Problems of African Development

Part One: Land and Labour

THIRD EDITION

T. R. BATTEN

Oxford University Press

PROBLEMS OF AFRICAN DEVELOPMENT

PART I: LAND AND LABOUR

CONTENTS OF

Part II of *Problems of African Development:*

GOVERNMENT AND PEOPLE

OTHER BOOKS BY THE SAME AUTHOR

Tropical Africa in World History
Thoughts on African Citizenship
Africa Past and Present
Communities and their Development
School and Community in the Tropics

PROBLEMS OF AFRICAN DEVELOPMENT

PART I

LAND AND LABOUR

by

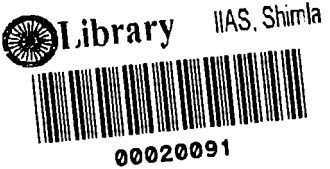
T. R. BATTEN

Third Edition

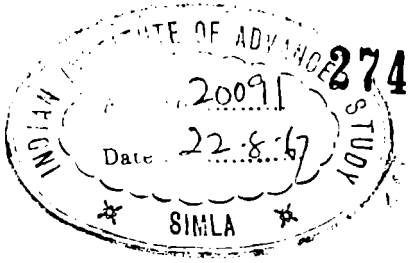
LONDON
OXFORD UNIVERSITY PRESS
1960

Oxford University Press, Amen House, London E.C.4

GLASGOW NEW YORK TORONTO MELBOURNE WELLINGTON
BOMBAY CALCUTTA MADRAS KARACHI KUALA LUMPUR
CAPE TOWN IBADAN NAIROBI ACCRA



First Edition 1947
Second Edition 1954; Reprinted 1956
Third Edition 1960



Printed in Great Britain by Butler & Tanner Ltd.,
Frome and London

PREFACE TO THE THIRD EDITION

PART One of this book was first published in 1947 and Part Two in 1948. Both parts were extensively revised in 1954, and now in 1959 I am able to revise them again. This opportunity is all the more welcome because it has become evident during the past few years that the book is meeting a continuing need, particularly in extra-mural classes and other adult study and discussion groups, in training colleges, and in the top forms of some secondary schools.

For this new edition I have again thoroughly revised the whole book, inserting some new material and cutting out passages which have become less relevant with the passing of time. I have also eliminated a good many of the footnotes and incorporated others in the main body of the text.

T. R. BATTEN

University of London Institute of Education, 1960

CONTENTS

Chapter I

THE GEOGRAPHICAL AND HISTORICAL BACKGROUND

THIS book deals with some of the most important of the many problems now facing the African peoples of East and West Africa. The East African peoples live in a large but compact group of territories consisting of Kenya, Uganda, Tanganyika, Northern Rhodesia, and Nyasaland, and in two small islands, Zanzibar and Pemba, which lie off the coast of Tanganyika. The West African peoples live in four territories, each with direct access to the sea, but separated from each other by other countries. These territories in order from west to east are the Gambia, Sierra Leone, Ghana, and Nigeria. This order also indicates an ascending scale of size, population, and importance, from the Gambia, with a population of only 250,000, to Nigeria with an area of 370,000 square miles and a population of over 30,000,000.

Although both groups of territories are tropical they differ in several important respects. West Africa is hot and for the most part low-lying and malarial, and until quite recently the death-rate among the Europeans living there was very high. In East Africa, on the other hand, the low-lying, hot coastal plain is narrower. Inland, the country rises sharply to the Central African plateau which has an average altitude of over 3,000 feet above sea-level, and in some areas rises to yet higher levels where conditions favour European settlement. There are now over 40,000 Europeans in Kenya, over 20,000 in Tanganyika, 50,000 in Northern Rhodesia, and a much smaller number in Uganda and Nyasaland. Most of the Europeans in Northern Rhodesia and Kenya are permanent settlers, and they have had an influence on

East African development out of all proportion to their numbers.

The geographical situation of East Africa in relation to India has been the cause of another important difference. Trade was carried on between Asia and East Africa even in very early times. This was due to the steadiness of the monsoon winds and their seasonal change of direction. From November till April these winds blow from Asia to East Africa, and from May till October in the opposite direction. They thus provided ideal conditions for the early development of seaborne trade, even with sailing vessels of a primitive kind.

This contact between East Africa and Asia, which owed much to the monsoon, was for many hundreds of years restricted to the coastal area where Arab trading stations were established. There was no successful attempt to conquer the hinterland. Indeed, this offered few attractions to the invader, for not far inland stretched a belt of infertile, almost waterless country, and the traveller who ventured through it found warlike tribes, and little chance of any profitable trade that could not more safely and cheaply be carried on at the coast. When the Portuguese reached East Africa on the journeys which led to the discovery of the sea-route to India at the end of the fifteenth century, they were more hopeful. They drove out the Arabs and tried to open up the country, to find gold, to trade inland, and to convert the people to Christianity. They were defeated by malaria and the tsetse-fly, and by the hostility of African tribes. In the end, in spite of devoted work by Portuguese missionaries, they were forced to retreat to the coast.

The opening-up of the interior of East Africa was thus delayed for some four hundred years, until the travels of Livingstone and other great African explorers in the nineteenth century encouraged others to venture in. First came Arab and Portuguese slave-traders who were quickly followed

by European missionaries and traders. They in turn were followed by the establishment of white rule, by white settlers, and by Indian immigrants. These immigrant communities have helped to promote the peaceful development of East Africa, but they are also responsible for some of its most difficult problems.

The climate of West Africa, however, was unsuitable for European settlement, and the great land barrier of the African continent restricted the inflow of Asians. European and Asian residents are traders or government officials who nearly all intend, sooner or later, to retire to their own countries.

Although Europeans did not settle in West Africa, they came earlier into contact with it than with East Africa, and from the beginning took a much greater interest in it. The Portuguese sought gold, ivory, and spices, and a sea-route for the rich Indian trade. They completely succeeded only in the last of these aims, but they very soon found another interest which far outweighed the disappointments of earlier failures.

Some of the earliest Portuguese explorers of the West Coast returned to Europe with negro slaves, but the slave trade did not become really important until the discovery of the New World. The Spaniards who conquered Mexico and Peru required men to work in the gold and silver mines, and labourers were also needed to work on the plantations of the West Indies. The local people proved unsuitable, but African slaves were found satisfactory. The demand for slaves from Africa therefore rapidly increased. Large profits could be made by satisfying this demand, and this decided traders of other European nations to break the Portuguese monopoly. English, Dutch, Danes, Germans, French, and Swedes swarmed to the Coast, and by 1650 the Portuguese had been driven from almost all their West African forts. Henceforth they depended for the bulk of their slaves on their settlements farther south in Angola and, on the east coast, in Mozambique.

During the next hundred and fifty years the slave trade continued to grow under very favourable conditions. The trade formed part of what came to be known as the 'Great Triangle'. The three sides of the triangle were formed by the sea-routes from Europe to West Africa, from West Africa to America, and from America to Europe. Ships sailed to the West Coast with cloth, beads, guns, and gin. These were exchanged on the Coast for negro slaves for sale in America, and from America the ships returned to Europe carrying sugar, tobacco, and cotton. Thus the trade grew, and it has been estimated that by the middle of the eighteenth century over 100,000 slaves were shipped yearly to America, and over half of these in British ships. On the East Coast the slave trade to Asia formed an important part of Arab trade.

It is unnecessary in this brief chapter to follow the long history of the slave trade. It did however have a great influence on African development. The preoccupation of Europeans and Asians with this trade not only did positive harm, but also delayed for several hundred years any possibility that good might arise from the contact of Africans with people from other lands. It gave no urge to exploration and denied the growth of other kinds of commerce.

However, during the eighteenth century many people in Britain came to realize the evils of the trade, and the long campaign of Wilberforce and his friends was so successful that in the end not only did they succeed in getting the Act of 1807 on the Statute Book, but they also left as a legacy for the future a permanent and powerful body of British opinion to urge fair treatment for the African peoples. This has profoundly affected the course of African history, and its twin ideals of the equality and the brotherhood of man have ever since remained a constant, and on the whole successful, factor in the shaping of British policy. In particular, it provided one of the chief reasons for British interest in Africa after the slave trade's legal abolition, and contributed greatly to

the extension of British rule over many parts of the African continent.

It is difficult to give any short but clear account of the mixture of motives which led to the Partition of Africa, and of their varying importance at different times and places. Much has been written on this subject, and different authors have given different interpretations of the facts. They vary between the one extreme of claiming that the chief or even the only motive has been one of economic exploitation of the weak, and the other which stresses only the great social and civilizing work of missions, and the valuable work of governments in putting down the slave trade, maintaining law and justice, and developing peaceful trade.

There is plenty of evidence to support either view. We need not be surprised that among weak and backward peoples and before the establishment of effective government control injustice was sometimes done and that many individuals were able to inflict evil in pursuit of gain. The troubles in Matabeleland (1896) and Natal (1906), as well as many minor instances bear witness that British rule was not always extended without injustice and wrong-doing. But to emphasize only this is to neglect that side of the picture which shows selfless endeavour by large numbers of missionaries, explorers and government officials.

The truth is that the Europeans who intervened in Africa acted from a large variety of motives. Among them were the desire to explore the unknown, to suppress the evils of the slave trade, to convert people to Christianity, to encourage British trade and industry, to promote white settlement, to secure ports and hinterlands for military reasons, and to add to the glory of empire. These and other motives are woven into the pattern of African history, and it is not always easy to assess the good and allocate the blame. Some would like to believe that the record of white trade and settlement in Africa is solely one of greed and injustice. And yet men like

Fowell Buxton, Livingstone, and Lugard, who were in the forefront of the battle against the slave trade and who had a deep sense of Christian duty towards Africans, were equally strong supporters of white trade and settlement. It was only by such means, they firmly believed, that the evils of the slave trade could be ended and the blessings of civilization most quickly and effectively introduced. Nor must it be forgotten that Rhodes, who made an enormous fortune in Africa and was an ardent imperialist, was liked and respected by Africans with whom he came in contact. His claim for 'equal rights for all civilized men south of the Zambesi' fits ill with any estimate of his character which emphasizes only the worst aspects of economic imperialism; and it contrasts favourably with modern South African policy which, since 1936, has denied to Africans the real measure of political equality previously available to them under the Cape Franchise.[1]

The strong belief of missionaries and others during the nineteenth century that blessings would automatically accrue to Africans from white trade and settlement may seem foolish to the reader of some of the darker chapters of African history, and to the student of some of the acute problems which remain as the legacy of past ignorance, prejudice, or greed. And yet they could feel justified in their faith, for they believed in the potential equality of white and black, and they believed, too, that British policy would be constantly directed to achieving it. If these two assumptions are true, were they not right in their other belief that European trade, settlement, capital and enterprise would hasten the African's inevitable advance towards economic and political freedom? To them the answer seemed clear, and the African's achievement of his goal only a matter of time. Is it equally clear now, in the middle of the twentieth century? We have the advantage which

[1] Few of them actually possessed it, but Africans attached great importance to the fact that the qualification for the vote was an economic and not a racial one.

they lacked of being able to look back over the last fifty years in tropical Africa, of seeing how far past hopes have been justified by events, and of examining the present situation with a view to assessing the prospects of further progress.

Chapter II

THE NEED FOR AFRICAN ECONOMIC DEVELOPMENT

STUDY of the economic and social conditions of West and East Africa is intensely interesting at the present time, for strong external influences are changing them very rapidly. Until the exploration and partition of Africa in the nineteenth century comparatively few Africans were affected. African clans and tribes did indeed have contacts with one another, and these sometimes resulted in war and change, but no African tribe was so different from its neighbours in aims and ideas as to cause great changes in their way of life.

Partition, however, brought in a new and completely different element based on European society. This was powerful enough to smash the existing organization of African tribes, as it has sometimes done, while at its mildest it has forced them to try to adapt themselves to the new conditions it has introduced. It is as though an acid has been poured on to some unknown mineral and we are watching to see what compound will emerge. But this simile is not accurate enough. Neither acids nor minerals are living or have wills of their own. They can have neither aims nor interests, and cannot themselves influence the result of mixing them, which is constant and certain. People, however, can try to influence what is happening to them, accepting some changes and rejecting others. This imposes on them a heavy responsibility to judge wisely.

During the past few years Africans everywhere have been claiming and obtaining more political power, and in West Africa at any rate they have gained a good deal. Ghana is fully independent and now in 1960 Nigeria becomes independent

too. Africans in other territories have the same goal, although in East Africa there are European and Asian minorities which have special privileges and are unwilling to give them up, which makes the situation there more complicated. So far the British Government has not made any definite statement of its own views about this, the most difficult of all the problems now facing the East African peoples.

Most Africans are naturally more anxious for freedom and independence than for anything else, but it is worth noting all the same that they have many other problems which even independence does not solve. Independence does not make poor people rich, illiterate people literate, hungry people well fed, or sick people well. Nor does the mere fact of independence ensure good government. Real progress depends on the solving of a whole range of difficult problems, some economic, some social, and some political, of which gaining independence, however important it may be, is only one.

Success in solving these problems will depend on progress of four main kinds. The first, surely, is that the people learn how to produce more wealth, both for personal consumption and also to pay for all the many government services such as schools, hospitals, roads and water-supplies they feel they need. Secondly, there is the need for everyone to become literate, able to understand the changes that take place, and able to play his part in wisely controlling the destinies of his country. Thirdly, more higher and technical education is needed, so that more and more people become well qualified for administrative and technical posts at every level in the government service and in industry. Fourthly and lastly, much progress still needs to be made in creating a strong *national* feeling among a whole mixture of peoples, each with its own language, customs, and traditions.

It is against this background that we can now study and discuss particular problems: first, the economic problems and

then, in the second part of this book, some of the major social and political problems.

We have noted that people must be able to provide for themselves out of their own resources all the many social and economic services they now desire. Economic progress is, indeed, a fundamental need, for only a very great increase in African wealth can provide a lasting foundation on which a satisfactory social and political structure can be erected. Africa has no worthwhile future and, in particular, no satisfactory political future without it. Africans need better food: they must produce the means, either directly, by increasing their production of food, or indirectly, by producing other commodities they can exchange for it. They need greatly extended health and medical services and a vast extension of education at all levels. This means that they must be able to support large numbers of people who are not directly engaged in productive work. Doctors, health workers, teachers, and their families, need food, housing, clothes, and luxuries. These needs must be met by the people among whom they live and work, and this means that the people must produce extra wealth by learning how to use their resources more effectively. These resources are the land and the labour of the people who live on it.

So far there has been no mention of money. Many people seem to believe that money can provide an answer to their economic problems. And this is true, of course, in the case of individuals, for the possession of money is the measure of their claim on the wealth produced within their country, and the more money a man possesses the greater his claim—and the smaller the claims of others. For the value of money is limited by the goods and services available for which money can be exchanged, either now or in the future; and such goods and services can only be obtained as the result of the toil of the worker in the fields and factories, of the doctor in his hospital, the teacher in his school, and the trader in his shop.

These are the producers of the real wealth that satisfies men's needs, and it is here that we meet the real problem, which is how to get many more people more interested and more skilled introducing more of the goods and services they need.

Chapter III

THE PEOPLE AND THE LAND

In the last chapter we looked at the main problems which face African society today, and in particular at the problem of economic development. The production of wealth has to be greatly increased. The sources of wealth are the land and the labour of the people who live on it. By the 'land' in this instance we mean not only the soil itself but all that grows on it, all that can be dug from beneath it, and even the lakes and seas which fill its hollows: in 'labour' we include not only the work of tilling the soil, digging out minerals, tending cattle, and catching fish, but also any work which provides goods and services which people need. Labour, in fact, is the means by which the resources of the land are made available to man.

Some countries are notably wealthier than others, and such differences may be due to one or both of two causes. Some people are actually or potentially wealthier than others because the land they occupy has certain advantages denied to other lands: deep, fertile soil, for instance, good conditions of climate, and possibly large stores of useful minerals underground. It is not hard to realize that Britain possesses great natural advantages over many of the less favoured parts of Africa, or over countries like Tibet, Mongolia, and Arabia.

Differences of wealth may be found, however, even when one country has no noticeable advantages over another. In such cases the differences are due to other factors, such as the degree of knowledge, skill, and energy of the people in using the resources the land provides.

The peoples of Africa produce less than the peoples of Western Europe and North America for both the reasons given above. Their lands appear to lack great potential wealth,

and less skill and energy have so far been applied to their development. Thus in so far as Africans seek social services and standards of living comparable with those in Europe and America, they must overcome the initial disadvantages of smaller natural resources by an even greater application of knowledge, skill, and effort.

Labour can be applied to turn the resources of the land into wealth at two stages. The first stage of *extractive* production is the actual process of winning useful things from the land: the production of crops by the farmer, of cattle, sheep, and goats by pastoral peoples, the catching of fish in rivers and lakes, and the digging-out of minerals from the rocks beneath the soil. There is a second, *manufacturing*, stage which is far less developed in Africa than in the Western world. At this stage further labour is applied to the products of primary industry in order to add to their usefulness, as, for example, when motor-cars and bicycles are manufactured from the raw materials obtained from the land, or from the rocks beneath it. The revolution in industry of the eighteenth and nineteenth centuries vastly increased the scope and productivity of labour in certain countries, with a corresponding increase in their production of wealth. It also naturally increased the demand for primary products that could be used as raw materials in the factories, and provided a reason for the colonial expansion of European countries in the nineteenth century which is largely responsible for the problems now to be discussed.

These fall naturally into two main groups: those especially concerned with land-use, and those which arise during the process of making the products of the land available for consumption. A convenient starting point for a study of the former group is the problem of land tenure.

The ideas which men hold about the land on which they live depend largely on the kind of use they are able to make of it, and the tenure or right under which the land is used

therefore differs from one community to another. But in Africa it is possible to distinguish some traditional ideas about land which were common in nearly every tribal society. Thus there was no 'ownership' of land in the European sense of freehold ownership, and although an individual might have the *use* of a particular farm, his rights in it, and what he could do with it, were limited by other rights over the same land held by the members of his family, clan, or tribe.

There were, and still are, many variations of custom within this broad generalization, just as there are many variations in the degree of development among African communities. Land rights are less strictly defined and allocated among hunting and pastoral than among farming communities. Again, even among farming peoples, where the population is sparse and whole villages move every few years to new sites, land allocation is less definite than in more thickly populated places. There, where village sites are permanent, the land boundaries of each family are recognized and land passes by inheritance. But even in such cases group-heads acting on behalf of the community may still retain the right to allocate unoccupied lands, and to reallocate land formerly allotted, if it is no longer used. In all these cases, though family rights over particular areas are often very clearly defined, there is no doubt about the existence of other rights, equally definite.

This situation was sometimes modified by conquest, or by the development of strong central governments ruling over large areas, as among the Chagga and the Baganda in East Africa, the Basuto in South Africa, and, in West Africa, in the emirates of Northern Nigeria, and the kingdoms of Dahomey, Ashanti, and Benin. Here the central authority was strong enough to take over from smaller groups their traditional function of allocating land.

Another important point should be noticed. Land was considered by most of the African peoples in much the same way as Europeans think of sunshine and air—equally plenti-

ful, equally necessary, and equally to be shared by all members of the community according to their needs. Land had no price and was not for sale. It is true that in areas of dense population, where trade had developed and land was less plentiful, this idea was already being modified to some extent before the arrival of Europeans. Among the Kikuyu of Kenya a man could pledge his land to creditors, but he parted only with the use of it, and he retained the right of taking it back when he had paid his debt. Also, although even before the coming of Europeans persons from other tribes were allowed to hold land after they had given presents to the clan authorities, the gifts were not looked on as payment for the land. They were looked on rather as a thank-offering for admittance into a new community, or as tribute in recognition of the authority of the chief or elders. Membership of the community, not payment of price, was the condition of land-holding.

Europeans came to Africa with an entirely different idea about land. To them land was property, and individuals could own it in much the same way that they could own chairs, tables, bicycles, or books. Land could be bought and sold, or mortgaged. It could be farmed, or built on, or neglected, at the will of the individual owner. It could be lent to others who were willing to pay the owner a rent for the use of it.

Europeans therefore brought with them to Africa the idea of land-ownership rather than of land-use; and of individual rather than communal rights: and it is not surprising that in the early days a good many misunderstandings arose between Africans and Europeans as to the meaning of the agreements they made concerning land. Europeans thought of the grants made to them by Africans as grants of *ownership*: Africans as grants, more or less temporary, of occupational *use*.

This first stage ended with the establishment of colonial governments which soon took control of negotiations about land out of the hands of private persons, but there was still

scope left for the making of other kinds of mistakes. To the European accustomed to a land system where every inch of land was definitely owned by a person or a community, and the extent of each holding strictly defined, large areas in many parts of Africa appeared to have no owner. In many places the population was sparse, villages were distant from one another, and the lands between them appeared 'vacant', ownerless, and available for European settlers or commercial companies without seriously trespassing on any established African rights. But in fact many areas which were thus declared available for Europeans belonged to African communities in the sense that they were used by them for fishing, hunting, and the collection of forest produce. Many areas apparently empty were of even greater importance where shifting cultivation was practised, and whole villages moved periodically to other areas when their existing farms lost fertility.

Another type of error into which governments sometimes fell was to give those persons who were responsible for the allocation of land legal rights as *owners* of land, although according to African custom they had only the rights of caretakers or trustees. Another mistake was to give a legal title of ownership to men occupying land in virtue of services they performed for the tribal community, and thus to separate land-holding from the duties traditionally associated with it. It is now generally accepted, for example, that the Buganda Agreement of 1900 created a class of freehold landholders for whom rights in land no longer carried the customary responsibility of performing services on behalf of the community.

These mistakes were due to European ignorance in the past, but it is still important to understand African land custom today. Many social and economic development schemes depend for success on people modifying their ideas about land. The systems of rotational grazing in East Africa and the demarcation of village lands into fixed areas of grazing and

cultivation in Southern Rhodesia both involve Africans changing their ideas about land-holding. So also do resettlement schemes for moving people from areas infested with sleeping-sickness. In such schemes difficulties may arise both in the 'evacuation' and the 'reception' areas. For some tribes land and religion are interdependent. They believe that the fertility of the soil depends on the goodwill of the spirits of their ancestors, who remain closely associated with the land they occupied during their life on earth. This belief may sometimes make people unwilling to change the customs favoured by their ancestors. It may also make them unwilling to move to other land. Equivalent land may not be regarded as 'equivalent' if it lacks the presence of the ancestral spirits. Fortunately this belief is by no means universally and strongly held. Even in pre-European times many tribes migrated for economic and political reasons, and voluntary migration is common today. Sometimes the ancestors are associated with movable objects, such as hearthstones, and in such cases resettlement schemes meet with less difficulty.

Difficulties may also arise in reception areas if the newcomers' ideas about land differ widely from those of the existing inhabitants. If studies of the land tenure systems of such areas have been made, such difficulties can be foreseen, and steps taken to avoid arousing friction and resentment.

Chapter IV

CHANGING IDEAS ABOUT THE LAND

THE traditional ideas underlying land tenure were briefly described in the last chapter. Land was held by groups of people who shared it, in common with other rights and obligations, as members of a community. Because land was plentiful and could not pass from the community, land-*holders* enjoyed security of tenure although land-*ownership* in any European sense of the term was quite unknown. This remained true in spite of the claims sometimes made by chiefs that they 'owned' the land. Almost all students of customary African land tenure stress this point. Thus Dr Audrey Richards, with reference to the Bemba of Northern Rhodesia, writes:

> In brief the extravagant claims of the Bemba king to own all his land and everything that grows or lives on it, only gave him the right to exact small regular dues on the labour and produce of his people. . . . They formed only one element in the relationship of mutual interdependence between subject and chief by which the commoner, in return for accepting the political authority of his ruler, gained complete security as to his rights of occupying any amount of land he could use. He still has this security today, and can still be certain of the right to use his land in any way he pleases, except of course by selling it.[1]

Land was secure while it was being used. Writing of the Hehe tribesman Brown and Hutt state that 'the plantations for root-crops, often at a distance from the house, only remain the property of the cultivator as long as he uses them. . . . Continuous cultivation is also necessary to retain ownership of the dry-weather plantations.'[2] This idea of tenure depend-

[1] *Land, Labour and Diet in Northern Rhodesia*, pp. 261–2.
[2] *Anthropology in Action*, p. 131.

ing on beneficial use constantly appears in nearly every study of customary tenure, however greatly the details may vary.

These ideas still govern the use of land in many parts of Africa, but in some areas they are changing owing to European influence. It is very important to understand exactly how this influence has worked, and to what problems it has given rise, for its effects are now being felt in nearly every part of the continent.

Europeans have influenced African ideas of land tenure in two ways: either directly when colonial governments introduced new forms of tenure by law; or indirectly as a result, not always foreseen, of the changes in African economic life caused by European trade, settlement, and government. One obvious example of the introduction of a new form of tenure by direct action is to be found in the Buganda Agreement which instituted the *mailo* tenure in one part of Uganda, and there are a number of instances in various parts of Africa of the leasing to Africans of Crown Lands. Far more important, however, have been the influences which are changing the people's economic life.

We have already noted that in traditional African society the limits of family holdings were more strictly defined in thickly populated areas, and that land sometimes acquired such a scarcity value that it could be pledged for debt. It is even true that in some few areas land was sold before the coming of Europeans, as, for instance, in Kano in Northern Nigeria, where the development of urban conditions caused land scarcity, and provided the peasants in the surrounding countryside with a source of profit. The coming of Europeans quickened this tendency and widened the area affected by it, partly through increasing the pressure of population on the land, and partly by introducing or increasing the importance of money.

Pressure of population on land becomes greater if population increases or if the same number of people have to

live on less land. Both causes have operated in various parts of Africa. The alienation to Europeans of certain parts of Kenya, Tanganyika, Nyasaland, and the Rhodesias reduced the area available for African use, while government health programmes and the prohibition of inter-tribal war and slave-raiding increased population by reducing the death-rate.

Equally important with increase in population was the introduction by Europeans of their money economy. This affected Africans in many ways. Insistence on the payment of taxes in money meant that the people could no longer depend entirely on subsistence farming, for they could no longer manage without money. They had either to work for money or grow crops which could be sold for money.

The need to grow crops for sale is not yet universally felt. Some parts of Africa are too distant from markets or too infertile to make cash-cropping possible. In such areas the young men have to leave their villages in search of work for a money wage. But where the country is fertile and near a railway or a road, people can add to their purely subsistence farming the growing of cash crops such as cotton, groundnuts, maize, and tobacco. Indeed, in some areas they have concentrated on these to the neglect of subsistence crops, as in the cocoa districts of Ghana and the palm-oil region of Nigeria. But wherever cash crops are grown pressure on the land has increased. Whereas formerly men grew only enough crops to provide food for their families and meet their tribal obligations, now they have both the need and the opportunity to grow additional crops. They can sell them for *money*, and with the money they can pay their tax and buy the goods they cannot produce locally for themselves. Also, where the plough has been introduced, the farmer now has a tool with which he can cultivate much more land, and pressure on land is increased still more. When this stage has been reached land soon begins to acquire a money value and hence a money

price. People get the idea of *buying and selling* land. This idea raises many problems when it enters society for the first time.

We have already seen that in some parts of Africa land is still plentiful and remote from markets, and in such areas customary ideas about the land are, on the whole, little changed. Where land is becoming scarce and good markets are near at hand, however, there has been a strengthening of the tendency, already noted, towards a more exclusive land right claimed by the family against other clan members. This is true, for instance, of the Chagga on Kilimanjaro and of some of the Ibo clans of Eastern Nigeria. In some areas this tendency has gone further, and has resulted in the division of family holdings into individual plots. Lord Hailey has quoted an extreme case at Maragoli in the Kavirondo Reserve of Kenya where the average size of a holding was between a half and a quarter of an acre.[1]

The pledging of land has also become noticeably more common, but only in a few places and under special conditions do people yet lease and sell land on a cash basis. Even in the Ibo country where the ease with which land passes temporarily from hand to hand on pledge or lease has been noted as remarkable, 'the sale of land is strongly forbidden by native law and custom'.[2] Yet sales and transfers of land do occur in some parts of Nigeria and Ghana, especially in the towns, and they are likely to occur much more widely as economic development proceeds.

Many people think that this would be a good thing, for they believe that it would free the enterprising farmer from the chains of communal land rights, which may now prevent him from developing his land according to the teachings of agricultural science.

It is, however, by no means clear that the universal

[1] Hailey, *African Survey* (1938), p. 850.
[2] Green, *Land Tenure in an Ibo Village*, p. 36.

development of individual tenure would be an unmixed blessing. The arguments in its favour are that it gives greater security of tenure, and thereby encourages farmers to undertake long-term improvements such as the terracing of hillsides, the cutting of drains, fencing, and the planting of permanent crops like cocoa, coffee, and oilnuts. It is also urged that individual ownership of land, if the title is secure, enables men to borrow money for the purchase of tools or machinery, and for the hire of extra labour. It is argued that only individual tenure gives men sufficient reason to use land well. It is useless, for instance, where there is communal grazing, for one or two men to reduce the number of their cattle in order to remedy the evils of overgrazing and soil erosion, if other cattle-owners do not do the same.

These arguments assume ideal conditions which do not exist in many parts of Africa. It is very doubtful whether individual tenure would provide the farmer with the security it seems to promise him. Nor can we assume that African customary tenure is insecure. In fact, while the customary land-holder makes use of the land and pays his dues to chief or elders he enjoys almost complete security: and it is worth noting that, unlike the money rent paid by a lease-holder, tribal dues in African society can generally be paid in kind. Under customary tenure neither drought nor bad trade affect the land-holder's security. He may go hungry, and he may have to reduce the quantity of the produce he gives to his chief, but he has no *money* rent to pay. The position of the enterprising farmer who has leased Crown land, say, in Northern Rhodesia is very different. He has freedom to develop it and to make good profits by selling vegetables for the town or crops for export, but, as Dr Richards observes:

rent is a fixed sum whether the money is available or not. The only Natives I ever met who were definitely anxious about their possession of land were those on the three-acre Government plots outside Luanshya, who were caught in the slump of 1933 and were threatened

with eviction if they did not find rent. . . . I heard for the first time the statement that it was no use developing the ground, since one might not have the money to pay the rent next year.[1]

It may well be argued at this point that this is only true of leasehold tenures which involve the payment of rent, but that freehold tenure would provide real security. Even that is doubtful. One of the advantages claimed for individual tenure is that the farmer can raise credit on his land. Does not this argument too readily assume that freedom to raise credit would be wisely used? Practically all past experience in tropical countries shows that loans are more likely to be spent on meeting social obligations than on long-term improvements to the land. India has provided many examples of this. Thus a system of land-holding which enables individuals to raise credit on land is quite as likely to produce the disadvantages of debt and insecurity as the advantages which are claimed for it. It is also worth noting that even if freehold individual tenure did produce the advantages claimed for it, as under suitable conditions it can, the big landowner will then lease his land to landless peasants for rent. This has occurred in India wherever freeholders have possessed more land than they wished to use. It has also happened in the *mailo* areas of Uganda, where the Buganda Government in 1927 felt obliged to make regulations to prevent the rack-renting of tenants and to give them security of tenure as long as a fixed money rent was paid. Freehold individual tenure in Africa, therefore, would appear to provide security of tenure for some, but only at the expense of greatly increased insecurity for others.

This is the general argument, but there are other arguments too. Thus, it is doubtful whether any form of individual tenure would be practicable for shifting cultivators until they have been taught methods of agriculture more suited to individual holdings. Existing methods involve heavy labour

[1] Richards, p. 275.

every few years in clearing new patches of forest, and need the combined labour of a unit at least as large as the family or small kinship group.

Customary tenure sometimes fits in better than individual tenure with schemes designed to encourage the better use of the land. Such schemes include the rotation of grazing to prevent erosion, and the demarcation of village lands into separate compact blocks for agriculture or grazing. The latter scheme has already proved its value in Southern Rhodesia.[1] Also, if small individual holdings are successfully to be developed where many cattle, sheep, and goats are kept, the importance of fencing is sometimes forgotten. Fencing is often too costly an item for the small land-holder to provide.

If we consider all these facts it seems clear that we cannot expect to find any easy and certain remedy for African land development problems merely by encouraging the unregulated development of individual tenure.

[1] Hancock, *Survey of Commonwealth Affairs*, Book II, Part 2, p. 108.

Chapter V

PROBLEMS OF INDIVIDUAL TITLE

In the last chapter we saw that there is now a definite trend towards individual land-holding, and towards buying and selling land in the most highly developed areas; and we saw too that this is not necessarily a good thing. The facts are, however, that individual tenure is developing in many places, that it can be expected to develop elsewhere, and that it is creating serious problems in African society. We have noticed some of these problems already. We have seen, for instance, that changes of this nature may bring insecurity; that credit raised on individual holdings may be unwisely used; and that the final result may be the growth of a large class of debt-ridden, rent-paying tenants dependent on a small class of wealthy landowners. Our next task is to consider whether these undesirable results must always follow the establishment of individual land rights, or whether it may not be possible to develop some form of tenure which will avoid them.

Let us note to begin with that men need land not only as individuals but also as members of a society. Life in a country in which *all* the land was held by individuals and kept by them for their exclusive use would be impossible. Even in societies where individual rights are most highly prized, men cannot lead their lives independently of other men. They need to travel and to send goods from one place to another, and therefore they need paths, roads, and perhaps railways which everyone must have the right to use. They need schools for their children, hospitals when they are ill, law courts where their quarrels can be settled, prisons for those who break the law, and offices where the business of government can be

carried on. For these and for many other purposes, land is needed, and as new needs develop *the community must be able to take land* to satisfy the lawful and proper needs of its members. This right is normally subject to the payment of compensation to the people whose individual rights have to be sacrificed for the common good; but every system of land tenure has to satisfy the essential needs of the community, and here, therefore, is the first necessary limitation of the rights of the individual landowner. It is a universal limitation which is necessary in every country of the world.

Some people would urge a second limitation of individual land right which is not, however, so generally accepted in the world today. It often happens that a central or local government undertakes at the public expense work, such as the building of a road, which greatly increases the value of the land through which it passes. Thus when a good road has been built, what was formerly low-priced farm land may be desired for building houses, and the owner is therefore able to sell it at a much higher price. Landowners are sometimes enriched by many thousands of pounds in this way, not through any effort of their own, but through work done at the public expense. Many people, especially those who are not landowners, argue that any such *unearned* increase in the value of the land should not belong to the landowner who has done nothing to deserve it, but to the community, by whom it can be used for the common good. This particular problem has not yet become an urgent one in Africa, but it is worth remembering that once a custom is allowed to grow up, even from small beginnings, it is very difficult to change it.

So far we have discussed only the limitation of individual land rights in the interests of society. We must now consider how far they should be limited in the interests of the individual. People to whom even a few pounds seem great wealth may sell or mortgage part of their land without realizing that they are thereby endangering their freedom.

The heavy burden of debt on the Indian peasant provides a grim warning of the need to safeguard ill-educated people against such dangers. Nor, indeed, need we look as far as India. Between 1932 and 1935 a survey of indebtedness was made in the cocoa-producing region of Ghana. This region is one of the richest and economically most advanced parts of Africa. The village in which the survey was made had a population of under 1,200 and an average family income of nearly £22 a year. Private debt had already reached a total of £4,486 on which the average rate of interest charged was about 37 per cent!

> . . . At the prices then ruling for cocoa, mortgaged farmers could not hope to clear their mortgages and recover their farms. The best they could hope for was that their creditors would let them stay on their land as 'caretakers' under a share-cropping arrangement.[1]

The danger of such conditions spreading to other areas is obvious, though hard to avoid, for the people themselves are likely to oppose the remedies. Chief among these would be the limiting of individual tenure to a right of occupancy, i.e. the guaranteeing to the individual of the full right of using land, but denying, except perhaps in certain town areas and under safeguards, the right of sale or transfer.[2]

Although this safeguards the peasant on his land, it does not help him to borrow money to improve it. The peasant wishing to begin mixed farming, for instance, needs a plough, a cultivator, and at least two trained oxen. Almost certainly these will cost more money than he possesses. How then can he obtain them except by mortgaging his land, which is exactly what he cannot do if he is allowed only a right of

[1] Hancock, p. 280.

[2] This is the solution favoured by Lord Hailey in his *African Survey* (1938). He makes the additional point that 'it does not prevent the eventual development of a proprietary régime, if economic conditions prove this to be desirable' (p. 874).

occupancy? Some other way, therefore, has to be found of providing the enterprising farmer with credit.

In several countries where individual tenure is limited to occupancy right this has already been done. Thus in the former Dutch East Indies the central government provided short-term loans through State Credit Banks. In Northern Nigeria similar loans are provided for mixed farmers by the local governments. No money loan is made. The necessary equipment is provided and the farmer repays it over the next three years. Only a very few farmers have had any difficulty in completing their payments, and the local government loan seems an excellent way of meeting the credit needs of African peasants. Another means of providing loans is through co-operative credit societies.

There remains the difficult problem of giving *legal* recognition to individual title. This problem becomes acute when land is worth money, for long and costly lawsuits occur if there is no legal document clearly indicating who the owner is. Such disputes may arise between villages, between chiefs and commoners, or among the commoners themselves. Frequent disputes make people feel insecure about land and unwilling to develop it.

Only part of the land which surrounds the ordinary village is cultivated. The rest, which may stretch in every direction for several miles, is useful as a natural reserve of farmland, and for hunting, for the collection of forest produce, and for timber and firewood. Its boundaries are usually marked by streams or watersheds, or by paths, beyond which lie the lands of other neighbouring villages. Boundaries, of course, are not always so clearly marked, especially in high forest country; but where land is plentiful people do not worry very much about the *exact* boundaries.

This attitude, however, is no longer true of those parts of Ghana where prospectors have found gold, and are seeking from the landowners permission to dig it up. For such

permission the miners pay fees. When gold is found somewhere near the boundary between two villages, therefore, each village has a strong reason to establish its rights over the land in question, and is ready to contest its claim in the law courts whenever there is the slightest doubt where ownership lies. Lawsuits have been frequent, and some villages have spent more money in trying to establish rights over land against surrounding villages than they are ever likely to receive in fees from gold-mining concessions. Over a period of five years the Ghana village referred to spent on court costs and lawyers' fees about £1,000 more than it received from fees for mining concessions, and part of this money it had to borrow at high rates of interest!

Some of it was also obtained by selling land to 'strangers', and when this happens the question of landownership *within* a community is liable to arise in an acute form. Does the chief who allocates land to villagers actually own it? If so, can he demand rent from the villagers as well as from 'strangers'? Has he the authority, if he wants to, to turn a villager off his farm in order to let it to a stranger for rent, or for a higher rent? Does the chief 'own' the unoccupied bush which surrounds the village, and can he sell or rent parts of it to strangers and pocket the proceeds? It must be remembered that the sale even of uncultivated land threatens the welfare of the community by reducing the balance of land available for meeting future needs, whether those needs are caused by an increasing population or by the loss of fertility of existing farms.

No general answer can be given to the questions in the last paragraph for they can only be answered by studying the land custom in each particular case, but it is worth noticing that many such difficulties have been avoided where the traditional authority and the local government authority are one and the same. In such cases the proceeds from land sales and rents have been paid into the local treasuries and used for

the common good. But where the traditional tribal authority and the local authority are separate and distinct there is a real danger of the chief attempting to establish himself as a landlord.

It is natural that governments in Africa should sometimes be slow to act in matters of this kind. The early history of Europeans in Africa has made people suspicious of any new government policy affecting rights in land: and, like individuals, governments are sometimes unwilling to make themselves unpopular. Any attempt to limit land-holding to a right of occupancy would probably be opposed and misrepresented by everyone who hoped to gain from the development of freehold tenure. The chiefs would probably oppose it as an attempt to limit their rights over the land,[1] and the people themselves might oppose it either because they did not understand it or because they mistrusted any government action which might affect their right to their land.

Because of this, and because land tenure problems are acute only in some areas, it is not surprising that governments have been in no hurry to act. Soon, however, both peoples and governments will have to decide what sort of tenure they want in the developed areas, and the longer they delay the harder it will be to act. As traditional land custom breaks down, sales and transfers of land take place which are recognized neither by tradition nor by law, and disputes about land multiply. As early as 1926 it was said of Ghana that disputes about land had become the curse of the country. Governments are now being forced to act, however unwilling they may be to do so. This is why it is important that people should try to understand the problem, and co-operate in finding a good solution to it.

[1] '. . . in Basutoland chiefs are said to discourage measures which are essential for the preservation of land, such as the planting of trees or fencing of pasture lands, as implying a claim by the individual to rights over communal land.' Hailey (1938), p. 869.

Chapter VI

FROM SUBSISTENCE FARMING TO CASH CROPPING

OUR study of land tenure was concerned with only one aspect of the relation between the African peoples and their land. Even so we were unable to separate the idea of land-holding from that of land use, which is the next subject we have to consider. And land use brings us to a whole group of closely related problems concerned with the production of food. We shall have to separate them for the sake of convenience under the heading of agriculture, animal husbandry, forestry, and water and soil conservation.

Traditional African agriculture, like African land tenure, suited conditions in which land was plentiful. Thus people would clear a patch of woodland or forest, sow and harvest their crops year by year until the land lost its fertility, and then move into another area and clear new farms. The intervals between such moves varied according to local conditions of soil and climate, three or four years being most common. The interval before the old farmland was used again also varied. It would normally be rested long enough for the land to regain its fertility—a process that might take anything from five to twenty years—or it might be left for an even longer time if other suitable land was available. During this time shrubs and trees were able to re-establish themselves on the deserted farms, and this was all the easier because at the time of the original clearing, when the trees were cut down, they were usually not uprooted. Many of the stumps remained alive and put out new shoots.

The reason why this type of farming is called *shifting cultivation* is obvious. It depends for its success on old farmland

having time to recover its fertility before it is used again for the growing of crops. Manuring is unnecessary, usually only the wood cut during the clearing operations being burned and the ash dug in, although some tribes also dig in weeds. Shifting cultivation worked reasonably well while the people were sparsely settled on the land and cultivated only enough ground to provide themselves with food.

We have seen how traditional ideas of land tenure were affected by the introduction of a money economy. Here we are concerned with its effect on agriculture. Shifting cultivation was a way of growing crops for food, but people now also grow crops for sale. They grow these cash crops partly because they have to pay taxes in money and partly because they want to buy things they cannot grow or make themselves. This double reason for money-making has very strongly modified traditional ideas about farming. People now want to cultivate more land in order to produce crops that can be sold; and where really profitable cash crops can be grown, like cotton in Uganda and cocoa in Ghana, the urge to make bigger farms is especially strong. How strong, indeed, can be gauged from the fact that cotton cultivation in Uganda increased between 1916 and 1953 from 133,000 acres to over 1,500,000 acres, while in Ghana there are 'upwards of a quarter of a million cocoa farms averaging between four and five acres in size'.[1] Vast areas of forest have been cleared to make room for cash crops, and in some areas in Ghana and the Gambia people have concentrated on cash crops so much that they now have to import food from other areas. Should export prices fall the danger of this situation needs no stressing.

More peasant produce is exported from West than from East Africa, but East African peasant farming is affected by factors almost unknown in West Africa. Thus large areas of the land have been alienated to European owners who farm

[1] Hancock, p. 246.

them on plantation lines with the help of African labourers. Also mining is very important in some places, and the mines employ many African workers. The total number of men removed from peasant production by activities of this kind is large and in East Africa it has been estimated as one quarter of the total working population.[1] This means that about one man in four is absent from his village and, incidentally, withdrawn from peasant farming. In Nyasaland and Northern Rhodesia the proportion is higher still.

Whether a man is engaged for work on a European farm or in a mine he spends most of his time producing goods for export at the expense of producing food for himself. But he has to be fed, and great quantities of locally grown foodstuffs are needed for African wage-earners. We must note, however, that this additional demand for food falls on an East African community less fitted to meet it than ever before. Traditional methods of agriculture involved everyone—men, women, and children—and the men did the heavy work of breaking new ground. If many of the men are away working for wages women have to do the men's work, and the quality of the cultivation—and hence of the harvest—is liable to suffer. Thus Lord Hailey writes:

> The balance of native agricultural life is upset and the duties of able-bodied men fall on those less able to bear them. For example, in areas where it was customary for young men to climb trees and lop the branches, which were piled on garden patches and then burnt to enrich the soil, trees are now more easily cut near the roots and destroyed, and the deforestation and the erosion which to some extent always accompanied shifting cultivation are accentuated.[2]

Similarly, when commenting on the practice of fencing gardens in game or pig districts in Northern Rhodesia Dr Richards states that the making of a suitable fence is 'about a month's work for a man, and it is extremely hard labour.

[1] *African Survey* (1956), p. 1360.
[2] *African Survey* (1938), p. 885.

. . . Deserted wives try nowadays to set up a makeshift fence, with one crossbar between flimsy uprights and leafy branches laid aslant it, but it is inefficient and will only last a month.' [1]

So far we have noted in East Africa increased demands on the land, together with a decreased amount of labour available for cultivation and a consequent falling-off in the standard of farming. Nevertheless, the increased demands have so far been met by extending the acreage annually under crops, and the introduction of the plough has been most important in making this possible. But it has not by any means been an unmixed blessing. Many have used it without any regard for the proper maintenance of soil fertility, and the widespread practice of ploughing up and down sloping land, for instance, has greatly increased the threat of soil erosion.

The main problem in African agriculture today is that much more land is being farmed while shifting cultivation is still very widely practised. Also the fact that much larger areas are now annually under crops has greatly increased the pressure on the land.[2] Already in many places the balance between the land actually under crops and the land available for future cultivation has been seriously affected. Nowadays the people cannot leave their old farms uncultivated until fertility is fully restored, and the resting period is cut to a half or even less. This means that over a large part of tropical Africa the soil 'capital' is being used up, with the result that the land is becoming steadily less able to provide good crops.

As the methods of agriculture remain those of shifting cultivation, the available soil becomes rapidly exhausted. A system which often depends upon an area of two hundred acres or more of woodland for each family cannot endure indefinitely in areas where the population is increasing and the forests decreasing. . . . The system of shifting cultivation is strained to produce a surplus, and, without regard for

[1] *Land, Labour and Diet in Northern Rhodesia*, pp. 297–8.

[2] Note the additional effect of land alienation to Europeans in East Africa in reducing the area available for peasant cultivation.

the future, large areas are put under millets or maize with no attempt to follow traditional methods of rotation or mixing of crops.[1]

From the serious situation which has now arisen there can be no going back. It is clear that much of the 'progress' recorded during recent years, and in particular the great increase in Africa's import and export trade, is based on very weak foundations. Africans have been increasing their income at the expense of their main capital asset—the land, and if they continue to take more from the land than Nature or man are restoring to it, in the end the result can only be disaster. People therefore will have to adopt new agricultural methods, and the problem is to convince them of the need for change *in time*, before the harm now being done to the soil has become too great. A change-over to new crops is easily undertaken: changes in farming methods which are bound up with custom and religious beliefs may take much longer. The education of rural people in better ways of farming is one of Africa's most urgent needs.

[1] *African Survey* (1938), p. 885.

Chapter VII

NEW FARMING METHODS

MODERN conditions have led Africans to demand more from their land than they did in the past, and in the future their demands are likely to increase. Yet there is a definite limit to what the land can produce under any particular system of farming, and under traditional shifting cultivation the limit is fixed very low. The fact that after a few years' use a farm may have to be rested for as much as twenty to twenty-five years means that only a small part of the total area of farm-land can be cultivated in any one year. Thus a yield of 1,000 lb. per acre is reduced to a yield of 200 lb. or less if the four or five acres which have to be rested for future use are taken into account. In many parts of Africa the limits of safe cultivation have already been passed. Harvests are being increased at the expense of good farming; more and more land is cultivated each year without regard to the effect on future production; and the resting period for used land is often cut dangerously low. If this goes on too long, it can end only in poverty—and disaster.

Farmers have three alternatives: they can limit their demands on the land to what it can safely produce under existing methods; they can continue to use up soil capital wastefully and take the consequences; or they can adopt new farming methods. The last alternative, surely, offers the only satisfactory solution.

The objection to shifting cultivation is that only a small proportion of the available farmland can safely be cultivated at any one time. Plants need food and they obtain it from the soil. Under natural conditions growing plants take food from the soil, but only for a while. After a time they die, are

rotted by sun and rain, and in the end re-enter the soil as food for new plants.

Man interferes with this process when he farms. He clears away the natural vegetation, plants his crops, and harvests them, i.e. *takes them away for his own use.* Each harvest takes plant food from the soil and after several harvests so little plant food is left that the farmer can no longer grow a good crop. He then clears new ground. On the old farm a long period is now needed while other plants, less exacting in their demands for particular types of soil food, establish themselves, die and decay, and again build up the soil's fertility.

Any farming method which enables a farmer to reap a harvest without lessening the plant food available for the next crop makes shifting cultivation unnecessary and greatly increases the area that can be farmed each year. Moreover, if the farmer can *add* to the amount of plant food in the soil he has the chance of another kind of increase—that of a heavier yield per acre. Every agricultural department in tropical Africa has sought ways of helping farmers achieve one or both of these aims, and with considerable success. Their chief difficulty has been to get such methods accepted by the farmers for whose benefit they have been devised.

In working out these methods agricultural departments have had to bear in mind what people can afford. Any method which involved the use of costly artificial fertilizers and equipment had to be ruled out. New methods also had to be simple to apply, economical of labour, and, since conditions of soil and climate vary greatly from place to place, carefully adapted to local conditions.

The problem has been approached from two angles: by seeking the crop sequence or rotation most suitable to the soil, and by developing methods for putting back into the soil, in the form of compost or fertilizer, supplies of plant food to replace what has been removed in the form of crops.

The idea underlying crop rotations is simple. Just as different animals eat different sorts of food so that, for instance, a goat may thrive where a horse or cow would starve, so different plants seek different foods from the soils in which they grow, and some, so to speak, are greedier than others. Some plants, such as beans, sweet potatoes, and groundnuts, actually enrich the soil with one particular type of plant food by 'fixing' nitrogen from the air, and thus help other kinds of plants to thrive. Thus by changing the crop from year to year according to a carefully worked-out scheme, a piece of land can be farmed for a longer time than if the same crop, using the same kind of plant food, were regularly planted year after year. This idea of crop rotation was, indeed, often used by Africans before the coming of Europeans, but the effect of cash cropping has been to cause people to abandon traditional rotations for the continuous planting of one type of crop, and the effect on the soil has naturally been bad.

A great deal of work has now been done to find satisfactory rotations which include cash crops. Successful experiments have been made in Northern Rhodesia and Nyasaland in the rotation of maize, cotton, groundnuts, and beans; in Uganda with food crops, cotton, and a short period under elephant grass; and in Western Nigeria with yams, cotton, groundnuts, and maize. It is not claimed that by following a recommended rotation shifting cultivation can be abandoned. It is claimed, however, that suitable rotations can lengthen the period of cultivation or shorten the resting period, and thus make more land safely available for cropping at any one time.

There are other methods which aim more directly at replacing shifting by continuous cultivation. These are grass planting, mixed farming, green manuring, and composting. They are most successful when they are used with a suitable crop rotation, and they all work on the principle that to maintain fertility, and hence continuous cultivation, the farmer

must put back into the soil some substitute for the plant food he harvests in his crops.

The grass-planting method has been developed in Uganda. The farmer using this method plants crops for three years and then plants elephant grass, Rhodes grass, or molasses grass which he leaves for three years before planting crops again. It is said that the soil thus left under grass for three years regains full fertility. This method is not yet popular with African farmers because it entails a good deal of extra work.[1]

Mixed farming, if properly carried out, means that the farmer is able to cultivate some twelve acres with the plough instead of three or four acres with the hoe. He uses his oxen for labour, but he is most careful also to prepare and use all the manure they produce in order to maintain the fertility of his farm.

On a farm of 12 acres two draught animals properly penned will provide manure which is sufficient (when supplemented by the compound manure) for the dressing of 4 acres. These 4 acres will produce the guinea corn and millet or the other food crops which the farming family needs for its own consumption. The remaining 8 acres will be devoted to groundnuts or cotton, according to the advantages (of soil and price) which recommend one cash crop or the other. If there is rotation of the manuring and planting the whole 12 acres will be dressed within three years. Fertility will thus be maintained.[2]

This system has had real success in the Northern Region of Nigeria and it is being tried elsewhere. Thus in Kenya the primary aim of agricultural policy is now said to be the conservation of soil fertility by means of a sound system of mixed farming in all suitable areas. But unfortunately it cannot be applied universally. Very large areas of Africa are infested with the tsetse-fly which prevents the use of the cattle on which the introduction of mixed farming depends,

[1] *African Survey* (1956), p. 904. [2] Hancock, p. 257.

and there have been many attempts to develop a good resistant type of cattle. There are other difficulties too. Mixed farming is not suited to very small farms, and most farmers need loans to buy the oxen, ploughs, and cultivators they need. In Northern Nigeria credit is provided by the local administrations, but not all local administrations are wealthy. Also, the farmers need to be trained. In Rhodesia and elsewhere a great deal of soil erosion has been caused by farmers using ploughs, without training, for quick profit. Nigeria has been content to go slowly. In 1928 mixed farming was adopted by three farmers. By 1940 the number had increased to about 1,600 and by 1952 to 9,000. This slow start will have been well worth while if it safeguards Nigeria from the evils that the wrong use of the plough can bring.

The third method, green manuring, was developed to assist farmers where mixed farming is not practicable. It consists simply of including in the rotation, once every few years, a crop which is grown solely for digging into the soil while it is still green. In Nigeria, where the greatest attention was paid to developing this method, the Mucuna bean was found most suitable. After rotting in the soil it enriches it enough to make further planting on the same site possible. But the value of green manuring is limited. It may fail to bring back to full fertility soils which are already badly exhausted. It occupies ground and labour which the farmers would prefer to use for growing cash crops, and they are not always convinced that better crops the following year are a sufficient reward. Hailey suggests that this objection might be overcome if the benefits of green manuring could be obtained from a plant which was also useful as a farm crop for harvesting.[1] The value of green manuring is further limited by climate. It can only succeed well in areas of fairly heavy rainfall. Where there is a long dry season, as in much of East Africa, the green manure does not rot properly. It has been found,

[1] *African Survey* (1938), p. 962.

however, that results are equally good if the crop is burned and the ash dug into the soil.[1]

A fourth method, that of composting, has been tried with some success in both East and West Africa. The method was first scientifically developed by Sir Albert Howard in India, where the general use of cattle dung as fuel made it difficult for peasants properly to manure and thus to maintain the fertility of their farms. The original method has now been simplified to suit African conditions.

The compost is made by putting into a pit alternate layers of soil, animal manure, and rubbish such as weeds, leaves, grass, ashes, and stalks of plants. The heap is frequently turned and watered so that it rots evenly, and soon everything in the pit is changed into a dark powder. This is an excellent plant food, and if the farmer gets enough of it he can harvest crops from the same land year after year and so abandon shifting for continuous cultivation. Nevertheless, composting has remained unpopular with many farmers. It needs labour. The pits have to be dug, the vegetable and animal waste has to be carried to the pits, and the heap has to be turned and watered at regular intervals. This labour brings its own reward in better crops, but in many parts of Africa the peasant has still to be convinced, and it may be that pressure on the land will have to become even greater than at present before the composting method is more generally accepted. Meanwhile government departments are doing their best to make it as widely known and understood as possible.

So far we have been concerned only with soil fertility. It is important because the quality of the harvest depends on it; but it is only one of several factors necessary to produce a good harvest. Another factor is the absence of plant disease. Plants are just as liable to disease as men and animals, and if unchecked the diseases of plants can be a serious cause of poverty and malnutrition.

[1] *African Survey* (1956), p. 905.

The danger is greater now than it was in earlier times. Europeans have introduced new types of plants and have caused others to be more widely cultivated than ever before. Cocoa, coffee, maize, wheat, sugar, cotton, citrus, tea, wattle —these and many others are not indigenous to Africa, and they are more liable to disease when they are grown under African conditions. Yet it is on these crops that Africa's export trade mainly depends. Plant disease has also become a more serious danger because of the development of transport. Sixty years ago nearly all crops were grown for local consumption, and plant diseases were not so easily spread. Nowadays cotton, for instance, may be carried many miles by lorry, and diseased bolls dropped at intervals along the road may infect other fields. Yet another cause of plant disease is the introduction of diseased seeds and plants from other countries. This may introduce new plant pests into Africa. The cotton boll-worm was thus brought from America and the wattle bag-worm from Madagascar.

Specialists in agricultural departments have long been trying to find ways of controlling plant disease. Sometimes they are able to breed new types of plants more resistant to some particular disease, or to discover a suitable parasite which will kill the disease-carrying insect or bug. Certain kinds of disease-bearing moths and insects may be trapped; others may be driven from an area if it is found that they must feed on some other kind of plant at certain times of the year. In such cases the method is to destroy the alternative plant.[1] In yet other cases control is best established by burning all the unwanted part of the crop after harvesting, thus

[1] Worthington states that cotton stainers may be controlled through their alternative food plants. E.g. in 'Rhodesia they migrate from early flowering *Hibiscus* and from *Thespesia* to cotton in February, and return in May to late-flowering *Hibiscus*. In an area free from *Thespesia* the stainers appear on cotton too late to cause much damage.' *Science in Africa*, p. 285.

killing the insects living in it, and planting only selected disease-free seed each year.

It is so important to control plant disease that governments make laws about it. The Uganda Cotton Ordinance is one example. The effectiveness of such laws is very much reduced if people do not understand the need for them, and therefore do not co-operate wholeheartedly in carrying them out.

Chapter VIII

PROBLEMS OF ANIMAL HUSBANDRY

A GREAT deal of land in Africa is unsuitable for farming. Much of it, especially in the drier parts of the East African uplands, is grass country really suitable only for cattle-herding; while even in farming areas much of the land is equally or better suited for grazing. In such places the people usually keep cattle, sheep, and goats. Rightly used, these animals can contribute very greatly to African prosperity, but unfortunately they are too seldom rightly used except where mixed farming has been soundly established.

Most Africans still value animals differently from Europeans. Europeans do not count each animal as a unit of wealth. They value cattle for what the cattle can produce. Thus one cow which regularly produces a fine calf, and which provides a large quantity of milk daily for many months after its calf is born, will be valued more than many cows of an inferior type. A European would rather have a few good animals than many bad ones. He prizes his cattle as *producers* of milk and meat. That is why he will grow or buy food for them and give them all possible care, provided always that they reward him with products more valuable than those he has given them. The European, in fact, values his animals because they can change animal food like grass into human food like milk, from which he can get cream, butter, and cheese.

Many Africans do not value their animals as producers nearly as much as the European does. In fact, in some cases they do not think of cattle as producers at all, but value them for quite different reasons. Often, the most important thing to them is *number*, and each head of cattle, each sheep, and each goat is valued almost independently of anything it may

produce. Just as a shilling is a unit of money, and two shillings are worth twice as much as one, so many people think of two cows as worth twice as much as one. Quality is highly valued, of course, but to a much smaller extent than among Europeans, and few Africans would exchange, say, six cows of poor quality for one really good one. Nor, indeed, would it be reasonable for them to do so under existing conditions and with their present customs and beliefs. In many communities the possession of a large herd gives a man high social standing; in many tribes cattle-owning is associated with religious beliefs; and the handing over of a number of cattle, sheep, or goats is still in many areas an essential part of the marriage contract. As Mrs Hoernle writes:

> The cattle are a trust to the present generation from the past generation; they are a medium between the people who are here and those who are no longer here . . . They are heirlooms; emblems of the status of the family. . . . That is why when these cattle are used in marriage the ancestors must be appealed to to accept a transfer of the cattle to another kraal, because they are really the cattle of the ancestors.[1]

In all this, number rather than quality is the important factor, and where these ideas persist people are unlikely to be willing to limit the size of their herds.

People everywhere are slow to change their basic customs and beliefs, and it is inevitable, though unfortunate, that the pastoral peoples of Africa have been slow to change their ideas about their cattle, even when they have accepted changes of other kinds. Worthington[2] mentions a striking instance of this in the Bukoba region of Tanganyika where the people had become much wealthier as a result of developments in the growing of coffee.

> As a consequence, they have begun to eat meat in considerable

[1] Quoted in Hall, *Improvement of Native Agriculture in Relation to Population and Public Health*, p. 56.

[2] *Science in Africa*, p. 411.

quantities, but although they possess large numbers of cattle of the long-horned type associated with Ankole, they will not sell these animals except at an absurdly high price, and indeed they import large quantities of cattle for slaughter every year from Mwanza, at the south of Lake Victoria.

Although in former times Africans wanted as many cattle as possible, the size of their herds was in fact strictly limited by the conditions under which they had to live: animals were killed off by starvation, by the attacks of wild animals, and by disease. Of these disease was especially important, since from time to time one disease or another would kill off tens of thousands of cattle. But now Western knowledge and research has succeeded in finding ways of checking the worst effects of these diseases: black water, anthrax, red water, gall-sickness and others, by immunization; rinderpest, by vaccination; and east coast fever, by dipping and segregation. Control of disease by these measures, together with the enforcement of law and order by the territorial governments, have enabled people to increase their herds to a size greater than ever before—with extremely bad results for the land. One example of known increase may be taken from the Teso district of Uganda where the inhabitants are peasant farmers who also keep large herds of cattle, sheep, and goats. Teso cattle increased from 133,853 in 1911 to 385,882 in 1936.[1] In many other areas the increase was even greater. The Kenya Land Commission noted that the cattle population had about doubled itself between 1920 and 1932, and that at the earlier date the land was already fully stocked.

Why do governments worry about this over-stocking problem? They would have less cause to worry if the effect were merely to keep cattle in a thin and half-starved condition; but, in fact, the trouble is much more serious. When land is continually overgrazed because there are too many cattle feeding on it the grass is eaten very short, and it is never

[1] W. S. Martin in Tothill's *Agriculture in Uganda*, p. 78.

allowed to grow long enough to produce seed. Some of the best grasses are torn up by the roots by goats and quite soon patches of bare earth appear. The land is no longer well protected against erosion by wind and water, the best part of the soil is washed or blown away, and the land can no longer support as many cattle as before. The surplus cattle must then either starve or move on to destroy yet more land. The Kenya Land Commission quotes a number of instances where, within living memory, formerly well-grassed country has been turned by over-grazing into desert or semi-desert.

> We have heard evidence that 20 years ago the Kamasia reserve was still a well-grassed country, and the Suk were burning their grazing areas every year with a view to controlling the grass. Also, to the personal knowledge of two of our members, the conditions in the Kamba reserve and in the drier parts of the Masai reserve were still tolerable. Now, in many parts where there used to be grass, there is nothing but bare earth.[1]

The Commission also noted the creation of desert conditions in the Kamba reserve which in 1932 was stocked with more than three times its proper number of cattle and with many tens of thousands of sheep and goats, and it mentioned a statement that Wakamba have been known to die of starvation rather than kill any of their stock for food.

> The Wakamba solution of the difficulties of this tribe is that they should be given more land. But . . . even if new land could be found the process of destruction would only be renewed. No space would be big enough for the Wakamba so long as they only aim at increasing the number of their stock without utilizing them.

These quotations reveal conditions which are still widespread in many East African territories.

What are the remedies? Basically there is no satisfactory remedy except to persuade the people to change their ideas

[1] *Kenya Land Commission Report, 1933*, p. 494.

about cattle so that they come to value them for the wealth they can produce. This alone can result in the proper management of cattle and the *voluntary* limitation in the size of the herds to what the land can satisfactorily maintain. Another alternative, much less desirable, is the limitation of herds by law. Yet another, which has been urged by some people, is that Veterinary Departments should stop their very successful work in preventing animal disease, so as to bring back the natural conditions under which disease kept the herds within reasonable limits.

This last proposal is based on the argument that to control disease *now* is merely to help the herdsmen to build up such large herds they will destroy their land and hence also themselves. Worthington[1] argues against this view. He thinks that the African preference for number rather than quality may well have started because animal disease was widespread. He suggests that the only way the herdsman could be sure of keeping any cattle at all was to build up his herds as much as possible in good years, in the hope that when disease came some would survive. People will learn to prefer quality, he argues, only when they feel reasonably sure that their animals will remain alive.

He also makes a second point—that the existence of uncontrolled disease forces the herdsman to overstock and overgraze the land. Many of the parasites which cause animal disease thrive best where the soil is damp and the grasses most abundant. Worthington thinks that herdsmen in Africa learnt from hard experience that it was better to overstock the land and keep the vegetation sparse. Even if the cattle were thus kept hungry and half-starved they were less likely to die from disease.

For both the reasons given above Worthington thinks that the overstocking problem can only be solved by first controlling animal disease. Although the first effect of efficient

[1] *Science in Africa*, pp. 440–2.

veterinary services has been to increase overstocking, such services are also a very necessary first step in any long-term effort to cure it.

If these arguments are accepted we are left only with the alternatives of persuasion or of limitation of herds by law. Of these the first is clearly to be preferred, the second being used only where the danger is already acute. Persuasion can take several forms: it can educate people to understand the bad effect of over-stocking; it can teach them how to manage their grazing lands better; and it can provide them with good markets for animal products. In all territories threatened by overstocking, governments are tackling the problem on these lines.

A number of ways of helping people to make better use of their cattle have been suggested from time to time. Chief among these are the provision of better marketing facilities for the sale of stock by means of cattle auction sales, and the building of meat factories to provide a market for many thousands of African cattle. Meat-products factories are particularly important in dealing with low-grade cattle, the worst of which may have no value as meat. Ghee factories, also, have been established in various East African territories, and these are said to be useful in increasing the herdsman's interest in milk production.

It has been suggested, though I do not think it has anywhere been acted on, that in each area where overstocking exists the taxation of cattle in excess of the number that the land can satisfactorily carry would help to solve the problem.

Much propaganda about the dangers of overstocking has been carried out in recent years by government officers and there have been many attempts to improve existing grazing grounds and to make more grazing land available. In particular great importance is attached to schemes of rotational grazing. This involves the division of the grazing grounds of any

community into a number of distinct areas, and the resting of each area in turn for a period (usually six months to a year) long enough for the grasses to seed and re-establish themselves. Where land has been heavily overgrazed for a long time rapidly spreading grasses may also be planted. During this period of regeneration it is essential that no grazing should take place.

It is often difficult to get rotational grazing schemes properly carried out under present conditions, even where the people want to co-operate. Fences are costly, and without fencing it is difficult to keep out hungry animals, especially goats. Further, when all available grazing land is already heavily overstocked, the resting of part of it under a rotational scheme means that even more animals are crowded on the rest of the land. This is why it is important to open up new grazing areas.

There appears to be a contradiction here, for how can severe overstocking exist in some areas while neighbouring areas, possibly, are not grazed at all? The answer is that much potential grazing cannot be used, particularly in the drier pastoral areas, because it is situated too far from permanent supplies of drinking-water. The result is that heavy overstocking takes place round the few good wells and streams, while areas far from water may not be stocked at all.

This problem is being tackled in several ways. One way is to persuade the herdsmen to divide their grazing land into wet season and dry season pastures, and to reserve the land around permanent water supplies for the dry season. During the rains *temporary* water collects in streams and hollows, and such water is extremely useful in enabling permanent grazing grounds to be rested. In some places the natural collection of wet-season water has been assisted by building shallow dams. Much work has also been done to add to the supplies of *permanent* water in the drier areas by sinking more

wells and boreholes.[1] This has made possible a better spread-over of cattle even in the dry season. The quality of the pastures has also been improved in some places by ridging along the contour to prevent rainwater from flowing quickly off the land. The increased soak-in of water assists the rapid growth of grass.

One other very important means of extending the available area of pasture has yet to be mentioned. Over much of East Africa cattle cannot live because of the tsetse-fly, and it has been said that in some ways this is a blessing in disguise, since it safeguards the land from the present evils of over-cultivation and overgrazing. Nevertheless, work to rid particular areas of tsetse-fly goes on, so that people and stock can be moved from overcrowded areas: and in such cases the government may make rules to preserve it from misuse. It is obviously easier to enforce rules on the new settlers than on people in the older settled areas, where they may cause considerable hardship.

There is no space to consider the other problems which are occupying the attention of veterinary departments, such as the breeding of better types of animals, the development and testing of the most suitable types of pasture plants for varying soils and climates, and the development of further measures for the control of disease.

One further point must be mentioned. The overstocking problem will be solved when African herdsmen everywhere realize that with proper management their cattle can be used to produce considerable wealth—by the sale of the natural increase of the herds, by production for the butter and ghee industries, and by the sale of hides. Progress towards this ideal, however, is likely to create other problems, for the

[1] For instance, by 1949, 395 boreholes had been made in the Eastern Province of Uganda. In the Teso District 9 new dams were completed in 1949, bringing the total for the district to 55. *Soil Conservation Report, 1949.*

herds can be misused by ignorant owners in pursuit of gain just as the land is being misused by overcropping.

That this danger is real is shown by what happened in Uganda during the recent war when the high prices paid for cattle led many short-sighted producers, despite propaganda to the contrary, to oversell all types of stock, including immature and breeding animals, in order to take advantage of prevailing high prices.

Chapter IX

FORESTS AND THE FUTURE

IT is thought that the destruction of Africa's forests has gone on for many centuries, and that one of the chief causes has been shifting cultivation. It is certain that the forests have been destoyed at a very rapid rate during the last fifty or sixty years, and the causes of this recent destruction are known. European trading and mining are partly responsible. Hardwoods such as mahogany, iroko, and teak fetch good prices from makers of furniture in Europe and America. Wooden pitprops are used to hold up the roofs of the underground tunnels in mines. Also, where coal is difficult to obtain, wood can provide fuel for factories and railways. These were all reasons why mining and trading companies sought and obtained rights over large areas of forest, but having got them they often used them wastefully. Thus no young trees were planted to take the place of those cut down and forests used in this way soon ceased to exist. Similarly, as the towns grew, large quantities of firewood were required for household use, and the surrounding forests were gradually cleared. Around Broken Hill in Northern Rhodesia, for instance, every tree in an area of thirty square miles was thus destroyed.

These things no longer happen because the governments of all the territories have made laws to preserve the forests from waste of this kind. They order that new trees shall be planted to take the place of those cut down, they limit the number of valuable trees that may be taken in any one year, and they have established fuel plantations to supply firewood for towns. Thus they aim to ensure a constant supply of timber for commercial purposes in the future.

Forests which were cut down for the reasons given above,

though some of them were valuable, form but a small part of the total area which has been destroyed in recent years. Much greater areas have been cleared by farmers wanting to grow cash crops such as cocoa, cotton, groundnuts, and coffee. Figures showing the tremendous increase in the acreage under cotton in Uganda and under cocoa in Ghana have already been given. These increased acreages have been obtained by clearing forest land. Similarly, about 1,000 square miles on the northern and eastern borders of the high forest of Nigeria are said to be cleared every year, and in Kenya, before the remaining high forest on the slopes of Mt Kenya was reserved in 1911, the Kikuyu quickly cleared 1,000 square miles for cultivation. This clearing of forests creates problems for the future. Governments are now aware of this, and are trying to put matters right, but most of the people do not understand the need for government action, and they often resent and oppose it.

Ghana provides a noteworthy example of this. When a Department of Forestry was established there in 1909 it recommended that the forests should be protected. Chiefs and lawyers of the Aborigines Protection Society at once strongly attacked the proposals, which they said were an attempt by the government to take away the people's land, and they were able to delay the protection of the forests until 1927, by which time very great damage had been done.

The annual custom of firing the bush also does a good deal of damage to the forests, particularly in savannah country. The burning of the old dried grasses helps to bring out a crop of fresh young grass which provides good grazing for cattle, but if the bush is not fired until well into the dry season it burns so fiercely that even well-grown trees are damaged, seedlings killed, and the forest gradually destroyed. If the bush is fired early in the season before the grasses are quite dry the heat is less fierce and damage to the trees avoided. Considerable success has attended propaganda on this point.

At first, however, governments were more interested in preserving valuable timber trees for the export trade. They were much less worried about the trees which had no export value, more especially as they were being cleared for the production of cash crops which would help to increase the revenue. They were slow to realize that the spread of agriculture at the expense of forests might be carried too far, and that temporary gain might be more than offset by severe loss later on.

Why, in fact, is it so necessary to safeguard the forests, even if they have no commercial value? It is necessary for several reasons: to provide an adequate reserve of suitable land for farming under the system of shifting cultivation (this reserve has fallen dangerously low in many areas with a bad effect on the quality of the harvests); to safeguard climate and rainfall; to maintain water supplies; and to assist in preventing soil erosion.

We have already seen that with shifting cultivation, once land has been farmed for three or four years, it should be allowed to go back to bush for a long period before being used again. Thus at any one time, where shifting cultivation is practised, most of the available farmland should be left under forest growth as a reserve for future years. If this is not done future harvests will suffer.

In various parts of the world where forests have been cleared people now complain of drought. Scientists believe that rain falls *more often* but *less heavily*[1] in forested than in cleared areas, so that although the *total* rainfall may be unaffected, in forest areas there are fewer heavy and destructive

[1] Owing to evaporation of water from the leaves which helps to produce moisture-laden air above the forest. Note also that the sun heats forest-covered land less than bare soil and that air above a forest is cooler, for this reason and because of evaporation. Cooler, moisture-laden air over forests is likely to produce rainy conditions more often than heated air over barer ground.

storms, more frequent showers, and shorter periods when no rain falls at all.

Yet another effect of forests on climate can be illustrated by an example from Ghana. There the very profitable cocoa crop grows in what was once an area of high forest. So much of this forest was cleared for cocoa farms that in one area it was cleared right through to the savannah forest which extends along its northern border. Through this gap then blew the dry Harmattan wind from the Sahara and this, by producing conditions too dry for the cocoa tree, became a danger to Ghana's main export crop. In the Koforidua district, which produces about two-fifths of all Ghana cocoa, the protective forest is now only one-third of the area ideally desirable.

Forests are also very necessary in order to protect water supplies. Rain which falls on bare earth, or on land under crops which do not closely cover the ground, can run off easily, and if the ground is sloping most of the rain which falls during heavy storms does not sink in, but flows quickly away to turn streams into floods. In many areas owners of growing crops can ill afford to have so much of the water running off their land. The effect on underground water supplies may be even more serious. Many people depend on springs, wells, and boreholes for water during the long dry season, but if too much surface water is allowed to run off during the rains, wells and springs may dry up. Having enough land under forest ensures that most of the water falling as rain enters the ground for future use. The leaves on the trees break the force of the falling rain, the dead leaves which cover the forest soil form a spongy mass which can hold large quantities of water, and the tree roots help it to sink deep into the soil. Thus forests help to maintain underground water supplies and thus to prevent springs, wells, and boreholes from drying up.

By limiting the amount of run-off in heavy rain, properly sited forests also help to prevent soil erosion. Fast-flowing

surface water takes with it into streams much valuable soil from the fields over which it has travelled. The faster the water flows the more damage it causes for this reason, and it is thus particularly important to protect hillsides and stream-banks with forest cover. It is worth noting that if hills are eroded the damage is not limited to the area from which the soil is first washed away. Stones, subsoil, and rubbish are carried down and spread out on the fields below. Fertile low-lying farms may suffer as much as the hillside.

These then are the reasons why many people regret the destruction of forests and even hope that some of the cleared areas will be allowed to become forest again. Fortunately it is not always necessary to go to the expense of planting trees. If the ground is not too heavily eroded and is protected from further tree-cutting and from fire, new trees will establish themselves by natural means and the forest will gradually return.

The general principles which should be followed in deciding on the extent and situation of forest reserves are now well understood. But to prepare for a whole territory a suitable and economical plan to protect watersheds, catchment areas, steep slopes, and the banks of streams from erosion, and to provide sufficient shelter belts from drying winds, while causing little disturbance to established rights, is never easy and sometimes almost impossible. In the past forest staffs have usually been much too small to undertake this in addition to their other duties. Nor in fact is any ideal plan yet possible, for deforestation has usually been most severe in areas of dense population. The problem is even more complicated where land required for forest reserves is privately owned, as in parts of Uganda, Kenya, Northern Rhodesia, Nigeria, and Ghana.

In spite of these difficulties people can sometimes be persuaded to agree to some action in their own interest, but very few people will agree to sacrifice their own interests for

the sake of people living at a distance, or for the general benefit of the country as a whole. Yet that is just what the ideal forest reserve policy demands, for a forest reserve on a watershed may be needed primarily to safeguard the land of people living near a river many miles away. Indeed, sometimes a reserve is needed on the high ground of one territory to safeguard the low-lying lands of another. In such cases two or even three governments may have to try to work out a common policy.

Although many forestry problems are still unsolved, some useful work has been done. Thus most of the forest remaining on watersheds and steep hill slopes is now protected by law; plantations have been sited to provide fuel near towns; and many attempts have been made to gain the support of local administrations for local schemes, and for the earlier and less destructive firing of the bush. A scheme for the establishment of village forests in Nyasaland, however, has not been very successful.[1] In Nigeria attempts have been made to overcome dislike of forest reserves by promoting the development and sale of forest products such as beeswax, honey, gums, and baskets.

It has sometimes happened that the policy followed by forestry departments has been hindered by that of other departments. Thus while a strict reserve policy may be desirable if it is viewed solely in the light of the considerations detailed earlier in this chapter, tsetse-fly control officers may be urging the clearing of forest in fly-infected areas, and agricultural officers encouraging people to extend their farms (necessarily by clearing forest) in order to grow cash crops. Inter-departmental problems of this kind were more frequent in the past than they are now, but the fact that they have occurred shows plainly the need for central government planning, and for the shaping of a common development policy which takes all factors into account.

[1] *African Survey* (1956), p. 944.

Chapter X

WATER FOR USE OR FOR WASTE

MOST tropical countries have water conservation problems, especially in areas where a short rainy season is followed by many months of dry weather. If water in such places is not properly conserved, wells, streams, and even rivers may dry up completely towards the end of the dry season, and where that happens people can have no permanent homes. And, in fact, many thousands of square miles of good farming and grazing land still remain empty of people for lack of constant supplies of water, while other areas are overpeopled and overstocked. Thus there is good reason for taking the problem of water conservation seriously. Another reason is that in the dry season many people still have to walk long distances—as much as five or six miles in some cases—for a scanty supply of muddy and possibly disease-infected water. Efficient water conservation could lessen these difficulties in many areas.

Water collects both above and below the ground, but it all depends on rain falling somewhere, though not necessarily at the spot from which the water is obtained, and the aim of water conservation policy is to retain for man's use as large a proportion as possible of the rainfall. The chief causes of waste are evaporation and 'run-off'. It is neither possible nor desirable to prevent these entirely, but it is both possible and desirable to prevent them from causing *undue* loss.

Loss of water from evaporation may be a serious matter in hot tropical countries, and little can be done about it where large areas of surface water are concerned. But evaporation is slowed down on land if the ground is well covered with trees or grass, or close-growing crops. These help to retain the moisture longer in the soil, and the water finally evaporates

through the leaves only after it has been used by the growing plant. It is for this, as well as for other reasons, that officers of agricultural departments urge farmers to keep their fields covered with some kind of crop as long as possible during the rainy season.

Good ground cover also helps to prevent excessive run-off. It was explained in the last chapter how well-sited forests help the rainwater to enter the soil, and on farms certain kinds of crops, and suitable cultivation and ridging of the ground, help in the same way. Under such conditions vast quantities of water may be held beneath the ground, some eventually evaporating through plants, some escaping slowly through springs—thus helping to keep a constant flow of water in the rivers—and some collecting in natural underground reservoirs above strata of impermeable rock. Here it can be reached by means of wells and boreholes.

Where surface conditions are less good, where, for instance, steeply sloping land has been cleared for farming without terracing and other safeguards, or where overstocking has bared the ground of grasses, most of the rainwater will run off the land into streams and rivers and cause them to flood. In fact, the flooding of rivers at one season and their drying up at another is usually a sign of bad water conservation.

Even under ideal conditions, excessive run-off is likely to occur sometimes, especially towards the end of a series of heavy rains when the ground has already stored nearly all it can immediately absorb. In such cases, where it is known that water is likely to be in short supply later on, surface dams can be built in suitable places to store extra water. Such dams are particularly important in areas where the rock structure does not allow water to collect underground. Surface storage behind dams, however, has certain disadvantages. Considerable quantities of water are lost through evaporation, and the construction of many dams on the higher ground of a river basin may mean that little water

reaches people on the lower ground. Thus water conservation and utilization schemes must be worked out for whole river basins and not for particular local areas only. Otherwise mistakes and injustices are likely to occur.

Wise conservation of water supplies not only makes more water available for use, but by limiting run-off it limits one of the chief causes of erosion and flood damage. Thus the measures which conserve water also help to prevent land erosion and the silting up of rivers and lakes.

Where too much forest has been cleared, water supplies have already been adversely affected. For instance, in Nyasaland so many of the hill-sides have been deforested within living memory that

> Important rivers, such as the Shire, have silted up; so much top-soil has been removed by wash that mountains and hills are now masses of bare rock, and once forested plains are treeless.[1]

Streams that used to flow regularly have become seasonal or have dried up altogether. It is even claimed that so much once fertile country has become uninhabitable that Nyasaland can now support barely half the population it could support a hundred years ago. This may be an over-statement, but it is certainly true that parts of Nyasaland are nearly uninhabited, while other parts are overcrowded because too many people are forced to live near the permanent water of Lake Nyasa and the Shire river. Similar conditions, due to the same causes, exist in other parts of Africa.

Water conservation is particularly important now that governments are sinking wells and boreholes to open up uninhabited areas for new settlement. Wells and boreholes tap supplies of underground water, but these supplies will shrink if too much water is allowed to flood away into rivers.

In the early days governments wasted a good deal of money by sinking wells and boreholes in unsuitable places. For

[1] *African Survey* (1938), p. 1089.

instance, by 1933 the government in Bechuanaland had sunk thirty-six boreholes, nineteen of which were failures. Waste of this kind is now avoided by making preliminary surveys of underground water resources. This is done by examining the surface features, by test boring, and by using instruments which indicate the type and structure of rocks beneath the soil. The aim is to map the position of the permeable and impermeable strata beneath the ground. The experts can then make a good guess at where underground water can be found, and at what depth.[1] Only when this has been done can wells and boreholes be sited where there is a good chance of finding water. Many grants have been made under the Colonial Development and Welfare Acts for water surveys and to help with the cost of drilling and well-sinking.

New wells and boreholes are important because they open up new areas for the resettlement of people from overcrowded areas. Underground water also has the advantage that it is purer than surface water. Only too often the latter is infected with bilharzia or guineaworm, and hundreds of thousands of people catch these diseases every year through drinking foul water from streams, lakes, and water holes. Underground water has been filtered by the rock through which it has sunk, it is pumped to the surface through pipes, and is delivered pure. Its use, wherever possible, is therefore an important health measure.

Water can also be used for irrigating farmland and as a source of industrial power. Large-scale works of this kind involve the collection of vast quantites of water behind dams. They are common in Pakistan, India, Egypt, and the Sudan where the stored water is chiefly used for irrigation. Many other countries store water and use it as a source of hydro-electric power. The Owen Falls Dam at the source of the

[1] e.g. at the bottom of bends in porous rock strata where impermeable rock immediately beneath prevents the water from sinking farther.

Nile in Uganda, the Kariba Gorge Dam on the Zambezi in Rhodesia, and the Volta River Scheme in Ghana have all been designed to produce electric power.

It is obviously desirable that tropical Africa should reap these additional benefits from its water supplies, but many difficulties have first to be overcome, especially in the use of water for irrigation. Successful farming on irrigated land demands intensive methods of cultivation, a high degree of skill, and the growing of highly priced crops. The cost of building dams is heavy, and the farmers who get the benefit of the water have to be able to pay for it. Many people doubt whether the ordinary African peasant can grow enough crops on irrigated land to pay for the water he uses and still make a satisfactory profit.

Another difficulty is caused by soil erosion. The effect of the dams is to hold up the flow of river waters. If, as often happens in Africa, the rivers are muddy with eroded soil this silts up behind the dam and in course of time the once deep reservoir becomes a shallow lake, holding little water and therefore of small value.

Small and inexpensive dams for irrigating areas of farm or grassland or for watering cattle are less likely to incur the difficulties explained above, and during recent years such dams have been constructed in many parts of Africa. Very often the people themselves have voluntarily provided most of the necessary labour; and governments have provided a surveyor to lay out the work, a foreman to supervise it, and the equipment necessary to carry it out.

A statement made by Mr C. Gillman, Water Consultant to the Tanganyika Government, admirably summarizes the importance of water conservation in tropical Africa:

. . . our [East African] groundwater resources are among our most valuable, if not *the* most valuable asset . . . their extent should be accurately mapped, the possibilities of their improvement . . . carefully studied with the help of the geologist and plant ecologist and

every possible precaution taken, by reafforestation and anti-soil erosion measures, against further deterioration of rainfall efficiency. The destruction of a country's arable soils is bad enough; infinitely worse is the concurrent destruction of its groundwater regime because it is a process faster even than that of soil deterioration and, therefore, liable to put areas which still possess soil out of action because there is no more water for the tillers of the soil.[1]

[1] Quoted in Jacks and Whyte, *Rape of the Earth*, p. 197.

Chapter XI

THE DESTRUCTION OF THE SOIL

WE have already noted that one of Africa's major problems is that much of the land has become less fertile because people have persisted in overcropping or overgrazing it. Unfortunately when this happens the land usually loses much more than merely the actual amount of plant food taken by the harvest or the cattle carried on the land. The soil itself is removed at a rapid rate. This is the process known as soil erosion.

The maintenance of life on the earth depends on the thin skin of soil, usually only a few inches deep, in which plants grow and on which men and animals therefore depend for the food which enables them to live. The rocks beneath this soil are dead, and if the soil is blown or washed away the land becomes a desert. Under natural conditions this does not happen. Wind and rain do, indeed, gradually remove the top surface of the soil, but very slowly, and the plants and insects which live in it are able to make new soil from the rock immediately below fast enough to equal this slow rate of natural erosion. Thus each area can maintain indefinitely the kind of vegetation which suits the local conditions of soil and climate, provided always that man does not disturb it too greatly. Soil erosion, in the sense that it is used in this book, begins when these natural conditions are upset by man, with the result that wind and water remove the soil more rapidly than it can be replaced.

Natural conditions are upset when the vegetation that covers the soil is removed. This happens, for instance, when a farmer clears a patch of forest in order to make a farm, and

it happens on natural grassland if he keeps so many animals that the vegetation is eaten away faster than it can be replaced by growth. In either case the soil loses most of its covering and is bared to the action of wind and rain.

Gentle showers of rain and light winds may do little harm even to bare soil, for they lack the force to wash or blow it away, but in Africa, in common with many other parts of the world, rain is often heavy and wind strong. In the tropics storms are frequent at the beginning and end of the rainy season, and falls of an inch or more within an hour are common. The soil cannot easily absorb water at this rate, especially on sloping ground, and the surplus water flows to a lower level. If the soil is well covered with vegetation such water does little harm, but on bare slopes it quickly gathers speed and the unprotected soil is washed away. Hundreds of tons of soil may thus be removed from a single area in a few hours. Jacks and Whyte record the loss of an inch of soil from a maize farm in Kenya as the result of a single storm, and in another bad area twelve inches of soil through erosion in one year.[1] Examples of this kind are numberless, not only in Kenya, but in nearly every African territory and on European as well as on African-held land. In some places erosion of the soil has already been so severe that it can never be brought back to a fertile state, and many other large areas are rapidly approaching a similar condition.

The excessive erosion now threatening Africa is a recent development, brought on by conditions which have grown up during the past thirty or forty years; but erosion, when it has once begun, works very rapidly if counter-measures are not taken early; and, most important, it can go through its earlier and less dangerous stages *without any very obvious signs* of what is taking place. Thus erosion was already well under way before its serious nature was fully recognized.

This can best be explained by considering the process

[1] *Erosion and Soil Conservation*, p. 95.

by which soil is eroded. It can be eroded either by wind or water. Erosion by water takes place in two stages. It begins with surface or *sheet* erosion and this is often followed by *gullying* when the water bites deeper into the ground. Sheet erosion is not easily detected, and it is often far advanced and gullying begun before the farmer realizes that any erosion at all has been taking place.

Some soils erode more easily than others, and fertile, well-cultivated and well-manured soils erode less easily than those which have already been exhausted by overcropping. Erosion begins when water moving over the surface of the ground takes with it the smaller soil particles, leaving only the coarser ones behind. These smaller soil particles are those which help to bind the soil and retain plant food and moisture in it. Soil eroded in this way bears poorer crops than formerly, and if the process is continued with the washing away of the coarser particles, presently only infertile subsoil is left behind. When this happens gullying is likely to begin.

Sheet erosion increases the volume of run-off and prepares the ground for gullying. The water collects into little channels, either in natural hollows in the ground or in footpaths, wheel-tracks, or plough furrows which descend the slope. These temporary waterways are deepened and broadened by each heavy fall of rain, and can rapidly develop during a few years into wide gullies twenty to thirty feet deep. They tend to lengthen backwards up the hill-side, and also to form tributary gullies which add to the area of destruction. Gullies also indirectly destroy land in other places, for the water spreads the subsoil from the gullies over fertile land elsewhere, or carries it into rivers to silt up their beds. As rivers silt up, they are very likely to overflow their banks. Floods caused in this way may do heavy damage to low-lying farms many miles downstream from the eroding area.

The soil can also be eroded by wind, for where the soil is

losing its fertility it breaks easily into dust. Strong winds blowing over the bare soil can then raise dense clouds of dust, and tons of soil dust may thus be blown many miles. One of the most widely known examples of such erosion is the so-called 'Dust Bowl' in the U.S.A. There wind erosion is said to have totally destroyed 13,000 square miles of once fertile grassy plain, and seriously to have eroded at least another 130,000 square miles, with the result that by 1938 165,000 people had been forced to leave their homes and seek a living elsewhere. Africa contains many areas subject to a similar danger, especially in the semi-arid regions on the borders of the Sahara and Kalahari deserts.

Some evil results of erosion have already been mentioned. Apart from the permanent destruction of the land in areas where gullying is already far advanced, and the spreading of the dead subsoil over fertile land elsewhere, the less obvious but more widespread wind and sheet erosion is rapidly reducing the yield from numberless farms and grazing grounds. Yet, as we have already seen, one of Africa's most pressing problems is that some large and once fertile areas are overpeopled, overcropped, and overstocked. In such places soil erosion is already so far advanced that the problem now is to maintain even the existing low standards of production. Soil erosion in crowded areas, in fact, provides another example of a vicious circle. Overcrowded land leads to overcropping and the clearing of land on watersheds and hillsides which should have been kept covered with plant growth. These conditions cause soil erosion and loss of soil fertility. People then overcrop or overgraze their remaining soil still more, and erosion goes on even faster than before.

This vicious circle can sometimes be broken by opening up new areas for settlement and by educating the settlers in the proper use of land. Elsewhere the problem is much more difficult: for the first necessary steps—the restoration of some wrongly cleared land to forest or grassland, and the safe-

guarding of farms and grazing with adequate resting periods —still further restrict the amount of usable land. Yet it is most important, with damage being caused at an ever-increasing rate, to take speedy and effective action.

Chapter XII

EFFORTS TO SAVE THE SOIL

FOR many centuries man in tropical Africa has tilled the soil and grazed his animals upon it, but it is only recently that soil erosion has become really dangerous. Erosion is not a serious problem where only small areas of forest are cleared for farming and where the soil is allowed an adequate resting period under forest growth. But now men have cut down much more forest, clearing even the steeper slopes. They have shortened the resting period of their land and they keep more cattle. Also there are now more people, and in eastern and southern Africa there is less land for them to live on owing to the reservation of large areas for European settlement.

The situation is not, of course, equally gloomy everywhere. Large areas of tropical Africa are still almost untouched by the developments described above, and in those areas erosion has made but little headway. Similarly, other large areas have so far been protected by the tsetse-fly or by lack of permanent supplies of drinking water, as in Tanganyika and Nyasaland. Again, as in Northern Rhodesia, the population is still too small to create pressure on the land. Yet even in such areas there are signs of danger, for erosion from the larger holdings cultivated with the plough is often considerable. Thus F. A. Stockdale writes that

> . . . the loss of soil from ploughed farms of ten to twenty acres in extent, which have been established in open country so as to avoid the cost of stumping, is considerable. In the course of this transition, ploughing is frequently done up and down the slope, certain traditional crops abandoned, and other recognized methods of native cultivation changed. . . . The ploughing increases the run-off of water, and there are no tree-stumps to check the flow. . . . The result of these changes is that soil erosion is becoming more serious, and

unless some alteration in the system is effected devastation may result.[1]

Indeed, erosion is almost everywhere favoured by the general *trend* of development, and everywhere people need to be taught how to safeguard their soil. In large areas of Kenya, Uganda, Nyasaland, and Nigeria, and in certain parts of Tanganyika, Northern Rhodesia, and Sierra Leone erosion damage already threatens the livelihood of several millions of people.

During the last thirty years very many experiments have been carried on in the U.S.A. and elsewhere in order to find the best way to prevent erosion under different conditions and on different types of soil. Soil erosion is caused by bad farming and cattle-raising, and farmers and herdsmen must learn how to prevent it. Wise forestry and water conservation measures must be agreed to, even if they appear to bear hardly on people living in some areas, for sheet erosion and gullying in one area can be caused by clearing the forests on hillsides many miles away, and the forests remaining uncleared in Africa amount to barely one-third of the area needed to safeguard the land. Ideally, soil conservation policies should be planned for whole river basins. Only if this is done can protection forests and dams be sited properly, and the maximum quantity of water turned from destruction to the benefit of the whole population of the river basin.

Only governments can make plans for whole river basins, but local communities of farmers and herdsmen can also do a great deal to safeguard themselves. In particular, they can prevent too much water running off their land. There are now several ways of doing this.

The kind of narrow bench *terracing* common in Mediterranean and Eastern countries is very costly in labour. Other types of terracing, however, have now been invented, and the simplest and cheapest form is to heap earth in ridges

[1] Quoted in Jacks and Whyte, *Erosion and Soil Conservation*, p. 58.

along the contours. These ridges hold up the flow of water and reduce loss of soil and they have already been adopted in some parts of Africa. *Strip cropping* is based on the same idea, but in this case the place of the contour ridge is taken by narrow strips of closely growing, soil-binding plants such as lucerne, clover, or elephant grass which are grown along the contour between wider strips of main crops such as cotton and maize. Farmers are also urged to plant *cover crops* shortly before harvest, so that the ground shall not be left bare and defenceless against heavy rain when the main crop has been removed. Experiments at Mpwapwa in Tanganyika have shown that run-off from bare, uncultivated ground may be fifty-five times greater than from good grassland under similar conditions of soil and rainfall. The maintenance of general soil fertility is also very important, for well-manured soil does not erode as easily as soil which has been overcropped and allowed to lose its fertility.

On pastoral land, erosion can be controlled by preventing overgrazing, excessive trampling by cattle, and the late firing of grasses, all of which damage the grass cover. The grazing lands should be kept in good condition by limiting the size of the herds and by using the lands in rotation so that each may be rested from time to time to allow the grasses to seed.[1] This can be done either by opening-up new pastures, by providing new wells and dams for drinking water, or by encouraging the herdsmen to sell off for slaughter the annual increase in their herds. The control of grass firing is also important, for it has been proved that late firing of very dry grass produces heat

[1] Note also that *undergrazing* may be harmful. It 'causes the tall stemmy types of herbage to become dominant; the soil-protecting bottom grasses and clovers are choked out, with the result that again there is an increase of bare ground . . . the raindrops fall directly on to the soil, puddling the surface and clogging up the pores with silt; infiltration into the soil is reduced, run-off of silt-laden water increases, and the cycle of erosion begins.' Jacks and Whyte, *Rape of the Soil*, p. 145.

fierce enough to destroy the humus in the soil and thus prepare the way for erosion in the rains. Firing earlier in the dry season before the grass has dried out completely is less harmful. Another anti-erosion measure is the ploughing of small furrows along the contour. These help to guide the water into the soil and the grass to grow, as well as preventing excessive run-off. The planting of trees in suitable positions to act as wind-breaks gives valuable protection against erosion by wind.

All these local anti-erosion measures must be carried out by the people themselves. They must accept them as part of their own practice of good farming or cattle-herding in their own interest.

Therefore what has to be attempted is nothing less than the education of whole populations in the proper use of land, and this is no easy task. Nevertheless, a great deal has already been attempted, and with some success. Thus as early as 1931 the Agricultural, Veterinary, and Education Departments in Tanganyika began a co-operative effort to educate the people of the territory in anti-erosion measures. A number of Africans were trained as demonstrators and special efforts were made to convince local authorities of the practicability and importance of conserving the soil. The result was that some, although not all, native administrations made and enforced local rules. Thus coffee planting, except on terraced or contour-ridged land, and cultivation near streams was forbidden. Rules were made to encourage rotational grazing and to control grazing on hillsides. And in some places hilltops and hillsides were protected against burning and the cutting down of trees. Reafforestation schemes and wind-break planting were also adopted by some. During the last few years much time has been devoted to teaching and demonstrating soil conservation measures to the people so that the need to have such rules will be readily understood.

Action of this kind has already helped to lessen the danger

from erosion in some areas and other territories have adopted similar policies. But Tanganyika has one important advantage that some other countries lack, for although erosion is widespread on occupied land, yet it is limited in extent because so much of the territory is uninhabited because of the tsetse-fly. The presence of this fly is both a danger and an advantage under existing conditions. It is a danger because the spread of the fly into settled areas would drive more people into other already overcropped and overgrazed places, thus making erosion worse. It is an advantage when, with success in clearing the fly from some of the areas it now occupies, new land becomes available for settlement. The government can then insist that the new settlers should accept rules safeguarding the land and its water supplies. At the same time it becomes easier to enforce the same rules in the villages from which the settlers have come, for they are now less crowded and the pressure on the land is somewhat eased.

Educational programmes are an essential part of any permanent solution of erosion problems, but they may take effect too slowly in places where erosion is far advanced. Education in soil conservation may be of little value after all if, when it has been completed, there is no soil left to preserve! This is why several governments have been forced to take strong action. Thus in Kenya, for instance, the situation in some places is very bad indeed. The Ukamba and Kamasia reserves are so badly overgrazed that as early as 1938 it was said that 37 per cent. of the Ukamba reserve was eroded down to the subsoil and beyond. This was largely due to overstocking. It was estimated that the reserve was having to support some 250,000 head of cattle, 269,000 goats, and 50,000 sheep, and that the maximum number of cattle which the reserve could properly support without further damage was well under 60,000.

In the Kitui section of this reserve the population was said to have increased by 50 per cent. between 1921 and 1932:

shifting cultivation is practised; the land has suffered accordingly, and famines are frequent. Cotton cultivation has recently been introduced, and sheet erosion has already reached the visible stage on most cotton plots. Overstocking is chronic and water so scarce that cattle sometimes have to travel thirty or forty miles to drink. The hills are now bare of vegetation, badly gullied, and scoured by run-off.[1]

In the Kavirondo and Kikuyu reserves erosion damage was less serious than in the cases quoted above, but the increase in the acreage of export crops, the introduction of the plough, and heavy overgrazing had nevertheless created conditions very favourable to erosion. Thus of the Kikuyu reserve Lord Hailey says:

This reserve has suffered particularly from destruction of forest. A clue to the loss of topsoil which is occurring continuously on the cleared slopes of Mount Kenya is given by the heavy discharge of silt from the Tana river, which creates a brown stain in the Indian Ocean twenty or thirty miles out to sea.[2]

The Kenya government's own estimate of the damage done in its territory is also worth quoting:

. . . in certain older established farming areas land which used to yield at the rate of 15 to 20 bags of maize per acre has had to go out of maize altogether because profitable crops cannot be grown and average yields have fallen to four or five bags. The same process has been going on in native areas and it is believed that it is no exaggeration to say that within the past 25 years half the productive capacity of all cultivated land has been lost.[3]

Education in soil conservation has had some success in the Kikuyu and Kavirondo reserves where the effect of the spread

[1] *African Survey* (1938), p. 1096, based on an unpublished report by C. Maher.

[2] *African Survey* (1938), p. 1095.

[3] From Kenya's Application for Assistance from the Colonial Development and Welfare Vote.

of mixed farming, the practice of composting, and the planting of wattle on the hillsides has been assisted by the adoption by Local Native Councils of other specific anti-erosion measures. But the situation in some of the reserves is still very bad. Although government realized the danger it was badly hampered through lack of funds, and by unwillingness to impose laws enforcing compulsory destocking and rotational grazing because of the very great discontent which such laws might arouse among the people. Thus the action taken was ineffective. Between 1931 and 1936 in Kamasia only 7,000 out of nearly 700,000 acres which required reconditioning were dealt with by being closed to stock long enough for seeds to establish themselves, by making contour furrows, and in some cases by actual planting of grass. The cost to government was a little over £5,000.[1] The effort was obviously too small to keep pace with erosion damage and, moreover, great difficulty was experienced in safeguarding the reconditioned areas. They were more attractive to herdsmen than the eroded areas elsewhere, and were always in danger of destruction through heavy overstocking after reconditioning.

Since the end of the war the situation in Kenya has changed a good deal for the better. There are three main reasons for this. One is that the Kenya government with help from Colonial Development and Welfare funds has spent several millions of pounds on soil conservation and land reconditioning; another, that most of the African peoples in Kenya now realize the danger and are therefore more willing than in the past to co-operate in doing what is needed; and the third that 'for the first time in the history of Kenya, the idea of selling cattle is now generally acceptable'.[2] The position in the drier parts of Kenya, however, is still very serious and the Kenya government is still spending large sums of money

[1] Hailey states that between 1927 and 1937 the Kenya government spent nearly £10,000 in the same area on famine relief.

[2] *African Survey* (1956), p. 1045.

to provide more sources of permanent water for cattle and to enforce control of grazing.

What the Kenya government is trying to do other governments are trying to do also, for every tropical African government to some extent faces the same problem.

Chapter XIII

CAPITAL AND LABOUR AS FACTORS IN AFRICAN DEVELOPMENT

THE object of this book is to present as clearly and briefly as possible the chances of Africans producing and owning more wealth. So far we have examined only the situation with regard to land, which in one way or another is the source of all wealth; but land as such is not enough. Wealth has been defined as anything that 'satisfies a human want and is not unlimited in quantity'. Land is wealth according to this definition for its products satisfy human wants and it is also limited in quantity. Thus men are willing to obtain land by exchanging other kinds of wealth for it, but it is important to notice that it is usually valued, not for itself, but for what may be produced year after year from its soil, or for what may be dug out from the rock beneath the soil. A desert where no valuable minerals have been discovered is not considered wealth merely because it is land. It is left unoccupied because it satisfies no human want, and it has no exchange value. The value of land is measured according to what it can produce.

Land, however, is only one factor in the production of wealth, for man has to apply labour to its products before they can fully satisfy his needs. This is true even if we take life at its simplest where nomad peoples live by collecting natural produce and by hunting. Such peoples live on edible roots and berries, and on the animals and birds they hunt and kill; but although these things are freely available in the bush they do not satisfy man's wants until labour, in the form of collecting and hunting, has first been applied. And even this amount of labour does not necessarily produce wealth according to our definition, for to it may have to be added

the labour of transport from where it was obtained to the nomad camp. There, yet more labour may be applied to it in the process of cooking, which has also entailed the labour of cutting and transporting wood for the fire. In the end the natural products of the land—roots, berries, or raw flesh—have been changed in *form* into cooked food by the labour of cooking, and in *place* by the labour of transport. Both kinds of labour are needed before the nomads can satisfy their wants by consuming them.

Thus the function of labour is to change the form of an article into something more necessary or desirable, or to transport it to the place where it is most wanted. In this sense labour creates wealth. The more skilled the labour, and hence the more desirable the product, the greater is the amount of wealth produced.

This very simple example can show yet another factor which is necessary for the production of wealth. The man collecting berries needs something—skin, basket, or mat—in which to carry them home; the collector of roots needs a digging stick or some other tool to get them out of the ground; the hunter needs weapons; and the cook, cooking pots. Such articles are elementary forms of capital, i.e. wealth saved up and used to assist in future production.

Thus wealth is created, not by either land, or labour, or capital alone, but by co-operation between all three, and the result is large or small according to the presence or absence of each of the three factors. Labour and capital, however suitable, can produce only a small return from poor and badly eroded land. Good land will yield less if the labour is careless and unskilled; and even good land and skilled labour will produce little if the necessary capital—plant seed and tools—is lacking.

Wealth of any particular kind is measured by its exchange value for other forms of wealth. This may be done by barter, which is the direct exchange of goods or services, or by using

money. But in whatever terms value is expressed it remains true that it can be increased by applying labour and capital to the raw products of the earth. Such products, as we have seen, only reach their maximum value when they are in the form best suited to satisfy men's needs, and in the place where they are most greatly desired. At each stage where capital and labour are applied the result should be to increase the article's exchange value by changing its form or place, and, if this is so, labour and capital reap their reward from the increase. But most Africans still have less skill and capital than people in the more highly developed countries, and therefore lack the high rewards which skilled labour and capital can bring. Just how this happens can be explained by examining the stages through which cotton, an African product, normally passes before it is sold as a cotton shirt.

First, there is the labour of planting, hoeing and picking, with seed and tools as the necessary capital. To this must be added the labour of transport to a buying centre and, perhaps, some capital in the form of sacks or baskets, or possibly a bicycle. At the buying station a price is paid—perhaps a penny or two in the case of enough cotton to make the shirt, and the price corresponds to the usefulness of the cotton in that form and at that place in the eyes of the buyer. Up to this stage only African labour and capital have been involved. The price is low, but little skill and hardly any capital have been used.

The raw cotton is now ginned and baled. Here the labour is not great. It is made easy by the use of capital in the form of expensive machines and by some highly skilled labour which keeps them in good order. The reward for this service is again only a very small sum, but the great quantities of cotton the machines can quickly deal with enrich the owners of the capital and give the highly skilled men in their employ a much higher reward than the farmer enjoys. Africans do not share so much in the wealth produced at this stage: some

of the ginneries are owned by Asians or by Europeans; and although some Africans help to supply skilled or semi-skilled labour and are rewarded accordingly, the majority work as porters and at other jobs requiring little skill.

The cotton is now sold at a higher price to the spinners and the price is further raised to pay for the labour and capital involved in transporting most of the cotton by road, rail, and sea to some distant cloth-manufacturing country. There the spinner and the weaver both apply further labour and capital, and the price steadily rises as the cotton takes on a more useful form. More labour and capital are employed by the wholesale and retail merchants who guide the manufactured cloth back to the African consumer. Only at the last stage, and not always then, does the African re-enter the picture, if he owns capital in the form of a sewing-machine, uses African labour, and takes his reward by selling imported cloth at a higher price in the form of shirts. But most of the labour and capital applied to turning raw cotton into shirts is non-African, and hence most of the reward—the difference in price between a few ounces of raw cotton and the manufactured shirt—does not add to the total of wealth owned by Africans.

In this example of the shirt the cotton was taken outside Africa for most of the processes of manufacture, and may thus be considered an unfair example. But the same factors—lack of capital and lack of skill in labour—operate in the case of many products which are entirely manufactured within the continent. Europeans and Asians still supply most of the capital and skilled labour for sugar manufacture, mines, and transport services, and it is they, not Africans, who still reap the greatest rewards.

This situation is now changing, for during the last ten to fifteen years many more Africans have learnt how to do highly skilled work. They have taken over many of the jobs formerly done by Europeans and Asians and are obtaining correspondingly greater rewards. But there are still vast numbers of

unskilled and illiterate Africans, and very few have collected any considerable capital, or have even attempted to do so. Too much of what increased wealth there is has come from the unskilled and uncaring extension of farming on to hitherto unoccupied land, with the evil results already discussed. There is no easy road to wealth and prosperity. It can be attained by two means only: one, by applying to production skilled and efficient labour; the other, by saving. Skill can only be acquired by effort and sacrifice of leisure: saving entails going without something immediately desired for the sake of future benefits.

Where men labour with skill and efficiency they produce more wealth in a given time than do the same number of unskilled and uninterested men, and they profit more by sharing in the extra wealth they have produced. Wage-earners get higher wages, and farmers higher annual incomes. Men who have saved capital by consuming less than they have earned can make available in the form of money the unconsumed wealth of which they are the owners, and this can be used to create new wealth by providing labour with tools and equipment and with food and wages before the manufactured products can be sold. The owner of capital used in this way benefits by receiving, like labour, a share in the extra wealth which his savings have helped to create.

Chapter XIV

USING OTHER PEOPLE'S SAVINGS

WEALTH is created by the proper use of land, labour, and capital, and in Africa at the time of Partition these were all present in some degree. But little wealth was produced because labour for the most part was skilled only in primitive crafts, and the capital available to assist production came to little more than food enough to last till the next harvest—sometimes even that was lacking—seed for the planting season, and a few hand tools for making household utensils, furniture, and clothing.

Thus the colonizing countries were faced with a most difficult situation. Modern government is costly. In Africa it had to be established over great tracts of country. Police had to be provided, and the slave trade had to be stopped. How could these things be paid for by people who were living on a subsistence basis, producing wealth enough only for the simplest needs? The need for medical work and education served only to intensify this problem. Its solution lay in increasing the production of wealth above the subsistence level, and in a system of taxation which claimed part of the increase for government purposes. Land and labour were both present. The people could be encouraged to grow additional crops, especially cash crops, for sale to other countries. Minerals could be obtained from some areas. Africans could at least supply unskilled labour for this purpose. European settlers were given land in highland areas. They could perform a useful service by directing African labour in the production of export crops that could not otherwise be grown. These were all ways of creating the additional wealth from which governments could obtain the revenue necessary for the work of governing,

and for the purchase of goods which could not be locally produced. They had the additional advantage of developing trade with other countries, especially with the colonizing country. It was this trade which, after all, had been one of the chief causes of nineteenth-century tropical colonization.

The development of export crops and minerals, however, was of little value unless action was also taken to transport them from their place of origin to the sea. This involved the building of thousands of miles of roads and railways, and the equipping of harbours with modern port facilities, such as wharfs, cranes, storehouses, and safe, deep-water anchorages.

This programme was gradually carried out, but it could not be done by using African resources only. These were lacking in two ways. Africans lacked the knowledge for any but unskilled tasks. Thus Europeans and Asians had to be brought in, and paid for. Africans lacked capital, and great undertakings connected with transport and mines required much capital equipment that could only be manufactured abroad. This also had to be paid for. These charges could not be met by African subsistence farmers, and development therefore had to start with the help of foreign capital. This is merely a shorter way of saying that at the beginning railways, harbours, motor roads, laboratories, hospitals, and so on were made possible, not by Africans consuming less than they produced, and using the resulting savings to aid further production, but by borrowing the savings of people in other continents. As a result, tropical Africa owes large sums to other countries, and every year pays out as interest on the borrowed capital some part of the wealth produced with its help.

The man who denies himself the pleasure of consuming all the wealth he produces in order to amass capital for the production of future wealth expects to benefit by sharing in the wealth his capital will help to produce, i.e. he looks for interest on his investment. Also he does not want to lose

his money. He wants to lend it safely and at a good rate of interest.

Africa suffered, at first, from the disadvantage of being little known to owners of capital in other countries. Capital was therefore only freely forthcoming for projects which seemed at least as attractive as those in other 'new' countries like Australia, New Zealand, the United States of America, and the South American republics. Most attractive for investment were mines, European-owned estates, and the railways which served them; and these were responsible for a good deal of private investment in southern Africa. Big chartered companies were formed to develop other areas. These companies were given special privileges by the British Government, and this encouraged people to lend them their capital. The results were not very encouraging to those who hoped to get rich quickly. Some companies paid high rates of interest, others paid little or none, and some even lost all their capital. Frankel states that even from the Rand gold mines the average rate of interest from 1887 to 1932 was only 4·1 per cent. on the capital invested.[1]

With a gold-mining area like the Rand giving no better an average return than this, it is clear that owners of capital were unlikely to risk their money for the general development of agriculture and transport in tropical Africa. Those who did risk their capital lost it, or at best had to be content with very small profits. Thus, for example, during the first thirty-three years of the history of the Uganda Company, interest payments averaged only 1·8 per cent. on the capital subscribed. It is for this reason that the Colonial governments found themselves forced to undertake much development work which in Britain would have been undertaken by private companies. Governments were able to borrow money since they guaranteed the interest payment out of their annual revenue, and, when even this guarantee was thought insufficient, the British

[1] Frankel, *Capital Investment in Africa*, p. 91.

government was often willing to help by telling investors that if the colony failed to pay it would do so itself. Thus in one way or another some of the needed capital was obtained, and Professor Frankel estimates that up to 1934 some £1,222,000,000 of foreign capital had been brought to Africa, and that of this sum about £546,000,000 had been borrowed by governments. Over two-fifths of the total had been used for the development of South Africa. Nearly a third, £384,000,000, had been used to provide Africa with railways.

Although the position so briefly outlined above has on the whole benefited Africa very greatly by increasing the annual output of wealth, in which Africans have shared, yet from several points of view it would have been unsatisfactory if it had continued indefinitely. While investment depends solely on considerations of security and rates of interest, territories which are less profitable to develop because they lack minerals, or because they have no easy outlet to the sea, tend to be neglected.[1] Thus the Rhodesias and Kenya obtained much more capital than Tanganyika and Nyasaland, and the latter countries were left comparatively undeveloped. This meant that the territories most in need of social and economic services were left least able to produce the wealth to pay for them.

There is another factor. Annual interest has to be paid on the money borrowed, and in the case of government borrowing it is at a fixed percentage agreed on at the time the loan is made. In times of good trade export prices are high and the loan charges can be met without difficulty. But when produce prices drop, as they did in the slump during the years after 1929, the money received by the territory for the same quantity and quality of exports may be less than half of the total for good years, while interest charges have to be met at the

[1] See Hancock, pp. 114–27, for an analysis of the economy of Nyasaland which has suffered from lack of development owing to these causes.

same level as before. Thus in Uganda the value of domestic exports fell from £4,275,000 in 1929 to £1,978,000 in 1931, and government revenue dropped by nearly £300,000 from its 1929 level. Similarly in Nigeria exports fell from £17,581,000 to £8,552,000, and government revenue by nearly £1,200,000.[1] Debt charges remained the same, and under these circumstances spending on education and other social services had to be cut.

A further disadvantage of foreign indebtedness is that it may force the debtor country to concentrate unduly on the export trade in order to pay the interest owing abroad, while neglecting production for local needs. This has been the case in Africa, and it is now generally agreed that more attention must be given to producing wealth for local use, and to the replacement of foreign by internal debt. This only becomes possible when governments or private persons save up their own capital for local economic development. Only then can more of the wealth locally produced be kept for local consumption.

Meanwhile much of the burden of past capital expenditure remains, drawing away each year into other countries part of the wealth the African territories need. It is most desirable to reduce this burden, and to finance further development as much as possible by internal saving. Governments of some of the richer territories have been able to do this by spending each year less than their revenue, and thus collecting capital for paying off foreign debts, or for assisting new development. For example, in 1949 Uganda owed only a small external debt of £2,850,000, caused mainly by expenditure on the railway which had made her great export trade of cotton possible; and she had built up surplus balances of over £4,500,000 to offset this. This favourable position was partly due to the high prices paid for her produce during and after the Second World War. Other territories, especially Kenya and

[1] Frankel, p. 308 and p. 317.

Tanganyika which had to borrow larger sums for railway development, are in a less favourable position.

The main solution to the problems discussed in this chapter has already been stated. The only road to permanent prosperity and economic independence—and on this depends also all *real* political independence—is to build up capital by saving, and by learning and efficiently practising new skills. Higher wages for private spending must depend in the last resort on higher production, and capital for new development must similarly depend on an increase in the habit of saving. These are the economic facts which govern the lives of men in all countries, and they cannot permanently be put aside by anybody. It is important that they should be understood and acted on by the African peoples.

It is essential to realize that no people aiming at true independence can attain it while dissociating their *right* to a higher standard of living from the corresponding *duty* of producing the wealth that alone can make it possible. It is also true that while a people is backward and subject to the rule of another race, those who rule may have a duty which temporarily overrides the logic of economic facts. This duty arises if the rulers make the claim that their policy is to foster the quickest possible progress of their dependent peoples towards full responsible self-government. Britain has made this claim, and has accepted the corresponding duty by passing the Colonial Development and Welfare Acts. Thus she is providing British territories with some capital free of interest both for economic development and for the improvement of education, nutrition, and health in order to help Africans more quickly to become really efficient producers.

These Acts make provision for part, at least, of Britain's responsibilities. The other part, which is more difficult to define briefly, is to ensure that the increased production shall be fairly shared by all, and that it shall not be attained at the

sacrifice of other desirable ends. Even a large increase in the total of wealth produced could be dearly bought at a cost of the rise of a powerful moneyed class, to which the mass of the peasantry and workpeople became subservient. India and Burma both illustrate this danger, and British policy on this point is less clearly stated. A good deal can be inferred, however, by studying the many problems already caused by the introduction of foreign capital. These problems are discussed in the chapters which follow.

Chapter XV

FOREIGN CAPITAL AND AFRICAN LABOUR

SIR ALAN PIM has written that with the spread of European government in Africa

> Far more capital was now needed, especially where minerals could be exploited or plantations developed on a large scale, and this became available in England through the introduction of the principle of limited liability in 1855, and the great increase of capital after 1870. For a time the uncontrolled application of capital was regarded as the only essential European contribution to the development of the interior.[1]

We can realize why people in England held this belief if we consider it against the background of English economic history in the nineteenth century. Britain was gathering a rich harvest of wealth through the application of capital to industry, and few doubted but that capital investment in the colonies would produce the same pleasing result, both for Britain and for the colonies. To some extent this belief was justified. Foreign capital greatly increased the total of wealth produced in tropical Africa, and it provided a network of roads and railways of permanent value for both local and overseas trade. It is true also that Africans shared in the increased wealth which their labour, assisted by foreign capital, was able to produce.

People, however, became more and more doubtful about the advantages of uncontrolled capital investment. Were Africans getting their fair share of the wealth produced? Was it being bought too dearly at the expense of healthy social relationships in the family and tribe? Was it really providing the people with a rising standard of nutrition, health, and

[1] *Economic History of Tropical Africa*, p. 3.

education? Was it providing the people with good opportunities for learning new and more profitable skills? The answers to these questions show that the advantages of foreign capital, though real, had very definite limitations, and many steps have now been taken to put things right.

The criticism that foreign capital, while doing some good, has also done much harm in tropical Africa is mainly directed against capital privately-owned and applied for the sake of profit. Complaints group themselves under three main heads: (i) that it has taken for itself too large a share of the wealth produced, thus leaving too small a share for African labour; (ii) that it has strictly limited itself to particular areas, especially to mines and European settlements, or to places where there are good trading possibilities, while neglecting completely the interests of large but poor areas, desperately in need of capital, but of little profit-earning value; and (iii) that it has created social evils which outweigh its economic benefits. The second criticism may also be true of governments which applied the principle first laid down by Earl Grey at the end of the nineteenth century that 'the surest test for the soundness of measures for the improvement of an uncivilized people is that they should be self-sufficing'. The principle was, in fact, never strictly followed, for grants-in-aid were sometimes made when colonies were in serious financial difficulties, but it did work generally to limit government borrowing according to capacity to pay interest out of revenue.

Most foreign capital went into mining, and what happened in Northern Rhodesia in the 1930s supports the criticism that too much of the wealth produced was lost to African development. Mines, unlike properly used land, are what is called a wasting asset, for when all the minerals have been removed from a particular mine no amount of capital and labour can produce more. It was thus very important that the people of Northern Rhodesia, most of them Africans and very

poor, should have shared adequately in the wealth produced out of their country's resources. On the basis of the 1936 figures this was not the case. Minerals to the value of some £6,000,000 were obtained. Of this sum European mining employees received about £960,000 and Africans £235,000 in wages. Nor did the government benefit much: for income tax, paid out of European salaries and mining company profits in the same year, amounted to only £211,721. In fact, most of the wealth produced left the country, some necessarily for new mining equipment to assist in future production, and the very large remainder to the owners of capital in Europe and America, or as royalties to the British South Africa Company as part of the compensation paid to it for handing over to the government its former rights in the country. Meanwhile the Northern Rhodesian government had a revenue of only £863,000 with which to provide all services for over a million people thinly scattered over a wide tract of country. This situation has since been changed and mining company profits are now more heavily taxed.

But after all this problem is mainly a financial one. It can be solved by taxing company profits, by helping the African wage-earner to strengthen his bargaining power, and by laws fixing minimum wages. The migrant labour problems are much more difficult.

These are due to the fact that most privately-owned foreign capital was applied in large amounts in relatively small areas of mining or settlement, and in the midst of a very scattered population to whom wage-earning had been previously unknown. Such large-scale undertakings employed skilled foreign labour because it was not available locally, but they wanted many unskilled African labourers. Often they had difficulty in getting them, and there were many direct or indirect attempts to compel Africans to work for a money wage. Chiefs were given presents to bring pressure on their people; traders, who were also recruiting agents for the companies,

allowed people to contract debts which they could only repay by accepting work, and governments were sometimes urged to increase the poll taxes for the same reason. These abuses are now almost entirely things of the past, and are often forbidden by law, but in any case they are no longer necessary in normal times for very many Africans are now glad to work for wages, not only to obtain money to pay their tax, but also to purchase the imported goods, such as cloth and hardware, to which they have become accustomed.

Africans who wish to work for wages may sometimes have to travel long distances and remain absent from their villages for periods varying from months to years. Very many find work in territories other than their own. It is not, however, a permanent migration, for wives and children are usually left at home and the labourers return to them only when they have earned enough money to satisfy their needs. Most African wage-labour is still of this temporary, migrant type.

This migrant labour system has caused some difficult social problems in the areas chiefly affected by it. Its effect is least serious in West Africa, where there is no European settlement and where little migrant labour is employed on mines. It is felt more keenly in Kenya, Uganda, and Tanganyika where migrant labour is employed on European, Asian, and African farms[1] and on the Lupa goldfields; but a large amount of the labour required, especially in Kenya, is obtained from reserves near by, so that many labourers remain within easy reach of their homes. The effect is most serious in south-eastern Africa where mines as well as plantations employ many thousands of men. There men travel vast distances, from as far north as southern Tanganyika and northern Nyasaland,

[1] Large numbers of migrant labourers entering Uganda from Ruanda-Urundi in the Belgian Congo are employed by African landowners for cotton cultivation. The safeguarding of their welfare is one of the most difficult labour problems facing the Uganda administration.

southwards to the Copper Belt, the gold mines of southern Rhodesia, and, in some cases, even into the Union of South Africa. From some areas the exodus is very great, and individual labourers may stay away from home for long periods. Thus it has been estimated that of the 420,000 able-bodied tax-paying males in Northern Rhodesia in 1950, only 128,000 were self-employed or in subsistence agriculture. In the same year there were 143,000 Nyasaland Africans working abroad, as well as about 80,000 in wage employment inside Nyasaland.

These and other examples amply prove that wage-earning in most parts of tropical Africa removes from the villages a large proportion of the men, not permanently, but during their most productive and energetic years. To quote a Nyasaland report:

> The effect of migration on the existing scale on the social life and the health, welfare and development of the population can only be described as deplorable and, in the northern part of the territory particularly, many villagers are virtually denuded of able-bodied men.[1]

What effect does this have? We have already noted that the balance of agriculture is upset where sufficient men are no longer available to undertake the heavy work of fencing and of preparing the land for cultivation. And we have noted the bad results.[2]

The effects on family life also tend to be serious. It is believed that migrant labour reduces the birth-rate, and there are many witnesses to the bad effect of the long absences of husbands on sexual behaviour, both of men and of women, and to the spread in rural areas of venereal disease brought back from their place of work by some of the returning men. It has also been stated that the absence of the men has a bad effect on the upbringing of children.

[1] *Annual Report of the Labour Department, Nyasaland*, 1950.
[2] See pp. 33–4.

The welfare of the tribe, as well as that of the family, tends to be affected.

As regards the effect of emigration on tribal authority [writes Dr Read], it was a matter of surprise to me how the official policy could go on supporting and encouraging the old chiefs while at the same time allowing and encouraging recruitment for the Rand mines and for other enterprises. One result was that unless the chiefs 'modernized' their outlook and their methods very rapidly they could not hope to hold the allegiance and active support of the younger men. Another obvious result was that the lure of wages and a higher standard of living was enticing away the most ambitious and energetic of the younger men, and leaving village affairs to the dullards and the lazy ones, and village welfare could not be expected to prosper under such conditions.[1]

These are some of the main criticisms of the effect of migrant labour on the social life of the 'exporting' areas. They are summed up in their most extreme form in the report of a committee of officials, settlers, and missionaries appointed in 1935 to find out the effect of migrant labour on Nyasaland. It forecast:

Home life will cease to exist: all belief in the sanctity of marriage will disappear. In consequence, venereal disease will affect 100 per cent. of the population. The birth-rate will fall. . . .

. . . And, resident chiefly in other lands, the Nyasaland-born natives will have acquired a mistrust in and loathing for administration by the white people which has made a wilderness and called it peace.[2]

This is a gloomy prophecy, and even in Nyasaland conditions are not yet quite as black as this pictures them, but it does indicate what can happen if economic development is controlled only in the interest of profit-making, to the neglect of the wider considerations of social welfare.

Migrant labour entails other disadvantages, for the journey to the place of work may be the cause of much suffering. One

[1] *Colonial Review*, December 1942, p. 260.

[2] Cmd. 5949, para. 95, quoted by Hancock, pp. 114–15.

notable example is provided by Uganda, where tens of thousands of immigrants come in yearly from the Belgian mandated territory of Ruanda-Urundi to work for European, Asian, and African employers. Many of these men used to arrive in a half-starved condition, fit only for admission to hospital, and there were even cases of men dying from hunger on the journey. Nor, indeed, did the labourers' troubles end with their journey, for many might fail to get work and find themselves, hundreds of miles from home, without food or shelter. Sometimes labourers were robbed of their savings on the way home.

The existence of these conditions led the Uganda Labour Advisory Committee to state in 1942 that it 'considered the most urgent call for action lay in the direction of protecting these immigrant labourers from the evils to which they are exposed both on their journeys to and from their distant homes and on their arrival in the Protectorate when, as was the case this year, the supply exceeds the demand'.[1] It is for this reason that rest camps are now provided on the main routes the migrant labourers use.

Even at the place of work, assuming that work has been obtained, migrant labourers tend to be worse off than wage-earners under more stable conditions. They are only temporarily employed, and most of them have little chance of attaining skills in the more highly-paid types of specialized labour. Moreover, unlike the people of normal villages and towns, they form no permanent community, but are men of different tribes held together temporarily in one place solely by their common need of money. This makes it very difficult for them to join together effectively in trade unions capable of bargaining on anything like equal terms with their employers. Thus migrancy helps to keep wages low by limiting both bargaining power and skills.

[1] *Annual Report of the Inspectorate of Labour, Uganda Protectorate*, 1942.

The social life of migrants in wage employment also often leaves much to be desired. Some wives accompany their husbands, but they are often left behind in the villages, with the result that there are many temporary marriages and a good deal of immorality at the place of work. Children living at the labour camps grow up under very unsatisfactory conditions, and in many large centres of employment this by itself constitutes a sufficiently grave problem. Yet another evil is that a considerable proportion of the wages earned is sometimes wastefully spent at the place of work, to the great economic loss of the villages from which the labourers come.

These problems have probably been tackled as successfully and energetically on the mines of the Northern Rhodesian Copper Belt as anywhere in British tropical Africa, for the industry has the advantage both of recent growth and of great prosperity. As early as 1939 a government commission reported that:

> The food is good and varied, the medical arrangements are excellent, football grounds are provided, a band is organized and there is some little provision for other social amenities, particularly at Luanshya. Most important of all the Compound Managers are deeply interested in the welfare of their labourers and their families . . . but in general the small provision for families is a weak point in the organization, although from the first the mining companies have encouraged the men to bring their wives to the mines.[1]

The number of labourers on the mines who are accompanied by their wives has steadily risen and such men tend to stay longer at work before returning home, though it must be remembered that they are still only temporary settlers in the mining area. Welfare work is now undertaken among the women, the cost being shared between the mines, the government, and the profits of the beer-halls. The compulsory education of children has been introduced.

[1] Report of the Commission appointed to Inquire into the Financial and Economic Position of Northern Rhodesia. Colonial No. 145, p. 41.

Conditions elsewhere, both in Northern Rhodesia and in other colonies, are often much below this level, and one of the most important functions of the Labour Departments established since the war is to encourage employers to maintain a satisfactory standard of treatment of their labour, and, if necessary, to enforce it by legal process.

Governments are now active in protecting the interests of wage-earners. They have appointed officers to inspect conditions at the place of work and to settle disputes between employers and employed on a friendly basis. They have made laws about trade unions, workmen's compensation, the fencing of machinery, and the fixing of minimum wages. They have set up labour exchanges. They have also tried to reduce the hardships labourers suffer on the way to work by providing rest camps and feeding arrangements *en route* and, in some cases, transport. The proper regulation of migrant labour is, however, very difficult, and ideally it should include both medical examination and the guarantee of definite employment before the labourer leaves home. This is not usually possible. Medical staffs in the rural areas from which the migrants come are usually much too small to undertake additional work, while the men naturally wish to have a free choice of employer.

Steps to protect labour are both necessary and desirable, and undoubtedly they greatly assist in improving the conditions under which all types of labour, settled and migrant, work. But they do not remedy the social and economic conditions in villages suffering from the absence of the best of their men during the most productive of their working years. There is a danger that such villages may become mainly homes for the lazy, the unfit, and the old.

It may be argued that this is the price which must be paid for economic development, and that the evil is more than offset by the wages which the labourers earn. This, indeed, would appear to be the view of the hundreds of thousands of

Africans who go in search of work. But if this is all that can be said, and if temporary migrants must continue to supply a large part of Africa's wage-earning force, then the future outlook for the villages is likely to become more and more gloomy as labour needs continue to increase.

The bad social effects of the migrant labour system are generally admitted, but can it nevertheless be justified on the grounds of its economic value and its suitability to African conditions? People claim that in spite of its failings it has one great advantage which the stabilized labour system lacks. Men who are wholly dependent on wage labour may lose their work during periods of bad trade, and have no other means of subsistence. Both Britain and the United States have discovered that vast social problems can be caused by mass unemployment of this sort. In Africa, on the other hand, the migrant labour system at least safeguards the labourer from the worst effects of periods of bad trade. If he loses his job the migrant labourer is not likely to starve. He can usually return to farm his land.

The migrant labour system has also, especially in the past, found favour with many employers because migrant labour is cheap, and there is little doubt that this discouraged the introduction of labour-saving machinery, especially by employers who had little capital available for development. Thus fifty low-paid unskilled men might be employed in preference to, say, half a dozen skilled workers and an expensive machine; and, indeed, the employer would often have no choice, because there were no skilled labourers to employ.

Yet is migrant unskilled labour really satisfactory as a substitute for more modern methods? Wages are very low, but many men have to be employed instead of few, and one of Africa's most pressing problems is shortage of labour—in agriculture even more than in industry. Production per labourer under the migrant system is very small, and although it may suit individual employers, its general effect is to keep

African production low and Africans poor. And even the employers who use it are full of complaints of labour shortage, of absenteeism, and of inefficient work. In the case of one sugar company in Uganda 'the general rule is for 3,000 to 5,000 to absent themselves daily from the 11,000 on the rolls'.[1] In Northern Rhodesia 'complaints are frequently received, especially from farmers and contractors, that the quality of Native labour is declining. There is some substance in these complaints. . . . Better paid work is now available for the better labourer. That is why those who feed, house, and pay their labourers less well find the quality of their labour deteriorating.' [2]

The migrant labour system is a bad one. It is inefficient as well as socially harmful. Fortunately, however, several factors are now tending to weaken it. Since the war, a great deal has been done to increase peasant prosperity and improve village conditions. Wherever this policy has succeeded, fewer men are likely to leave their homes to work under bad conditions for low pay. At the same time the development of new industries is increasing the demand for wage labourers. To attract labour, therefore, more and more employers are having to raise wages and improve conditions of work. The increased cost of labour then forces them to pay more attention to the training of a smaller number of better-paid and more efficient workmen, and to introduce more labour-saving machinery. Having trained their men they want to keep them, for it is wasteful to spend money on training migrant labourers. Thus in areas where industry has been longest established, there is growing an urbanized population which is losing all contact with village life and becoming wholly dependent on wage-earning. This development is the logical outcome of the trend away from migrancy.

Another question of importance is whether African work-

[1] *Report of the Labour Department, Uganda*, 1943, p. 4.
[2] *Report of the Labour Department, Northern Rhodesia*, 1942.

men will develop a greater sense of responsibility in their dealings with their employers. At present many Africans will break labour contracts merely because it happens to be convenient to do so, and they will make little effort to increase their efficiency or to do a fair day's work. These failings are mainly a result of the migrant labour system, but they must be overcome if African industries are to succeed in competition with efficient producers in other parts of the world. Trade unions are now being developed, and much will depend on whether their members honour the contracts their representatives make on their behalf.

Another uncertain factor in the labour situation is the final outcome of the rural development policy already referred to, for failure there would force many people into temporary wage-earning. Some rural development problems were examined earlier in this book. Others, equally important to rural prosperity, will be discussed in the next three chapters.

Note on Chapter XV

Some readers may regret the omission from this chapter of all reference to the 'colour-bar' in industry. My reasons are that Northern Rhodesia is the only territory among those with which I am primarily concerned in which it is an important problem; and that the topic is so controversial that I find it impossible to deal fairly with it in a few brief paragraphs. There is a penetrating and critical analysis of the working of the colour-bar policy in Hancock, Book II, Part 2, pp. 46–68. See also Macmillan, *African Emergent*, for the colour-bar in the Rhodesias, Nyasaland, and Kenya.

It seems unlikely that the industrial colour-bar, where it exists, can be indefinitely maintained against the economic and social forces which are at work to undermine it.

Chapter XVI

THE CASE FOR PLANTATIONS

THE labour problems discussed in the previous chapter have been caused by the introduction of wage-earning and the migrant labour system. It is claimed that their economic benefit is greater than any social ills they may produce, and that migrancy, in spite of its defects, has the advantage of avoiding the difficult problem of dealing with unemployment under stabilized labour conditions. But even if these claims are granted in full, and not everyone is prepared to grant them, it is still worth asking whether peasant production may not sometimes produce results as good, or even better. Wage-earning of some sort, either by migrants or by stabilized labourers, is obviously necessary where large-scale industrial development has taken place: but a very great deal of migrant labour is also employed in plantation agriculture, and the question arises whether this labour would not be better used in peasant production in a stable rural society. If peasant farming can be made equally efficient the answer is clear, for in that case equal economic benefit can be obtained without the evils which attend migrant labour. The case for plantations, however, is a strong one and merits careful consideration.

Plantations in British tropical Africa are mainly in the highland areas of eastern and southern Africa and in the Cameroons. There are also sisal plantations in the eastern coastal region. Their labour is usually drawn from reserves near by and some of the evils of migrancy are thereby avoided,[1]

[1] This is not always the case. See the footnote on p. 93 about men from Ruanda-Urundi who migrate for plantation work into Uganda.

but they are everywhere subject to the criticism that they cause large numbers of men to leave their homes, and their villages to suffer from an unbalanced social and economic life. The plantation policy is supported by those who believe that without it East Africa could not have reached its present stage of economic development. It is resented by many Africans, especially where there is serious overcrowding in the reserves, because plantations occupy land which Africans claim should rightly be theirs. The settlers, on the other hand, can reasonably claim that they were encouraged to come by the British Government, that they have brought much needed capital into the country, and that they have made the land they occupy more productive than ever before. If we now decide that plantations are undesirable at least we should not blame the settlers. The supporters of the plantation policy can quote the opinion of a long line of missionaries and humanitarians, including Livingstone, who were convinced that East Africa could be quickly lifted from the condition in which they found it only by European settlement, which they considered the most effective means of stamping out the slave-trade and introducing the benefits of peaceful civilization. In fact, the present importance of the plantation question lies not in arguing about what has been done in the past, but in framing future policy. If the system is a bad one under the changed conditions of today, and likely in future to bring more ill effects than good, then presumably further settlement should be avoided. If, on the other hand, plantations have real advantages, it may be worth while putting up with their lesser evils for the sake of a greater good.

There are several arguments in favour of the latter view. The distribution of minerals in tropical Africa makes it unlikely that there can be any widespread development of large-scale heavy industry, and agriculture will probably remain the main African source of wealth. If this is so, Africa's chief exports will be agricultural products which she

will exchange for those manufactured goods which cannot be produced locally. As the standard of living rises, the demand for these will increase, and it can only be satisfied by increasing the value of the goods exported. If by skilful agriculture she can obtain heavier crops from the land, local consumption can be increased and, at the same time, *more* can be exported. Wealth may also be added to by improving *quality* which is rewarded by a higher price. Also if people can grow the more valuable kinds of produce which usually require greater care and skill in cultivation, they will get higher prices than those paid for the ordinary, easily-grown peasant crops.

It is claimed that the plantation system is more efficient than existing African peasant production on all these points. Buyers in the world's markets want the best products, and if they cannot get them from one country they will buy them from another. They will not pay a good price for a poor product, and if they find even a small quantity of diseased cocoa beans or palm kernels, discoloured cotton, or badly dried skins and hides mixed in with the rest, they will pay less in future years, if they buy at all, in order to safeguard themselves against loss. On plantations it is easy to arrange that all produce is carefully examined before sale, but it is much more difficult to educate thousands of small farmers to look carefully to the quality of their product.

Plantations also make possible great economies in production. By having large areas of land under one crop they can make use of labour-saving machinery for work which the peasant has to do by hand. Also their harvest of any particular crop is large enough to make it worth their while to buy expensive machinery for improving or processing the crop before it is sold, and this is of great advantage in the case of such products as sisal, rubber, tea, palm oil, palm kernels, sugar, and tobacco.

It may be argued that although it is desirable to produce

goods of high quality in the most economical way—as plantations do—yet it may be in the interests of Africans to make some sacrifice of these in order to keep production in their own hands and to avoid non-African settlement. It must, however, be remembered that Africans want manufactured imports, and that to get them they must export produce of an equal value. Other tropical countries do use the plantation system, and do export into the world's markets ever larger quantities of high quality produce, cheaply grown by efficient plantation methods. In pre-war days these foreign plantations threatened the African export trade at several points, and may yet do so again.

The production of rubber in Africa by non-plantation methods has already been brought to an end by competition from the plantations of the East Indies, and between the two World Wars the same trend could be noticed in the case of palm oil, the crop on which the Eastern Region of Nigeria chiefly depends.[1] The Nigerian export of palm kernels may have to face a similar threat.

Whether peasant production can compete successfully against plantations depends in practice on several factors. Plantations have a great advantage where crops need skill and care in cultivation or processing before they are exported. Thus tea, rubber, sisal, palm oil, palm kernels, and flue-cured tobacco are all crops which at present can be grown on

[1] WORLD EXPORTS OF PALM OIL

Non-plantation countries	*Exports in 1923 (thousand tons)*	*Exports in 1937 (thousand tons)*
Nigeria	128	146
Others	40	45
Non-plantation countries Total	168	191
Plantation countries	23	305

These figures are given in Hancock, p. 197.

plantations more successfully than by peasant farmers. Maize, groundnuts, cotton, fire-cured tobacco, and coffee, for which skilled and careful processing are less important, have been grown by peasants in successful competition with plantations. Several of these, such as coffee and fire-cured tobacco, started in East Africa as plantation crops and were later adopted by peasants as they learnt the necessary skill in cultivation and processing. This trend is likely to continue, and may be applied to other crops as time goes on and peasant skills increase, and it shows one of the benefits which peasant agriculture has obtained from the plantation system—the introduction of new crops later successfully adopted by peasants.

It has also had a useful educational influence in another way, for a certain number of plantation labourers learn skilled work as sheep-shearers, pruners, nurserymen, and dam-builders. These skills may be put to good use in peasant agriculture when the labourers return to their villages.

The arguments in favour of plantations, such as those which have just been stated, cannot honestly be ignored even by their strongest opponents. It is, indeed, a fact that unless the highland areas had been settled East Africa would have lacked much valuable income from plantation exports, many of which even now peasants cannot grow, and it is doubtful whether coffee, fire-cured tobacco, wattle, potatoes, and other products would have become established peasant crops. It is probable, too, that peasants may benefit in yet other ways from experiments carried out at private expense by the more skilled and intelligent plantation owners with new crops, new methods of stock breeding, and new implements and methods of cultivation. Where such experiments are successful, and can be applied to peasant farming, the people will also benefit in the long run. Nor is there any doubt that under their present circumstances Africans value the opportunity that plantations give for wage-earning. This is shown by the discontent that occurred among Africans when the trade slump in the early

1930s lessened the demand for plantation labour. But it is still necessary to persist with our original question and to ask whether plantations are the best and only means of achieving the maximum economic development with the minimum ill effect on rural social life, and whether, if this was true of the past, it is still true today?

Any honest attempt to assess fairly all aspects of the present situation must indeed take note of several factors which may make the plantation policy unsatisfactory to Africans. Most East African plantations are owned and managed by Europeans who have been accustomed in their own countries to a far higher standard of living, and to much more expensive social services, than can properly be afforded by the present level of production in Africa. They bring with them claims to the political rights and influence to which they have been accustomed in European countries, but which have not yet anywhere been attained by Africans in East Africa. Such rights have not yet, indeed, been fully granted to Europeans, although in the Central African Federation they have already gained a great deal, but it is still true that they can bring to bear on the territorial governments a weight of influence out of all proportion to their numbers, and that they sometimes use this influence to advance their own interests at the expense of African interests. Thus Africans can point, not without justification, to the difference in the cost per head to governments of the education of European, Asian, and African children; to the much greater amounts spent in the past on agricultural services for plantation owners than on the development of peasant agriculture in the reserves; and to the expenditure of vast sums to provide plantation areas with good rail, road, and postal communications of a quality denied to areas inhabited solely by peasant producers. It is easy to overstate this aspect, and it may well be that expenditure on plantation areas at a higher rate was necessary in order to produce wealth which could not have been produced by the spending of equal sums

on peasant production: but certainly in so far as plantations do have the effect of absorbing larger sums of government money than are available for development elsewhere, they can justify themselves only by great efficiency in production, and by contributing wealth to raise the general standard of living among Africans. This involves not merely the payment of wage-labour, but paying adequate taxes to the central government. It would be impossible to justify a plantation system which, while claiming to contribute to African economic advancement, was assisted at the expense of backward areas. It can be justified only on the basis that it can maintain itself in free and open competition with a developing peasant production by means of its greater efficiency in production and marketing, while contributing fully in taxes to the cost of the government services it requires.[1] If plantations do this, their benefits still have to be weighed against the ill effects of temporarily removing male labour from the villages.

Some people may doubt whether plantations could be successful in tropical Africa if they had to withstand free competition from peasant farmers while contributing their full share of taxation to the central government. Such a view, if it is correct, would mean that plantation policies are hindering African rural development. But are such doubts justified? Certainly plantations should abandon any crop that peasant farmers can produce more economically, but there are still crops like sisal, tea, and the better qualities of coffee and tobacco, which plantations can grow better than peasants. Moreover, as peasant farmers become skilled, and peasant competition with plantations more keen, may not

[1] This is not always all that is claimed in practice. In Southern Rhodesia and elsewhere plantation owners have claimed, and in some cases have been given, special privileges denied to peasant producers in marketing and growing of crops. See Hancock, pp. 109–12 on this point.

foreign capital and management find that their best interests, equally with those of Africans, lie in dealing with the vastly increased volume of marketing and trade that may be expected to follow an effective policy of rural development?

Chapter XVII

PEASANT FARMERS AND THE EXPORT TRADE

THE case for plantations was argued in the last chapter and it appeared strong enough to merit consideration under existing East African conditions. Plantations appear to have been beneficial in the past and, under certain safeguards, they may usefully assist economic development in the future. The difficulty in coming to any final judgement lies in the lack of exact information about their social effect, and in assessing what weight should be given to it. However, East African governments have felt that the system is worth its price.

West African governments have taken the opposite view. This does not necessarily mean that Britain has followed opposite and conflicting policies in east and west, for allowance must be made for different conditions. In West Africa the people have been longer in contact with Europeans, and even before that contact they were more highly organized. In many places agricultural production was ahead of anything that could be found in East Africa. Crafts, such as spinning and weaving, iron- and leather-work and dyeing had reached a high standard, large towns had grown up, and trading caravans exchanged products between distant places. Thus Africans in the West could more easily adapt themselves to seize the larger opportunities offered by world trade. To them it meant increased opportunities of a kind with which they were already familiar, and the stimulus to economic development supplied in East Africa by plantations was less necessary. It is true that nowhere in the west were there extensive highland areas suitable for white settlement, but this was not the deciding factor. The East Indies, for example, are unsuitable

for white settlement, but they contain nevertheless the most important tropical plantation areas in the world.

British policy in West Africa, in fact, set itself steadily against the plantation system. Instead, it favoured the development of peasant production, and the reasons for this policy have never been more clearly stated than by Sir Hugh Clifford, a former Governor of Nigeria. He condemned plantations under Nigerian conditions on both social and economic grounds. He granted that the plantation system was often more efficient than peasant production, but pointed out that white management and labour supervision in the tropics are exceedingly costly, and in times of bad trade less suited than peasant farming to withstand the effect of low prices. The African producer, on the other hand,

> . . . would remain on his land, feeding himself and his family, selling what he could for money, when broken planters were fleeing to their homes in Europe, and leaving their plantations derelict.[1]

Sir Hugh also condemned the plantation system on social grounds, for the most suitable areas in Nigeria were in the south-east, which was already densely populated and where little land was lying idle. Thus the proposal to establish palm oil plantations there would have involved dispossessing some of the people of their land; and, in fact, for the plantations to obtain the necessary labour it would have been necessary by some means to have created a landless, labour-seeking class, dependent on the prosperity of the plantations for its own livelihood—or, of course, to import labour under the migrant system. Instead, West African governments have placed their trust in the possibility of increasing the efficiency of peasant farmers, and the problems of migrant labour, although they occur in connection with certain industries and government undertakings, do not loom as large as they do in the east.

It is most desirable that agricultural production throughout

[1] Quoted from Hancock, p. 193.

tropical Africa should increase. The present standard of nutrition is frequently far below what is necessary for the proper maintenance of health and energy. Food sometimes falls short in quantity, and nearly always in quality and variety, and the higher standard desired can be permanently achieved only if the farmer can produce the necessary foodstuffs. At the same time the African territories cannot afford to neglect the export market, for it is mainly by exporting produce that they can buy the goods they cannot manufacture locally. Even the encouragement of industrial production makes demands on the farmer. Men employed in industry produce little food themselves, but they have to be fed. Industrial development, while reducing the amount of labour available for food production, certainly tends to increase rather than to lessen the demand for food.

All this means that farmers now need to grow crops, not only for themselves and for the export market, but also to feed an ever larger number of people engaged in industry, and to meet the needs of a rising standard of nutrition. Such changes make more efficient farming most necessary. The aim must be to produce more crops per acre for less labour. Can it be done? And can it be done by peasant farmers? Experience so far gained shows that it can be attempted with a good chance of success.

There are various sides to the problem. The first is to increase the quantity and variety of agricultural products so that the greater demands can be met. This depends on the maintenance of soil fertility and the efficiency of the farmer's methods of cultivation—subjects which have been discussed in the earlier chapters on agriculture, animal husbandry, and soil erosion. Another is to get for the farmer the best possible price for his products, whether they are sold for internal consumption or for export. Price, however, is determined by several factors: by quality, by the balance between supply and demand, and, in the case of the African

peasant, very often by the marketing facilities available and by his bargaining power. These problems will be considered first in connection with the export market.

African peasants usually do not know how world trade in their products is carried on. They do not understand why the price paid for a certain export should vary from year to year irrespective of whether their local harvest is good or bad. They cannot understand why local scarcity, which in a purely local market would lead to high prices, does not have the same effect on export prices.

That this does not happen is, of course, because exports are sold at a *world* price fixed according to *world* supply and demand. And most African exports form such a small percentage of the total world trade in any commodity that *local* scarcity or plenty, or a rise or fall in *local* consumption, is unlikely to affect the export price at all. In Uganda, for instance, cotton is by far the most important export and a failure of the cotton crop would be extremely serious—for Uganda. Yet Uganda contributes so small a share to the total world production that a good or bad harvest there would normally have no effect whatever on the world price. Africa's share in the world production of all raw materials amounts to only a very small percentage of the whole. Even where a territory produces a high proportion of the world supply of a particular commodity, the price may still be greatly affected by a rise or fall in world demand, or by a carry-over of unused stocks from a previous year's buying.

It is most improbable that anything that Africans can do could alter world prices which have been fixed according to world supply and demand, but it is very necessary to consider whether they do in fact normally receive such prices, less only a fair deduction for the services rendered by the exporters and shipping companies. Are exporters in fact able to increase their profits unfairly at the expense of the peasant? And does the peasant always get the price they offer?

The peasant has no knowledge of world markets by which to judge the reasonableness of the prices offered, and his first thought when he is offered less than he hoped for is to suspect exporters of profiting at his expense. He knows that they, like himself, are seekers after profit, and he judges them accordingly. He is right, too, in believing that companies had sometimes agreed on the prices they would pay for peasant produce in order to avoid competition. Yet if he looks further he will find that in no case had such an agreement been permanently successful. Even if all the firms which normally bought a particular product combined to fix prices, just in so far as they were successful, and thus increased their profits, so would the export trade in that product become more tempting to other traders. They would then compete and prices would tend to return to the economic level. Nor must it be forgotten that exporters take much greater risks than the producer. The peasant's interest in his crop ceases when he receives his price, but the exporter's trouble may then begin, if, as often happens, the world price falls after the crop has been bought from the producer and before it has been sold to a manufacturer abroad. In evidence before the Nowell Commission in West Africa which investigated the cocoa hold-up of 1937 the United Africa Company claimed to have lost £1,338,000 in the cocoa business between 1930 and 1937, and to have overpaid West African sellers by as much as £350,000.[1]

The two problems I have mentioned above—of fluctuating prices and of combines which give traders an unfair advantage over peasant producers—have been largely solved by the setting up of government-controlled produce Marketing Boards which use their trading profits to help stabilize the prices paid to producers from year to year. There is, however, another danger which threatens the producers' prosperity to a much greater extent, and that is the middleman system.

[1] See Hancock, pp. 201–36 on this and other related points.

This arises because the African peasant does not usually sell direct to the exporting firm or to the marketing board, but to a middleman, and his produce may be bought and sold several times before it is finally exported overseas. Thus in the Nigerian cocoa trade he sells to men or women who travel round the villages buying small quantities of cocoa by measure, not by weight. These in turn sell larger quantities by weight to 'scalemen' at the markets, and these to other African buyers in a larger way of business. Only at that stage is the cocoa sold to the exporter. Each of these middlemen takes his profit, sometimes a large profit, out of the export price, and the money actually received by the peasant is thus often very much less than the price paid by the exporting firm. The criticism here is, not that the middleman takes a profit, for he performs a useful service in bringing peasant produce to the buying stations, but that there are too many middlemen and that they tend to take too large a share of the price.

One of the chief evils of the system is the bad use of credit. The middlemen are lent money by the exporters, and from this money they often give advance payments to peasants before the crop is harvested, on condition that the crop is sold to them. When the peasant is thus in debt to a particular middleman he can no longer sell freely to the buyer offering the highest price, and may have to sell cheaply to his middleman creditor. Thus the middleman may profit more than he should and the peasant fail to receive the full value of his crop.

The price obtained by the African farmer may also be affected by quality, and especially by lack of careful preparation of the product before sale. Thus for many years Nigerian cocoa fetched a very low price in the world market owing to bad harvesting and fermenting; hides and skins were often so badly flayed and dried that they rotted or cracked after they had been exported; much of the potential value of Nigerian palm oil production is lost because the fruit is

collected from wild palm trees. These take longer to come into bearing, and because they are scattered in the bush the fruit is hard to collect. Also their fruit produces less oil than the fruit of carefully selected trees grown on plantations, and peasant methods extract only about half the oil present in the seeds. This compares with 60 per cent. obtained when hand presses are used and with 90 per cent. extracted by plantation machinery. The oil extracted by peasant methods is also frequently of poor quality, thus fetching the lower prices offered for the worst grades.

To these examples from Nigeria could be added many others from nearly all areas where peasants engage in production for export. They result in the peasant losing vast sums which could have been obtained by more efficient production and processing. Little can be done to remedy matters without his co-operation, but on some points governments have been able to help, in spite of the conservatism and suspicion of both peasants and traders. Thus a government may control the conditions under which any particular crop is sold. Such controls generally have two aims: of assisting the good producer to get higher prices by inspection and grading, so that good quality produce is not mixed with bad, thus lowering the price of the whole to that of the worst grade; and, secondly, of preventing the abuses of the middleman system which have already been described. Thus, again to quote Nigerian examples, the sale of some kinds of produce such as ginger and cotton is forbidden except to licensed buyers at a public market. This is usually a plot of land enclosed by a temporary matting fence. At the entrance are clerks of the Agricultural Department who take samples of the produce of each seller and grade it as first, second, or perhaps third quality, and give him a coloured ticket which indicates the grade. Inside the fence stand the buyers for the exporting companies, and by each buyer is clearly marked the price he is able to pay for each grade. Under these con-

ditions the peasant is free to sell to any of the competing buyers under the best conditions to assist him to obtain a fair price. The Agricultural Department assists by making public announcements from time to time throughout the producing area about any price changes that may occur during the buying season.

This solution may be difficult to apply to all territories and to all crops. Local conditions vary, and where producers are very scattered it may be difficult to establish sufficient buying centres for every producer to have one within easy reach of his home. But it does seem to provide a very hopeful line of development and one that has already proved its value. It safeguards the peasant against undue profits by the middleman, while the process of inspection and grading helps to educate producers in the best methods of preparing their goods for sale. Peasants have profited to the extent of many thousands of pounds in this way.

Government action of this kind has provided one possible answer to the price problem. Success in establishing co-operative societies provides another. Co-operation of this kind has already made great headway in India and Ceylon, and, during the war against Japan, in China. It is less well established in Africa, but already enough had been achieved to show that under suitable conditions it can provide satisfactory answers to many of the problems of the rural producer. Co-operation involves the free association of individuals so that by acting together they can obtain advantages that they cannot obtain singly. The usefulness of co-operative *credit* societies in safeguarding the producer against the slavery of indebtedness to money-lenders has already been mentioned.[1] Co-operative *marketing* societies assist the producer by obtaining for him that part of the export price which at present falls into the hands of middlemen, and by increasing his bargaining power with exporters of his produce. Such co-operatives,

[1] p. 28.

when they are firmly established, may even market their produce direct to the world market. Co-operative *shops* can similarly safeguard the people's interests as consumers by purchasing goods in quantity at wholesale prices, and by sharing among their members the profits on their own trade.

All kinds of co-operative societies are valuable for their educational and social, as well as for purely economic benefits, for they train their members to understand the functions and limitations of money and credit, and provide them with new bonds of common interest at a time when modern conditions are weakening the old ties which held society together. But, unfortunately, co-operation in some parts of Africa is no easy matter, especially when it deals with the marketing of produce or retail trading.

Several governments in Africa have long since realized that co-operation might solve some of their most difficult economic and social problems. In Ghana and in Nigeria, for example, co-operative marketing societies have been encouraged to improve the marketing of cocoa. In both countries Co-operative Ordinances give the societies the protection of law, and co-operative officers are appointed to give them help and advice.

Nevertheless, in spite of its obvious advantages, co-operation at first made little progress in any part of British tropical Africa. After over twenty years of whole-hearted effort by the officers of the Agricultural Department, cocoa marketing societies in Ghana marketed less than 30,000 tons (10 per cent. of the crop) in 1951. In Nigeria they marketed 12 per cent. of the crop in 1949, under 10 per cent. in 1950.

The reasons for this small result lie in the great difficulties of co-operative marketing under African conditions. The peasant members are unskilled in handling money and credit and are ignorant of the conditions of world trade. It is easy for the officers of the societies to make mistakes which lose money for their members who, in turn, are often distrustful

of the honesty of their officers. Moreover, a society cannot pay its members the full price for their products until it has sold them; and, in the case of up-country societies selling direct to exporting firms on the coast (in order to minimize the profits of middlemen), there may be some considerable delay between the time the produce is sent off and the receipt of the money. Meanwhile, non-members who have sold to middlemen in the ordinary way are in the favourable position of having received their money while the co-operator is still waiting anxiously to hear what he will get.

To these difficult conditions must be added others. Quite naturally middlemen do not wait idly while their livelihood is being threatened. They may attempt to smash the society from the start by temporarily offering higher cash prices than the co-operative can pay, by sowing mistrust among members about the honesty of their representatives, and by encouraging doubts about the likelihood of members ever getting a good price.

Under these circumstances members need a firm faith and full understanding of the very real advantages of co-operation to stay loyal to their society during the first difficult years. Lack of faith by even a few members may cause it to fail.

It is for these reasons that some governments have been careful not to encourage a sudden increase in the number of co-operative societies. They fear that too quick a growth may make it impossible for their officers to give sufficient help in the early stages when the societies most need it; that this would lead to too many failures through avoidable mistakes; and that the whole co-operative principle might thus become discredited among the people who most need its help. Some governments, however, were over-cautious and did too little to encourage what at the best must be a slow growth. Only since the war have they passed a Co-operative Ordinance and begun to provide the necessary staff to help those who wish to co-operate along the difficult path to success.

Chapter XVIII

PROBLEMS OF INTERNAL TRADE

IN the past both governments and producers gave chief place to the production of export goods, and much less attention to increasing the supply of local products for local consumption. This was natural. Capital for badly needed development had been borrowed from abroad, and the yearly interest payments could only be met if produce was exported. Similarly, the day-to-day needs of governments and peoples for imported goods such as clothing, tools, medicines, household utensils, stationery, and office equipment could only be satisfied if they could be paid for out of the proceeds of the export trade. Thus it was urgently necessary to increase the volume of exports, and the existing great demand for imported goods means that it is still necessary to maintain and even to increase it.

Enough has been said, however, in the last few chapters to explain why it is dangerous to put one's whole faith in exports. Prices are fixed in the world market by factors which no single country can control, and although we may hope that the planning of production and consumption by international agreements will succeed in levelling out some of the worst evils of trade booms and slumps, yet producers will be unwise to expect always to get good prices for their goods. They can rely only on their ability to produce goods as efficiently as people in other countries, including those which have the advantage of modern, well-managed, large-scale plantations. Moreover, even if they can do this they have no guarantee of lasting safety. Scientists are continually seeking new ways of satisfying men's needs, and their discoveries, by changing

demand, may have an important effect on the world price of particular commodities. Thus the successful development of synthetic rubber means that a strong new competitor has entered the market for natural rubber: and it is impossible yet to estimate the effect of the invention of nylon and other synthetic fibres on the future world demand for cotton. Customs change, in food as well as in clothing, and as new inventions make new materials available, some of the old products may lose much of their former importance and value.

This is not a serious threat to countries which rely for their prosperity on the export of many different kinds of goods, for the effect of such changes would be felt only gradually, and a fall in the price of one product might be offset by a rise in the price of another. But in the case of countries which depend mainly on only one kind of export the danger is real. In Uganda, for instance, in 1950 about 60 per cent. of the value of all exports came from cotton; the Eastern Region of Nigeria depends almost entirely on its exports of palm oil; in 1950 cocoa provided nearly 70 per cent. of Ghana's export trade and as much as 98 per cent. of its agricultural exports;[1] while in the Gambia groundnuts provide over 90 per cent. of the value of its exports.

Such undue dependence on the export of one type of produce is clearly undesirable. It becomes exceedingly dangerous when peasants so concentrate on it for cash profit that they neglect to grow enough food to live on if prices fall. One answer may be to increase the variety of produce exported, but another, even more valuable, is to increase local consumption of local produce by developing internal trade. Such development might be brought about either by encouraging local demand for goods hitherto exported, or by assisting

[1] Ghana has also important exports of gold and manganese, but these are managed by European-owned firms. The prosperity of the peasant depends on cocoa.

the production of other things designed to satisfy local needs which were previously satisfied by imports.

There is, indeed, ample scope for such development. Doctors emphasize the need for a better balanced and more varied diet, but the food which can be produced in any one area, though sufficient in quantity, may lack several of the necessary foodstuffs for the full maintenance of health. Meat, milk, and milk products such as butter and cheese, are often almost entirely lacking in tropical forest areas, while inhabitants of savannah regions are usually short of fish and fruit. Conditions of this kind could be remedied by a growth of internal trade to the great benefit of the people of both areas. And the people of the palm oil-producing area of the Eastern Region of Nigeria, for instance, might then well find a valuable Nigerian market for palm oil by exchanging it for the foodstuffs, cotton, and leather goods of other parts of Nigeria. There are also great possibilities in the development of trade of this kind between neighbouring territories. The export of swamp rice from Sierra Leone to the Gambia provides a typical example.

Undue dependence on world trade can also be lessened by establishing local industries which provide an internal demand for the country's raw materials, and which turn them into certain types of goods which would otherwise have to be imported. This can be illustrated by comparing the situation in Uganda with that in Nigeria and Ghana. Uganda has depended very largely on its cotton exports. It grows a large crop, and while it has no local use for it, it must sell the whole crop in the world market however low the price may fall. Very few Uganda people can spin or weave. They wear imported cloth which they pay for with the proceeds of their cotton exports.

In Nigeria and Ghana, on the other hand, spinning and weaving are traditional crafts, and good quality handwoven cloth is still produced in large quantities in competition with

imports from Manchester, India, and Japan. Here a fall in the export price of cotton, though much to be regretted, is by no means as serious as it would be in Uganda. All that happens is that the peasant sells more to the local spinners and exports less, and probably grows less cotton the following year. The price which local spinners are willing to pay not infrequently exceeds the price offered by the exporters. Obviously, where, as in Nigeria and Ghana, there is an alternative market for at least a proportion of exports, a fall in world prices is less severely felt. Factories for making cotton cloth have now been established in Uganda and Nigeria.

Even if export prices do not fall it may still be worth while for a country to substitute local products wherever possible for those previously imported. However great the income from exports the demand for imported goods is always likely to exceed it and a part, therefore, of local demand to remain unsatisfied. Here local production can help. For instance, the successful development of tile-making can save expenditure on imports of corrugated iron, and the establishment of factories for making cloth and other goods can reduce the need for certain kinds of imports. Savings made in this way release more of the income from exports for the purchase of imports which cannot be locally produced, and thus enable the standard of living to go up. Local production plus imports can better satisfy men's needs than imports alone.

Changes of this sort are urgently needed on other grounds. As African agriculture becomes more efficient more crops will be produced with less labour, and a great many of the people who now eke out a scanty living on the land will no longer be required on it. It is claimed, for instance, that the better farming methods introduced by the Agricultural Department in the Northern Region of Nigeria enable a farmer and his family to cultivate up to five times as much ground as before and with a better yield per acre. As these methods

become more generally accepted what is to happen to the people no longer required on the land? It would seem that successful agricultural development by releasing labour from the land creates a need for industrial development to provide opportunities of industrial employment.

Any large expansion of African industry, however, must be controlled if existing labour problems are not to become very much more serious in the future. It would be deplorable if the present economic development were to cause a vast increase in the social problems that the employment of migrant labour has already caused.

If the migrant labour system is not to be greatly extended alternatives must be found. There would appear to be two: a policy which aims at encouraging the growth of a stable, wage-earning population in towns; or a very considerable development of small industries sited in the villages. Either alternative would meet the need provided that it was adopted on a sufficiently large scale, and already some governments have adopted one or other of these policies. Nairobi (Kenya) has an industrial area which employs many Africans, and the Kenya government has built many houses for them. Until recently in Kampala, Uganda, there was practically no housing available for Africans and there were very few industries. Most clerks and other employees came in daily from the surrounding countryside. Now the township is developing light industries and building houses to accommodate African wage-earners.

Some people may be inclined to regret development of this type, especially if later on it attracts many thousands of villagers to the towns. Indeed, it must necessarily create numerous problems of providing housing, social services for health, education, and recreation, help in times of unemployment and old age, and satisfactory forms of municipal self-government. It would also have its effect on the villages, for urban wage-earners would gradually cut themselves away

from any close connection with rural society. Thus for them it would mean in the end a break with old ties and tribal traditions, and a reshaping of African society in the interests of economic production.

It may be thought that this would sacrifice too much that is valuable in the existing society, but do not those who hold this view forget that societies cannot remain static under changed conditions, and yet prosper? Is it not possible that a new urban society will grow up which will contribute something valuable to African social life? After all, British progress in the nineteenth century was founded on just such changes as these, and it was the improvement of agricultural methods in the eighteenth century that alone made possible the beginning of the vast release of labour for industry in towns. A more modern and still more significant example is the building up in Soviet Russia of a great urban industrial population during the past thirty-five years. This again was possible only because labour was released by the introduction of more efficient methods of agriculture.

Yet it may fairly be argued that conditions in Africa are not comparable with those in nineteenth-century Britain or twentieth-century Russia. These countries were able to build up their industries on the foundation of ample mineral wealth which most parts of tropical Africa lack; and they had already at the time of their greatest industrial development the advantage of a population far more skilled in handcrafts than the bulk of Africans are. Also, many people do not think it desirable to encourage the growth of a large body of wage-earners who are economically dependent on the owners of factories. These objections, however, do not apply with such force to the alternative of encouraging small industries sited in the villages.

One of the earliest signs of progress in this direction was the work done by the West African Institute of Arts, Industries, and Social Science at Achimota in Ghana. This Institute set

itself steadily against any attempt to preserve craft industries for sentimental reasons, or for the tourist trade. It aimed, by research and experiment, at assisting Africans to develop industries which were firmly based on local needs and capable of maintaining themselves in reasonable competition with imported goods. It saw an opportunity of using and adapting the craft tradition of potters, weavers, brassworkers and leatherworkers to enable them to flourish under modern conditions.

It was particularly successful in assisting the weaving industry in Togoland. Local carpenters were shown how to make improved looms, and weavers were enabled greatly to increase the quantity and quality of their output. Soon, as in England in the eighteenth century, the handspinners were no longer able to produce sufficient thread to meet a steadily increasing demand, and the Institute undertook the task of improving the efficiency of spinning processes to put matters right.

There have been many other developments of this sort. In Eastern Nigeria, for instance, near Okigwi, there was an interesting experiment in establishing small trade training centres for such village industries as weaving, leather-bag making, pottery, wickerwork, and carpentry. Thus at Uturu the people were encouraged to build a large workshop in which six (unpaid) village craftsmen instruct apprentices in their trades.[1] On the other side of Africa, in Northern Rhodesia, village craftsmen are being trained in Area Development Schools. Such developments fit in well with African traditions and village life, and they avoid the difficulties and dangers of complete social upheaval.

Some village industries cannot be established successfully unless equipment and organization beyond the means of a single craftsman and his family are available. This problem might be solved by the development of village industrial

[1] Chadwick, E. R., 'Community Development in the Eastern Provinces', *Corona*, November 1951.

co-operative societies similar to those which grew up in China during her war with Japan after nearly all the former centres of industry had been occupied by the Japanese. The Chinese found that such co-operative societies could flourish where large-scale production was impossible. By 1943 they were manufacturing five hundred different sorts of articles, many of them in large quantities, and the output of blankets for the Chinese army had reached a total of nearly three millions.

The successful development of village industry partly depends on the skill and adaptability of traditional craftsmen. This advantage is lacking in many parts of East Africa, where local craftsmanship falls below the general level reached in West Africa, and even further below that reached by the Chinese. Yet in the army during the war and on the Copper Belt of Northern Rhodesia many Africans have quickly learned industrial skills. Cannot other East Africans be expected to do the same? There is clearly a need for research to find out how to simplify some modern industrial processes so that they can be used by villagers. Villagers would need training in the simplified processes, advice and help in setting up co-operative organizations, and assistance in obtaining necessary equipment. It would be a long process, but the effort would be worth while if suitable industries were successfully established in the villages. The Government of India has already adopted such a policy for village India.

One further problem needs brief discussion. Africa's early and necessary concentration on the export trade has provided her with a marketing organization and transport facilities to encourage the flow of goods from the interior to the sea. Railways and roads have not been built with a view to making easy the interchange of goods within each territory. Similarly, the trading companies have had their chief, and sometimes their only, interest in exporting and importing goods. Very few Africans have the capital and experience in

business affairs to enable them to organize a growing trade within their own territory. Here again the answer may be to promote co-operative wholesale and retail societies: but to develop successfully they need government encouragement and advice, and some redesigning of internal communications.

Chapter XIX

SOME CONCLUSIONS

ENOUGH has been written even in this brief outline to show the wide scope and seriousness of the many problems which must be solved before the tropical African territories can reach high standards of economic production, and thus provide a sound basis for lasting prosperity. In some ways conditions are now more favourable for their solution than ever before. Present planning is able to profit by past experience and past mistakes. Produce prices are higher than before the war, and capital for economic development is now more freely available. But the main problem is still one of labour: and by 'labour' in this sense is meant not only all peasants and manual workers on plantations and in industry, but also the increasing number of men employed in professional or clerical occupations.

Today, with certain exceptions, much African labour is still inefficient by standards common in more prosperous countries, and the output of wealth per head is thus very small. While this remains true of production, African claims to high standards as consumers must remain unsatisfied. In many places the standard of living of the peasant is deplorably low, but even so he is able to maintain it only by gradually destroying the soil he lives on. This is the more unfortunate since most parts of Africa are quite unfitted for large-scale industrial production, and it seems that agriculture must always be a principal source of wealth. Nor on the whole is wage-earning and salaried labour much more efficient. Men who are really skilled by modern standards are very few in proportion to the unskilled, and their output is generally low. Yet Africans in wage-earning employment, especially those in

professional and clerical occupations, enjoy more public holidays and work shorter hours than is customary in Europe. There is more absenteeism, and more men take more time to complete a specific job than would be tolerated elsewhere. These facts are often glossed over or accepted as inevitable, but it is obviously important that they should be emphasized and widely recognized as causes of poor production, low wages, and poverty.

The basic and immediate need is for efficient farmers, able and willing to adopt new methods to meet a changed situation. The traditional system of shifting cultivation is now often hopelessly overstrained to produce cash crops as well as food. The land is misused and becomes less fertile. Erosion sets in and does lasting damage to the land. To quote Major Orde-Browne:

> Unless the existing burden on the land can be lightened, matters will go from bad to worse, and the standard of living in the home villages will deteriorate even below the existing level. An improved diet is an admitted essential, if the native population are to attain a proper standard of health and energy, but this is unlikely to be realized if more work is required to produce less food each year.[1]

Some possible solutions have been discussed in this book. If they can be applied successfully, the average crop yield per acre should increase, and this would make possible both a higher standard of nutrition and a rise in the production of export crops. It should also be possible, wherever animal or machine power can be used in cultivation, for heavier yields to be obtained with less labour, and in course of time this may be expected to free many hundreds of thousands of men for other useful productive work. Indeed, it is only by fewer men growing more food that any worthwhile advance in African living standards can be achieved.

But what will be the fate of those who would no longer be

[1] *Labour Conditions in East Africa*, Colonial No. 193. 1946.

needed on the land? One answer, as we have seen, may be found in the establishment of suitable small-scale village industries. These have the great advantage of retaining labour in the village and of avoiding the problems associated with wage-earning in towns and other industrial centres. Unfortunately some of the most productive kinds of industry cannot be organized on a village basis. Where large capital, highly specialized labour, power-driven machinery, and the services of an efficient transport system are required, industries must be on a larger scale, and presuppose the growth of a wage-earning class. Where such industry exists today its need for skilled labour is still partly met by the non-native, immigrant populations. Unskilled labour is provided by temporary migrants from the villages. Should this situation be allowed to continue, or should policy aim at encouraging the growth of a stabilized, wage-earning population which would have better opportunity than the migrant of learning specialist skills?

This question is now receiving the urgent attention of the African governments. And while it is desirable to encourage economic development without increasing the acknowledged economic and social evils of the migrant labour system, it must still be recognized that the stabilization of wage-labour produces its own crop of problems. The growth of a wage-earning class, landless, and dependent on the prosperity of industry for its whole livelihood means that government must be prepared to tackle the problem of unemployment, make provision for the worker and his family in sickness and old age, provide for the education of children, and plan the orderly growth of towns, the healthy development of urban local government, and of new forms of law. These problems already exist in some places. They will become more serious with every extension of stabilized wage-earning. Some African wage-labour is already landless, both in the towns and in the country (where it is at the root of the problem of the 'squatter').

This situation can only be remedied if, as Major Orde-Browne suggests:

> . . . a wider share of governmental responsibility, with increased interest in social services and amenities, should replace the former tendency to place all responsibility on the shoulders of the employers.[1]

But all this does after all depend on the basic assumption that African labour is becoming more efficient. It assumes, for instance, that the peasants are both willing and able to adopt improved agricultural methods, with the result that more men than at present would be released for other kinds of productive work. It assumes, in fact, that African labour, which is admittedly inefficient at present,[2] can be greatly improved.

Some of the causes of this inefficiency have already been discussed in connection with the migrant labour system and peasant agriculture. But there are more fundamental causes which have not yet been examined. One is the low average standard of physical health, due partly to poor diet and partly to a high incidence of disease. Another is the ignorance and lack of education of the masses which delay the learning of new skills. These two problems must be attacked before any big increase in labour efficiency can be expected.

There is, however, a third factor which is not less important because it is psychological. For the last half century tropical Africa has been ruled by white men, to whom its modern economic development is also largely due. In the eyes of many Africans this development is foreign in origin and serves mainly to enrich non-Africans. Thus, while not unwilling to share in any benefits that may come to them, they feel little interest in or responsibility for the success of activities which they did not begin and do not direct. From this arises too

[1] *Labour Conditions in East Africa*, Colonial No. 193, p. 23.

[2] 'The dominant problem throughout East Africa is the deplorably low standard of efficiency of the worker; that is to say, the exceptionally small output characteristic of the entire country.' ibid., p. 15.

often the attitude which has been summed up in the phrase: 'Africans do not want to work: they want to be in employment.'

If this analysis of the situation is correct, no complete solution of the problem of African poverty can be found by action, however vigorous, in attacking the specific problems so far discussed. Attempts to improve the level of health and education may be of equal or even greater economic importance, and so also may be a programme of political development fitted to encourage a feeling of direct responsibility for African development among Africans. It is with these topics that the second and final part of this survey is concerned.

SUGGESTIONS FOR FURTHER READING

READERS who want to get more information about any of the topics discussed in this book are recommended in the first place to consult Lord Hailey's *An African Survey* (Oxford University Press) in both the 1938 and 1956 editions, and W. K. Hancock's *Survey of the British Commonwealth Affairs*, Book II, Part 2 (Oxford University Press), which deals entirely with African economic problems. Another good source of information will be found in the back numbers of the *Oversea Quarterly*, formerly *The Colonial Review*, which is published by the Department of Education in Tropical Areas, University of London Institute of Education. This journal is a readers' digest of publications and articles on trends and developments in oversea territories generally. R. J. H. Church's *Modern Colonization* (Hutchinson) and J. S. Furnivall's *Colonial Policy and Practice* (Cambridge University Press) also provide much useful material.

Detailed information about trends and policies in particular territories can best be obtained from the annual reports of the government departments dealing with agriculture, veterinary work, soil conservation, labour, and co-operation.

Land tenure problems are well discussed in C. K. Meek's *Land, Law and Custom in the Colonies* (Oxford University Press), V. Liversage's *Land Tenure in the Colonies* (Cambridge University Press), and in *Land Tenure* (H.M.S.O.), a supplement to the *Journal of African Administration*, 1952.

For the further study of problems of soil use and soil conservation see particularly G. V. Jacks and R. O. Whyte, *The Rape of the Earth* (Faber and Faber), Sir Alan Pim's *Colonial Agricultural Problems* (Oxford University Press), Sir Harold Tempany's *The Practice of Soil Conservation in the British Colonial Empire* (Commonwealth Bureau of Soil

Science), and E. B. Worthington's *Science in Africa* (Oxford University Press).

W. M. Macmillan's *Africa Emergent* (Penguin), Sir Alan Pim's *Economic History of Tropical Africa*, F. W. Meyer's *Britain's Colonies in World Trade*, and H. S. Frankel's *Capital Investment in Africa*, all three published by the Oxford University Press, will be found useful when studying problems of capital and labour. G. B. Stapleton's *The Wealth of Nigeria* (Oxford University Press) analyses the problems of economic development in a Nigeria on the verge of independence.

INDEX

Some other books by T. R. Batten

Africa Past and Present (Fourth edition) 3s

A simply-written history of tropical Africa describing the origins of some of its present-day problems. The fourth edition brings up to date the last chapter 'Africa Today'.

Communities and Their Development 15s net

An introductory study of the whole field of modern community development and extension work in the tropics and in 'under-developed' areas in other parts of the world.

School and Community in the Tropics 12s 6d net

In this book Mr Batten studies the possibilities of enlisting the help of the teachers and the schools in community development.

Prices are the English published prices and are subject to alteration.