F.R. (1939) Report of a visit to Nyasaland, June-July 1939.

CP1/1797 ECGC SCIENTIFIC ADVISORY COMMITTEE. (1940) 'Nyasaland. A survey of the position of the cotton-growing industry from 1935.' Signed LGK, January 1940. (Also circulated as CP/S20.)

CP1/1807 ECGC. (1940) Despatch (and replies) to several cotton growing dependencies by Secretary of State for the Colonies at request of ECGC. (Also circulated as CP/S23)

CP1/1938 ENGLEDOW, F.L. & CROWTHER, E.M. (1941) 'Major Problems of Cotton Growing in the Various Colonies'.

CP1/2328 CLAY, G.F. (1946) 'Some Aspects of Cotton-Growing in East Africa'. Address given at meeting of Administrative Council, 29/11/46.

CP1/2505 ECGC. (1949) 'Notes on some of the factors which affect the suitability of cotton for spinning, with particular reference to conditions in Africa'.
CP1/2531 FMCSA Ltd. (1950) Letter to ECGC, dated 13th March 1950.
CP1/2619 HARLAND, S.C. (1951) 'The Evolutionary History of Cotton'. From Vol. 92 of 'Memoirs and Proceedings of the Manchester Literary and Philosophical Society'.
CP1/2673 HUTCHINSON, J.B. (1952) 'Report on a Visit to Nyasaland, 19th to 30th July 1952'.
CP1/2742 LITTLEWOOD, James. (1954) 'Colonial Cottons'.
CP1/2750 LITTLEWOOD, James (1954) 'Report on overseas tour, January - April 1954'.
CP1/2751 LITTLEWOOD, James (1954) 'Supplementary Report on 1954 overseas tour'.
CP1/2901 LIVERPOOL COTTON ASSOCIATION LTD. (1959) Papers for Cotton Spinner/Breeder Conference.

Circulated Papers, Series 2.

CP2/5 CRC. (1966) Exchange of letters with Ministry of Overseas Development.
CP2/30 CRC. (1968) Financial forecast, 1968.
CP2/50 CRC. (c. 1968) 'Future of the Corporation', confidential briefing.
CP2/85 CRC. (1969) 'Report of the Working Party on the handover to Government of the Cotton Research Corporation's Station at Namulonge'.

Circulated Papers, Series 3
(Scientific Advisory Committee papers. Until 1941, these papers carried CP1/ numbers in addition to CP/S numbers.)

CP/S42 ECGC. (1941) 'The present objectives of the Experiment Stations from which Progress Reports are now received. Baberton - South Africa; Swaziland; Gatooma - Southern Rhodesia; Uganda; Tanganyika Territory; Nyasaland; Nigeria; Anglo-Egyptian Sudan; West Indies'. (Also circulated as CP1/1910)
CP/S62 ECGC. (1941) 'Distribution of staff and cost of the experimental work at outbreak of war ...'
CP/S63 ECGC. (1943) 'Cotton Research Station for East Africa'.
CP/S75A ECGC. (1942) 'Proposed Central Cotton Research Station in Uganda. Interim report by the Scientific Advisory Committee'.
CP/S81 ECGC. (1942) Draft letter to J.B. Hutchinson.
CP/S92 PEARSON, E.O. (1943) Memo, 'The Organisation of the Research Work of the Corporation on Insect Pests and Diseases'.
CP/S124 PEARSON, E.O. (1943) Copy of letter, dated 30th November 1943, on possible measures for control of Red Bollworm in the Lower River area, Nyasaland.

CP/S141 ECGC. (1944) 'Cotton-growing in Portuguese East Africa and its effect on the crop in Nyasaland'.
CP/S177 HUTCHINSON, J.B. (1946) 'Note on Research Policy at the Chitala Experiment Station, Nyasaland'.
CP/S179 HUTCHINSON, J.B. (1946) 'Note on Cotton Breeding in Tanganyika Territory'.
CP/S210 ECGC SCIENTIFIC ADVISORY COMMITTEE. (1947) Lists of questions of policy for discussion.
CP/S214 ECGC. (1947) Replies from spinners to questionnaires.
CP/S246 ECGC. (1949) 'Factors which influence quality'.
CP/S290 HUTCHINSON, J.B. (1952) 'Report on a Visit to Zanzibar, July 31st - August 4th, 1952'.
CP/S302 MANNING, H.L. (1953) 'Impressions from a short visit to Nyasaland, 17th-26th June 1953'.
CP/S305 DUCKER, H.C. (1953) 'Nyasaland Cotton Growing. Present Situation and Future Developments'.

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I(iv)(h)

BOOKS and PAMPHLETS in CRC Library, held in Nottingham University Manuscripts Department.

The CRC Library contains an impressive range of books and pamphlets, mostly of a technical nature, on the topic of cotton in the many areas of the world in which the Corporation had an interest. Most of the books used are available elsewhere and are detailed with other secondary sources in Section IV of this bibliography. Some of the pamphlets are less readily available in the UK and are listed here in numerical order, and cited in the text, using the call numbers assigned to them by the CRC.

12/P4 MILLIGAN, S. (1936) 'Inspection Note on the Kenya Cotton Crop in November and December 1935'. Nairobi: Government Printer.
13/P6 NORRIS, P.K. (1937) See Bib.IV.
14/P9 PARNELL, F.R. (1939) and (1942) 'Report on a Visit to the Cotton-growing Areas of Tanganyika Territory, May-June 1939' and 'Report on a Second Visit to the Cotton-growing Areas of Tanganyika Territory, August-September 1942'.
14/P10 WAKEFIELD, A.J. (1940) 'Tanganyika Territory and Native Uplift'. Address to East Africa Section of the Overseas League on 6/6/40.
14/P27 BROWN, K.J. 'Cotton Breeding in the Lake Region of Tanganyika', Mimeo, n.d.
15/P4 SAMPSON, H.C. (1922) 'The Existing Conditions of Cotton Cultivation in Nyasaland and Suggestions for their Improvement'. Report on tour undertaken in Nyasaland Protectorate, June-August 1921. London: ECGC.

15/P8 SAMPSON, H.C. (1927) 'Report on the Characteristics of Several Crops that may be suitable as rotation crops with cotton in Eastern Africa and the possibilities of marketing them in this country'. London: ECGC.

15/P11 CENTRAL AFRICA STATISTICAL OFFICE. (1949) 'Statistical Handbook of Nyasaland 1949'. Salisbury, Northern Rhodesia.

15/P14 KETTLEWELL, R.W. (1955) 'An Outline of Agrarian Problems and Policy in Nyasaland'. Laid on table of the Legislative Council, 2/5/55. Zomba: Government Printer.

Misc.1 ECGC. (1952) Publicity Booklet compiled by 'The Secretary'. London: ECGC, November 1952.

Misc.2 ECGC. (1961) Publicity Brochure, June 1961.

Misc.3 CRC. (1969) Publicity Booklet.

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The Empire Cotton Growing Review was produced from 1924-1975. Editorials and anonymous articles are cited in the text as ECGR/Ed or ECGR/Anon. Individual articles cited will be found in Bibliography IV.

I(v) MALAWI NATIONAL ARCHIVES, ZOMBA
(referred to in text as MNA, followed by file no. or description)

During two periods of research in the Malawi National Archives in Zomba, extensive use was made of the well-organised collection of Government records and more limited use was made of holdings in the Historical Manuscripts collection.

I(v)(a)

MNA DISTRICT BOOKS (in text, cited as MNA, ___, DB.)

By the District Boundaries Regulations, which came into effect on 1st January 1895, the British Central Africa Protectorate (so named on 22nd February 1893) was divided into 12 Districts. During 1910-14, various minor changes were made to the administrative spheres of Nyasaland, as it was known from 1907, before a major transformation in 1921 and 1922 with the introduction of three Provinces - Southern, Central and Northern, divided into 20 Districts (Government Notices 148/1921 and 73/1922). Between 1931 and 1945, the colony had two Provinces, with ten Districts each, before reversion to the three Province system. At independence in 1964, Malawi was divided into 23 Districts in three Regions. (Further details in Appendix VII (a).)

District Books were kept from as early as 1904 and, amongst the wealth of other facts and opinions which some contain, include notes on botany and agriculture - from future prospects and cotton seed issued, to registers of private estates and "District Natives known to be bad characters". The following District Books were all examined: those which provided most useful details are identified by Volume and dates, while those found less useful, either because cotton never attained importance in the area in the period or because the District Book had few entries, are noted by Volume only with the date in brackets. Earlier volumes often carried later updates.

BLANTYRE DISTRICT BOOK:	VOL. I,	1907
	VOL. II,	1910-12
	VOL. II	(1913-21)
	VOL.III,	1921-25
	VOL. IV,	1928-32
	VOL. VI,	1938-42

CHIKWAWA (WEST SHIRE) DISTRICT BOOK:		
	VOL. I,	1904-05
	VOL. II,	1922-46
	VOL. II	(1922)
	VOL.III,	1923-28
	VOL. IV,	1928-32
	VOL. V,	1933-37
	VOL. VI,	1938-42

CHIRADZULO DISTRICT BOOK: VOL. I, 1910-64
VOL. II (1913-18)
VOL. II, 1910-13
VOLS. II-V (1918-37)

CHOLO DISTRICT BOOK: VOL. I, 1907
VOL. II, (1918-23)
VOL.III, 1923-28
VOL. IV (1929-32)
VOL. V 1933-37
VOL. VI 1938-42

DEDZA DISTRICT BOOK: VOL. I, 1907
VOL. II(x3), 1910-13; 1913-18; 1918-23
VOL.III, 1923-28
VOL. IV, 1928-32
VOL. V, 1933-37
VOL. VI, 1938-42

DOWA DISTRICT BOOK: VOL. I, 1907
VOL. II(x4), 1907-10; 1910-13; 1913-18; 1918-23
VOL.III, 1923-28
VOL. IV, 1928-32
VOL. V, 1933-37
VOL. VI, 1938-42

KARONGA (NORTH NYASA) DISTRICT BOOK:
VOL. I, 1907-63
VOL.I, Pt.II (1932-35)
VOL. II(x2), 1907-10; 1918-23
VOL. II(x2) (1910-13; 1913-28)
VOL.III, 1923-28

KOTA-KOTA (MARIMBA) DISTRICT BOOK:
VOL. I, 1907-30
VOL. I (1930-45)
VOL. II, 1910-13
VOL. II(x2) (1913-23)
VOL.III, 1923-28
VOL. IV (1928-32)
VOL. V, 1933-37
VOL. VI, 1938-42

LILONGWE DISTRICT BOOK: (9 VOLS., 1907-42)

MANGOCHI [FORT JOHNSTON(SOUTH NYASA)] DISTRICT BOOK:
VOL. II, 1910-13
VOL. II, 1913-18
VOL.III, 1923-1929
VOL. IV, 1929-32
VOL. V, 1933-37
VOL. VI, 1938-42

MLANJE DISTRICT BOOK: VOL. I(x2), 1904; 1907-56
VOL. II(x4), 1907-10; 1910-13; 1913-18; 1918-23
VOL.III (1923-28)
VOL. IV, 1928-32
VOL. V, 1933-37
VOL. VI (1938-46)
VOL. VI, 1946-49

MZIMBA (MOMBERA) DISTRICT BOOK: (12 VOLS., 1905-48)

NCHEU SUB-DISTRICT BOOK: VOL. I, 1907-47
VOL. II (1907-10)
NCHEU (UPPER SHIRE) VOL. II, 1913-18
NCHEU DISTRICT BOOK VOL. II, 1918-23
VOL.III, 1923-28
VOL. IV, 1928-32
VOL. V, 1933-37
VOL. VI, 1938-42

NENO (CENTRAL SHIRE) DISTRICT BOOK:
VOL. I, 1907-50
VOL. II, 1918-23
VOL.III, 1923-28
VOL. IV, 1928-32
VOL. V, 1933-37
VOL. VI, 1938-42

NSANJE [LOWER SHIRE (RUO)] DISTRICT BOOK:
VOL. I(x2), 1907-20; 1907-50
VOL. II(x2), 1910-13; 1918-23

UPPER SHIRE (US) DISTRICT BOOK:
VOL. I, 1907-55
LIWONDE DISTRICT BOOK VOL. II(x2), 1910-13; 1918-23
VOL.III, 1923-28
VOL. IV, 1928-32
VOL. V, 1933-37

ZOMBA DISTRICT BOOK: VOL. I(x2), 1907; 1910-13
VOL. II (1913-18)
VOL.III, 1918-13
VOL. IV (1923-28)
VOL. V, 1928-32

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I(v)(b)

MALAWI NATIONAL ARCHIVES (MNA) DEPARTMENT OF AGRICULTURE (A) FILES
(referred to in text as MNA, A/_/_/_)

MNA, A/1/1/1 Dept. of Ag., In letters, General, 1894-1908
MNA, A/1/1/2 " " " " " " , 1909-11
MNA, A/1/1/3 " " " " " " , 1912
MNA, A/1/1/4 " " " " " " , 1913

MNA, A/1/2/1 " " " " " , BCGA, 1912-17
MNA, A/2/1/1 " " " , Out letters, General, 1898-1902
MNA, A/2/1/2 " " " " " " , 1903-06
MNA, A/2/1/3 " " " " " " , 1907-09
MNA, A/2/1/4 " " " " " " , 1910-11
MNA, A/2/1/5 " " " " " " Apr-Dec 1911
MNA, A/2/1/6 " " " " " " Jan-Aug 1912
MNA, A/2/1/7 " " " " " " Sep-Dec 1912
MNA, A/2/1/8 " " " " " " Jan-Apr 1913
MNA, A/2/1/9 " " " " " " May-Dec 1913
MNA, A/2/2/1 " " " " " , BCGA, 1910
MNA, A/2/3/1 " " " " ",Governor's Office,1910
MNA, A/2/78/1 " " " , Annual Reports, 1920-23
MNA, A/3/1/1 " " " , Correspondence, General, 1915
MNA, A/3/1/2 " " " " " " 1915
MNA, A/3/1/3 " " " " " " 1915
MNA, A/3/1/4 " " " " " " 1916
MNA, A/3/1/5 " " " " " " 1916
MNA, A/3/1/6 " " " " " " 1917
MNA, A/3/2/3 Cotton Ordinances, Aug. 1933 - Aug. 1937
MNA, A/3/2/53 Cotton - general: Sept. 1932 - Dec. 1935
MNA, A/3/2/54 Cotton - general: Jan. 1936 - Oct. 1938
MNA, A/3/2/55 Cotton - BCGA Agreement, Dec.1921-July 1923
MNA, A/3/2/56 Cotton - BCGA Agreement, Jan.1929-Nov.1932
MNA, A/3/2/57 Cotton - BCGA Operations & Reports, 1914-22
MNA, A/3/2/58 Cotton - BCGA General, Jan.1926 - Dec. 1938
MNA, A/3/2/59 Cotton - Visit of cotton expert, 1921-22
MNA, A/3/2/60 Cotton Industry Committee, Ap.1933-Feb.1934
MNA, A/3/2/61 Cotton Research Station Scheme, 1923-25
MNA, A/3/2/62 Cotton - McCall cultivation articles
MNA, A/3/2/63 Cotton-growing in Bona area of Kota-Kota
MNA, A/3/2/64 Cotton cultivation in Bwanje Valley
MNA, A/3/2/65 Cotton cultivation in Lower Shire Districts, 1929-37
MNA, A/3/2/66 Cotton cultivation in North Nyasa & Tanganyika, 1929-38
MNA, A/3/2/67 Cotton - reports by Empire Committee & Development of industry, 1917-22
MNA, A/3/2/68 Development of Native Cotton Industry, 1923
MNA, A/3/2/69 Cotton - ECGA [sic], Dec. 1925 - April 1927
MNA, A/3/2/70 ECGC Report. Correspondence, London office, 1930-38
MNA, A/3/2/71 ECGC General, July 1930-Sept.1938
MNA, A/3/2/72 Cotton - seeds, experiments with
MNA, A/3/2/73 Cotton - ginneries, Nov. 1935- Feb. 1936
MNA, A/3/2/74 Cotton - linters, June 1918 - Jan. 1919
MNA, A/3/3/75 Cotton - markets, May 1921 - Sept. 1922
MNA, A/3/2/76 Cotton markets
MNA, A/3/2/77 Cotton - native crop, 1931-32
MNA, A/3/2/78 Cotton growing in North Nyasa (Pink Bollworm)
MNA, A/3/2/79 Cotton - pests
MNA, A/3/2/80 Cotton - prices, 1915/16 - 1925/26
MNA, A/3/2/81 Cotton production, 1928-37
MNA, A/3/2/82 Cotton associations
MNA, A/3/2/83 Cotton - quantity purchased 1927
MNA, A/3/2/84 Cotton - reports on samples, 1920-22

MNA, A/3/2/96 Estates Owners, 1926
MNA, A/3/2/102 ECGC Experiment Station, Dowa, 1929-38
MNA, A/3/3/109 Port Herald Experiment Station, 1931-34
MNA, A/3/2/156 Native Agriculture, general: 1931-39
MNA, A/3/2/157 Native Agriculture, improvement: 1922-25
MNA, A/3/2/193 Reports - District Agriculturalist, Chiromo, Feb.-Mar. 1927
MNA, A/3/2/200 Reports - District Agricultural Officer, Port Herald, 1930-32
MNA, A/3/2/201 Reports - District Agricultural Officer, Port Herald, 1933-35
MNA, A/3/2/202 Reports - District Agricultural Officer, Port Herald, 1936-38
MNA, A/3/2/204 Reports - Provincial Commissioner & Residents, 1925-27
MNA, A/3/2/205 Extracts from District Commissioners' Reports
MNA, A/3/2/213 Research & Investigations, 1927
MNA, A/3/2/220 River Transport - Lower Shire, 1935-37
MNA, A/3/2/230 Statistics, 1919-21
MNA, A/3/2/231 Statistics, 1901/02 - 1922
MNA, A/3/2/232 Statistics, 1925
MNA, A/3/2/233 Statistics, 1926
MNA, A/5/1/1 Annual Reports, 1898-1909
MNA, A/5/2/1 Reports - Misc., 1910-11
MNA, A/5/2/2 Reports - Misc., 1913

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I(v)(c)

MALAWI NATIONAL ARCHIVES (MNA) COMMISSION FILES
(referred to in text as MNA, COM _/_/_)

MNA, COM 2/1 Bell Commission - Historical note on the system of Government and the Administrative Organisation
MNA, COM 2/5/2 Bell Commission - History of Department of Agriculture
MNA, COM 2/11 Bell Commission - Note on economic history

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I(v)(d)

MALAWI NATIONAL ARCHIVES (MNA) CENTRAL PROVINCE (NC), NORTHERN PROVINCE (NN) AND SOUTHERN PROVINCE (NS) FILES
(referred to in text as MNA, NC _/_/_, MNA, NN _/_/_ and MNA, NS _/_/_)

These files, listed here alphabetically and numerically by call number, are subdivided into districts. Thus, for example, NSB files refer to Blantyre District in the Southern Provice and NSC files relate to Chikwawa District in the Southern Province.

MNA, NC 1/2/3 Central Province - Cotton, general
MNA, NC 1/2/4 Central Province - Correspondence, cotton, 1923-29
MNA, NN 1/3/3 Northern Province - Cotton, 1934-36
MNA, NN 1/3/4 Northern Province - Cotton, 1937-39
MNA, NN 1/7/2 Northern Province, Correspondence, 1951
MNA, NN 3/2/1 Northern Province, Agriculture, Conferences, 1946-48
MNA, NS 1/2/1 Southern Province, Correspondence, Cotton markets, 1938-39
MNA, NS 1/2/3 Southern Province, Development of Native Economic Agriculture
MNA, NS 1/3/8 Lower Shire Native Association
MNA, NS 1/14/1 Southern Province, Correspondence, Lakes and rivers, 1927-37
MNA, NS 1/14/2 Lake Nyasa levels, 1932-40
MNA, NS 3/1/1 Southern Province Annual Report, 1923-24
MNA, NS 3/1/2 " " " " 1930,1931
MNA, NS 3/1/3 " " " " 1933
MNA, NS 3/1/4 " " " " 1934
MNA, NS 3/1/5 " " " " 1935
MNA, NS 3/1/6 " " " " 1936
MNA, NS 3/1/7 " " " " 1938
MNA, NS 3/1/8 " " " " 1939
MNA, NS 3/1/9 " " " " 1940
MNA, NS 3/1/10 " " " " 1943,1944
MNA, NS 3/1/11 " " " " 1945,1946
MNA, NS 3/1/12 " " " " 1947
MNA, NS 3/1/13 " " " " 1948
MNA, NS 3/1/14 Blantyre District Annual Report,1947-49
MNA, NS 3/1/15 Cholo District Annual Report, 1947-49
MNA, NS 3/1/17 Mlanje District Annual Report, 1947-49
MNA, NS 3/1/18 Lower River District Ann. Rep., 1947-49
MNA, NS 3/1/19 Zomba District Annual Report, 1947
MNA, NSB 1/1/1 In-Letters, Blantyre District, Ag.& Vet. Depts., 1908-21
MNA, NSC 2/1/1 Chikwawa District Annual Report,1922-26
MNA, NSC 2/1/2 " " " " 1926/27
MNA, NSC 2/1/3 " " " " 1929-31
MNA, NSC 2/1/4 " " " " 1932-33
MNA, NSC 2/1/5 " " " " 1937-39
MNA, NSC 2/1/6 " " " " 1940
MNA, NSC 3/2/1-7 Chikwawa (West Shire) District Books - see under I(v)(a) District Books.
MNA, NSP 2/1/1 Lower Shire District Ann. Rep., 1922-26
MNA, NSP 2/1/2 " " " " " 1927
MNA, NSP 2/1/3 " " " " " 1929-31
MNA, NSP 2/1/4 " " " " " 1933
MNA, NSP 2/1/5 " " " " " 1935,1936
MNA, NSP 2/1/6 " " " " " 1937
MNA, NSP 2/1/7 " " " " " 1938
MNA, NSP 2/1/8 " " " " " 1939
MNA, NSP 2/1/9 " " " " " 1940-44
MNA, NSP 2/1/10 Port Herald District " " 1945,1946
MNA, NSP 1/3/1 Port Herald, District Bulletin & Policy, 1938-40
MNA, NSP 1/3/2 Port Herald, Famine Relief, 1941-49

MNA, NSP 1/3/3 Port Herald, General 1936-38
MNA, NSP 1/3/4 Port Herald, Reports & General, 1939-48

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I(v)(e)

MALAWI NATIONAL ARCHIVES (MNA) SECRETARIAT (S) FILES
(referred to in text as MNA, S1/_/_).

The files in this Secretariat Series (1891-1939) are mostly assigned S1/ numbers, with the third (final) digits of the allocated number referring to the year. A fire destroyed most of the files prior to 1919; and "depredation of termites" resulted in later losses. The files read are listed here in numerical order by year.

MNA, S1/83/19 Reports on BCGA operations, 1914-19
MNA, S1/781/19 West Shire Annual Reports 1918-19
MNA, S1/1077/19 Lower Shire Annual Reports 1919-20
MNA, S1/1155/19 Parliamentary Questions and Answers, 1919-29
MNA, S1/1640/19 Development of economic resources of the Empire
MNA, S1/1988/19 Native Textile Industry, 1919-30
MNA, S1/82/20 Revival of Cotton Industry, 1920
MNA, S1/224/20 Ndindi Marsh scheme
MNA, S1/474/20 West Shire Annual Report, 1920-21
MNA, S1/486/20 Lower Shire District Reports, 1920-21
MNA, S1/557/20 Memo by Empire Cotton Growing Committee
MNA, S1/24/21 ECGC General, 1920-26
MNA, S1/378/21 Export Duties, 1917-24
MNA, S1/984/21 Oceana Company
MNA, S1/1702/21 Cotton: Native Industry 1921-32
MNA, S1/1381/23 BCGA Agreements
MNA, S1/1381.F/23 Ginnery Sites, 1935-40
MNA, S1/1381D/23 Native Cotton Industry 1932-34
MNA, S1/2004/23 Visit by Sampson and Director of Agriculture to Lower Shire District, 1923
MNA, S1/2433/23 Report by Mr. E.W. Davy on a visit to Lake Districts in regard to agricultural prospects
MNA, S1/2444/23 Nyasaland Indian Traders' Association
MNA, S1/481/24 Native Cotton Industry, 1923. AR,Dir/Ag.
MNA, S1/1851/24 Note by Mr. H.C. Sampson on cotton cultivation in Nyasaland
MNA, S1/441/25 Nyasaland Planters Association
MNA, S1/1083/25 Rungwe District, 1925-29
MNA, S1/1751/25 North Nyasa Cotton, 1925-40
MNA, S2/23/25 Native Labour - Confidential series
MNA, S1/1283/27 Land exchange
MNA, S1/1174/28 ECGC Pamphlet, 1928
MNA, S1/466/29 Parliamentary Questions and Answers, 1928-39

MNA, S1/654/29 Mlanje District - report on potential increase of economic crops
MNA, S1/956/30 BCGA cotton prices, 1930
MNA, S1/91/34 Legislation for control of cotton industry
MNA, S1/276/34 Price stabilisation, 1933-35
MNA, S1/278/35 BCGA Application for lease
MNA, S1/160/36 Comparative study of cotton growing legislations in Equatorial Africa
MNA, S1/165/36 BCGA land exchange application
MNA, S1/159/37 Application for grant from Colonial Development Fund on behalf of cotton industry
MNA, S1/218/37 Agricultural Policy for 1938
MNA, S1/552/40 Price Stabilisation, 1931-40

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I(v)(f)

MALAWI NATIONAL ARCHIVES (MNA) HISTORICAL MANUSCRIPTS (Hist. Mss.) COLLECTION and Miscellaneous

MNA, Hist.Mss., NY 3/2/1 - NY/3/2/10 (NY 3/2/2 missing): Nyasaland Associated Chamber of Agriculture and Commerce. Minutes of Proceedings. 2nd November 1907 to 3rd July 1933.

MNA, Hist. Mss. NY 4/1/1 Nyasaland Planters' Association Minutes of Proceedings at Committee Meetings, 1925-29.

MNA, DAOR: Department of Antiquities Oral Records - written records of interviews conducted in 1970 and 1971. (Disappointing lack of depth and follow-up.)

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I(vi) TANZANIA NATIONAL ARCHIVES, DAR-ES-SALAAM
(referred to in text as TNA, followed by file no. or description)

In the 1965-66 'Second Annual Report of the National Archives of Tanzania', it was noted that the archives were about to be moved from their unsuitable premises into a new building. In 1984-85, TNA was still based in the same noisy, hot, malodorous (thanks to the Indian restaurant opposite) quarters though a start had been made on moving documents to a new repository. Despite the goodwill and efforts of the staff, lost files, a flooded store, another store which the staff were scared to enter because it had not had a stolen light replaced, termite-damaged papers and, finally, a seemingly endless power cut (courtesy of unpaid electricity bills), which rendered the microfilm machine useless, all combined to make using the Tanzania National Archives a fairly daunting experience.

Three categories of records were consulted: Regional and District Books; Secretariat files; and Provincial and District records.

I(vi)(a)

TNA REGIONAL (PROVINCIAL) AND DISTRICT BOOKS
(The number in brackets after the title refers to the TNA Microfilm (MF) Reel which contains the Book. Five Microfilm reels were used at Rhodes House Library (RHL), Oxford, or borrowed from Rhodes House through Inter-Library Loan - these bear different accession numbers, which are quoted after the TNA MF number.)

BAGAMOYO DISTRICT BOOK (MF17)
BAGAMOYO DISTRICT BOOK, VOLS. I & II (MF30; RHL MicrAfr 472/13)

BIHARAMULO DISTRICT BOOK, VOL. I (MF54)

BUKOBA DISTRICT BOOK, VOL. I (MF56)
BUKOBA DISTRICT BOOK, VOLS. II & III (MF58)

DAR-ES-SALAAM DISTRICT BOOK (MF17)

GEITA DISTRICT BOOK, VOL. I (MF54)

HANDENI DISTRICT BOOKS, VOLS. I-IV (MF5; RHL MicrAfr 472/1)

IRINGA DISTRICT BOOK (MF21)

KAHAMA DISTRICT BOOK, VOL. II (MF48)

KILIMANJARO (MOSHI) DISTRICT BOOK, VOL. I (MF9; RHL MicrAfr 472/3)

KILOSA DISTRICT BOOK, EASTERN PROVINCE (MF15)
KILOSA DISTRICT BOOK (MF19)
KILOSA DISTRICT BOOK II (MF21)

KISARAWE DISTRICT BOOK, VOLS. I & II (MF30; RHL MicrAfr 472/13)

KOROGWE DISTRICT BOOK, VOLS. I-III (MF7; RHL MicrAfr 472/2)

KWIMBA DISTRICT BOOK, VOLS. I - III (MF54)

MAHENGE (ULANGA) DISTRICT BOOK (MF17)

MASWA DISTRICT BOOK, VOLS. I & II (MF48)

MBULU DISTRICT BOOK (MF13; RHL MicrAfr 472/5)

MOROGORO DISTRICT BOOK, EASTERN PROVINCE (MF15)
MOROGORO DISTRICT BOOK, VOLS. I & II (MF19)
MOROGORO PROVINCIAL BOOK, VOL. II (MF17)
MOROGORO PROVINCIAL BOOK, VOL IV (MF19)

MPANDA DISTRICT BOOK, VOLS. I & II (MF42)

MUSOMA DISTRICT BOOK, VOL. I (MF52)

MWANZA DISTRICT BOOK, VOL. I (MF 54)
MWANZA PROVINCIAL BOOK (MF52)

NJOMBE DISTRICT BOOK, VOL. I (MF21)

NORTH MARA DISTRICT BOOK, VOL. I (MF52)

NZEGA DISTRICT BOOK, VOL. I (MF42)

RUFIJI DISTRICT BOOK (MF17)
RUFIJI & MAFIA DISTRICT BOOK (MF19)

RUNGWE DISTRICT BOOK (MF28)

SHINYANGA DISTRICT BOOK, VOLS. I & II (MF48)

SUMBAWANGA (UFIPA) DISTRICT BOOK, VOL. II (MF28)

TABORA PROVINCIAL BOOK (MF42)

UKEREWE DISTRICT BOOK, VOL. I (MF54)

ULANGA DISTRICT BOOK, VOLS I & II (MF21)

USAMBARA DISTRICT BOOK (MF9; RHL MicrAfr 472/3)

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I(vi)(b)

TANZANIA NATIONAL ARCHIVES (TNA) PROVINCIAL AND DISTRICT RECORDS

Less than a third of requested files under this heading were available. They are listed here in numerical order, with the first three digits being the accession number assigned by TNA and the remainder being the identifying number on the file itself. Individual letters or papers from these files are cited in the text with the number below and any further identifying number on the document.

TNA, 215/-	REGIONAL (PROVINCIAL) OFFICE, MWANZA
TNA, 215/20/67/	Mwanza Station. Agriculture - increased production of native economic and food crops.
TNA, 215/82/I/	Bukoba. Agriculture - cotton [1923-30]
TNA, 215/82/II/	" " " [1931-]
TNA, 215/155/	Provincial Office, Bukoba. Production of economic crops by natives and use made by them of their cash earnings.
TNA, 215/167/	Summary of District Annual Reports.
TNA, 215/665/IV/	Cotton - general. [1951-56]
TNA, 215/665/V/	Cotton - general. [1957-62]
TNA, 215/909/I/	Bukoba. Agriculture, general. [1926-32]
TNA, 215/909/II/	Bukoba. Agriculture, general. [1936-51]
TNA, 215/1299/	Cotton Industry - Bukoba District
TNA, 180/A2/25/I-II	African Administration & Affairs. Minutes of [Kigoma & Kibondo] District Teams and [Tabora] Provincial Team. [1952-61]
TNA, 180/A3/22/I	Kigoma - Agricultural Reports. [1951-54]
TNA, 180/A3/22/II	" " " [1954]

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I(vi)(c)

TANZANIA NATIONAL ARCHIVES (TNA) SECRETARIAT (S) FILES

The five figure numbers following TNA, S/ in the following list are those allocated in the TNA Secretariat Registration Index. They are listed here in numerical order. The majority relate to the 1920s and 1930s, with the dates given in square brackets where there is more than one file with a given number and title.

TNA, S/10047 Ia	Cotton Advisory Board papers [1929-31]
TNA, S/10047 IIA	" " " " [1932]
TNA, S/10047 III	Formation of a Cotton Advisory Board
TNA, S/10250	Cotton Industry - Tabora Province
TNA, S/10556	Application for ginnery site by BEAC

TNA, S/10832		Cotton Industry - Lindi Province [1930-35]
TNA, S/10832	II	" " " " [1939]
TNA, S/10844	I	Cotton Industry - Eastern Province [1927-32]
TNA, S/10844	II	" " " " [1933-]
TNA, S/10844	III	" " " " [1934-35]
TNA, S/10844	IV	" " " " [1935-37]
TNA, S/10844	V	" " " " [1939-41]
TNA, S/10844	VI	" " " " [1949-52]
TNA, S/10844	VII	" " " " [1953]
TNA, S/10858		Cotton - general [1923-29]
TNA, S/10858	II	" " [1933-36]
TNA, S/12951		Cotton Industry - Lake Province
TNA, S/13478		Cotton Growing - Iringa Province
TNA, S/13835		Cotton Industry - Central Province
TNA, S/13853		Cotton Industry in Uganda. Report of Commission of Enquiry.
TNA, S/18866		Cotton Growing - Mahenge Province
TNA, S/19084		Middlemen Cotton Buying Association (Central Area) Morogoro
TNA, S/19496	I-III	Cotton [1931-39]
TNA, S/19642	I	Minutes of Cotton Advisory Board, 1931-35
TNA, S/22181		Cotton Industry - Western Province
TNA, S/22895		Cotton Industry - Eastern Province. Protests 1935-36.
TNA, S/23138		Report on Ducker's visit, 1935
TNA, S/23178		Central Cotton Research Station
TNA, S/23782		Cotton Rules (1936)
TNA, S/24312		Cotton Ordinance 1937
TNA, S/25074	II	Rules under the Cotton Ordinance [1940-51]
TNA, S/25090	II	Formation of Cotton Board under the Cotton Ordinance 1937
TNA, S/38736		Report of the Commission appointed in Uganda to study the problems of the Cotton Industry [1948]
TNA, S/38760		Establishment of Textile Industries
TNA, S/40864		Cotton - regulation of export
TNA, S/41196		Development of Ukerewe Island

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I(vii): RHODES HOUSE LIBRARY (RHL), OXFORD, England

Boxes and files of papers, reports, press cuttings, photographs, letters, photocopies, tapes and interview transcripts form part of Rhodes House Library's magnificent collection of Africana, usefully described in Louis B. Frewer's Manuscript Collections of Africana in Rhodes House Library, Oxford (1968) with 1971 and 1978 supplements.
Papers consulted in the Mss. Afr. and Mss. Brit. Emp. series are listed here in alphabetical order of author or project heading with the RHL reference number on the left.

RHL, Mss.Brit.Emp.s.22 G144 — ANTI-SLAVERY & ABORIGINES PROTECTION SOCIETY
RHL, Mss.Afr.s. 424 — BARKER, Frank
RHL, Mss.Afr.s. 458-62 — BARNES, W.S. Gerard
RHL, Mss.Brit.Emp.s.22 G142 — BRITISH EAST AFRICA corr.
RHL, Mss.Brit.Emp.s.388 — BYATT, Sir Horace A.
RHL, Mss.Afr.s. 1261 — CORY, Hans
RHL, Mss.Afr.s. 633 — CORYNDON, Sir Robert Thorne
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The A.G. MacAlpine (Gen.766/2), Kenneth Mackenzie (Gen.1871), F.T Morrison (Gen.1803/9), D.C. Scott (Gen. 717/10) and William Scott (Gen.1942) papers in Edinburgh University Special Collections Department were consulted with little gain. However, the undernoted items proved more useful. They are listed in alphabetical order, with the Library Catalogue Number on the left.

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Repeated closures, on Public Health Department orders, during two periods in London, put paid to plans to make full use of the Public Records Office, in particular to read the 391 files in the CO 525/_ and CO 691/- (Nyasaland and Tanganyika Original Correspondence) series. However, many of the most relevant items were seen in copy at other libraries and archives. The following files, identified as PRO, FO/ (Foreign Office) and PRO, CO/ (Colonial Office) were important. The final digits in references in the text are page numbers in the volumes.

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PRO, CO 525/41-139	Nyasaland Protectorate series, 1912-30 (only a sample of these were read)
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