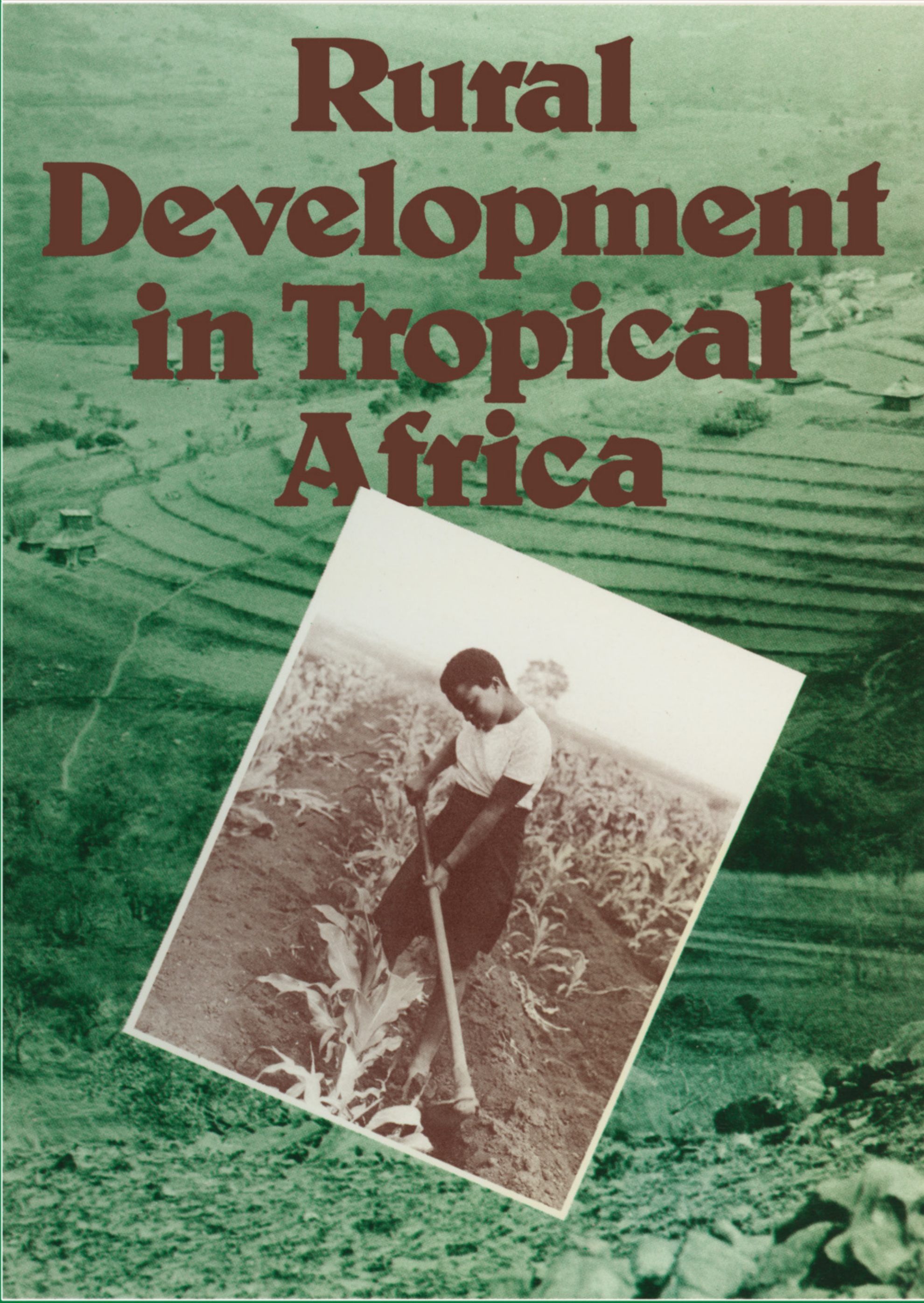
Edited by Judith Heyer, Pepe Roberts and Gavin Williams

Rural Development in Tropical Africa



RURAL DEVELOPMENT IN TROPICAL AFRICA

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Edited by
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Preface by
Keith Griffin

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Preface

Research on problems of rural development in Africa and Asia has been a high priority at Queen Elizabeth House, Oxford, for some After years of neglect by governments and aid agencies alike, rural development emerged as the major policy approach of international agencies involved in the third world in the 1960s. Many large, government-organised, often foreign-financed projects were initiated. It soon became apparent, however, that these rural development projects were rarely successful and it was natural to ask why. This simple and obvious question led to the series of discussions and exchanges which culminated in this book.

It was decided to focus on Africa and to bring together researchers involved in a series of studies that hopefully would help us to understand why failure was so common and success so rare in rural development. Our initial proposal was for a series on 'African rural development projects observed'. An informal seminar was held at Queen Elizabeth House in July 1977 which was attended by people who had studied, and in many cases been engaged in, implementing rural development policies and projects. At the seminar it was agreed to put together a collaborative, multi-disciplinary study of African projects and policies. Each author was asked to examine the most striking problems and contradictions in the theory and practice of rural development which emerged in the discussions in the seminar but was of course free to reach his own conclusions.

The book covers seven countries, three in East Africa (Kenya, Tanzania and the Sudan) and four in West Africa (Ghana, Niger, Nigeria and Senegal). The thirteen chapters contain a wealth of material which indicates clearly that irrigation projects and settlement schemes usually have not even met their production goals. More generally, government policies and projects have tended to increase inequality and have had little impact on reducing rural poverty. More often than not, the government has represented interests other than those of the rural poor and it is hardly surprising, therefore, that public intervention has in practice been harmful to the majority of rural people rather than beneficial.

As the Warden of Queen Elizabeth House it was my privilege to sponsor this work and provide modest facilities. The African Studies Committee of the University of Oxford and the George Webb Medley Fund gave financial support to cover some of the expenses of the seminar. In addition to the authors of the chapters, the following also attended the seminar and contributed to the discussions: Raymond Apthorpe, Ian Carruthers, Paul Clough, Tim Dottridge, Eve Hall, Jocelyn Jones, Richard Palmer-Jones, Andrew Pearse, Chris Robbins, Terry Spens, and Anne Whitehead. Daphne Snell helped organise the seminar and subsequently assisted in typing the papers; Louise Henry and Muriel Knowles also helped type papers and prepare the final manuscript.

Magdalen College, Oxford
24 December 1979

KEITH GRIFFIN

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1 Rural Development

JUDITH HEYER, PEPE ROBERTS
and GAVIN WILLIAMS

In this introduction we present an overview of rural development as an ideology and as a practice. We argue that as a practice, with some significant exceptions, it does not achieve its ostensible goals. We conclude that this failure is the result of the incompatibility both between different goals and between the goals and the means which are almost universally promoted as the ways to achieve rural development. This incompatibility is concealed by a rhetoric which asserts the mutual interests of rural development agencies, governments and rural populations *en masse*. This rhetoric of common interest obscures the reasons for failure.

By 'rural development' we understand planned change by public agencies based outside the rural areas. These agencies include national governments, acting alone, and international organisations acting in association with them. These agencies generally represent development as an impossibility without their intervention. The literature on rural development is full of statements implying that if external intervention did not take place there would be no 'development' at all (Hunter, Bunting and Bottrall, 1976a, for example). This is certainly not true. It does not take into account the remarkable expansion in the production of crops for export and for domestic markets by African producers acting on their own initiative (Hill, 1963; 1970; Berry, 1970; Coulson, in this volume, for example). However, this is not what the promoters of rural development have in mind when they urge 'development'. 'Development' is an activity of governments, not of peasants. Rural development is undertaken *for* peasants, not *by* them (Williams, in this volume).

Uma Lele, writing for the World Bank, defines rural development as: 'improving living standards of the mass of the low-income population residing in rural areas and making the process of their development self-sustaining' (Lele, 1975: 20). Few people would disagree with so evidently worthy a goal: the problem is how to achieve it. There is a very substantial measure of agreement between external agencies regarding the solutions to this problem. This is expressed in a major recent World Bank policy document as follows:

> Since rural development is intended to reduce poverty, it must be clearly designed to increase production and raise productivity. Rural development recognises that improved food supplies and nutrition, together with basic services, such as health and education, not only directly improve the physical well-being and quality of life of the rural poor, but can also indirectly enhance their productivity and their ability to contribute to the national economy. It is concerned with the modernisation and monetisation of rural society, and with its transition from its traditional isolation to integration with the national economy (World Bank, 1975a: 3).

It is assumed in the World Bank and elsewhere that increasing productivity and production for the market will (a) improve the welfare of the rural poor and (b) at the same time increase their contribution to the 'national economy'. This contribution is evidently thought to have been restricted by their supposed 'traditional isolation'. Poverty is assumed to be the consequence of such isolation, not the consequence of the relationship of the African peasantry to the national, and international, economy. This view denies peasants their history. It ignores their contribution, past and present, to financing industrial investment and state institutions in Africa, as well as in Europe and North America. It assumes that peasants can do little for, and by, themselves.

Enhancing the contribution of the rural poor to the national economy becomes the means by which rural development is to be achieved. Thus those involved in rural development are concerned to increase agricultural production to supply urban and international markets. They are concerned to earn foreign exchange and to extract revenue to finance public, and private, consumption and investments. This is not necessarily compatible with the interests of rural producers. One certainly cannot attribute to the international and government agencies an unambiguous commitment to the rural population, especially the rural poor whose interests the agencies have publicly undertaken to support (World Bank, 1975a; ILO, 1977a). International organisations represent and work through 'governments who in most cases do not represent their peoples and certainly not the poor peasants' (Malik, 1979). International organisations and foreign governments are not simply sources of finance and personnel for rural development. They are also the agents, and sometimes the instigators, of international development policy as represented in the Lomé Convention, UNCTAD and in the discussions on the new international economic order, which cover such issues as the terms of exchange between raw materials and manufactures, the transfer of technology, lifting trade barriers, and international debts and liquidity (Williams, in this volume). Governments negotiate with governments, agencies negotiate with governments, neither negotiates with peasants.

There are clearly important differences of interest between national governments and international agencies. The terms upon which rural development projects are agreed are the subject of negotiation between them. National governments must respond to the interests of various local groups, who may seek special privileges for themselves, protection from foreign competition or an increase in government spending. These demands may conflict with the policies and requirements of international agencies (Payer, 1974). National governments and international agencies also have interests in common. They all generally want political stability, the maintenance of the international economic order, the export of commodities to supply foreign industry and overseas consumers and to earn foreign exchange, the provision of cheap food for the cities, crucial to foreign and domestic employers, and foreign earnings to repay development loans and other debts. In many countries state revenues, local and foreign investments and the expansion of the domestic market all depend on the maintenance of agricultural production for both domestic and export markets. In this volume Beckman shows how the interests of international capital and the successive governments of Ghana were served by peasant cocoa producers in the 1950s and 1960s, but he argues that these interests have now diverged.

It is not always easy to reconcile the interests of national and international agencies. Perhaps the most obvious example of conflict is over tariff and exchange rate policies. It is much harder to reconcile the interests of either of them with those of the rural population. Furthermore, the interests of the rural population are far from homogeneous. Some rural groups or classes may align themselves with the interests of governments and state officials against the rest of the rural population. Others may resist the attempts of external agencies to implement policies against their interests. Nevertheless, external development agencies consistently present rural development as an activity in the interests of *all* concerned (except, perhaps, middlemen) (World Bank, 1975a: 40).

It is central to the argument for redistribution with growth that growth is not necessarily opposed to more egalitarian income distribution, and that it is possible to improve the incomes of the poor without reducing the wealth and incomes of the rich (Chenery, 1974; ILO, 1972; cf. Leys, 1973; 1975; Weeks, 1975). Examples can be cited of countries where a land reform was followed by industrial expansion, such as Taiwan and South Korea, and growth was combined with increasing equality of incomes (Chenery, 1974: 280–90). In this volume Heyer argues that in Kenya high rates of growth achieved in the 1960s and early 1970s went together with the maintenance of the living standard of the majority of the poor. However, these examples cannot be generalised to the circumstances more common to underdeveloped countries where, according to a recent ILO study in Asia, capitalist development and increased agricultural production appear to have led to the impoverishment of the majority of the rural population (ILO, 1977b). This also appears to have been true in different periods for many parts of Africa (Palmer and Parsons, 1977; Roberts and Shepherd, in this volume).

The assertion that rural development serves all, or almost all, interests is a necessary myth. The open recognition of conflict threatens the whole strategy of rural development as currently pursued. It also threatens the practitioners working for governments and international agencies, many of whom are sincere in their own concerns for the poor. The need to present rural development as serving the interests of all concerned leads to the adoption of the language of 'participation' and strategies to secure the cooperation of the rural population for whom development projects are devised. The language of participation is, at best, patronising. Rural development agencies see themselves as developing, indeed 'animating', rural people who are accused of being the obstacle to their own development, or unable to grasp the benefits of development until exposed to persuasion that it is, indeed, in their interests (World Bank, 1975a: 45; Hunter, 1976b: 47; cf. Coulson and Roberts, in this volume). Where terms like 'participation' and 'partnership' are used, it is clear that the rural population are the most subordinate of partners. The idea that rural development might be initiated by the rural population itself does not enter the conception of 'rural development'. Indeed, where the rural population takes an organised initiative of its own accord, its activities are distrusted by external agencies to such a degree that they are suppressed, diverted, or pre-empted. The Ruvuma Development Association in Tanzania, a strikingly successful initiative from the rural population and one of the original models for what later became the official policy of ujamaa, came to be regarded as a threat to government and was eventually banned (Coulson, in this volume). Adams (also in this volume) describes how the farmers of Jamaane in Senegal formed a peasant association and hired an agronomist, whereupon they came into conflict with the irrigation development authority upstream and its plans for them. This dilemma is recognised in the World Bank: 'The manner in which early participation is to be achieved and balanced with the need for overall guidance and control from the center, is a problem which can only be resolved within each country' (World Bank, 1975a: 37).

Participation seems to mean getting people to do what outsiders think is good for them. 'Overall guidance and control from the centre' defines the relationship between agencies of rural development and peasants. It excludes peasants' conceptions of their own development (cf. Adams, in this volume). When agencies interfere too much with the lives or goals of peasants, peasants may seek to circumvent them. Barnett, in this volume, describes how farmers on the Gezira scheme divert irrigation water from cotton fields to food crops (see also Coulson, in this volume). Such resistance leads governments and agencies to impose further controls. Wallace, in this volume, describes how failure to comply with the requirements of the Kano River irrigation scheme led officials to demand the power to exercise sanctions over recalcitrant farmers.

What, then, are the conflicts between the interests served by 'rural development' and those of peasant producers? The overwhelming majority of rural producers in tropical Africa are still peasants: they control the means of production and use family labour, increasingly supplemented by wage labour, to produce their domestic consumption needs both directly and by exchanging the products of their own labour on the market. As Williams argues in this volume, there are distinct advantages to peasant production as far as governments are concerned. Peasant production supplies food and raw materials relatively cheaply. It also provides a source of revenue which is used to develop the rest of the economy. However, peasants are also a problem because their ownership of the means of production and of subsistence gives them a degree of independence. They may be in a position to refuse to supply particular markets, or to agree to supply only on terms that are relatively favourable to them. Moreover, peasant production conflicts with the establishment of capitalist farming enterprises. Capitalist enterprise depends on the existence of a class of wage labourers separated from the means of production. The main source of such labour in Africa is the peasantry. Capitalist farmers also compete directly with the peasantry for land, for wage labour and other means of production.

As we have seen, one of the major means of achieving rural development is to increase production for the market and improve productivity. It is too often assumed that these processes can be grafted on to 'subsistence' production at no cost to domestic consumption or income. Methods for improving the production of staple crops, such as millet, have often been neglected in favour of the commercial crops that are supposed to increase the peasants' cash income. But the latter is only an improvement if the volume and quality of domestic consumption does not suffer. It will do so unless enough land is available for both and unless more labour is available which can be deployed without any loss to subsistence production. Indeed, sometimes this problem is not considered at all. It is also too often assumed that a head of household can shift around the labour of his dependents at will. Domestic labour (the labour of men, women and children standing in specific social relationships towards one another) cannot be shifted around from one task to another. Husbands cannot always force their wives to take on extra tasks, although such tasks are sometimes done by women for wages outside the household. Nor, even though female labour in Africa has sometimes been ignored or dubbed 'unproductive', can households afford to divert women from such tasks as child-care, food processing and trading, whether such activities are the whole or only part of women's contribution to the maintenance of the household. In order to take on new activities *and* maintain subsistence consumption, households may be forced to take on more wage labour, thus increasing their costs of production.

A shift to staple crops with higher yields to labour time, such as maize or cassava, may be possible, although not necessarily desirable. The maintenance of local markets in staples might also improve levels of consumption in the rural areas. Production for local rural markets can be important sources of increased income and higher standards of living through specialisation and exchange, as they were in many areas in precolonial times. Yet the decline of local market production has often been encouraged. The procedure of classifying all production passing through local markets as subsistence production, for national statistical purposes, is common in African countries and indicative of the disdain in which these local markets are held. The tendency is to run down production for local markets in the process of encouraging production for urban and international markets. This tendency has been a major factor responsible for severe food shortages and famine in several African countries in the 1970s. Decline in local and regional markets, a process often originating during the colonial period, has been the cause of famine in food-deficit areas (Shepherd and Heyer, in this volume). Moreover, the discouragement of local trade in favour of urban markets and contralised marketing boards has been to the disadvantage of many peasant producers to whom trading represents an important part-time activity and additional source of income (Heyer, in this volume, referring to Cowen, 1979).

Since the 1930s, governments have both initiated cooperatives and incorporated them into centralised state marketing systems. Originally these were intended mainly for export crops, but increasingly governments have intervened in internal food marketing. They have bypassed local market systems, have required farmers to grow crops for, and preferred in, urban markets in order to move food out of the rural areas and have created lucrative black markets for favoured traders (Harriss, 1979; Adams, in this volume).

Peasants are forced to sell to the market in order to earn cash which is required, in increasing quantities, to provide for the necessities of life and to pay taxes (Bernstein, 1978; Cowen and Roberts in this volume). They may be able to enter the market on relatively favourable terms under certain conditions. These are when new markets become available for relatively high-value export or industrial crops, such as cocoa or tobacco, and when taxation on such commodities does not amount to a disincentive. Such conditions also exist when peasants can produce a variety of crops for which there is a market and therefore respond to price advantages, or where there are alternative markets for their products. For example, groundnut producers in Nigeria have been able to avoid the low prices offered by the marketing boards by selling on the domestic market (Hogendorn, 1970). It is this option which governments in a number of countries have sought to exclude by creating state marketing monopolies (Coulson and Heyer, in this volume). Producers of export crops have held up sales to foreign companies and marketing boards as in Ghana in the 1930s (United Kingdom, 1938), or more recently in Senegal, but such hold-ups are difficult to organise and sustain.

In order to benefit from cheap peasant production, governments and foreign companies need to control the conditions under which peasants sell, or even produce, their crops. The problem is, however, that they do not control directly the land or labour-power of the peasants (Williams, in this volume). Rural development projects provide one means of soliciting or forcing peasants to conform to the requirements of outsiders. Barnett (1977 and in this volume) shows how the control of irrigated land on the Gezira scheme is used to force peasants to produce cotton, rather than food for consumption and sale. This 'transformation' approach, in the form of large-scale settlement, irrigation and outgrower schemes, involves direct control of peasant production by external agencies. Nearly all transformation programmes involve large-scale capital expenditure whether on machinery and equipment or on irrigation, land improvement or infrastructure. Producers accept a high degree of control over their farming systems including the timing of operations, the quality of operations, the use of purchased inputs and the choice of sales outlets and payment systems. The whole package must be attractive enough to start with to get participation, but once a producer is committed there is a substantial loss of independence, and the benefits of the whole package may become less and less favourable to him.

The experience with large-scale irrigation and settlement schemes in tropical Africa has generally been very poor, particularly with regard to production. Apart from the Gezira, most large schemes have failed to meet even basic production goals, let alone any of the other goals of the agencies or the rural population. Several simply collapsed, most notoriously the Tanzanian groundnut schemes and the Niger Agricultural Project (Wood, 1950; Frankel, 1950; Baldwin, 1957). Very similar programmes, however, are still being implemented (Wallace, 1979, and in this volume). It is frequently the case that the high investment and administrative costs of irrigation and settlement schemes, as well as of other forms of intervention, have had the effect of making peasant production more expensive without bringing significant improvements in the peasants' standard of living (Wallace, Coulson, Heyer, in this volume). The recently developed outgrower schemes seem more likely to be successful in production terms. In these, international companies with 'nucleus estates' control the production of plantation crops on small rural holdings under conditions which come near to relegating rural producers to the position of wage labourers (Marcussen and Torp, 1978; cf. Cowen, Heyer, Williams, in this volume).

As an alternative to direct coercion, rural development programmes may offer a package of inputs and welfare services in order to solicit increased production. These include rural water supplies, improved housing, health services, nutrition and child-care advice and even programmes to 'integrate' women into development (World Bank, 1975a,b,d,e; Lele, 1975: 20; Coulson in this volume; Palmer, 1979; cf. Roberts, 1979). Inputs include the new technologies which are heavily reliant upon seed, chemical fertilisers, pesticides and herbicides and even tractor services and hired labour, all of which must be purchased or obtained on credit. The whole package induces peasants to rely more heavily on the market both for their means of subsistence and for their means of production and to become increasingly dependent upon bureaucracy for supplies and services despite the inefficiency of the bureaucracy and the vagaries in the supply and transport of foreign manufactures, leading among other things to further opportunities for the development of black markets.

It is an important part of the external agencies' concept of rural development that they believe that peasants are more or less rational and efficient within their traditional environment, which is seen as static, but when faced with new opportunities are conservative, traditionalist and unable to respond rationally (World Bank, 1975a: 12, 45). This is of course ridiculous and it ignores all the evidence of peasant innovations in crops and production methods (Forrest, Coulson, in this volume). Such a view reflects a refusal to recognise that only too often the imported technology offered to peasants has been useless, and sometimes positively detrimental (Coulson, in this volume). Peasants are more competent in their physical and social environment than most experts. They may experiment with and exchange information about new techniques and then reject them. New techniques may be rejected because they fail to increase yields, or only increase yields at the cost of increased labour which peasants cannot provide or buy, or because equipment falls apart. New techniques may also be accepted, but used for purposes which were not intended (Roberts, in this volume). It almost seems to be the belief of the external agencies that innovations offered to peasant producers are intrinsically viable because of their non-peasant origin and the stamp of official approval attached to them. This belief contributes to the common description of rejection as irrational 'resistance to change'.

Peasants are also assumed to be incapable of running the institutions appropriate to a 'modern' economy. 'Rural development' therefore involves the improvement of old institutions, the creation of new ones and provision for training and a career structure for personnel. Such training includes instruction as to how to communicate with rural people in order to convince them that what is being proposed is in their interest, and getting across information about new and superior ways of doing things. Institutions are supposed to ensure that means of production and credit are available at the right times and that marketing channels operate smoothly and efficiently. Thus, we find the familiar proliferation and expansion of extension services, farmer training programmes, credit institutions, marketing and distribution agencies that have so often come to be what rural development seems to be about.

The state and other centralised public agencies play the major role in organising and controlling the development of the new and expanded institutions, both because it is argued that this will make them more efficient in achieving basic production goals and, more recently, because it is argued that the poorest 40 per cent of the rural population will be better catered for this way. Public provision or supervision of institutional development is presented as the most effective, and also the only, way of ensuring that the worst ills of private capital or of 'local' control are prevented (World Bank, 1975a: 37). It may be true that local control will always operate in favour of one group, usually the relatively better-off. It is wrong to assume, however, that public provision has a superior record, as experience with cooperatives, credit institutions and services in tropical Africa show.

Perceptions of peasant communities as traditional and egalitarian, 'intact social structures' (World Bank, 1975a: 42; Forrest, in this volume) have justified the introduction of cooperatives, extension services and the public provision of credit, on the assumption that these benefits will be spread throughout the community (King, Roberts and Williams, in this volume). Public involvement in rural institutions has, in most cases, considerably extended economic differentiation and political inequality (Van Velsen, 1973; Williams, 1976). The institutions available for carrying out rural development are incapable of redistributing resources so that they improve the lives of the rural poor even if they do, at times, hold back the enterprise of rural traders and wealthier peasants (Coulson, Cowen and Williams, in this volume). This is now widely accepted in studies of the 'green revolution' in Asia and Latin America (Hewitt de Alcantara, 1976: 118–36, 306–22; Griffin, 1974: 46–82; 207–9, 232; Pearse, 1977). It is not yet as widely accepted in the context of rural development in Africa.

The record of cooperatives, extension services and the public provision of credit in African rural development programmes has been dismal. There are cooperatives in which all initiative is stifled by heavy-handed control from above; credit institutions that are hopelessly centralised and inefficient; marketing boards creating bureaucracies far beyond those required for their stated purposes (Tanzania, 1966; King, in this volume). The proliferation of bureaucratic structures associated with rural development appears at first sight excessive. But it may have a rationale. It may be necessary to develop extensive communications systems because one is trying to persuade rural people to do what is essentially against their own interests. It may be necessary to develop state involvement in rural development to maintain control over rural populations who see that their interests are not likely to be served by current development policies. Excessive bureaucracy may also be necessary to ensure market participation on terms favourable to external agencies. Marketing boards have been justified in that they ensure that revenue is appropriated from the rural population (Helleiner, 1966: 152–84). But there is little to suggest that this is in fact how these excessive bureaucracies and their activities can be explained (Coulson, in this volume). It may equally well be simply that the state finds them useful generators of patronage and employment (King, in this volume).

We come finally to the question of evaluation. There appears to be little foundation for the assumption that the activities of rural development programmes lead to the improvement of the welfare of the rural population, let alone the rural poor. Evaluation methods, such as social cost-benefit analysis, purport to quantify the net costs and benefits consequent on the particular forms of intervention. As Stewart has pointed out, 'net discounted rates of return' ignore the fact that costs are usually incurred by some people, and benefits by others (Stewart, 1975). Peasants, particularly the poorer peasants, are not usually among the beneficiaries.

Most programmes are undertaken with totally inadequate knowledge of such fundamental facts as population, land and income distributions, the ranges of crop yields, the levels of consumption and the quantities of marketed output at the start of or during the implementation of the programme. Consequently, these are often 'estimated', as an inspection of World Bank evaluation reports shows (e.g. World Bank, 1977a and b). Average yields before the programme are underestimated so that 'improvements' can be claimed as the product of the inputs provided by rural development agencies (Raynaut, 1975: 36). Average yields after the impact of the programme has been felt are likewise overestimated. Agencies take all the credit for increases in output, but attribute any decrease to other factors. It is very difficult to measure the net impact on output, let alone welfare, of the services provided, and it is impossible to quantify the long-term effects (Barnett and Coulson, in this volume). What often gets measured is simply the volume of inputs: their effectiveness is then assumed. Success has been defined in terms such as the number of farmers to whom credit has been disbursed, or the quantity of fertiliser which has been distributed, regardless of whether these can be shown to have led to increases in output. Evaluation is essentially no more than an exercise in the validation of rural development. This is not necessarily the result of hypocrisy or dishonesty on the part of those involved. The distance between the ultimate goals of rural development and the means to such ends is very great. It is the means more often than the ends which are the object of evaluation. The primary goals of a programme may be completely forgotten.

Despite these problems with evaluation, evident failures are diagnosed: both failures to meet the goals to the desired extent and failures to move in the direction of the goals at all. The explanations of failure that are provided are worth considering. Failure is often seen as the result of problems *within* rural societies rather than the result of the relationship between rural societies and the external 'partners' in rural development. Conservatism or traditionalism on the part of peasants or peasant societies are common scapegoats. Anthropologists are brought in to examine local factors such as control over labour within the household, or political authority at village level. Local level explanations accumulate. They tend to consist of little more than a body of anecdotes incapable of explaining the general problem of rural development, or even of explaining with any conviction the particular problems of the local situations to which they are addressed.

Alternatively, failure is attributed to 'delivery systems' or implementation machinery. These are castigated as incompetent, inefficient or uncoordinated, and solutions are sought in improving the efficiency with which they operate and coordinating the different institutions involved (Williams, 1975). The frequency of failure has led to much public breast-beating, further investment in research and evaluation, and revisions of strategy. However, the frequency of failure has not yet led anyone to abandon or even suggest abandoning rural development as currently conceived. The analyses of failure do not permit the conclusion that there is anything intrinsically wrong with the methodology of rural development.

There is no single explanation of the failure of rural development projects, or of the success of some of them. We have argued that rural development encompasses multiple, and often contradictory, interests. Some of these may be satisfied at the cost of others. The Gezira scheme did succeed in producing large volumes of cotton for the Lancashire textile industry, and more recently for export to China and other countries. It did so at the cost of preventing peasants from expanding food production for the internal market (Barnett, 1977, and in this volume). On the other hand, many projects have not even succeeded in meeting their primary goals such as improving agricultural productivity and expanding production for the market, which are held to be the key to improving the welfare of the rural population.

In most countries it now appears as if the promotion of 'rural development' has affected the course of events relatively little. It has been one of the less significant aspects of the international economic processes generated by the expansion of capitalism, which necessarily change systems of peasant production. It has proved possible for peasants to expand their production of export crops and increase the output of food for the market, as in Ghana and Nigeria in the early decades of the twentieth century, without the intervention of rural development agencies. What was required at that time was the provision of cheap shipping, railways and roads which gave producers access to new and expanded markets. In this volume, Heyer and Cowen show a similar expansion of agricultural production for urban and foreign markets which took place in Kenya in the 1960s and 1970s, to the benefit of the majority of the population. This appears to have followed from extensive public intervention in rural production and marketing. However, what may have been equally important was the renewed availability of land and the opening up to African producers of new markets.

How then do we explain rural development if it makes little contribution to achieving its declared objectives, or even hinders their realisation?

In the first place, rural development projects do benefit groups other than those whom they are supposed to serve. They are now big business, providing markets, contracts, consultancies and employment to fertiliser manufacturers, construction firms, government officials, international experts and academics. Secondly, they extend the patronage, authority and control of governments over rural people and may also make it easier to tax peasant production. On the other hand, government interventions may provoke rural people into resisting government authority and attacking public officials (Williams, 1976; Coulson, in this volume).

Thirdly, rural development agencies may simply lack the knowledge and experience to achieve the goals they set. Their conception of the problems may prevent them from acknowledging this. Peasant producers are usually more knowledgeable than officials and experts about local production conditions. Moreover, unlike consultants for international agencies, peasants have to bear the consequences of error and will necessarily be more thorough in their assessment of the advantages of new technologies under the conditions in which they are provided. New technologies developed outside the rural areas may increase agricultural production and benefit peasants. It is not clear that the costly apparatus of rural extension services or integrated rural development programmes is necessary to get peasants to adopt methods of production which will benefit them.

Rural development agencies are constrained by the institutions through which they work and the social systems in which they operate. These institutions are probably unable to provide services cheaply and effectively to the rural poor, or to redirect benefits away from the better off to the 'poorest 40 per cent', let alone identify the needs and productive potential of poor people. They are unable to do this partly because the interests of those who control them conflict with the interests of the rural poor. There is also the problem that the institutions are inappropriate to serve the needs of large numbers of rural poor even if this were in the interests of those who controlled them.

Rural development programmes in all their forms share a multiplicity of objectives, some more clearly defined and definable than others, which are variously in line with, or in conflict with, the interests of different groups. It may therefore be that, at the most general level, persistent failure is the result of the contradictions inherent in their activities and the impossibility of reconciling, let alone containing, them. It is important for those whose interests are not currently served in rural development that the contradictions be recognised. For the others, there is a considerable amount to be gained by obscuring them.

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2 The World Bank and the Peasant Problem

GAVIN WILLIAMS

RURAL DEVELOPMENT

Rural development is an activity undertaken by governments and by international agencies, public and private. It takes a number of forms, many of which are combined with one another: credit programmes, irrigation schemes, farm settlements, extension services, marketing cooperatives, the provision of chemical fertilisers, herbicides and pesticides, and high-yielding varieties of seeds. Their purpose appears to be self-evident, namely, an increase in agricultural production and an improvement in living standards. However, at least in Africa, as several of the essays in this volume demonstrate, the historical record shows that rural development has often failed to achieve either of these ends, let alone both of them. By any criteria, successful projects have been the exception rather than the rule. There have been impressive examples of the expansion of agricultural production in Africa, during the colonial period in some countries and since then in others. This has been achieved by rural producers reorganising production to take advantage of new or expanded markets for food and other crops. It required the provision of cheap transport by sea, rail and road; it owed little or nothing to the direct involvement of public agencies in agricultural production and marketing. With some significant exceptions, such involvement tended to hinder rather than to assist the development of agricultural production (Hill, 1963; Berry, 1975; Hopkins, 1973; Williams, 1975; and the essays in this volume).

This bleak record has not discouraged the repetition of forms of rural development which have failed in the past. Old and discredited policies are offered as new recipes for rural development. International agencies have replaced colonial governments as the main promoters and financiers of rural development. This has increased the tendency to generalise formulas across ecological zones, national boundaries and colonial spheres of influence. Rural development is big business, offering contracts and employment to construction and consultancy firms, international experts and bankers, fertiliser, chemical and seed manufacturers and distributors, officials, extension workers and even, for short periods of time, labourers.

If rural development does not usually achieve its objectives, its increasing popularity needs to be explained in some other way. Clearly, a number of people benefit from it, even when farmers do not. The self-interest of the agents of rural development may not be sufficient to explain the activity, nor the particular forms it takes. A more adequate explanation needs to identify the purposes which the activity serves, both directly and indirectly, the justifications which are offered to legitimate the activity, and the assumptions, often implicit, by which its agents define their situation, objectives and actions.

This paper will examine the nature and development of the policies and practices of the World Bank. It then turns to look at the problem which, it argues, the rural development policies of the World Bank are designed to solve. It identifies the contradictions inherent in these policies, and offers explanations for the current ideology and practices of the World Bank.

THE WORLD BANK

At the centre of the current international emphasis on rural development is the International Bank for Reconstruction and Development, IBRD, hereafter the World Bank. It is an international bank, which raises its money from international capital markets, and re-lends it at interest to governments to finance specific projects. The World Bank group includes, in addition to the IBRD, the International Finance Corporation, IFC, established in 1956, which lends money to, and invests in, private corporations and development finance corporations, and the International Development Association, IDA, established in 1960, which raises money from governments and lends it at concessional rates of interest to countries, mainly in the Indian sub-continent and Africa, which are deemed to be unable to afford commercial rates of interest (Mason and Asher, 1973: 345–419, 780–96; van de Laar, 1976b).

The World Bank was founded in 1944 at Bretton Woods, together with its associate, the International Monetary Fund, IMF. The United States government was then in a position to decide the forms, policies and personnel of these international organisations. They were both set up to encourage free flows of trade, investments and profits between countries, and thus the free convertibility of currency. This was designed to prevent the combinaton of trade barriers and competitive devaluations which had restricted international trade during the depression, and to 'open the door' of the markets of Europe and the colonial empires to American investment and its post-war surpluses. The IMF provides short-term loans to deal with immediate balance of payment crises in return for agreement to follow the policies which the IMF deem appropriate. Since the Marshall plan pre-empted the financing of European reconstruction, the World Bank has lent money on a longer term basis for agreed projects, primarily to developing countries (Mason and Asher, 1973: 11–61, 538–58; Nissen, 1971; Olinger, 1979).

The World Bank's first article of agreement requires it to 'promote private foreign investment', supplementing it for purposes for which private investments are not available (Mason and Asher, 1973: 759). Consequently, from 1947 through to the end of the 1960s, the World Bank's loans mainly provided the foreign exchange costs of the power stations, dams, railways, ports, roads and telecommunications necessary to the foreign industrial investment, which the prevailing economic orthodoxy (Lewis, 1953; 1954) identified as the source of economic growth, and indeed, as the very nature of economic development itself (Williams, 1978). Most agricultural loans went to large-scale irrigation projects and to provide credit and technical assistance to very large commercial farms, mainly ranches. World Bank loans expanded the market for exporters in metropolitan countries, and recovered the costs from government revenues in borrowing countries (Mason and Asher, 1973: 178–9, 701–22, 833–48).

The World Bank's loans and its country reports, along with the views of the IMF, define the creditworthiness of governments for other private and public lenders, and both the World Bank and the IMF have organised consortia of creditors to arrange the re-scheduling of international debts. The World Bank has used the leverage which its lending capacity provides to direct money, not only to projects of which it approves, but to the countries whose economic policies it approves, and also as a means of getting governments to change their policies. In accordance with its own articles of agreement, and in line with the policies of the IMF, it has encouraged its debtors to dismantle tariff and other import barriers, to move towards a single and convertible exchange rate, and to facilitate private foreign investment and the repatriation of profits. It insists on settlement of claims for compensation of nationalised property (Hayter, 1971: 31n; Mason and Asher, 1973: 747n). It favours domestic measures to control inflation and eliminate subsidies, such as raising interest rates and public sector prices, controlling bank credit and government spending, abolishing consumer subsidies and price controls, and to keep wages down. The World Bank's economic criteria, apart from its sensitivity to U.S. foreign policy, gave its lending programme an evident political bias against governments which attempted to raise the living standards of the poor, and in favour of governments which redistributed wealth and incomes to the rich, and which imposed the required fiscal discipline and political restraints on workers and peasants. Consequently, the World Bank has proved particularly generous to right-wing military regimes whose predecessors had been unable to raise loans, such as Brazil and Indonesia. The strategy of imposing import tariffs and controls to industrialise by import-substitution simply replaced dependence on one sort of import with another, at high cost, and generated foreign exchange crises (Weeks, 1972). These crises gave the World Bank both the justification and the occasion to press for a shift towards an 'open economy' policy, as in India in 1965 (Mason and Asher, 1973: 150–206, 420–81, 657–61; 675–83; 759–80; Hayter, 1971; World Bank, 1972c: 101–2; Payer, 1974; Libby, 1975).

THE NEW WORLD BANK POLICIES

Since Robert McNamara was appointed President of the World Bank in 1968, the World Bank in a number of policy statements has declared a shift in lending policy, towards agriculture generally, and towards providing resources to the urban and rural poor, and particularly to the small farmer, sometimes identified as the poorest 40 per cent (McNamara, 1968–77, esp. 1973; World Bank, 1975a, 1973, 1976). Such an apparently momentous shift in the priorities of the world's major development bank towards rural development and redistribution requires explanation, to which I return later in this paper.

The World Bank is not alone in declaring its commitment to rural producers and to the poor. Its policies and its pool of international experts are shared with other national and international agencies, many of whom use the vocabulary of redistribution and rural development policies with particular modifications, different political accents, and varying degrees of conviction (FAO, 1979; ILO, 1977; Dorner, 1975; Grant, 1973; 1977; United Kingdom, 1975, Overseas Development Institute, 1978).

From 1969 the International Labour Office, ILO, funded a series of missions to underdeveloped countries, which focused on the alleged employment crisis and argued for a shift towards employment-generating and labour-intensive technologies. At the same time the World Bank was arguing for underdeveloped countries to use more labour-intensive methods of production in the face of growing population and unemployment (McNamara, 1969–71). In 1972, the ILO mission to Kenya, staffed in large measure by economists from the Institute of Development Studies at the University of Sussex, IDS, argued for a strategy of assisting the labour-intensive 'informal sector', and of redistribution from growth (ILO, 1972). This was taken up as *Redistribution with Growth* in a joint study by economists from the World Bank and the IDS (Chenery, 1974a).

The World Bank shares with other international agencies and the experts they consult a common rhetoric about the goals of rural development, redistribution and basic needs (Mahbub ul Haq, 1978). They draw in some measure on a common diagnosis of the development problem, which focuses on the discrimination of pricing and expenditure policies against the poor, and more generally against rural areas, and on the exclusion of the poor and of rural areas from access to productive resources (Lipton, 1977). The generalisation of this diagnosis, and of the strategies which follow from it, has meant that research proposals, development projects and policy formulations across the globe draw on its vocabulary and adopt its assumptions, often without further critical consideration. In this sort of way, the policy statements of international agencies define the ideology of rural development in particular, and development more generally.

THE CURRENT WORLD BANK PRACTICE

Does the current practice of the World Bank bear out its stated policy commitment to the rural poor? Total World Bank lending has increased dramatically in the 1970s: loans of \$8.4 billion were approved in the fiscal year 1978 as compared to a total of \$20 billion for the whole period 1947–June 1971. Loans for electric power (\$1146 million in 1978) and transport (\$1093 million in 1978) have continued to increase. However, loans to other sectors have increased even more rapidly. Industrial loans expanded in two ways, directly (\$392 millions in 1978), where the increase has been made possible through a new willingness to lend to state-owned industries, and indirectly (\$910 million in 1978), through loans to development finance corporations, mainly for on-lending to private companies. During the 1970s a number of industrial loans have been made for fertiliser production. In addition, the IFC has invested extensively in agro-industrial firms. The most dramatic increases in lending in the 1970s have taken place in the sectors identified by the Bank (World Bank, 1975a, b, d, e) as poverty-oriented, namely water and sewage (\$375 million in 1978), education (\$352 million in 1978), and agriculture, to which \$3270 million loans were approved in 1978. Clearly the World Bank's claims to have redirected its priorities towards the poor rest heavily on this massive increase in agricultural lending (Stryker 1979; Mason and Asher, 1973: 828; World Bank, 1970–8).

The World Bank's agricultural loans increased sharply from 1969, and accelerated through the 1970s. Originally this was in response to a concern with the crisis of population growth, and the opportunities presented by the development of the new seed-water-fertiliser technologies. In 1971 the crisis of unemployment, identified by the ILO, joined population and malnutrition as the centre of McNamara's concerns. This required attention to income distribution and, apparently to that end, the adoption of labour-intensive production for export markets, untrammelled by minimum wage laws, trade unions and controls on multiple shift work. Since then, the World Bank has continued to support credit programmes to facilitate the spread of the new seed-water-fertiliser technologies, and an export-oriented strategy, based on low-wage, labour-intensive manufactures as well as on commercial agriculture (Woods, 1967, 1968; McNamara, 1969–71; World Bank, 1972a; 1972b: esp. 102; 1975a: 5; 1976: 50–3; Hughes: 1977: 37–52, 142-5).

In 1973 McNamara, in his address to the World Bank's Board of Governors in Nairobi, defined poverty as predominantly a rural problem which could be solved by raising the 'low productivity of the millions of small subsistence farms' (McNamara, 1973). Since then, the World Bank claims, a majority of its agricultural lending has been to rural development projects in which more than half the direct benefits have accrued to the rural poor. This would be an impressive achievement by comparison with previous experience in rural development (World Bank, 1973–8; Yudelman, 1976b; Mahbub ul Haq, 1978:14).

However, there is very little evidence in the World Bank's *Annual Reports* that the benefits of its loans do accrue to the poor, or that the World Bank is taking determined steps to bring this about. In most cases the poor are simply assumed to benefit from projects designed to promote rural development in a whole area. The reasoning proceeds as follows: the World Bank is funding a project in a particular region with a population of, say, two million people. The project will benefit the people of that region. Half the people in that region are poor. Therefore the project will benefit one million poor people (World Bank, 1975; 54–6; 1977: 61, 63; 1978: 72–9). In a similar way, the World Bank identifies landless labourers as one of its rural target groups. They receive perfunctory attention from the World Bank, and from the economists who defined their policies, who rely on rural public works to increase the employment open to them (World Bank, 1975a: 24, 50–2; Bell and Duloy, 1974b: 133–5; cf. van de Laar, 1976a). For the Bank, rural development helps the poor by definition (World Bank, 1975a: 3; Lele, 1975: 20; Yudelman, 1976b: 380; Christofferson, 1978: 21).

An analysis of the agricultural projects agreed in 1978 shows a pattern reminiscent in form, though not in scale, of colonial policies, and continuous with the World Bank's agricultural lending in the 1960s (World Bank, 1978: 28–9, 72–9; cf. World Bank, 1970–7). Irrigation schemes, and rehabilitation of irrigation schemes, often on a vast scale, continue to loom large in Asian countries (cf. Wade, 1976). Landless labourers and small farmers are to benefit only from this temporary employment on these construction projects. In Sri Lanka, labourers working on the World Bank-supported Mahaveli irrigation project were recruited by labour contractors, who profited from their ability to recruit workers at very low wages (J. Harriss, personal communication). The largest single loan, to Mexico, provides $200 million for livestock, always a major form of World Bank support to large capitalist farming. In some instances in Africa, World Bank livestock projects have involved enclosing common range land, enriching a small number of favoured people, apart from large corporate farms, and aiming to control overstocking on the land left to the remaining pastoralists (Lele, 1975: 8–9, 59–60, 204, 206; Heyer, in this volume). Several loans in Africa and Asia finance the expansion of exports, particularly perennial tree crops. Several projects, particularly those in southern Europe, provide only agricultural credit. The one apparent innovation, which takes up the largest share of funds for Africa and Latin America, is the combination of credit, extension, fertilisers, pesticides, herbicides, hybrid seeds and improved roads, which constitutes 'integrated rural development'. These are organised by World Bank-directed project authorities. The provision of credit to encourage farmers to adopt the new 'green revolution' technology has been extended in scope, brought under World Bank control, and pronounced as a 'new style' of 'poverty-oriented lending'.

The continuities with earlier colonial, and previous World Bank, policies are evident from an examination of the types of project which the World Bank favours. The explicit aim of the 'new' World Bank strategy is to increase production for the market (World Bank, 1975a: 3, 54, 107). The World Bank fears that the poor will consume a large share of any increase in their staple food production. Consequently, the World Bank will continue to lend to large-scale commercial farms, as in the Sudan where, following the recommendations of the ILO mission (Faaland, 1976:2), it will finance a project designed to help 'existing large-scale mechanized farmers' to increase production of sorghum and sesame for export, alongside two programmes intended to mechanise smallholder farming (World Bank, 1978: 78; cf. World Bank 1975a: 12, 40). Most identifiable projects, whether to assist smallholders, strengthen transport and marketing agencies, rehabilitate plantations, or promote fishing, dairying or ranching, are aimed at increasing exports; some aim at increased domestic food production, by which they mean production for urban markets. Projects are not directed to the first priority of small farmers, namely to produce sufficient food for themselves.

Programmes providing institutional credit tend to direct subsidised resources to landlords and rich farmers (World Bank, 1972a: 29, 43; 1975b: 123). To correct this, the World Bank recommends separate projects for small and for large farmers, ending subsidised interest rates but not subsidies on inputs, provision of credit in kind and close supervision of small farmers to prevent 'misuse of funds for consumption' (World Bank, 1975b: 136, cf. 140). Borrowers are to be chosen on the basis of their local reputations, and the extent of their 'investment opportunities sufficient to produce a significant marketable surplus' (World Bank, 1975b: 143, cf. 162, 3). Such policies continue to provide more credit, and more of the subsidised inputs to which it gives access, to the better than the worse off, exclude the poorest farmers, and consolidate local status hierarchies (Watkins, 1978; cf. Lele, 1975: 85–93; cf. King, in this volume). The category of 'small farmer' is always open to arbitrary definition. Collins and Lappé cite a Guatemalan credit programme which allocated half the funds to the richest three per cent, with farms larger than 112 acres, and the rest to the poorest 97 per cent. Only one per cent of the loans went to smallholders, with less than seven acres, who make up 73 per cent of the farmers in the area (Collins and Lappé, 1979: 854).

'New style' World Bank projects show many of the features of their colonial antecedents. The Funtua Agricultural Development Project, one of five 'new style' projects undertaken by the World Bank in Nigeria in 1975 in the aftermath of the drought, explicitly aims to provide massively subsidised inputs on credit to two categories of farmers, the large and the larger. The Project management has identified 'some 20,000 progressive farmers' (Funtua Agricultural Development Project, 1978: 7) who are provided with seed and fertiliser to grow maize, which in this area is a cash crop sold to urban markets. In this, as in a number of other instances, progressive farmers are defined by their wealth, political influence, commercial activities, and amenability to outside advice and subsidies. In at least one village, they are local grain and cotton traders. The profitability of their farming depends on their ability to acquire large areas of land, up to 100 acres, to employ cheap female labour, and to get large allocations of subsidised fertiliser. The viability of capitalist maize farming depends upon the precarious supply of fertiliser by the government and rain by Allah. The project has also created a small class of even larger 'overnight' farmers. These rich beneficiaries are drawn from army officers, government officials, contractors, merchants and members of the office-holding aristocracy, who purchase land in anticipation of benefits from the project and from cheap bank credits.

The farm management service draws up farm plans, supplies them with tractor units at subsidised prices, financed by government-guaranteed loans from commercial banks, and even provides them with full-time extension workers (Jackson, J., 1979; cf. Heyer, in this volume, on livestock loans). The project explicitly rejected the alternative approach promoted by the Dutch Guided Change Project, which has now been wound up, of ensuring an equitable supply and economic application of the available fertiliser (de Wit, 1978). The Funtua project authorities assume that small farmers will benefit from the infrastructure of improved roads, dams, and farm service centres, and from the availability of subsidised fertiliser. In fact, the project's activities direct resources to the rich and away from the poor. Despite the impressive apparatus of institutions established by the Bank, it is not clear whether the project has increased production in the area to any significant extent. The World Bank's proposal to extend this approach to Lafia and Ayangba makes this large farm bias quite explicit: 'a prosperous agriculture industry . . . would only be achieved through application of advanced farming techniques which are particularly adapted to larger farming units either group or individually operated.' (World Bank, 1977a: 4; cf. Forrest, in this volume).

Alongside this 'focal point approach', which is what 'integrated rural development' turns out to be, the World Bank continues, as it did in 1961, to favour the 'transformation' approach in the form of settlement schemes, as well as crop development authorities, which are designed to subject rural producers to bureaucratic direction (Coulson, in this volume, esp. quotation from World Bank, 1961: 75; 1972a: 46; 1974a: 15, 19; 1975a: 45; Yudelman, 1976a: 380; Bell and Duloy, 1974b: 120). In 1978 the World Bank blandly promised to repeat an earlier 1973 programme in order to increase the incomes of 9000 of the 'poorest' people in Senegal through a project that provides for civil works, agricultural development activities, consulting services and technical assistance so as to continue irrigation development in the Senegal River delta, and through the strengthening of the national development agency, to prepare the future integrated development of the entire river valley (World Bank, 1978: 77–8; 1973: 32). Adams shows how peasant associations opposed the developments, and just whose sort of development this project promoted in Senegal (Adams, in this volume).

One form of World Bank intervention has promoted the expansion of smallholder production. This has been a crop authority which provides inputs to large numbers of smallholders, markets their crops, and in this way 'combines support and supervision by technical field staff with collection of repayments by deduction from returns'. 'It is being used successfully with crops which are subject to monopoly situations and are centrally processed. . . .' (World Bank, 1975a: 115, 108, also 143).

Such projects produce export crops for foreign firms, who supply inputs, prescribe methods of production and buy the crop at prices they can set. A number of projects establish smallholders as outgrowers supplying plantations, which have their own nucleus estates so that they are not completely dependent on smallholders for the regular supply of their raw materials (Cowen and Heyer, in this volume; Lele, 1975: 106; World Bank, 1975: 57; 1978: 77).

The World Bank recognises that cooperatives have been costly and inefficient, and that they have benefited traders, landlords and richer farmers (World Bank, 1975a: 37; Lele, 1975: 111; King and Roberts, in this volume). However, they continue to find favour, not out of any respect for cooperative values, but rather as an instrument of public administration. They 'provide a vehicle for collective negotiation of credit, input supplies and delivery of marketable surpluses', and a means of enforcing collective responsibility for debts (World Bank, 1975a: 7, 9, 37; 1974a: 16; 1975b: 155–7; Yudelman, 1976a: 379). Similarly, despite the World Bank's long-standing preference for private enterprise, it provides support to state marketing organisations and state regulation of private marketing or agricultural produce (Harriss, B., 1979b; World Bank, 1974a: 19). All of these institutions also direct production to foreign markets. These are both policy priorities of the Bank, independent of its concern for government's capacity to repay its loans (Kamarck, 1968, cited Hayter, 1971: 60–1; McNamara, 1976: 17; Hughes, 1977: 95).

To sum up the record of recent agricultural lending by the World Bank, to the extent that it can be gleaned from independent, first-hand reports, and from the bland and self-congratulatory tone, and spurious numerical precision (Kinsey, cited Lele, 1975: 49, is the exception that proves the rule) characteristic of World Bank documents. There is very little evidence that recent World Bank agricultural projects have benefited the poorest farmers, or have even been intended to do so. There is evidence that the benefits of World Bank loans have accrued to the rich rather than to the poor, and that some projects have excluded the poor from access to productive resources and redistributed assets and incomes to the rich. Where projects have been directed to smallholders, they have been dictated by the requirements of agro-industrial firms and the fiscal requirements of the state.

As has been pointed out by World Bank documents (Mason and Asher, 1973: 233, 421, 430; Hayter, 1971: 52–63), the consequences and effectiveness of its lending depends not only on the nature of the projects it supports, but on the general economic policies of the governments to whom it lends. The World Bank's leverage over its debtors is increased by its close collaboration with the International Monetary Fund and the United States Agency for International Development, by its role in organising consortia of creditors, and by its ability to certify the creditworthiness of particular governments. The extent of that leverage will clearly depend on how far countries rely on the World Bank and the IMF to meet their foreign exchange needs, and also, though not unrelated, the support which their policies command within the borrowing governments (Mason and Asher, 1973: 420–56; Hayter, 1971).

The World Bank's policy recommendations to change the distribution of income in favour of the poor focus mainly on the need to price commodities at, or near, free market levels, as determined by international competition. The World Bank rightly points out that measures to protect local industry, such as high import tariffs, overvalued exchange rates, subsidised credit and controls of food prices, not only lead to resources being wasted, but distribute wealth and income to the rich and away from the poor, particularly the rural poor (World Bank, 1975a: 30–1, 110–13; Hughes, 1977: 39–40).

However, the converse does not necessarily apply. A 'free market' would not allocate resources 'efficiently' or equitably, in the absence of appropriate technology, equal access of all to all factors of production and full employment of available resources. In capitalist economies effective demand, control of the means of production, command over the labour-power of others and the capacity to control sources of supplies and markets concentrate wealth and power in the hands of the rich. It is hardly surprising that state intervention should accentuate this tendency rather than counteract it. The World Bank wishes to remove constraints on the free exploitation of labour, such as trade union actions or government legislation which protect wage levels and working conditions, and to promote low-wage, labour-intensive production for export markets (McNamara, 1969: 16; 1970: 21; World Bank, 1972a: 102; Hughes, 1977: 145). Free competition in the labour and international commodity markets will impoverish wage workers, and is unlikely to benefit either the urban self-employed or the peasantry (Bienefeld, 1978; Williams, 1976a: 39–41).

The World Bank further recognises land reforms as measures that can promote both growth and distribution, and indeed may be essential to them. The World Bank declares itself ready to support projects associated with land reforms (World Bank, 1975c: 199–201; Chenery, 1974a: 59–61, 119–22; Ahluwalia, 1975). However, it remains extremely coy about reforms which redistribute the land to the poor. Noting its own lack of activity in this field, it moves on to consider legal regulation of tenancy and alternative ways of reorganising land tenure, on irrigation and settlement and on outgrower schemes. The World Bank cites its support for the Lilongwe rural development project in Malawi, which involved the individualisation of land holding and not the redistribution of land (World Bank, 1975c: 230–3). In Ethiopia, the World Bank drew to the attention of the *ancien régime* in Ethiopia 'the relationship between the land tenure system and the distribution of benefits' (World Bank, 1975c: 227), as if the regime were unaware of it. World Bank intervention in Ethiopia promoted the expulsion of tenants from the land, despite the best intentions of the World Bank's officials (Cohen, 1975; Lele, 1975: 42, 85, 87, 178–9). The World Bank clearly favours land reforms carried out from above, establishing farmers on individual holdings, and providing services to encourage them to expand production for the market. In Taiwan, Korea and Japan where occupying powers carried out land reforms and, in Africa, in Kenya where white settlers were bought out, such land reforms established the basis for economic growth, which benefited the majority of the population (Heyer, in this volume; Ranis, 1974; Adelman, 1974; cf. Apthorpe, 1979). However 'there have been very few cases of land reform, particularly in the areas where the political situation was reasonably stable and otherwise conducive to World Bank involvement' (World Bank, 1975c: 199). Clearly, then, the World Bank cannot support a popular land reform, where peasants and the rural landless appropriate land to themselves.

As the World Bank itself points out, it is much easier to get the governments to whom it lends money to change their pricing policies than to carry out a radical land reform (World Bank, 1975c: 234). Which governments are these? The massive increase in total World Bank lending in the 1970s was made possible by massive, and often indiscriminate, lending to a small number of countries, most of whom also borrowed huge sums from the Eurodollar market. The fourteen major recipients of total IBRD-IDA funds 'include several of the most politically repressive and socially unresponsive regimes in the Third World (notably Brazil, Indonesia, South Korea, Phillipines, Argentina and Iran). Indeed, their rise in the ranks of borrowers followed the overthrow of previously more progressive governments or the intensification of repression by existing governments' (Stryker, 1979; cf. van de Laar, 1976a). The World Bank cites its loans to Tanzania as evidence of its progressive sympathies. It is rather quieter about Zaire, not an example of financial probity, creditworthiness or progressive sympathies, to whom the World Bank approved loans every year from 1972 to 1978 (World Bank, 1970–8; Stryker, 1979).

The World Bank's priorities are very clearly demonstrated in the case of Chile. The Allende government attempted to carry through redistributive polices, and submitted several elaborate proposals to the World Bank. In line with United States policy, and its own criteria of economic policy, the World Bank stopped lending to Chile. Lending was eagerly resumed when the military regime slaughtered socialists and communists, imposed the necessary fiscal and social discipline, and liberalised Chilean trade policies (World Bank, 1974, cited Peace Press, 1975; World Bank, 1970–8; Streeten, 1975). Thus, a 1977 World Bank report was able to welcome 'Strong moves towards liberalisation ... in countries – Chile and Argentina, in particular – which used to be prime exponents of high protection' (Hughes, 1977: 129). These economic measures, and the political repression necessary to enforce them, did not create in Chile a competitive economy, but promoted the domination of foreign monopolies and the domestic interests associated with them (Letelier, 1976).

Thus the World Bank continues to favour conservative fiscal policies, liberal trade and exchange rate policies and the protection of foreign investment. Consequently its lending policies continue to favour right-wing military regimes, who redistribute income and the benefits of economic growth to the rich. The World Bank's practice is clearly a long way from the concern for the rural poor declared in its policy statements. This discrepancy between ideology and practice requires explanation. Is it mere hypocrisy? Is it because local vested interests distort the benevolent intentions of the World Bank? What is the logic of its declared policy of directing resources to the small farmer? And what makes its practice so different?

In order to answer these questions, we first need to examine the problem which, in my view, these policies are designed to solve.

THE PEASANT PROBLEM

The 'target' of rural development, in the military terminology of the World Bank (World Bank, 1975a: 5–6; Chenery, 1974a) is the peasantry, that is, the class of independent smallholders. The existence of peasant producers appears to be an anomaly in a 'modern' capitalist world. Modernisers, of both liberal and Marxist varieties, have tended to assume the superiority of large-scale, capitalist production over peasant production, and thus the inevitability and desirability of replacing peasants by capitalist production. The problem is how to eliminate the peasantry as a class; an alternative solution is to subordinate them to the requirements of capitalism. Peasants have posed the same problem, even more sharply, for European socialist states, who have sought to replace them by collective and state farms, or have tried to make the peasantry finance industrial investment by the state (Mitrany, 1961; Shanin, 1972: 1).

Peasants have classically been defined in two different, and yet complementary, ways. Firstly, peasants are part-societies, defined by their subordinate relations to external markets, the state and the dominant culture (Redfield, 1956). Secondly, they use their own labour, and that of their families, and their own land and tools, to provide for their own subsistence (Shanin, 1971, 1978). 'Peasant economy' (Chayanov, 1925) is not a self-sufficient mode of production (Harrison, 1977; Ennew, Hirst and Tribe, 1977). Peasants can only provide for themselves by both consuming their own produce, and selling and buying commodities. Further, peasant households usually both hire and sell labour-power to supplement family labour, seasonally and as it changes over the life cycle of peasant households, and also family income. Access to land and other sources of income is unequally distributed among peasants. However, neither inequality, nor the buying and selling of labour-power, nor production for the market are sufficient to produce a society of rural capitalists employing landless or 'allotment-holding wage earners' (Lenin, 1899: 177). Peasant communities reproduce themselves as unequal communities, incorporating seasonal and casual wage labour, by producing both for sale and for their own consumption. Unlike proletarians, peasants are not separated from their means of production, but retain control over land and family labour (Williams, 1976b; Bernstein, 1978).

Peasants' control over their main means of production gives them a certain independence and security, which enables them to protect their own way of life. Peasants have responded to new opportunities and have organised production in new ways to improve and protect their conditions of life. They have refused to give up their way of life, and regard with suspicion the plans of outsiders to transform or improve it. The recalcitrance of peasants to outsiders' conceptions of progress, and the peasants' place in them, defines the peasants as a problem. It is the argument of this paper that the ideology and practices of rural development are conceived of as solutions to the peasant problem.

Liberals identify progress with capitalism, which they conceive as production for the market, and the adoption of modern methods of production. Modernity is identified with the diffusion of attitudes and practices to rural producers, and their incorporation into the market economy. Modern attitudes are defined as market-oriented. Modern practices are identified with the adoption of approved mechanical and chemical technologies and scientifically proven forms of cultivation. The object of state policy is to diffuse modern attitudes, inputs and practices, and to establish the conditions necessary for their adoption, and thus the expansion of production for the market (Hunter, Bunting and Bottrall, 1976b, esp. Hunter, 1976a: 43; World Bank, 1975a).

One liberal conception of the peasantry defines the peasant as 'traditional man'. In this view, peasants are bound by tradition, suspicious of individual betterment and confined by lack of imagination and resistance to innovation. They have limited wants or are plain lazy (World

Bank, 1975a: 45; even Johnston and Kilby, 1974: 128; cf. examples cited by Roberts, and Coulson, in this volume). By contrast, Jones, for example, defines the rural producer in Africa as 'economic, that is "rational" man' (Jones, 1960; Schultz, 1964). This view redefines peasants as 'rural capitalists' (Hill, 1970), whose decisions are assumed to be based on utilitarian calculation of the relative costs and returns from allocating scarce resources to alternative ends. There is no need to promote market-oriented attitudes. The task is to provide incentives for commercial production.

In both cases progress is identified with the rationality characteristic of commercial profit-making. The differences concern the means for achieving it. The first solution is to remove control of resources from peasants, turning peasants into wage workers and leaving the direction of production in the hands of capitalist entrepreneurs. Other solutions seek to change, rather than eliminate, the peasantry. 'Traditional' peasant producers can be 'transformed' by removing them from their 'traditional' environments, and resettling them on modern schemes under the direction of experts and officials. 'Rational' peasant producers can be 'improved' by providing them with modern inputs, teaching them modern practices, and facilitating the marketing of their produce (cf. examples cited by Coulson, in this volume). The problems of the peasantry are explained by their exclusion from the 'modern', that is the market, 'sector' of the economy (Chenery, 1974b: xv) rather than by their exploitation by it. The solution is to incorporate them into it.

Marx and Engels saw capitalism as a necessary condition for the development of production. Engels predicted 'that capitalist production is absolutely sure to run over their (the peasants') antiquated system of small production as a train runs over a pushcart' (Engels, 1894: 647; Marx, 1867: 927–8). Since then, Marxists have continued to seek to maintain the orthodox assumptions by defining the facts in terms of the logic of the theory. They have analysed peasant production as a form of commodity production, whose logical development is capitalism, where labour-power itself is a commodity. Consequently peasants are to be understood in terms of the logic of capital. In this view, peasants are seen as a transitional class, which will inevitably be displaced by the technical superiority of capitalist production. They are able to sustain their existence in the face of capitalist competition only by overworking and impoverishing themselves. In this way, they serve the interests of capital by selling commodities cheaply. The backwardness of peasant production holds back the development of the forces of production, which are identified with capitalist methods of production, and the advance of civilisation (Kautsky, 1899; Marx, 1894: 119–23; Lenin, 1899: esp. 27, 172–87, 596–600; Banaji, 1973, 1976a, b; cf. Harriss, J. 1979a; Djurfeldt, 1977).

Alternatively, peasants are conceived as workers, maintaining a semblance of independence in the form of household production, but actually providing labour-power to capitalist firms as, in effect, outworkers. Kautsky and Chayanov both recognised the process whereby firms incorporated peasant producers into their process of production by advancing credit for food and for means of production and buying their crops. Capitalists may intervene in the organisation of production, laying down inputs and crop rotations. Eventually, they develop the whole complex of agro-industrial activities which 'convert the farmers into a labour force working with other people's means of production' (Chayanov, 1925: 262; Bukharin, 1917: 95, 120–1; Kautsky, 1976: 44–5; Banaji, 1976b; 1977a, b; Cowen, 1979, and in this volume). In this way capitalists are able to command the value of the labour-power of rural producers without having to organise and manage the production process itself, and to enhance the productivity of peasant producers by supplying them with improved means of production. Peasant producers are modernised by subjecting them to the control of capital.

The complete integration of rural producers into the process of production of capitalist firms is a special case, as in the displacement of peasant producers by capitalist farmers (Bernstein, 1978). Most smallholders are neither independent producers, able to provide for themselves without entering into relations with the market, nor are they outworkers, whose means of production, means of subsistence and markets are all provided by the capitalist firms to which they are subordinated.

Since, as Marx points out, the liberal conception of society is defined by the sphere of exchange, it can make no fundamental distinction between the relations of production of the family farm and the capitalist farm. The continued existence of the peasantry is explained in terms of the competitiveness of the small farmer, who is seen as a capitalist farmer in miniature. Competitiveness is measured in relation to the scale of production, and its relative economies and diseconomies, with no reference to differences in the relations of production (Sen, 1975). Liberal theory applies to peasant production the categories for *describing* the phenomena of capitalism, profit, wages, capital. Peasants do save and invest. They do buy and sell in the market in order to realise an income. However, as peasants they do not make profits or accumulate capital, let alone pay themselves a wage (Chayanov, 1925).

Chayanov showed how production by peasant households could be understood as a means of meeting the subsistence requirements of the family. Given the capacity of the household head to command family labour, itself problematic (Wallace, 1979: 63–79), household labour will be used to expand production necessary for the family's subsistence beyond the point when the additional returns would justify the employment of wage labour. Where increased production of, or falling demand for, a commodity causes prices to fall peasants, who have no other way of meeting their cash needs, may even increase production, and will survive in conditions in which capitalist farms would go bankrupt, unless they are heavily subsidised (Forrest, in this volume; Brett, 1973).

Both liberals and Marxists have conceptualised peasants in terms derived from their respective ways of understanding capitalism. An adequate understanding of the peasantry needs to examine both the specificity of the social relations of peasant production, and the terms of their relations to the wider world, and particular to capital and the state. Peasants reproduce themselves through their relations to the capitalist market. Consequently the forms of peasant production are defined by their incorporation into the circuits of capital.

Marx, by distinguishing different relations of production, is able to understand capital as a specific form of social relation, by which capital acquires command over the value of the labour of producers, and not as a universal condition of social production. Marx is able to explain the relative efficiency of peasant producers not by the scale of their operations, but by the social relations through which they produce (cf. Taussig, 1978: 80–3). He cites Cairnes, who sums up the main argument succinctly in arguing for the superiority of family farming in the United States over slave plantations: 'The peasant proprietor appropriating the whole produce of his toil, needs no other stimulus to exertion. Superintendence is here completely dispensed with' (cited Marx, 1867: 450). Marx also argues that capital treats land like labour-power as a source of profit, and not, as peasant producers do, as a source of livelihood: 'all progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil' (Marx, 1867: 638). He argues further that peasant producers do not have to finance the profits and rents of agrarian capitalists and landowners and thus, it may be added, the high levels of socially necessary consumption and political expenditure of an agrarian aristocracy (Marx, 1894: 806). In these ways Marx is able to explain the continued existence of peasant producers, though he assumes that the development of agricultural production requires it to be organised on large, capitalist farms (Marx, 1894: 807; cf. Djurfeldt, 1977).

Marx points out that capitalism does incorporate commodities produced by non-capitalist producers into the 'circuits of capital' (Marx, 1885: 185–90). He does not suggest that these commodities exchange in any determinate proportion. Marx builds the argument of *Capital*, vol. I, around the assumption that the mechanism of competition equates, one with another, the values of commodities, that is the social labour time necessary to produce them. Abstract labour, which produces value measured in terms of labour time, is a form of labour specific to capitalist production. It cannot be applied to peasant production, where labour does not take the form of homogenous abstract labour, producing value by the hour. Marx argues that surplus value can only be produced by wage labour, which is able to produce more value than the cost of producing itself (Marx, 1867). Consequently the theory of surplus value is only applicable under capitalist relations of production, and cannot be used to analyse relations between peasant producers and capital. Nor is it possible to do so through a theory of unequal exchange, since there is no measure, but the market itself, for what would be equal exchange.

Clarke suggest that commodities simply are exchanged and that these exchanges are not, even in principle, regulated by any laws of the capitalist market (Clarke, 1977). Marxists can only get round this problem by defining peasants as quasi-workers, engaged not in unequal exchange but in the production of surplus value (Banaji, 1977a, b; Cowen, 1979. and in this volume). However, the terms of the relations between capital and peasantry cannot be deduced from the logic of capital, nor derived from a specific case. The command of land and labour by the household is the basis for the continued struggle between the peasantry and capitalists and the state for effective control of the conditions of production (Bernstein, 1978; Cowen, in this volume). It is the argument of this paper that the current rural development policies promoted by agencies such as the World Bank are strategies for subjecting peasants to the control of capital and the state.

THE PEASANT PROBLEM: A SOLUTION

The capacity of peasants to provide for themselves by producing for their own consumption and for exchange on local markets has been undermined by the expansion of commodity relations and the imposition of taxes. Rural manufactures have been displaced by factory-made goods. Imported commodities have become social necessities (Cowen, in this volume). Labour power has acquired a cash value. This has produced the 'compulsive involvement' of peasants in the market (Bharadwaj, 1974:3). Peasant incomes are vulnerable to the vagaries of the climate, the incidence of crop, animal and human disease, the pressure of population on land, and the uncertainties of the markets for which they produce. A consequent shortfall in household earnings can lead to peasants mortgaging their crops or entering into a cycle of indebtedness. In this way, they can be pressed into growing particular crops, on terms dictated by the traders who purchase them. A general decline in the terms of trade for the commodities they produce will force them to increase their output in order to provide for the needs of the household

(Bernstein, 1978: 64–5; Harriss, B., 1978: 24–43, 1979a; Clough, 1977). Through this 'simple reproduction squeeze' peasant households are forced to intensify their labour in order to maintain their levels of consumption.

Nevertheless, the control which capitalists can exercise over peasant producers remains partial. Access to alternative markets, legal or illegal, or to markets for different commodities and for labour-power, competition among traders and the household's measure of self-provisioning all give peasant producers a degree of independence and bargaining power *vis-à-vis* capitalists and state trading organisations. It is this degree of control over their conditions of production which make peasants a problem for those who wish to exploit them.

If peasants come to depend on the market, both for their means of subsistence and to acquire their means of production, then they can only finance future production by selling commodities to the market. By limiting their freedom to sell to competing buyers, the state can complete their subordination to the requirements of capitalist firms, or the state itself. In this way, capital would be able to have its cake and eat it, that is, it will be able to take advantage of the ability of peasants to produce commodities, including labour-power, cheaply, without separating producers from the land and having to organise and control wage workers, and without having to provide incentives for the peasants to increase output or improve the quality of their produce. This solution is facilitated if the cost of rural development schemes can be passed on to the state, and ultimately to its ostensible beneficiaries, the peasants themselves (Bernstein, 1978).

In Africa the classic example of this form of incorporation of producers into the market is the Gezira scheme, often cited as a successful rural development scheme. The irrigation of land in the Nile triangle by the Gezira Board enabled them to require tenants to produce cotton at prevailing prices as a condition of their tenancy. It requires a system of administrative controls comparable to those of capitalist enterprises for its operation (Barnett, 1977; Barnett, and Wallace, in this volume). In certain other instances, the incorporation of the peasantry has been effective in the absence of state control of the conditions of production. In cases of the production of certain high value crops, such as tea, tobacco or sugar, monopsonistic purchasing firms, such as Brooke Bond, Booker Bros. or British American Tobacco, have been able to provide means of production, enforce methods of production, and require peasants to produce cotton, tobacco and even palm oil of a form or quality not suitable for sale on local markets, and determine the price of the produce. These controls are facilitated on estates where firms establish rural producers as outgrowers, whose dependence on the capitalist owner of land and other means of production is close to that of the proletarian (Cowen and Heyer, in this volume; Feldman, 1969; Marcussen and Torp, 1978: 180–2).

It is in this context that we can understand the 'new seed-fertiliser-water technology for wheat, rice and maize' (World Bank, 1975a: 5), the so-called green revolution, as a strategy for subordinating peasants to capital (Pearse, 1977). The technology of the green revolution is presented as a means of increasing the productivity and incomes of peasant producers. This representation abstracts it from the complex institutional arrangements in which that technology, and the peasants who use and are used by it, are embedded (George, 1976: 115).

High-yielding varieties depend on the complementary provision of appropriate inputs of seeds, controlled water supplies, fertiliser, pesticides and herbicides, and their application according to prescribed specifications. The farmer cannot provide these inputs from his own production, appropriate them from nature or, as is often the case with animal manure, acquire them from neighbouring pastoralists. The methods and timing of production must be adapted to the technology provided, rather than in accordance with the changing circumstances of the household. Production is intensified by a combination of mechanisation, chemical technologies and the employment of wage labour. Consequently, the adoption of the new technology requires increased spending on inputs and access to government supplies and subsidies. The new technologies are used to produce crops for sale, so that the increased cost of the inputs can be paid for. They are often unavailable or unsuitable for local foods, and can only be grown for cash. Peasants who apply them come to rely on the market to purchase both their means of production and their means of subsistence. As Lester Brown nicely put it, 'using purchased inputs and marketing additional production, peasant farmers are drawn into the mainstream of economic life' (Brown, 1970; cited George, 1976: 116).

Capitalist farmers benefit from their superior access to purchased and publicly provided irrigation land, tube wells, fertilisers, machinery, and services, as well as their capacity to apply expensive inputs at the appropriate time and on a large scale. As a result, the pattern for small farmers to produce higher yields per acre, and at lower cost, has been reversed in some cases. Poorer farmers often cannot afford to adopt the new production methods. They may rent or sell land to those who can; alternatively, they have to borrow money on onerous terms, or provide cheap labour for the new class of capitalist farms. Taussig shows how the introduction of the new technology in the Cauca valley, Colombia, undermined the ability of peasants to provide for themselves, and forced them to work on sugar plantations. Their intensified production on their own plots made it possible for plantations to pay very low wages, and yet for them to cover their subsistence needs (Taussig, 1978).

There is evidence from several Asian countries that real agricultural wages have fallen as a result of the introduction of new technology (White, 1979; Griffin, 1974: 32–3, 71–2). Thus the new social technologies consolidate the dependence of the poor on patronage, accentuate existing inequalities and generate new forms of class inequalities (Pearse, 1977; George, 1976; Griffin, 1974; Hewitt de Alcantara, 1976; Harriss, J., 1979b: 215–306; Collins and Lappé, 1979: 854; Wallace, in this volume).

The costs of the new technology may be paid for in various ways. Seeds and chemicals are often subsidised in the first instance and or supplied on credit. Water may be supplied by state irrigation schemes. They are expensive to establish and maintain, and the peasant has to adapt his patterns of production to the administration of the scheme (Wallace, 1979, and in this volume; Barnett, 1977, and in this volume; Palmer-Jones, 1977a,b). High-yielding varieties also require such optional and not so optional extras as bulldozers for levelling land, tractors for ploughing and even combine harvesters, as well as the cost of extension services, agriculture ministries, agro-service centres, agricultural credit corporations, and a host of other agencies promoting 'rural development'. The state can meet these costs out of general revenue. It must recoup this by taxation, borrowing, or printing money. Inputs can be recouped in higher prices, but only if domestic, or foreign, consumers can be made to pay for them, a power largely restricted to agro-industrial corporations. Costs can be recouped from the producers, but only if they can be forced to sell back to the agencies who supply them.

The new technology makes farm production dependent on the scientific knowledge controlled by international research institutes, and on the commodities supplied by multinational corporations (Brown, 1970; cited George, 1976: 116–17). The increased adoption of high-yielding varieties was followed by increases in the price of fertiliser, which firms raised more rapidly than the rising price of oil, their main feedstock. Dependence on fertiliser opens a market for foreign manufacturers, taking advantage of protective tariffs and selling to government agencies at high prices. Governments expand the market for agro-industrial corporations by subsidising the cost of their products, as well as the costs of producing many of the crops they purchase (George, 1976: 301–12; Feder, 1976).

These different examples show that those rural development strategies which have succeeded in increasing agricultural production have been those which have solved the 'peasant problem' by increasing the dependence of producers on production for the market to provide both their means of subsistence and their means of production, and by subjecting them to private and state monopolies in the provision of inputs and the purchasing of commodities. Agro-industrial corporations have benefited in all these cases. Peasants have benefited in some cases, at the cost of increasing dependence and even loss of control of the land. In others, they have been impoverished and dispossessed.

THE WORLD BANK: IDEOLOGY AND PRACTICE

The apparent shift in World Bank agricultural policy in the 1970s arose out of the developments of the 1960s. Three major influences stand out. The first was the World Bank's intensified involvement in India. In 1965–7 India's foreign exchange crisis gave the World Bank the chance to direct India's economic policy towards devaluation, the elimination of import controls, and a shift in agricultural policy away from ineffective agrarian reforms and community development projects towards the promotion of technical improvement. The World Bank saw the biggest problem as a Malthusian increase in population, to be solved by birth control and the green revolution (Payer, 1974: 166–83; Mason and Asher, 1973: 372–3, 434, 455–6; 675–83; Woods, 1967, 1968: 13–14; McNamara, 1969, 1971; Rudra, 1978).

In India and Mexico, where the new technologies were first developed, dramatic improvements in yield were realised in the best irrigated and most suitable areas for wheat. It was more difficult to extend the new technology to dry areas, and to other crops, where the increases in yields of wheat have not been approached. What is more, the new strategy appeared to be increasing inequalities, marginalising the rural poor, and developing capitalist farming. Hence the growing stress on employment and distribution. These problems would be solved by poor countries encouraging low-wage, labour-intensive export industries and small capitalist production, the latter being identified with assistance to the 'informal sector'. Integrated rural development projects would provide the infrastructure necessary to extend the new technologies to new areas, and international research institutes would develop technologies for new crops (Feder, 1976; Pearse, 1977). In 1967 the Puebla project was initiated in Mexico to extend the benefits of the green revolution to maize-producing small farmers, apparently at some cost and with modest effect (World Bank, 1975a: 46–7).

The second major influence was the awesome example which Vietnamese peasants had provided to McNamara and his ilk of their capacity to resist the monstrous military machine he directed. McNamara argued simply that 'economic backwardness' breeds violence. Development would cure economic backwardness, and 'without development there can be no security' (McNamara, 1968, cited Spitz, 1977). To be successful 'development' would have to reach the poor, the World Bank's new 'target' group. Thus McNamara's translation from the

Department of Defence to the Presidency of the World Bank was followed, successively, by the establishment of the Pearson Commission to plead for more 'aid' (Pearson, 1969; McNamara, 1968, 1970:8), a concern with unemployment, underemployment, which means poverty – even among those who overwork (ILO, 1977: 18–19), and redistribution with growth (Chenery, 1974a; McNamara, 1971, 1972, 1975) and a shift in priorities towards rural development and the rural poor (McNamara, 1973) and redirecting growth to meet 'basic needs' (McNamara, 1977: 23; ILO, 1977; Grant, 1977).

The third major influence was the shift in the strategy of multinational corporations away from direct investment towards joint ventures, often with governments, and the international marketing of technology, services and physical commodities (Petras and Morley, 1976; George, 1976: 160, 171). Prominent agro-industrial corporations, like Booker Bros. and Brooke Bond had to sell their plantations in countries like Guyana and Sri Lanka, and opened up new sources of supply and profits in promoting outgrower schemes and managing irrigation projects (Cf. Heyer, Wallace, in this volume). BUD, an agro-industrial firm in which the World Bank's subsidiary, the IFC, has invested heavily, has established plantations in Senegal and elsewhere, briefly including the Kano River Project in Nigeria, to open up West Africa to produce vegetables for out of season export to Europe (research by Maureen Mackintosh, cited Brett, 1978; Jackson, S., 1979). Oil corporations and other suppliers have expanded their markets for fuel, fertiliser, pesticides and herbicides. Esso established 400 agro-service centres in the Phillipines to distribute them to farmers, but closed the centres down because they did not make profits (George, 1976: 119). The World Bank has established farm service centres, at public cost, on the Funtua scheme in Nigeria.

There is clearly an affinity between these developments, and the establishment of a new economic orthodoxy in place of the previous assumption that development required a high rate of industrial investment, financed from agricultural production. It was argued that growth in output was not necessarily incompatible with more equitable asset income distribution (McNamara, 1970: 12; Chenery, 1974b: xiv-xv; Ahluwalia, 1974a: 17; 1977) or with strategies to expand 'employment' by encouraging labour-intensive production of crops and manufactured goods (McNamara, 1971, 1975; ILO, 1972, 1977: 16; Ahluwalia, 1974b: 46). Economists rediscovered old arguments (Chayanov, 1925; Warriner, 1939) for the efficiency of small farmers (World Bank, 1975a: 12; Lipton 1977: 16; Yudelman, 1976a: 368). Consequently, it would be possible to promote economic growth, more equal distribution of income and assets, and political stability, all at the same time.

The new orthodoxy shares the dualist assumptions of its predecessors. It distinguishes two sectors, a capital-intensive modern sector, with a high ratio of 'capital' to 'labour', and a labour-intensive sector where capital is relatively scarce (Chenery, 1974b: xiv-xv; Ahluwalia, 1974b: 46). Capital is taken to be the source of increased productivity. The problem is that capital is concentrated in the modern sector, which employs relatively few people, and appropriates the benefits of high productivity, and of governments' fiscal, trade and spending policies, which tend to cheapen the cost of capital. The other sector is seen as 'outside the market sector', 'having only weak links with it' (Chenery, 1974b: xv). It lacks the capital necessary to employ its surplus labour. Thus productivity and incomes are low (Chenery, 1974a; ILO, 1977; Lipton, 1977).

Capital should therefore be reallocated, at the margins, to labour, so that it can set, or be set, to work. This requires a redistribution of assets from the rich to the less rich (Ahluwalia, 1974b: 46–7) and even the poor. This will solve two sets of problems. Greater equality will expand demand for the goods needed by, and many of the good produced by, poor and underemployed men. Secondly, a reallocation of resources will increase output, by increasing the productivity of underemployed labour. Redistribution will further increase output on an additional assumption, that the marginal 'capital output ratio' is lower for small than for large producers, that is that small producers use extra capital (which includes land by definition) more efficiently than large, presumably by applying more 'units of labour' to each 'unit of capital' (ILO, 1977: 33, 50–6; Lipton, 1977: 30–1).

The aim of development policy is to provide the poor with capital. It is assumed that the poor, being poor, tend to consume most of any additional income (Ahluwalia and Chenery, 1974d). This rests on treating the consumption patterns of peasants, who have to provide for future earnings out of current income, as though they were the same as proletarians, who do not. Consequently it is not sufficient to reduce taxes and improve the farmers' terms of trade to increase the incomes with which peasants can buy the items they need. Assistance must be provided, at least initially, in kind, in the form of state credit, seeds, fertilisers and extension programmes. This in turn requires the creation of a costly bureaucratic apparatus to provide services. Programmes to provide inputs to farmers on credit require a mechanism for recovering the money advanced. The forms and costs of rural development practised by the World Bank follow logically from the assumptions of the economic analysis on which it is based, central to which are that rural development is brought to the peasantry from outside, and incorporates them into the market economy.

These assumptions are evident in the World Bank's new strategy for rural development. The 'low productivity' of smallholders will be raised by providing them with 'new or improved service systems to support a modern system of agriculture' in the form of the 'new seed-fertiliser-water technology for wheat, rice and maize' (World Bank, 1975a: 5), and by integrating them into the market economy. Thus rural development 'is concerned with the modernization and monetization of rural society, and with its transition from traditional isolation to integration with the national economy' (World Bank, 1975a: 3, 5).

The small farmer is not considered a possible initiator of agricultural development, but as a 'beneficiary' (World Bank, McNamara, *passim*). Rural development is not the business of farmers. It is accomplished by the state, by international agencies and their experts, and sometimes by international agro-capital. It is seen as an administrative process, through which planners design and execute their strategies. Consequently the local 'beneficiaries' of rural development must be organised to fit the administrators' convenience. Hence the enthusiasm of McNamara for the villagisation programme in Kigoma region of Tanzania (McNamara, 1975; World Bank, 1975: 23–4; cf. Coulson, in this volume).

The World Bank's 'philosophy of agricultural development' (World Bank, 1975a: 61) is an ideology of benevolent technocracy. It treats the state as a machine, which serves the objectives of whichever group directs it, and not as a relation of production, which subjects the producers to the domination of their rulers (Corrigan, Ramsay and Sayer, 1978: 7–13). The technocrats, and the international experts who advise them, are the ghosts in the machine, costlessly and impersonally allocating resources in accordance with their criteria of economic rationality and social justice. The World Bank and its advisers recognise that state policies and resources may be diverted to serve the interests of privileged groups, and that it may prove difficult to identify appropriate policies and to execute them efficiently. They cannot ask whether these problems arise from the nature of the whole enterprise, and whether they should be involved in the business of rural development at all (Bell, 1974a; Lipton, 1977: 164, 338–49).

The efficiency of peasant producers in using resources contrasts sharply with the inefficiency of government institutions in providing those resources (Coulson, in this volume; Williams, 1975, 1976b). Consequently there is an inherent contradiction in promoting the lower cost expansion of production by small farmers through the provision of rural development schemes. The World Bank recognises that it is much more expensive to provide benefits to large numbers of small farmers than to a small number of large ones. Therefore a number of World Bank projects, like the Funtua scheme, focus their extension efforts on 'selected contact farmers' (Yudelman, 1976a: 378), presumably on the assumption that the benefits will then trickle down to other farmers (World Bank, 1972a: 29). Alternatively, settlement and outgrower schemes, cooperatives and crop authorities are used as instruments of administration, through which governments can provide services and reclaim debts. Settlement schemes benefit small numbers of farmers, if at all, at considerable cost. Cooperatives and 'progressive' ('contact') farmer policies tend to provide commercial opportunities to a small number of influential farmers and traders, and to consolidate their control of local patronage (Van Velsen, 1973; King, Coulson, in this volume). It is of the nature of rural development itself, that is, of the intervention of public agencies in peasant production, that it should tend to distribute resources to the better off and subject peasant producers to state control, and to agro-capital.

The World Bank recognises that projects must benefit the 'powerful and influential sections of the rural community' (World Bank, 1975a: 40) in order to avoid their opposition. Consequently they simply assume that the introduction of roads and rural services will mainly help the rural poor (Yudelman, 1976a: 375), so that there is no need to provide any exclusive benefits to the poor, though they do include special programmes for the rich.

The aim of the new strategy is to increase the production of the poor, without loss to the rich, as 'intervention which alters the distribution of the *increment* to the overall capital stock and income will arouse less hostility from the rich than transfers which bite into their existing assets and incomes' (Bell, 1974a: 56). Alternatively the rich can be compensated for losses which result from programmes to help the poor (Bell, 1974a: 59; ILO, 1972). There is no reason to suppose that the rich will be any happier with a redistribution of capital stocks to the poor in the future than they would be with an immediate redistribution (Weeks, 1975). The rich are as likely to be as effective in claiming their compensation as in avoiding any losses which development policies are designed to impose on them, apart from appropriating the benefits intended for the poor. Neither the World Bank nor its advisers are seriously committed to a policy of redistribution, which requires a direct assault on the power of the rich (Leys, 1975). But then, the World Bank 'did not say that we would try to redistribute income *per se*' (Yudelman, 1976b: 24; World Bank, 1975a: 17).

The high costs of rural development programmes do not fall on the people who benefit from them. World Bank loans are not repaid from the net returns on the projects, but from government revenues and further borrowings. The World Bank is interested in seeing that governments recover the cost of projects as far as possible, and that they contribute to foreign exchange earnings. The World Bank does not depend on this for the recovery of its loans. World Bank projects provide governments with foreign exchange, in return for World Bank agreement on the way in which the money is spent and influence on the general economic policies of governments.

THE WORLD BANK AND INTERNATIONAL CAPITALISM

The World Bank has increased its agricultural lending as one of the ways of increasing its total lending. At the same time, the foreign exchange deficits and external debts of the governments of underdeveloped countries have increased. The major increase in loans has come from the foreign banks in the Euroloan market. They have displaced official loans and grants as the most important source of net money flows to underdeveloped countries, and suppliers' credits as the main source of private loans. Most private bank loans have gone to the richer of the underdeveloped countries, such as Brazil, Mexico, Korea, Argentina and Phillipines. The major borrowers in Africa have been Algeria, Zaire and, recently, Nigeria. Poorer countries have had to depend on official loans and grants. The World Bank has lent heavily to the main borrowers of Euroloans. Through the IDA it has increased its lending, on concessional terms, to poorer countries (Hughes, 1977: 82, 110–12; World Bank, 1973: 6–13).

The public debts of underdeveloped countries have increased rapidly and steadily since the 1950s. This was the ironic but inevitable result of policies of industrialisation by 'import-substitution', which could only be financed by increasing export earnings, mainly from primary products, which also had to finance the local and import costs of expanding civil and military bureaucracies (cf. Beckman, in this volume). In the 1970s the boom in the prices of certain commodities gave some governments of underdeveloped countries the chance to raise loans on the Euroloan market. In 1974 and 1975 most governments in underdeveloped countries had to borrow money to pay the increased prices for oil and manufactured goods imports. These loans were provided from the funds temporarily accumulated by the oil-exporting countries. Private bank loans to underdeveloped countries maintained the profit levels of merchant banks and helped to solve the problem of recycling petrodollars and to maintain international trade levels during a period of recession. This was done by increasing the burden of these countries' foreign debt, which will continue to fall due, and in increasing amounts, through the 1970s and 1980s (World Bank, 1971: 51–2, 1976a: 67; Hughes, 1977: 26, 53, 70–120; Rothschild, 1976a).

The problems for international capitalism are twofold. Firstly, how can countries pay for their imports without resorting to measures such as import licences, multiple or overvalued exchange rates, controls on foreign exchange and the remittance of profits, which hinder the free flow of trade. Secondly, how can countries repay their debts to private banks, mainly in the United States, and to official lenders, when they do not earn enough from their exports to do so.

The solution is twofold. The World Bank continues to admonish underdeveloped countries to reduce tariffs, devalue currencies and end import and foreign exchange controls. They argue, with no reference to differences in the nature of the markets for the commodities exported and imported by different countries, that these measures will universally encourage export production, increase export earnings, and in this way enable countries to pay for their imports even without reciprocal action from developed countries. They recognise that prices of primary products tend to fluctuate, and may tend to fall relative to the prices of manufactured goods. Consequently, they recommend a shift towards the export of labour-intensive manufactured goods. If all countries were able to follow the examples of Hong Kong, Taiwan, and South Korea, this would intensify the competition among underdeveloped countries to sell commodities as cheaply as possible, and thus with the lowest possible wages. The expansion of tea exports from East Africa has already weakened the market position of Asian tea exporters, and of the workers who pick the tea. Developed countries would extend their controls on manufactured imports (Hughes, 1977: 39–52, 123–9; World Bank, 1972a: 99–102; Belassa, 1975; Brett, 1978). These policies may lead to imports rising more rapidly than exports, at least in the first instance. Hence the need for more loans. How are they to be repaid?

They are not necessarily to be repaid. Debts will be rescheduled, and loans will be renewed. Governments will contract new debts to pay off old ones. Even when, as in the case of Zaire, a government fails to pay the interest on its debts, it must not be seen to default: the IMF and the World Bank will intervene to renegotiate the definition of its obligations rather than set a bad precedent. The conditions of the renegotiation can be set, to a large degree, by the IMF and the World Bank, who can assure private lenders of the credit-worthinesss of their debtors. This enables them to direct debtor countries to the liberal trade and exchange policies they approve (Hughes, 1977: 53, 91–5, 103–5; McNamara, 1976, 1977; World Bank, 1976: 67–8).

Certain major difficulties remain. Poorer countries are unable, and sometimes unwilling, to contract large loans from commercial banks; this includes most African countries. They must continue to rely on concessional loans and on grants.

IMF loans are limited to short-term credit while the debt problems of the underdeveloped countries are increasing with time, and are expected to continue to increase (McNamara, 1976: 17–20). Generally, World

Bank loans are limited to paying the foreign exchange costs of particular projects, which contributes to, rather than relieves the debts of its borrowers. This also restricts its capacity to influence the general economic policies of the governments it lends to (van de Laar, 1976a). Furthermore, loans must be guaranteed, and payments of interest, if not always of the principal, assured. Consequently private bankers have pressed for an increase in official lending to underdeveloped countries, and even for the governments of developed countries and multilateral agencies to guarantee or to take over some of the liabilities of commercial lending (McNamara, 1976: 20; 1977: 21; World Bank, 1976: 68; Rothschild, 1976b).

The World Bank's new strategy of rural development and income redistribution is largely rhetoric. It appears as if it is addressed to the social-democratic consciences of the practitioners of the business of rural development, and to defuse the radical critics of the practice of development. Its logic is to intensify the 'compulsive involvement' of small farmers in the market. It legitimates the World Bank's longstanding commitment to liberal trade and exchange policies, by arguing that these promote the welfare of the worst off. It finances, on a greatly expanded scale, a continuation of the various forms of rural development undertaken, with more or often less success, by colonial governments. These forms of rural development contradict the declared objectives of rural development. They do serve other purposes, providing employment to experts, or markets for firms, subordinating rural producers to the requirements of agro-industrial firms, enriching the better off, and extending networks of political patronage. They should be understood in the context of the more fundamental, and pressing responsibilities of the World Bank, to which it has consistently been committed since its inception, namely to ensure an 'open floor' to international trade, finance and investment throughout the capitalist world, and to manage the liquidity problems which arise from the relation of governments, and producers, in underdeveloped countries to international capitalism.

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3 Agricultural Policies in Mainland Tanzania, 1946–76[1]

ANDREW COULSON

Government is taking an ever-increasing part in stimulating development; the old idea that Colonial governments exist solely to maintain law and order with the addition of social services is fast giving way to a more active conception . . . John Wakefield, Planner of the Groundnuts Scheme (1946).

The 1974 Operation (Planned) Villages was not to be a matter of persuasion but of coercion. As Nyerere argued, the move had to be compulsory because Tanzania could not sit back seeing the majority of its people leading a 'life of death'. The State, had, therefore, to take the role of the 'father' in ensuring that its people chose a better and more prosperous life for themselves. Juma Mwapachu, District Development Director, Shinyanga (1976).

THE GROUNDNUTS SCHEME

The Second World War influenced the ways in which governments looked at development. It demonstrated what could be achieved by management of a command economy run by the government in collaboration with the multi-national corporations. It encouraged beliefs in mechanical power, technological solutions to problems, and in the superiority of European (or American) expertise. The Keynesian revolution legitimised the use of 'aid' to relieve the situations in backward areas of advanced countries, and the same logic was applied to the backward countries themselves.

These ideas were present to greater or lesser extent in the three main agricultural policies attempted in Tanganyika in the post-war years. The first, about which little more will be said in this paper, was the encouragement of white settlers. They were expected to have capital, and to gain expertise quickly if they did not have it already. Their main problem was lack of land, and it was this that brought the policy to a sudden halt in 1953, after the emerging nationalist movement had successfully taken the Meru Land Case to the United Nations. The second agricultural policy of the post-war years was the Groundnuts Scheme, in which European expertise was to be applied not in the private sector but on very large government-run state farms. The third policy was 'land development and soil conservation schemes' under which the mass of the African population was compelled, by the threat of fines or imprisonment, to carry out agricultural practices supposed to be to their good.

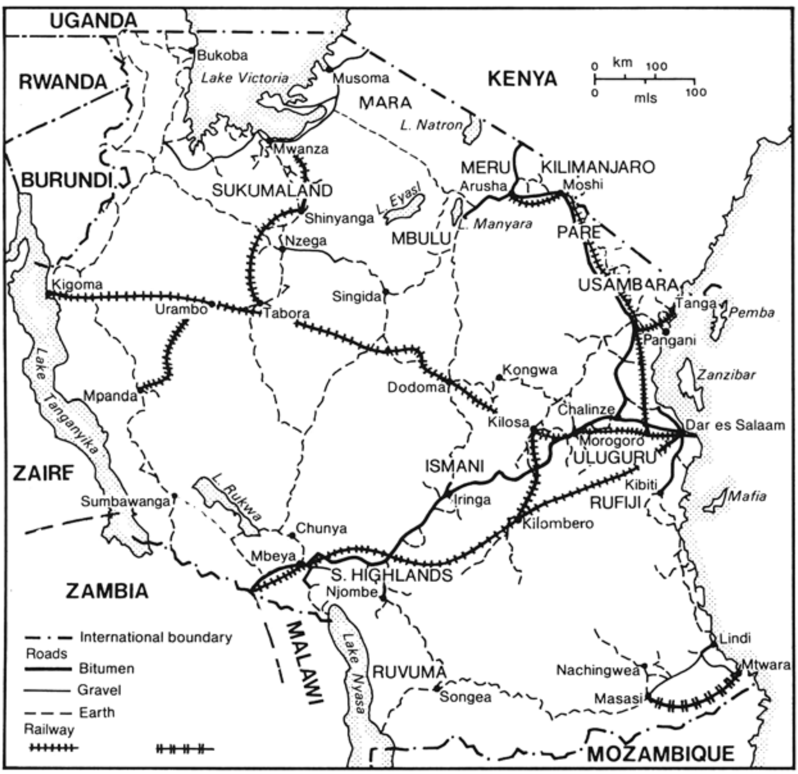
The East African Groundnuts Scheme was suggested in 1946, by the General Manager of the United Africa Company, as a means of dealing with the post-war shortage of edible fats and oils. The Tanganyikan Director of Agriculture prepared the first outline plan. The more detailed proposals that were accepted by the British Labour government a few months later meant that the government took all the risk, while the United Africa Company and some other companies were employed as subcontractors on cost-plus contracts. The project was costed at £24 million (this included a new harbour and 150 miles of railway) and the target was the cultivation of three million acres of groundnuts. By the time the scheme was wound up less than ten years later £35 million had been spent, and what remained was little more than three large areas of cleared bush.

The failure was discussed in detail in the British press. It transpired that the planning had been rushed: only nine weeks had been spent in field reconnaissance, and much of this was from the air. No detailed mapping of soils or topography had been carried out, and there was a marked lack of information about rainfall patterns or likely crop yields (Frankel, 1950).

In more detail, the scheme failed for the following reasons:

1. The rainfall at the largest site was insufficient for groundnuts. This site had been approved on the basis of only seven years of rainfall readings at a site which was later shown to receive somewhat more rain than the land actually cleared (Overseas Food Corporation, 1956: 31).
2. Some chemical tests of the soil were made, but no mechanical analysis. This would have shown up a clay content which ensured that the land set hard in the dry season, effectively confining agricultral operations to periods when the soil was wet. It would also have identified an abrasive content in the soil which led to rapid wear of implements (Wood, 1950: 179–81; OFC, 1956: 31–2).

3. The mechanical equipment was untried in the conditions (Wood, 1950).
4. Even with new machines there were problems with spare parts and maintenance, made worse by difficulties with inexperienced drivers and delays in clearing goods through the congested ports of Dar es Salaam and Mombasa.



Map 1 Tanzania

5. Where groundnuts grew, as they did briefly at Urambo and Nachingwea, they were attacked by rosette disease, for which, at the start of the project, there were no resistant varieties (OFC, 1956: 33–5).
6. Headquarters sites at Kongwa and Nachingwea were built before

adequate water supplies had been found. This would have made it impossible to switch to more labour-intensive production methods, if this had been thought desirable (Frankel, 1953: 151–2).

7. Although most of the points above were obvious to technicians in the field by the end of 1948, policy changes were not made until well into 1950. This was partly because responsibility was shared between a board of directors in London, a headquarters organisation at Kongwa, and two leaders on each site (the second for the firms of contractors hired for the land-clearing operations). The London officials were particularly unwilling to believe that all was not well (Wood; 1950: 147–50).

The most experienced agricultural officers in Tanganyika were involved in this project, and yet, of these seven reasons for failure, five were agricultural considerations of a most elementary kind. Rosette disease was identified as a major constraint on groundnut production in the literature produced by the Ministry, such as the handbook for extension workers (Rounce, 1946), or the 1931 Annual Report. The possibility of soil compaction making cultivation difficult in the dry season is common in tropical agriculture. The vegetation at Kongwa was typical for a marginal rainfall area. And the difficulties with supplies and untested machinery should have been predicted by those who had served in the War. Blind faith in machinery and large-scale operations organised by government led the most experienced agriculturalists of the day to use £35m on a project that had so many flaws that if it had not failed for one reason it would still have failed for several others.

LAND IMPROVEMENT AND SOIL CONSERVATION SCHEMES

The Groundnuts Scheme was administered by the British Ministry of Food. The main activity of the Tanganyikan Department of Agriculture in the post-war years was the administration of land improvement and soil conservation schemes. Bylaws covering almost every conceivable aspect of agricultural production were passed under the 1927 Native Authorities Ordinance and enforced with fines or imprisonment in Native Authority courts, i.e. by the chiefs. The largest of these schemes were the Sukumaland Development Scheme, the Mbulu Development Scheme, the Uluguru Land-Use Scheme and similar schemes in the Usambara and Pare mountains, and the Iringa Dipping Scheme. But less formal schemes of similar conception covered virtually the whole country by the mid-1950s, and were the backbone of agricultural policy towards small farmers in the period.

These schemes shared with the Groundnuts Scheme a belief in the correctness of government technical prescriptions and a military type of organisation. The detailed inspection of farms and prosecution of offenders was carried out by the Department of Agriculture, whose staff were thus effectively turned into an army of policemen (Cliffe, 1964: 17).

> By 1953 or 1954 the Sukuma peasant felt that he was being pushed around . . . Everywhere new rules, regulations and taxes seemed to require this, prohibit that, or take a few shillings yearly from his pocket. He had to tie-ridge and manure certain portions of his fields, plant specified minimum acreages of cassava (as an anti-famine measure) and cotton, plant at certain times and pull out cotton stalks by certain dates for burning after harvest, refrain from cultivating near gullies, cutting trees, or transporting cattle without a permit, have his cattle dipped or inoculated against disease, slaughter or sell a certain percentage of his cattle each year and produce on request a certificate indicating sale or attesting that the hides from the slaughtered beast had been seen by the appropriate government officer. These were just a few of the more salient natural resources measures which had begun to accumulate by 1952 (Maguire, 1969: 30–1).

The bylaws were unpopular. Passive resistance meant planting cassava seedlings upside down or seeds after they had been boiled in water. The other extreme was the rioting and civil disobedience in the Uluguru mountains during which an African was shot dead by a white policeman in July 1955. By 1956 it was no longer possible to enforce the rules. As soon as they were relaxed the terraces were broken down, the manuring and tie-ridging ceased, and it was clear that a moral victory had been won over the colonial state (Young and Fosbrooke, 1960: 166–7; Molloy, 1971: 60).

The effect was not just to undermine the trust of the people in the extension staff. More significant was the fact that the legitimacy of the chiefs was destroyed, in the eyes both of the peasants and of the colonial administrators. Austen (1968: 215) has shown that this process began before the war in parts of the country where the chiefs were used by the administration to enforce unpopular policies. The post-war schemes completed the process, and so destroyed the foundation of British colonial policy up to that time. The door was open for the nationalist politicians who, by promising the peasants freedom from this sort of oppression, quickly gained support in the rural areas, and were able to lead the country to Independence in 1961, only seven years after the foundation of their political party, TANU.

It is now clear that the agricultural and economic logic behind many of the rules are wrong, so that the peasants were absolutely right to oppose them. The rules about terracing in many parts of the Uluguru and other mountain areas were under suspicion even before the schemes were abandoned. It was discovered that in one demonstration area terraces were completely sterile, and the 1956 annual report of the Uluguru Scheme concluded that rice yields are frequently better on untreated land than on terraces. These conclusion have recently been confirmed (Geografiska Annaler, 1972) in a study which also discovered that the most serious threat to the soil in the Ulugurus was from landslides, the danger from which is greatly increased by the type of bench terraces forced on the peasants in the 1950s.

In Sukumaland tie-ridging has been questioned because while it undoubtedly results in soil and water conservation and so raises yields in dry years, it is intensive in its use of labour at a critical time of the year, and therefore reduces the total area that can be cultivated by a given labour force (Collinson, 1963: 30; de Wilde, 1967: 429–30). The same principle affects ridging, and so it too is only economic in certain situations (Rotenham, 1968: 69–70). Saylor (1970a: 27) showed that farmers who accepted the recommendation for cotton spacing suffered losses varying from 55 kilogrammes per hectare in Mwanza District to 85 kilogrammes per hectare in Shinyanga District. He also found, in 1969 at least, that it made no significant difference in which month cotton was planted – quite contrary to the extension advice always to plant early.

The problems with attempts to improve the cattle economy are similar. Dipping is fine if it can be carried out regularly, for the whole life of the animal. But if dipping ceases, as well it may if the supply of chemical and maintenance of the dip and water supply depends on government bureaucracy, then the animal will be more susceptible to disease than if it had never been dipped and had achieved a resistance to east coast fever. Destocking is of no benefit to an individual if grazing is communal unless all stockowners destock together; even then the poor suffer proportionally more than the rich. Thus Parkipuny (1976: 28) is probably right when he claims that destocking will never be acceptable until there is a more or less even distribution of cattle – and in most parts of Tanzania this would mean revolutionary changes.

In retrospect, it is even questionable whether the crisis in soil fertility was not itself exaggerated. This is not to deny that there is soil erosion, or misuse of land in many parts of Tanzania. But twenty years later livestock numbers and cash crop production had both more than doubled without any dramatic crisis of soil erosion. Ridging was becoming popular in parts of Sukumaland even before the Scheme (Tanganyika, Annual Report of the Agricultural Department, 1938: 7). The same report played down the dangers in other parts of the country. 'It is only in the Lake Province . . . that the land has suffered any visible drain of fertility through over-cropping.' (The old Lake Province was what is now Sukumaland.)

Just as with the Groundnuts Scheme, many of the technical foundations of the Land Conservation Schemes were wrong. But the peasants were allowed no choice. And so time and resources were wasted: 'Bench terraces were dug to order in the knowledge that they were useless; the Luguru deliberately chose sterile sites in order to avoid damaging fertile land'. (Geografiska Annaler, 1972: 118).

THE FOCAL POINT APPROACH

By 1956 mass compulsion was no longer possible, and there was little alternative but to concentrate resources where there was hope of success:

> Agricultural extension work in Africa frequently finds itself up against a brick wall of peasant conservatism, sometimes strengthened by political misconceptions . . . It becomes necessary to withdraw the effort from some portions and to concentrate on small selected points, a procedure which has come to be known as the 'focal point approach'. Under this method limited areas or progressive individuals are chosen for the initial attack . . . Once success has been achieved and appreciated at these points, it is then a comparatively simple matter to spread outward from them (Tanganyika, Annual Report of the Agricultural Department, 1956: 1).

The change of policy was rationalised by the use of ideology which described the African peasant as stubborn, lazy, ignorant, conservative, uncooperative . . . failing to appreciate that there was often reason behind his refusal to cooperate with what the extension staff advised. It was inevitable that it would increase inequality. In the words of an economist a few years later:

> Extension officers are . . . expected to approach the interested and the important ones in a village and to group them together as progressive farmers . . . The grouping together of the progressive farmers can be called an attempt to establish rural elites with progressive attitudes . . . Extension work is thus exploiting the amazing difference which exists between good and bad, industrious and lazy, intelligent and stupid, farmers (Ruthenberg, 1964: 64).

These selected individuals were to be given credit, a reputation through high-ranking visitors, newspaper reports, etc. and encouraged to hire labour. Although their numbers as a proportion of the total rural population were not great, these larger labour-hiring peasants soon existed in almost every part of the country (Gottleib, 1973). In two important areas – Ismani (where Awiti (1972a: 61, 75) found that 9 per cent of the farmers held 53 per cent of the land under cultivation, 96 per cent of the capital equipment, produced 69 per cent of the maize and earned 76 per cent of the cash income derived from maize in the area) and Mbulu (Raikes, 1971: 95) – they soon farmed much of the best land and produced the greater part of the marketed surplus.

The possibility that a small group of farmers might become a land-owning class, with most of the rest employed as their agricultural labourers, was opposed by Nyrere and TANU:

> If we allow land to be sold like a robe, within a short period there would be only a few Africans possessing land in Tanganyika and all the others would be tenants... When a lot of people accept the introduction of a method which will enable a few people to claim ownership of a thing which is actually God's gift to all His people, they are in actual fact, voluntarily accepting slavery (Nyerere, 1958: 55–6).

The Administration was certainly conscious of the weak moral foundation of a rural policy based on helping the most prosperous farmers. As a counterweight, they espoused the ideology of Community Development, under which new 'modern' methods of food preparation, childcare and health were to be brought to the community as a whole. Again the assumption was that the traditional practices were 'primitive' or 'backward', to be replaced in the main by 'superior' Western technology. It amounted to an attack on African culture. And since women were responsible for cooking and childcare most of this cultural attack fell on them. The Community Development Division recruited women staff, and had some influence where mission (i.e. European) influence was already strong (Freyhold, 1972: 4–5). But its scale of operation was too small for it to counteract successfully the class formation of the focal point approach.

Since very few staff were employed, both agricultural extension and community development work were in practice élitist, whether they wished to be or not. As late as 1969 there were only just over 3000 trained agricultural officers in the country, or approximately one for every 1000 farm families (Tanzania, 1969: 35). It was inevitable that they would get better cooperation from some farmers who, if they were not big farmers already, would soon become so, a point that has been belatedly recognised in relation to the Green Revolution in India and other countries.

Production rose splendidly in this period, but a number of careful studies of the extension service suggest strongly that the extension workers had very little impact, except perhaps on some of the larger farmers. These studies have shown, firstly, the extent to which extension workers and other government staff associate with each other, and with the richer farmers (Van Velsen, 1973: 159–96; Sender, 1974: 30). Secondly, they have shown that most extension workers visited an extremely small number of farmers. Hulls (1971: 6) found that the average extension worker visited only 73 households (some of them more than once) in a year. Cliffe *et al.* (1968: 5) employed students from the university who accompanied extension workers during a week of their working lives. They discovered that the average extension worker worked a 32-hour week, of which about 9 hours was spent on farmers' farms. But the time spent on other types of agricultural work (meetings in schools, credit applications, inspection of stores, showing officials around) totalled nearly as much.

But thirdly, the studies show the limited extent to which the farmers were actually following the extension recommendations: Hulls (1971) found that only 38 per cent of the cotton in his sample taken across Sukumaland was planted during the recommended period (p.11); the average plant population per acre was about half of the recommended (p.16); only 3 per cent of the sample used fertilisers or insecticides (p.18), and 40 per cent did not know why it was good to uproot and burn cotton stalks at the end of the season (p.23). He concluded (p.30):

> There seems to be no valid reason for altering the conclusions that the Extension Service in Sukumaland is at present having no measurable influence on the cotton husbandry standards of the vast majority of farmers in Sukumaland. Since the major extension effort has been concerned with cotton production it seems extremely unlikely that such extension effort as there has been with other crops has been any more effective. In short, the failure to communicate modern agricultural technology to the vast majority of the farmers of Sukumaland appears to have been almost total.

Finally, and not surprising given the conclusions above, many studies have shown that much of the advice given by extension workers is not appropriate to small farmers. The clearest case of this concerns inter-cropping. In almost every part of Tanzania, extension workers are still trying with very little success to persuade farmers to plant their crops in pure stands. Meanwhile the advantages of inter-cropping (planting more than one crop in a field) have been realised by agricultural economists, and it is now being demonstrated on research stations that a given field inter-cropped will frequently yield more than the same field divided into two halves, and each half planted with pure stand (e.g. Finlay, 1974, reporting on the Morogoro inter-cropping project). Belshaw and Hall (1972: 55) give nine separate reasons why inter-cropping can benefit farmers. These include agronomic reasons such as plants with different types of roots not competing for nutrients, labour savings (e.g. in weeding), and minimisation of risk if one of the crops fails.

As long ago as 1963, Beck established that the low yields of many coffee bushes on Mount Kilimanjaro were not due to the presence of bananas and Collinson discovered that addition of groundnuts to a crop of maize did not lower the yield of maize. A recent study of Bukoba coffee brings out the complexity of the issues, and the potential dangers of disturbing a farming system established over centuries:

> In the major coffee-growing areas of the Region, coffee is grown inter-planted with bananas, as it was in the pre-colonial period. This arises both from land shortage and from the nature of the husbandry system on the very poor and infertile soils of coastal Bukoba. These have been characterised by one agronomist as little more than a rooting medium and though this is an exaggeration, there is no doubt that they are very poor in plant nutrients. This was overcome by the Haya and their predecessors in the area by planting permanent banana *Bibanja* ... on which fertility was gradually built up by manuring and mulching with manure and crop residues, banana leaves, grass and manure from cattle grazed on the poor *Rweya* grazing land. In this way, soil nutrients from a relatively large area were concentrated upon the Kibanja in which beans, coffee and various other annual crops were inter-planted with bananas. The only cultivation outside the permanent banana plot was shifting cultivation of groundnuts and bambara nuts with a cycle of approximately one year's cropping and five to seven years fallow. Thus even if land was available, to produce pure-stand coffee would have required turning over part of the permanent food plot, on which fertility had been laboriously built up over generations and whose size would in most cases be tailored to family subsistence requirements.
>
> Nevertheless, for the past 40 years, the agricultural extension service has been encouaging farmers to plant pure-stand coffee and considering this practice the *sine qua non* of modern farming...
>
> Since bananas provide virtually complete shade from the sun and are voracious users of both soil nutrients (especially nitrogen) and water, it may be appreciated that an optimal husbandry regime for pure-stand coffee may be largely irrelevant or incorrect for inter-planted coffee. The net result of this is that virtually all the extension advice offered (and sometimes enforced) ... is of relevance only to

> that small minority of farmers who have the space to plant pure-stand coffee. It is scarcely surprising that the extension service has had minimal success (Raikes, 1976a: 2–3).

Belshaw and Hall give many other instances where the researchers who produced extension recommendations failed to put themselves in the shoes of small farmers. For example, if land is available in plenty, a farmer wanting to increase production has the choice of intensifying his production (by use of chemical inputs) or of expanding extensively (by using more land). But often there is more risk in the former, even if he gets his inputs on credit. A recent conference between extension and research officers (Garnes, 1975) recommended use of fertiliser on maize. Their own figures showed that the average gain in income from using fertilisers was only 50 shillings per acre; in a bad year a farmer who used fertiliser could easily be worse off. A series of trials (Sperling, 1976) subsequently showed that fertiliser on improved varieties of maize does pay in some parts of the country, but not in others, such as Tanga Region. But the extension service continues to advocate use of fertilisers almost everywhere.

Similar problems are found when it comes to the choice of crops recommended. Often these are not the best-paying crops in that area. Collinson (1970) demonstrated this with regard to a long campaign in parts of Tabora Region to grow aromatic tobacco when flue-cured tobacco was far more profitable. In Songea Region as late as 1968 each farmer was being compelled to grow one acre of fire-cured tobacco, a crop that gave an extremely low return for the labour involved. Coulson (1977) has made a similar point with respect to cotton in most of the eastern parts of Tanzania. In 1974 the government was proposing to make Dodoma one of the centres for its US financed National Maize Programme. By the following year they were recommending millet and sorghum – but changes in government extension recommendations between maize (the crop with the greatest average yield) and millet and sorghum (the crops with the greatest yields in a poor year) go back far into the colonial period. The farmers are understandably confused by such sudden changes in policy.

Finally we can get an idea of the success of extension by looking at the projects claimed as success stories. In 1964 Ruthenberg published a well-researched defence of extension, and as examples of success he gave: the expansion of coffee growing; pyrethrum; higher cotton yields in Kilosa; Tanga cattle/coconut schemes, and the introduction of ox-drawn equipment. Today, with the possible exception of coffee, these cannot be regarded as successes. Even with coffee Saylor (1971) showed that production rose because of increased acreages rather than because of new methods and then for almost ten years it stagnated.

Pyrethrum production subsequently declined, as did cotton production from the whole eastern zone including Kilosa. The Tanga cattle/ coconut schemes collapsed not long after Ruthenberg wrote (Groeneveld, 1968), and encouragement of ox-cultivation has had to start almost from nothing every five years or so – see the First, Second and Third Five Year Plans.

In more recent years, the small-holder tea schemes in the Usambara mountains, in Bukoba, and in the Southern Highlands have been described as success stories (Moody, 1970; Luning and Venema, 1969: 39). But recently these schemes too have been criticised (Sender, 1974; 30) Raikes (1976c: 7) found that yields in the Bukoba small-holder tea project were only 50 per cent of the anticipated, while only half the planned acreage had been planted.

In the period of the focal point approach production certainly rose. Some of that increase was no doubt due to the provision of better communications, and some to the availability of better varieties from the research stations. But the main increases appear to have come either from a relatively small group of larger farmers using mechanisation and/or hired labour, or from the cultivation of greater areas (i.e. by use of more labour and land) by the mass of the peasants using the same techniques as before. Moreover, the evidence summarised above suggests that the role of the extension service in producing this increase can easily be exaggerated. President Nyerere had a considerable body of research behind him when he said that even if he was to sack all agricultural officers, agricultural production would in no way be affected, because the experts confined themselves to statistics and report writing anyway (Report of an election speech, *Daily News*, 21 October 1975).

MARKETING COOPERATIVES

At the same time as it followed the focal point approach in its extension work, the government encouraged development of a cooperative movement to take over the marketing of peasant-grown crops from Asian and Arab traders.

A Cooperative Societies Ordinance was passed in 1932. The initiative to start cooperatives came from Africans, such as Joseph Merinyo who started the Kilimanjaro Native Planters Association in Moshi in 1925 (Rodgers, 1974) and Paul Bomani whose Victoria Federation of Cooperative Unions, founded in Mwanza in 1950, rapidly became one of the biggest African-controlled commercial organisations in the whole continent. Merinyo was a civil servant in the Moshi District Office, while Bomani had previously worked as accountant for the Mwanza African Traders Cooperative Society, a group of African traders in Mwanza town. Neither were typical peasant farmers: both were young, ambitious, educated Tanzanians, frustrated by the racial discrimination and indirect rule policies of the colonial government, who found in the cooperative movement a way to African success in business.

In much of what they did they were supported by the colonial administrators. In 1933 Lord Lugard explained the reasoning behind this support:

> The fundamental principle of the (cooperative) system is identical with that of Indirect Rule – which could be better named 'Cooperative Rule' – the essential aim of both being to teach personal responsibility and iniative . . .
>
> The illiterate and very conservative agricultural majority is apt to regard with some distrust the trousered and Europeanized African as a townsman ignorant of the things that matter most. But as education spreads, the influence of the Europeanised native and of the press which he owns and controls and reads to village audiences tends to increase, and the peasant population becomes 'politically-minded' – a phase already reached in India, and already becoming visible in Africa. This changing outlook constitutes in my view one of the major problems of Africa today. The *intelligensia* have the opportunity in this era of transition and adaption to be of inestimable service to their country, or to clog the wheels of progress by causing racial animosities and preaching doctrines as yet impossible of realisation. Work in connection with cooperative societies will, as Mr Strickland points out, create new openings for the educated African. By engaging in such work he will no longer 'deprive the countryside of the mediation which he . . . might provide between the old dispensation and the new'.
>
> Not the least attractive feature of this movement is that perhaps no other system offers better prospects of producing leaders from among the people (Lugard, 1933: 7–11).

Socialism provided the ideology, but otherwise it had no part to play. As President Nyerere was to point out more than thirty years later, there was no reason why such cooperatives should not be groups of capitalists combining together to improve their efficiency in buying and selling. But in contrast to a system of private traders, the Cooperative Societies Ordinance gave the government the control it wanted.

Lugard required cooperatives in Africa to avoid politics:

> It will go far to disarm misgivings and assure support for the cooperative movement that Mr Strickland . . . is able to tell us that in no

> country whatever, with the exception of Great Britain . . . has this movement taken part in politics or agitation. Of the many thousands of societies known to him in India only one assumed a political attitude by adopting 'Non Cooperation', and thereby ceased to exist (Lugard, 1933).

He insisted on close government control in the form of a registrar with the power to set up societies and if need be to liquidate any which did not obey the rules. The registrar could thus decide the size of societies, and employ a cadre of inspectors and auditors to ensure that the societies were run in the interests of their members.

Cooperatives received support from the Agricultural Department as the annual reports show. The agriculturalists disliked the Asian and Arab traders, principally because they could not control them, but also because they felt they cheated the African peasants. The Agricultural Department favoured government control of marketing which required a lower level of bureaucracy to actually purchase crops from the farmers. Cooperative primary societies provided this lowest level of bureaucracy in a government controlled marketing system.

In the 1950s, cooperative development in Tanganyika worked out as Lugard foresaw it could. Once a cooperative was started it received support from the Administration, but also direction. For example, Bomani was not allowed to register his Mwanza cooperative societies until a suitable (government) cooperative officer was seconded to watch over the development, and he was lucky to be sent one as sympathetic as Gavin Green (Maguire, 1969: 98). From 1932 on, the KNCU had to accept a European manager. He was eventually redesignated economic adviser, but in the early 1960s he was still there receiving as salary a percentage of the crop sold worth over £6000 in 1960/61, and causing resentment among the university graduates of the period who felt he was keeping them out of jobs.

Keeping out of politics meant accepting certain forms of organisation. For example, the Kilimanjaro Native Planters' Association of 1925 consisted of a single organisation covering the whole mountain (it later expanded to include Meru and the Pares as well). It held mass meetings, which inevitably meant that it spoke for the Chagga as a whole (this was especially important since there were many Chagga chiefs). But when it was re-formed in 1932 as the Kilimanjaro Native Cooperative Union the government insisted on a structure with at least one separately registered primary society in each chiefdom, with a union nominally run by delegates from these societies. This gave the chiefs much more influence – and there were no more mass meetings (Rodgers, 1974: 109).

In a similar way, Green insisted that Bomani organise the Victoria

Federation of Cooperative Unions on the basis of individually registered primary societies of 500–600 members (Maguire, 1969: 99). Bomani would have liked larger units, one for each of the Sukumaland chiefdoms. This did not prevent political organisation – Maguire shows the important role played by the Mwanza cooperative movement in keeping a nationalist movement alive during the four years in which TANU was proscribed in the Lake Province. But it did mean that by 1960 it was generally accepted at the local level that the cooperatives were for marketing and not for politics.

Finally, the cooperative leaders had to accept that they would work in a framework of government-controlled marketing: they would not be entrepreneurs. Legislation passed before and during the War enabled the government to control farm prices, and to organise the disposal of crops to suit its interests. After the War the local produce boards were consolidated into national marketing boards, such as the Lint and Seed Marketing Board (for cotton – established in 1952) and, a few years later, the Coffee Board. The grain crops were monopolised by the Grain Storage Department, but this lost money in the 1954/55 season when it was forced to export surplus maize at a loss, and was disbanded in 1956. From then on grain marketing was uncontrolled (i.e. left in the hands of Asian traders and millers) until just after independence when a new marketing board, the National Agricultural Products Board, was set up to buy grain crops, oilseeds, and cashew nuts from cooperative societies.

It was never argued that cooperatives were efficient in the sense that they could compete with Asian traders on a price basis. The agricultural staff argued that they gave orderliness to marketing which more than compensated for their higher costs. What they meant – and this is clear enough reading between the lines of the annual reports – was that they were a way of replacing the Asian produce buyers, who were as unpopular with the government officials as they were with many of the peasants.

While there is obviously a tendency to exaggerate the stories of Asian exploitation in order to justify the cooperatives, there is little reason to doubt that it took place. It is not a coincidence that the VFCU grew out of an independent weighing scheme – where farmers could for a small fee get an independent estimate of the weight of their cotton before selling it to the traders. What is also not in doubt was that *potentially* the Asian and Arab traders could offer an extremely low-cost service. This was especially true when they combined produce buying with the running of a retail shop – for then the same lorry that brought consumer goods to the village could take the produce out, and no extra storage space was required: the crops purchased could accumulate in the storage space of the shop, as the stock of consumer goods was sold. The trader might not even need an overdraft, since as he sold his consumer goods he would gain cash with which to buy produce, and when he sold this produce to a larger merchant in the town he would again get cash to buy his next stock of consumer goods. There was no need to move large sums of cash around the country. All these advantages were lost with the change to cooperative marketing – and the costs were especially high when staff had to be employed all the year round in areas where the actual buying of produce was concentrated into six or seven months in the year.

Thus the cooperative societies had to be protected by compulsory marketing orders which made them the only legal purchasers of specified crops. In the case of coffee produced by Africans on Kilimanjaro this power dates from 1929 (Kriesel *et al*, 1970: 41); with Mwanza cotton it was established in 1959, the year in which the VFCU first purchased all the crop, and confirmed in 1960 when Nyerere's first administration refused to register 'Saidia Waafrika', an organisation of African traders who wanted to buy cotton at well above the VFCU price (Maguire, 1969: 300–10) refutes the idea that Saidia Waafrika was merely a front organisation for some Asian traders in Mwanza).

In view of all this it is hard to understand the enthusiasm for cooperatives, in the cotton and coffee areas at least. There were sharp rises in prices of export crops in the Korean war boom of 1951–54, and no doubt many farmers credited these price rises to the newly-formed cooperatives, although they might well have occurred without them (Bowles, 1976: 79). It may well be necessary to seek a political explanation – acreages of crops grown and quantities marketed through the cooperatives rose alongside the growth of nationalist fervour as national independence became a legitimate goal.

There was much less enthusiasm for cooperatives in the drier cereal growing areas. Here the margins deducted by cooperatives were known to the farmers, since cereals could be purchased from, as well as sold to, the cooperatives. The differential between the two prices quickly widened. Kriesel *et al.* (1970: 36–7) calculated that single-channel marketing of maize meant that the consumers' price rose by 50 per cent in the period 1964–69, while the producers' price stayed constant. Moreover, since there was very little processing involved, there was no necessity to sell to particular processors, as with cotton or tobacco; if they wished they could simply store and eat the crop.

Thus in the food crop areas cooperatives had to be imposed. This was done after Independence:

> When Tanganyika achieved independence in 1961 some important decisions were taken by the Government vitally affecting the movement. It was decided to embark on a crash programme for the organis-

> ation of cooperatives in vast sections of the country which until then were largely untouched by the movement: the central and coastal parts, Mtwara and Ruvuma in the south, and the western areas. It was decided that the cooperative form was well suited to the African setting and to the achievement of independence in the economic sense: control of the economy by the indigenous people rather than by expatriates and others non-African in origin.
>
> Thus, the number of registered cooperatives increased from 857 in 1961 to 1,533 at the end of April 1966 . . . To help bring about this great expansion the Cooperative Societies Ordinance was changed in 1963 so that the Registrar of Cooperative Societies no longer had the final power to refuse to register a cooperative because he was not satisfied as to its viability . . . The political pressures were considerable. Societies were organised from on top, without genuine local demand or even understanding, but in their enthusiasm in the first flash of freedom, people went along (Tanzania, 1966: 5).

The result was inefficient, corrupt and undemocratic cooperatives. The Special Committee reported in 1966 that losses averaged around 3 per cent of turnover in a sample of 300 societies (ibid: 10). The farmers were aware of these situations, but unable to do anything about them because of the lack of democratic control at Union level (ibid: 11).

The gainers included the committee men of the primary societies – often themselves the more successful progressive farmers of the focal point approach. They received generous allowances merely for attending cooperative society meetings. Migot-Adholla studied one particular society where each committee man received nearly 700 shillings per year just for attending. The opportunities for fraud increased as the number of societies expanded faster than the supervisory staff of the Cooperative Development Division. When the cooperatives became the main vehicle for government credit schemes for small farmers, the committeemen were usually the first to receive the credit, and often avoided repayment.

But Migot-Adholla (1969a:238) concluded that most of the committee-men made their largest earnings from illegal transactions connected with the cooperative tractor schemes. In 1964 and 1966 the cooperatives were persuaded by government to take responsibility for two large fleets of tractors. These fleets operated at a substantial loss until the schemes were abandoned in 1969. The accounts showed that on average each tractor only ploughed 125 acres per year. Unofficially they often stopped on the way home and did some private ploughing for which the driver and the committee-member split the difference (ibid: 238–9). Migot also documents the stories of mechanics and mechanisation field officers who were able to increase their incomes by using government facilities and spare parts to repair private tractors (ibid: 246–9).

A recent example of a similar process is the scheme to import dairy cattle for small coffee farmers on Kilimanjaro. In 1972 each in-calf heifer cost about Shs. 1500. To qualify for the scheme one was supposed to have at least half an acre of improved pasture – on Kilimanjaro only a rich man could afford to uproot coffee and bananas on half an acre – so richer farmers received the cows. They were subsequently slow to repay the loans, for which the cooperatives rather than the individuals were legally responsible. So in effect the savings of all the farmers (i.e. all the members of the cooperatives) were used to buy the dairy cattle which went to the rich few.

Thus the cooperatives did not challenge the focal point strategy. In fact they complemented it by allowing larger-scale farmers to expand their operations under a socialist ideology. At the same time they provided an institution where educated non-chiefly Africans could become officials, and demonstrate that they could use power.

Their success in the late 1950s, alongside the opposition to the rules and regulations of the Land Conservation Schemes, provided the basis for TANU support in the rural areas. Both TANU and the British administrators (from Governor downward) could support cooperatives as a means of increasing peasant production and African control of marketing. Without the cooperative movement, TANU could not have mobilised rural support so quickly, and the British would have found it much more difficult to hand over power. (Compare Leys, 1972: chap. 2, for the way the British stabilised the Kenyan countryside in order to hand over power.) In the early 1960s, when their inefficiency and corruption became obvious, they became the first nationalist institutions to be attacked by the peasants. The 1966 report of the Presidential Committee of Enquiry into the Cooperative Movement and the Marketing Boards is a monument to the fact that within five years of independence the peasants were conscious of what was happening.

THE TRANSFORMATION APPROACH

If farmers could not be forced, or persuaded, the only alternatives were to ignore them altogether and go for mechanised agriculture controlled by outsiders (as in the Groundnuts Scheme, or on settler farms controlled by Europeans), or to take them right away from the traditional surroundings, to settlement schemes where in return for receiving land they might perhaps agree to follow the instructions of the agricultural staff. As the 1961 World Bank report rather optimistically explained:

> When people move to new areas, they are likely to be more prepared for and receptive of change than when they remain in their familiar surroundings. And when people are under pressure to move or see the advantage of doing so, they can be required to abide by the rules and to adopt new practices as a condition of receiving new land (World Bank, 1961: 75).

The first settlement schemes of this sort were started on the land cleared for the Groundnuts Scheme at Urambo and Nachingwea. The deliberate aim was to create yeoman farmers, who would learn modern agriculture on relatively small holdings, but then graduate to 30 to 50 acre farms, which they would own on leasehold, and farm with hired labour and machinery (Overseas Food Corporation, 1955: 159–63).

At Urambo the main cash crop was flue-cured tobacco, a crop whose world price reflected the assumption that it could only be grown by European settlers. Growing the crop profitabily was certainly more complicated than most other crops grown by peasant farmers, and it required credit for fertilisers, for curing barns, and for labour. To receive credit the farmers depended on the recommendation of the extension workers. But the returns far exceeded those in the ordinary agriculture of the area and the scheme prospered (Scheffler, 1968).

At Nachingwea the plans were for mechanised production of groundnuts, soya beans and maize. Here prices were similar to those available to peasants growing the same crops, and fees were deducted to cover the overhead costs of the scheme. Settlers left the scheme as fast as they came in, until it was effectively abandoned in the early 1960s.

It was not till after independence that settlement schemes became the major recipient of Government investment in agriculture. In the late 1950s there was very little difference between the tobacco settlement scheme at Urambo and a successful focal-point scheme with a new crop such as tea, cocoa, or pyrethrum (Fuggles-Couchman, 1964, *passim*, especially 61 ff.). In each case the result was 'development under close supervision', and when the price relations were right production rose.

UJAMAA AND VILLAGISATION

It remains to consider the post-independence agricultural policies ushered in by the speeches of President Nyerere. The main dates and policy changes are summarised in an Appendix on pp. 83–4.

In April 1962 Nyerere published his pamphlet *Ujamaa – the Basis of African Socialism* in which ujamaa is described as the socialist attitude of mind which, in the tribal days, gave to every individual the security that comes of belonging to a widely extended family. The paper is a statement of philosophy rather than a programme for action or institution building.

Later in the same year, in his inaugural address as President, Nyerere introduced the idea of villagisation:

> The population of this country is about ten million. Of that ten million not more than 250,000 to 300,000 live in the towns. All the rest work on the land. Which is to say that Tanganyika is, in fact, a country of peasant farmers . . . For this reason, in drawing up our three-year Development Plan, Government decided to lay the greatest emphasis on agriculture.
>
> But it is ridiculous to concentrate on agriculture if we are not going to make any change in our old methods of cultivation and our old ways of living . . . The hand-hoe will not bring us the things we need today . . . We have got to begin using the plough and the tractor instead. But our people do not have enough money, and nor has the Government, to provide each family with a tractor . . . The first and absolutely essential thing to do, therefore, if we want to be able to start using tractors for cultivation, is to begin living in proper villages . . . Unless we do . . . we shall not be able to use tractors; we shall not be able to provide schools for our children; we shall not be able to build hospitals, or have clean drinking water, it will be quite impossible to start small village industries, and instead we shall have to go on depending on the towns for all our requirements; and even if we had a plentiful supply of electric power we should never be able to connect it up to each isolated homestead (Nyerere, 1966: 183–4).

Spontaneous settlement schemes where groups of committed farmers lived and worked together sprang up all over the country. A rough estimate (nothing better is possible) suggests that by the end of 1963 there were about a thousand of these (Cliffe and Cunningham, 1968: 133).

Some were started by groups of workers on sisal plantations who had expected that when independence came they would be able to take over the plantations: instead they were told to go away and start producing on their own. About half the total – including some of the sisal schemes – were started under the auspices of the TANU Youth League. Some involved groups of unemployed from the towns, often with more enthusiasm than experience of farming. Yet others – like the villages of the Ruvuma Development Association in south-west Tanzania – grouped themselves around leaders of exceptional ability who were dismayed by the visible consequences of the focal point approach, and were willing to try out new ways of living.

Most of the spontaneous settlement schemes did not last more than a year or two. Conditions were tough. Some 150 ex-sisal labourers at Mbambara, south-west of Tanga (Wisner *et al.*, 1975: 380) slept in four communal houses, eating the food provided from the earnings of ten of them who went on working as labourers on a near-by estate, while the remainder planted communal maize between the rows of their growing sisal crop. They had come with the hope of getting rich, but when the price of sisal fell by nearly half in 1964 it was clear that this could not happen for many years to come. Mbambara was held together by the leadership of Bernado Kilonzo and survived: many other villages gave up.

In the 1964 First Five Year Plan the government concluded that the long-term future for agricultural development lay in the transformation approach:

> The zones with average population density which receive 30″ to 50″ irregularly distributed rainfall are usually the object of extensive and shifting cultivation most often associated with nomadic pastoralism. Although the improvement approach can contribute to increasing production in these zones, it cannot in all events give rise to very substantial results because of the dispersal of the farmer producers, the impoverishment of the soils by the practice of bush burning and considerable difficulties in the marketing of products. The policy which Government has decided to pursue with respect to all these zones consists in re-grouping and re-settling farmers on the most favourable soil, installing there a system of private or collective ownership, and introducing supervised crop rotation and mixed farming that would permit the maintenance of soil fertility.
>
> Such a policy, being the first aspect of the transformation approach, aims at the creation of villages which become centres of social and commercial development. By 1980 it is hoped that about one-half million people will be settled in this manner on new locations.
>
> . . . The second aspect of the transformation approach is the reduction of agricultural underemployment in the relatively densely populated areas. In this regard Government policy is aimed at river basin development since these offer large potential for resettlement with their vast stretches of fertile areas . . . By 1980 the Government hopes to settle in the Pangani, Wami and the Kilombero river basins approximately half a million inhabitants (Tanzania, 1964: 15).

The agricultural assumptions here once more show a total unawareness of the achievements of traditional agricultural systems (including pastoralism) in increasing production without long-run soil deterioration (Kjekshus, 1977). And they greatly underestimated the problems – social as well as agricultural – of bringing the river basins into agricultural production. The discovery of widespread salinity soon brought the process virtually to a standstill in the Wami and Pangani valleys.

The actual projects of the First Five Year Plan were less ambitious. Most of the work in the river basins was to be investigative, and there was only enough money for 49 village settlement schemes (Newiger, 1968: 254). On the ground, the Village Settlement Agency never controlled more than 23 schemes – and this total included seven taken over from the Overseas Food Corporation on ex-Groundnuts Scheme land (Tanzania, 1966: 9). There were also a number of supervised settlement schemes – some of the old spontaneous schemes which the government considered suitable for more investment.

In April 1966 Vice-President Kawawa announced the end of the policy. The schemes had been heavily over-capitalised, the settlers had worked far less hard than settlers on spontaneous or unassisted schemes, and had expected the government to give them everything. Over £1 million had to be written off (figure based on Newiger, 1968: 268). Instead Kawawa suggested improving existing traditional agriculture through the cooperative movement, a policy seconded by Paul Bomani, who suggested that 'the creation of a need and desire on the part of our farmers to acquire a variety of consumer goods should . . . be the strategy of rural development' (Bomani, 1966: 24). But Nyerere was convinced that this strategy would in practice mean a return to the focal point approach, and by the end of 1966 a whole series of events, of which the failure of the settlement schemes was only one, demanded a more militant set of solutions (Pratt, 1976: 227–37).

February 1967 saw the Arusha Declaration followed by nationalisation of the banks, the largest multi-national corporations, eight import/export houses, and the most profitable sisal plantations. In March 1967 President Nyerere introduced 'Education for Self-Reliance'. And in September 1967 'Socialism and Rural Development specifically rejected rural capitalism (i.e. the focal point approach) and turned the ujamaa of the 1962 paper into a national policy. From that time on it was the responsibility of 'every rural worker who understands the objective' to found or encourage ujamaa villages (Nyerere, 1967c; 357):

> We can be made to work together by, and for the benefit of, a slave owner, or by, and for the profit of, a capitalist; alternatively we can work together voluntarily for our own benefit. We shall achieve the goals we in this country have set ourselves if the basis of Tanzanian life consists of rural *economic and social communities where people live together for the good of all*, and which are interlocked so that all of the different communities also work together in cooperation for the

> common good of the nation as a whole (Nyerere, 1967c: 347–8, emphasis in original).
>
> This can be done. We already have groups of people who are trying to operate this system in many parts of the country. We must encourage them and encourage others to adopt this way of life too. It is not a question of forcing our people to change their habits. It is a question of leadership. It is a question of education. (Nyerere, 1967c: 365).

Yet as early as 1968 some Regional Commissioners were forcing peasants into ujamaa villages. Nyerere wrote another pamphlet to make it quite clear that ujamaa villages were voluntary:

> The ujamaa village is a new conception, based on the post-Arusha Declaration understanding that what we need to develop is people, not things, and that people can only develop themselves.
>
> No one can be forced into an ujamaa village . . . For if these things happen – that is if an outsider gives such instructions and enforces them – then it will no longer be an ujamaa village (Nyerere, 1968b: 67).

The same pamphlet recognised that ujamaa living would have to start with small groups of people rather than with large villages:

> The policy is, in fact, the result of learning from the failures which we have had and from the successes of those small groups which began and grew on a different basis . . . the decision to start must be made by the people themselves . . .
>
> For if a group of 20 people discuss the idea and only 7 decide to go ahead, then that ujamaa village will consist of 7 people at the beginning. If 15 decide to start, then it will begin with 15 . . . There is no other way forward, because . . . 5 who come unwillingly can destroy the efforts of 15 who want to work out a new work pattern for themselves (Nyerere, 1968b: 68).

But shortly afterwards Nyerere seems to have decided that this sort of ujamaa would be both slow and divisive. And so during the next year – 1969 – there were four policy changes which between them legitimised the use of force and led to a national policy of large villages. 'Presidential Circular No. 1 of 1969' ordered all government departments to give preference in their investment policies to the new villages, and a 'Regional Development Fund' was created putting one million shillings a year (later this amount was doubled) into the hands of each Regional Commissioner, to be spent on small projects. The sudden availability of funds allowed officials and politicians to promise groups of farmers who agreed to start villages that they could be provided with whatever social services they wanted. Since local politicians were judged according to the number of villages they could report in their areas,

> Continuous bargaining set in between the villagers and the district authorities . . . The District would offer aid and infrastructure on the condition that the villagers responded by self-help activities. The official document in which this bargain – as defined by the District – was laid down, was the village five-year plan, which stipulated some often utopian labour targets for the village and the aid which the District had promised to supply in return. In some cases . . . the promised aid was more than the villages wanted, and Districts often found that they could not supply what they had promised within the specified time. On the other hand, no village has ever tried to meet the unrealistic targets that have been set . . . though most have attempted to show that they are doing something (Freyhold, 1972: 12).

Villagers soon found that the officials had very little interest in whether or not production succeeded, and that they were very reluctant to de-register villages. The water supply, school, or dispensary still arrived even if communal work diminished, or disappeared. Production figures from communal farming were never collected, but by 1973 (if not much earlier) they would have been negligible as a proportion of total production.

Presidential Circular No. 1 of 1969 was important for a second reason. It went out of its way to give the same weight to state farms as a means of raising production that it gave to ujamaa villages. The Second Five Year Plan (then in its final stages of preparation) was revised to include provision for 40 state farms under the Ministry of Agriculture. In July 1969, with totally inadequate preparation, investment was begun in 15 of these. All proved extremely unprofitable.

There were very few civil servants available with experience of managing large-scale agricultural production, and the government accounting system encouraged purchase of expensive farm machinery before basic management systems had been worked out. Costs were high, yields were low, and there was considerable corruption. Responsibility for the state farms was transferred from a division of the Ministry to a government parastatal holding company, the National Agricultural and Food Corporation (NAFCO). Several farms were closed down. All along they had been opposed by many officials in the Ministry. The sudden appearance of the policy in 1969 showed that the President no longer saw ujamaa as the only acceptable way of raising agricultural production.

The third significant event of 1969 was the abolition of the Ruvuma Development Association. In theory and practice, the 16 villages of the

RDA were closer to the President's writings of 1967 and 1968 than any other villages in the country. These villages had begun as small groups of committed individuals, and not only their cash crops but a large part of their food requirements were communally grown. They also innovated in devising an educational programme in which every child was able to specialise in particular skills which were needed in the villages; much of the President's paper 'Education for Self-Reliance' was modelled on the school at Litowa, west of Songea. Above all, the 16 villages, although geographically dispersed, were interlocked and shared their experiences and expertise through regular meetings, just as Nyerere's paper 'Socialism and Rural Development' recommended.

From the start the RDA had enemies. In the early years these included expatriates who felt that it was attracting settlers away from the village settlement schemes. Later they included several regional commissioners one of whom tried to force every peasant farmer in the region to cultivate one acre of fire-cured tobacco. In marked contrast to individual isolated farmers, those in the RDA had an organisation through which they could argue back – in this case pointing out correctly that fire-cured tobacco was a time-consuming crop, whose low yield and low price did not justify the labour involved.

In September 1969 Nyerere allowed the RDA to be gazetted as an illegal organisation. Its assets were confiscated by the Party, and the most advanced ujamaa organisation in the country was destroyed. He was no longer satisfied with the speed of progress that would be implied by leaving ujamaa to small groups of committed individuals. Nor was he prepared to allow a new form of differentiation – between committed socialists and the rest – to emerge. He specifically rejected calls for a vanguard party, or for cadres such as the Social and Economic Revolutionary Army of the RDA. Instead he stressed the need for a frontal approach – i.e. the need to involve everyone in the country, and, in particular, everyone in TANU, in some move, however small, towards socialism. The RDA was one of the first casualties of the frontal approach.

The fourth event of 1969 was 'Operation Rufiji' and it gave an indication of what this frontal approach might consist of. The peasants who cultivated in the Rufiji valley were some of the richest in the country (Sandberg, 1974: 1–14, describes the agricultural system). Their use of the flood waters of Tanzania's largest river for irrigation has been compared with the agriculture of the river Nile, and provided food surpluses for export to Zanzibar long before the coming of colonial rule. Yet in British days the Rufiji peasants had manipulated the government into giving them famine relief in years of extreme floods, and this continued after Independence. By 1968 the government was determined to change things. The logic of the situation demanded a system of crop insurance or crop storage, but the government thought that the cause of its problems was the fact that people lived on the flood plain. It decided to make the Rufiji a demonstration of the frontal approach.

In 1968 the amount of famine relief given was less than usual, and in 1969 the government used the opportunity of unseasonable floods to insist that the people move right out of the valley. Village sites on higher ground were laid out by surveyors from the regional office. Several sites were some miles from the flood plain itself, or on the opposite side of the river from much of the best land. Many houses were built by the National Service. Communal cultivation failed: some officials hoped that the villagers would continue to cultivate in the valley, and arranged for fields there to be ploughed by tractor, but the farmers refused to harvest the resulting crop of rice, perhaps fearing that this was a nationalisation of the land and that they would be turned into agricultural labourers. Despite the failure of communal production, several of the villages were registered as the most advanced type of ujamaa village.

So here was the new policy – the semi-compulsory movement of all the farmers in an area into 'planned villages' usually with 250 or more families. It could be seen as a return to the villagisation ideas of 1962. Certainly communal work was no longer the most important feature. From the government point of view it had the great virtue, in contrast to the RDA's type of socialism, of being acceptable to the technical officers and political appointees in the regional and district offices, who welcomed the possibilities for planning and the execution of these ideas that were now opened up.

Between 1970 and 1973 more of the 'Operations' were planned and implemented. In 1970 'Presidential Planning Teams' were sent to Dodoma (three teams), Kigoma, Mtwara, Tabora, Mara, West Lake, and Sumbawanga, to work out sites and plans for villages into which people would move the following year. The teams were composed of young Tanzanian specialists, and led by members of the TANU National Executive Committee. They had to work fast – one of the Dodoma teams allowed only one day per village plan. Some of the specialist members of these teams clashed with the more experienced staff in the regional offices. One Regional Commissioner, Dr Klerruu of Mtwara Region, disowned the Presidential team, and instead used his own staff for village planning. By the end of 1970 Mtwara Region reported 750 villages, out of only 1956 villages in the whole country.

Klerruu was transferred to Iringa Region where, by the end of 1971, there were 651 villages registered. But on Christmas Day 1971 he was shot dead by an African capitalist farmer in Ismani, not far from Iringa town. Klerruu was a Chagga, the most academically qualified politician in the country (with a Ph.D. in political science) and the most effective at founding villages – few others would have been out campaigning on Christmas Day. He was trying to persuade the Ismani labour force to group themselves into villages and take over the land of the small group of African capitalist farmers who had got rich by commercial farming of maize. After Klerruu's death, politicians were reluctant to use ideas of socialism or confrontation to persuade farmers to form villages. Moreover production declined – not least in Ismani. The 1972 TANU statement on agricultural policy *Siasa ni Kilimo* ('Politics is Agriculture') pointed this out, and was noticeable for its lack of emphasis on ujamaa as a means of increasing production. Instead it stressed technical methods – oxen, early planting and spacing, use of manure etc.

Operation Dodoma was implemented in 1971 and 1972 and Operations Chunya and Kigoma in 1973. In July 1972 there was a 'decentralisation' of government. More accurately it was a decentralisation of the civil service: for elected local government was abolished and replaced by a civil service administration under the Prime Minister – the civil servants to man this administration had to be 'decentralised' from Dar es Salaam to the Regions. A similar reorganisation of the Party strengthened the salaried party officials at the expense of elected representatives, and for the first time created a strong well-paid party bureaucracy at regional, district, divisional and ward level. It was clear from the start that the main job of both the government and the party bureaucracies was to organise Operations. In September 1973 the Biennial Conference of TANU approved the resolution that the whole population should live in villages by the end of 1976, and in December a *Daily News* headline quoted Nyerere as saying 'To Live in Villages is an Order'.

The move was effectively completed by the end of 1976, by which time over 13 million people were reported to be living in villages (Nyerere, 1977: 41) – a village being defined as a site acceptable to the Party, with adequate agricultural land and at least 250 families. The move was not voluntary, as numerous research reports make clear: nor had Operation Rufiji or Operation Dodoma been voluntary. Nor, probably, could any movement of people on this scale have been voluntary. A recently published account by one of the 'decentralised' civil servants makes it clear how it was done:

> In some instances houses were burnt down when it was realised that some people, after having been moved, returned to their former homes after a few days. But this method was rarely used and in all cases officials concerned made sure that goods and food were removed from the houses prior to their being put on fire. Many more people moved on their own without waiting for Government assistance. There are two good reasons why this happened in Shinyanga District. First, there was news from neighbouring Geita and Maswa

> districts, that peoples' houses were being put on fire indiscriminately, sometimes with food and goods inside them. So the people decided not to wait for Government help lest a similar catastrophe happened to them as well. Second, good leadership. For example, in the Tinde Ward . . . everybody had moved on his own and had started building by the time the 'moving squad' arrived . . . The TANU chairman in this area . . . is an excellent leader, notable in the district (Mwapachu, 1976: 7–8).

Reports from other regions confirm that a large amount of force, or the threat of force, was used, so that the majority of peasants found it prudent to move first and argue later.

This is not to say that all peasant farmers opposed the move. Many no doubt saw the advantages of being nearer to roads, or to schools. Others may have had reservations about moving away from land they had farmed for years, but then house movements had been regular events every five or ten years in many areas. They might have resented the timing (if, as in Shinyanga, it was done during one of the main agricultural seasons), but generally they were given a choice of which village site to move to.

The village sites had been chosen by Ward Development Committees and approved at District and Regional level. Even so there were problems in some areas, as Nyerere himself admitted in his speech celebrating ten years of the Arusha Declaration:

> Some few leaders did act without thinking, and without any consultation with the people who had to move. Therefore we did have cases of people being required to move from an area of permanent water to an area which is permanently dry. We had other cases where the new villages were made too large for the amount of land available. And there were cases where people were rounded up without notice, and dumped on a village site, without time to prepare shelter for themselves.
>
> But it is absurd to pretend that these cases were typical of villagisation. They did occur; and they were bad examples of leadership failure (Nyerere, 1977: 42).

The move certainly involved short term costs. It was implemented in the middle of several very poor years for food production, when Tanzania had to import food worth 1200 million shillings (equal to one cow worth 500 shillings for every family in Tanzania, as Nyerere dramatically pointed out in a speech to the nation, *Daily News*, 16 August 1974). Mwapachu reports that cotton production was directly affected by the villagisation, and other cash crop growing must have been affected too.

There may also be an agricultural cost in the long run. For the soil in areas of cultivation immediately around the new village sites will be in danger of getting exhausted, and where there are many cattle there will be a danger of soil erosion along cattle tracks and near watering places. In fact in any area with cattle there are definite advantages in a dispersed pattern of settlement: it ensures that all the available grazing areas and water points are used, while enabling the animals to be stockaded near the farmers' dwelling houses at night to protect them against theft or attack by wild animals. Even with crop agriculture, it is often easier to guard the crops against attack from baboons or birds if the farmhouse is near the crops.

In order to try and understand the move, we shall consider some of the theories that have been put forward to explain it. At the time the President, the *Daily News*, and most of the bureaucrats (Mwapachu's paper is a very fair exposition) defended villagisation for reasons very similar to those that Nyerere had given in 1962: that it would make it easier (or possible) for the government to provide services – water supplies, schools, dispensaries, agricultural extension, or famine relief in a bad year. This is undoubtedly the reason why the over-riding requirement for village sites was always that they should be on or very near all-weather roads.

There are two simple difficulties with this argument. The first is that these are all services that the government has to pay for – in fact services which the government was finding it difficult to maintain even before villagisation. Why should the government create impossible demands for services which it must have known it could not fulfil? The second problem with the argument is that in several parts of the country (e.g. the Sukuma heartland) people were moved even in areas where the population density was so high that the services could have been provided within perhaps a range of two miles of every house, but without more than a very few people having to move. It is clear that provision of services cannot have been the only consideration behind the move.

More recently Nyerere has claimed that the object of the move was to increase agricultural production. This is certainly an over-riding imperative of national policy. Frances Hill (1975) sees it as the motive behind all Nyerere's moves. But neither she, nor Nyerere, explains precisely how villagisation is supposed to increase production. We have suggested above that in the short run, and very probably in the long run too, it might have exactly the opposite effect. Leonard (1976) has suggested that communal work will now be used to finance a process of accumulation. This would occur if every village was forced to cultivate a communal farm, the proceeds of which were invested in village projects. The failure of communal farms in the past gives little reason to think that this would be successful.

Finally, a set of arguments deriving from Shivji (1976) and put forward in different ways by Boesen (1976) and Leonard (1976), claim that the object of villagisation is for the officials to control peasant production and thus achieve control of all the means of production in the country. In Boesen's analysis, as in Coulson's of 1975, there are two antagonistic classes, the peasants and the bureaucrats, with the bureaucrats unable to produce themselves and thus dependent on getting production out of the peasants. Leonard adds a third class, the kulaks, or emerging African capitalist farmers and small businessmen. In his view collective agriculture is the only alternative to kulak production if peasant agriculture is to be expanded in scale and ultimately raised to a higher technical level (Leonard; 1976: 18).

Control over the peasants can mean another attempt to enforce minimum acreage rules, or other rules governing crop and animal husbandry. Minimum acreage rules were indeed introduced in many parts of the country during 1974 and 1975. Leonard goes much further and confidently expects communal agriculture to be imposed in the near future, and to be used to extract surplus from the rural sector as happened in the Soviet Union. Thus once the first stage against the kulaks and traders had been taken, there was, in his view, no alternative but for the state to take over the organisation of production and surplus extraction which otherwise the kulaks and traders would have carried out. Leonard (1976: 18) recognises that 'in the process the bureaucracy has inherited the kulaks' objectively antagonistic relationship with the peasantry, with a much heightened consciousness of its existence', but he still thinks that the state will solve its problems of production, at least sufficiently to guarantee its survival.

The bureaucracy has already been driven to seek solutions which bypass the peasants altogether. There has been a very considerable expansion of state farms. Since the abortive 1969 attempt by the Ministry of Agriculture, these are now run by a series of parastatals – NAFCO (mainly cereals), the National Ranching Corporation, the Dairy Farming Company and the Sugar Corporation. All of these have received foreign technical assistance and investment – NAFCO from the British and the Canadians, the livestock corporations from the World Bank, and the Sugar Corporation from the Dutch. The Sugar Corporation in particular has invested in huge capital intensive plantations, specifically rejecting both small-scale technology and the use of outgrowers to any large extent (Phillips, 1974: 11–15; Raikes, 1976b).

Tanzania was, perhaps, lucky in that its strategic importance was suddenly heightened by Frelimo's success in Mozambique. It became clear that independence in Zimbabwe could be delayed for only a few years more, and that Tanzania would have a major influence on the form this took, and hence on the whole political complexion of Southern Africa.

The Tanzanian emphasis on equality, rural development, and education was consistent with some of the views of McNamara, and of many social democrats in Europe, and this enabled most of the Western aid donors to justify aid to Tanzania.

The greatly increased foreign aid for agriculture (to approximately 400 million shillings a year) lessened the short-term problems of production. This aid included gifts of food grains in 1974/75 from the US, Canada, various European countries, and even small contributions from North Korea and India. It also included World Bank IDA credits for every crop of importance, and for village plans in Kigoma, Tabora, Mwanza and Shinyanga Regions (villagisation, unlike ujamaa, has an attraction to donors such as the World Bank as a way of bringing orderliness into rural investment). USAID is involved in producing and multiplying improved varieties of cereals, and in an important project with the Maasai pastoralists; Sweden has financed rural water supplies and grain storage; West Germany is heavily committed in Tanga Region; Denmark gives more aid to Tanzania than to any other country; and so on. The staff of the headquarters of the Ministry of Agriculture can be forgiven for thinking that it is more important for them to keep on good terms with the aid donors than to bother about what happens to the peasants.

CONCLUSION

To prophesy the future in such a complex situation would be rash indeed. It clearly depends on the extent to which the ruling (bureaucratic) class continues to believe that it, and it alone, holds the key to increased agricultural production.

A look at the history of the last 30 years should encourage it to be cautious. Ever since the government started intervening directly in agricultural production, in the Groundnuts Scheme, it has made technical mistakes which have led to failures and waste of resources. It was wrong to think that it could produce groundnuts by mechanisation; wrong in making the peasants construct bench terraces to protect the soil in the Ulugurus; wrong to spend so much time fighting inter-cropping; wrong to encourage the uncontrolled registration of cooperatives after Independence; wrong in the planning of the settlement schemes; wrong in state farms; wrong to suppress the Ruvuma Development Association in 1969; wrong to rush through villagisation without some counting of the cost in terms of production.

The cost is not only financial. The social cost is an uncooperative peasantry. Before colonial times they devised agricultural systems (in Ukara Island, in the Rufiji, the irrigation systems on Kilimanjaro, and many others) that were agriculturally rational uses of nature's raw materials. In the 20 years of the focal point approach they demonstrated that in certain conditions they could innovate and increase production. The motivation then was of course the possibility of getting rich. It seems very unlikely that Tanzania's problems of agricultural production will go away while bureaucrats think that they understand what peasant farmers ought to do and see the solution to those problems in terms of forcing the peasants to work.

APPENDIX

Summary of Government Agricultural Policies in Mainland Tanzania, 1946–76

1946–55	The Groundnuts Scheme	3 sites. 50,000 acres cleared, but very little harvested. Cost £35 million.
1946–53	White settlement	Settlers encouraged to reopen farms abandoned during the War, and some new land alienated. Abandoned after the Tanganyika African Association took the Meru Land Case to the UN in 1953.
1946–56	Land development and soil conservation schemes	6 big schemes, but smaller schemes covered virtually the whole country. Based on bylaws which every farmer had to follow. Abandoned in 1956 after peasant opposition.
1956–67	The focal point approach, or the improvement approach	Extension workers concentrated on progressive farmers or groups. Renamed the Improvement Approach after Independence to avoid the impression that only certain groups were covered, but the policy stayed much the same.
1953–74	Marketing cooperatives selling to government marketing boards	Cooperatives expanded (with some government assistance) to cover the whole country by the early 1960s.
1953–62	Settlement 'under close supervision'	Land cleared for the Groundnuts Scheme was used to establish African capitalist farmers on plots of 20–100 acres.
1962–3	'Spontaneous' settlement schemes	Perhaps 1000 groups started villages and communal farms, but only a handful survived after 1963.
1963–66	'Planned' settlement	The main agricultural policy of the 1964–9

	schemes, including river basin development ('the transformation approach')	Development Plan. But only 23 schemes were started, most of which were expensive, over-capitalised failures.
1967–9	Ujamaa villages	Socialist communities – small groups of committed individuals carrying out communal agriculture. There were about 800 of these at the end of 1968.
1969–76	Villagisation	Starting with 'Operation Rufiji' in 1969, the government moved all the people living in an area into 'planned villages'. Communal cultivation was de-emphasised. In 1973 the policy was extended to cover the whole country. By the end of 1976, 13 million people were living in 7684 villages.
1969–76	State farms	These became national policy in 1969, and 40 of them were included in the 1969–74 Development Plan. Most of these failed, but the government continued to seek foreign partners to develop new state farms or plantations.
1972–6	Crop authorities	The Marketing Boards gradually extended their activities to cover extension, provision of agricultural inputs, and processing, so that over time they gradually made Cooperative Unions redundant. These were abolished in 1976. Under the 1976 Ujamaa Villages Act, the new villages took over the crop purchasing functions of the cooperative primary societies.

NOTE

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4 Agricultural Development Policy in Kenya from the Colonial Period to 1975

JUDITH HEYER

In Kenya, at least in the period from 1955 to 1975, external intervention in agricultural production has been pervasive and influential. The result has been that the incomes of very large sections of the population have increased substantially. Some have been left out, and some have been impoverished, but the overall effect has been to improve the conditions of most of the population. This was achieved not so much because external intervention was better designed or differently motivated than elsewhere, but because it took place under favourable conditions, in which the coincidence of the interests of external and national government agencies with politicians and smallholders made possible a significant expansion of agricultural produce, most particularly by smallholders, for both the local and export markets.

Agricultural development in Kenya before the war was primarily a matter of the needs of European farming, and the way in which it impinged on the rest of the economy. European farming needed a cheap and plentiful supply of labour, and a significant fiscal contribution from African areas. There was a concern to maintain the food supply of the population in the African areas, some of which began to get overcrowded well before the second world war, and to encourage some production for the market, to augment the tax base. There were positive aspects for African producers of the relationship with European farms. Many African areas benefited from the introduction of new and improved technology acquired as a result of employment on European farms. Furthermore, African farmers invested, in the rural areas, some of the money which they had earned in the slightly better-paid types of employment which gradually became available to them.

During and after the Second World War, the government became more active and its policies became more independent of the European farmers. The government began to assert itself in opposition to the settlers and to pursue the interests of British capital, of plantations and ranches as opposed to settlers on the mixed farms, and to try to satisfy the requirements of the urban population. The government began to

Map 2 Central Kenya

promote the production of food for the urban market and for the non-food-producing elements in the agricultural sector, and also to encourage Africans to produce for export markets. The growth of marketed output became more important than maintaining settler standards of living. More attention was paid to production in the African areas, which received more resources in the form of roads, marketing, processing and agricultural production services. From this period dates the pervasive penetration of the government deep into the rural areas, which has distinguished Kenya ever since. In the 1950s the government mediated between the European 'large farm' sector, the African farm sector, and urban and international interests.

There were continuities from the 1950s through to the period after independence as well as far-reaching changes. The transfer of power to an independent African government gave the state an enormous amount of leverage through its control of the transition from white to black ownership and control. The government was crucial in deciding who had access, and on what terms, to economic positions previously occupied by Europeans. The greatly increased scale of international aid, which was channelled through the government, further extended its dominant position in the allocation of resources in the agricultural sector. Throughout the 1960s the government dispensed very large amounts of patronage.

The political base of the government was transformed with independence. The new government was sensitive to pressures from the élite which was, to a very large extent, its own creation. It was also responsive to pressures from many sections of the population, particularly in Central Province. In the early years, the government's agricultural policies favoured large farmers, and broad Central Province interests. In Central Province, government policy had the effect of strengthening the position of the 'middle peasantry' (Cowen, in this volume) relative both to the rich and to the poor. This changed at the end of the 1960s when there were signs of a shift in favour of the rich peasants. The government also began to cater more directly for regions other than Central Province.

New international influences came in with independence in the form of a whole set of relationships with international aid agencies, and of new relations with multi-national corporations. These agencies introduced a much more market-oriented approach. They moved Kenya's small farms more rapidly into international as well as national market relationships. The international agencies also tried to make the agencies of state intervention more responsive to market forces in the 1960s and 1970s.

The extensive and increasing intervention by the government and other external agencies in the rural areas of Kenya has benefited the vast majority in those areas, at least up until the mid-1970s. This was helped by conflicts between government and foreign agencies with the rich peasants over the expansion of commodity production, which led to the relatively egalitarian strategy which restrained the rich and favoured the 'middle' peasants. It was also helped by the opening up of the land frontier as a result of resettlement programmes, the generally strong international markets to which Kenya had access, and the very high levels of public and private international capital that were channelled into investments in transport, processing and marketing facilities that helped Kenyan producers to take advantage of buoyant external and internal markets. This period of relatively easy and broadly-based development may however be coming to an end. The closing of the land frontier, the gradual change from support for middle peasants to support for rich peasants, the substantial reduction in net flows of international resources into Kenya, and the fact that so many of the obvious market opportunities have been exhausted, means that future income growth may be lower and it may increasingly be at the expense of the poor.

'EUROPEAN' AND 'AFRICAN' AGRICULTURE

'European agriculture', as white-owned farms have always been called in Kenya, was established in the early decades of the twentieth century, when Kenya was seen by those involved in building the Uganda railway as relatively sparsely populated and suitable for white settlement which could help to finance the railway, which looked a dubious undertaking on the basis of trade with Uganda alone. From the beginning it was difficult to make European agriculture viable, except by supporting it with a number of measures including putting pressure on Africans to supply sufficient labour at low enough rates for European farmers to remain viable, organising markets in which European farmers had preferential treatment, and making special provision for European agriculture in the transport and infrastructural framework (Brett, 1973). Without such concessions European agriculture, particularly 'settler agriculture', would not have survived. Plantations and ranches were always less vulnerable than the settler mixed farms, but plantations also relied on ample supplies of cheap labour and ranches on exclusive rights over very large areas of land.

The number of large farms in the hands of Europeans was never very great, reaching a maximum of 3600 holdings at the end of the 1950s when European agriculture was at its peak. However, the development of Kenya's agricultural sector was profoundly influenced by the presence of white farmers in the colonial period. Through the government they were able to obtain control over 20 per cent of the usable agricultural land in Kenya; they were able to arrange privileged access to markets and infrastructure; they made a minimal fiscal contribution, at least until the second world war; and they were able to get employment rules and regulations as well as policies for 'African' rural areas which enabled them to employ African labour in sufficient quantities on terms that they could afford. At the end of the 1950s, European farms were responsible for an estimated 80 per cent of agricultural output that reached urban and export markets, which small African farms had been supplying quite successfully in the period before the first world war. European farmers had built up a position of privilege and influence to support the European large farm sector on an impressive scale and at a high standard of living (Brett, 1973; Wolff, 1974; Van Zwanenberg, 1971).

The pattern of agricultural development in 'small farm areas' in Kenya can only be explained in the context of relationships with the 'large farm sector'. The distinction between 'small farms' and 'large farms' in Kenya coincides with the distinction between 'Scheduled Areas' which were the areas reserved exclusively for European agriculture before independence, and the 'Non Scheduled Areas' which were in African hands. At the time of independence in 1963, there were over one million households in the 'small farm areas' which include pastoral holdings. The vast majority of agricultural holdings in these areas are less than five hectares each. 'Large farms' on the other hand averaged 600–700 hectares each, although some were as small as eight to ten hectares and still classified as part of the 'large farm sector'.

Before the second world war, government activities in many African agricultural areas were mainly concerned to provide the conditions under which European agriculture could flourish. Government administrative, agricultural and veterinary services were directed towards ensuring firstly, that African areas remained sources of cheap and plentiful labour and secondly, that they supplemented agricultural production for export and for the urban domestic markets to the extent that this was possible (a) without competing for markets with large farms and (b) without jeopardising the cheap labour supply. Thus food crops, low-value livestock products like hides and skins and ghee, and low-value cash crops like wattle and cotton, were encouraged. The government provided seed, basic marketing and veterinary services which reached far into African areas throughout central Kenya from the early decades of the twentieth century. It was largely as a result of government distribution of seed and provision of marketing services that the cotton industry was established in western Kenya. Likewise the government's role in the introduction of maize and the widespread distribution of cassava had a profound influence on food consumption and cropping patterns in African areas in which more people could be maintained with less labour and land as a result of the spread of these crops. The incidence of rinderpest and East Coast fever was reduced dramatically as a result of the activities of the veterinary department. In the 1930s the government began to encourage anti soil-erosion measures. All of these measures helped to maintain larger numbers of people in African areas in which population growth threatened to exacerbate periodic famines and reduce standards of living.

Relatively large numbers of Africans from densely populated areas became squatters on land now regarded as 'European'. In 1931 it was estimated that squatters were using one million acres of land in the 'European' highlands, or about two-thirds as much as was being used by European farmers at that time, and in 1944 it was estimated (Kenya, 1944) that squatters' stock was occupying two to three million of the seven million acres alienated to Europeans. In 1945 there were about 200,000 squatters, of whom about 122,000 were Kikuyu from Central Province. For several decades squatter labour played a very important part in providing an outlet for expansion for Africans with insufficient land (Martin, 1947). Squatters were given access to land for grazing and subsistence food production in exchange for what were initially very minor labour obligations. The obligations increased and the rights were curtailed as land and labour shortages began to develop in the European farming areas.

A high proportion of adult males went to work outside their home areas after the coming of the Europeans as African areas became more crowded and the pressure to work became more severe. It became increasingly difficult to obtain enough cash to pay poll tax and meet other needs through household production alone as population pressure increased and opportunities for market production failed to keep pace. As many as 40 per cent of the adult males between the ages of 15 and 45 years were absent from Central Province and from some North Nyanza districts in 1928 (Kitching, 1980) and substantial proportions were absent from other areas too. The majority worked for wages that were barely sufficient to meet their own subsistence needs after paying tax. They had to rely on holdings in their home areas to maintain their families and sometimes also to supplement their own consumption.

Another result of the growing European presence was that there was a serious fiscal drain on the resources of the African areas. A significant proportion of income earned from crop and livestock sales and from employment was appropriated mainly in the form of poll tax, and relatively little of this financed expenditures of any benefit to Africans (Brett, 1973). Furthermore, African agriculture suffered from differential access to markets. African producers were completely excluded from the coffee market and from the international tea and pyrethrum markets until after the second world war, and access to many other markets (maize and dairy particularly) was on a severely discriminatory basis.

The exploitative aspects of the relationship between European farming and African agriculture have received a great deal of attention (Brett, 1973; Van Zwanenberg, 1971; Leys, 1975; Smith, 1976; Heyer and Waweru, 1976c). African agricultural areas were seen as denied land into which they would have expanded, drained of able-bodied adult male labour, local leadership and entrepreneurial talent, and also drained of financial resources because of the heavy fiscal burdens and limited access to markets. The result was low incomes, soil erosion and an agriculture that relied on low-value products, all of which encouraged, and was encouraged by, substantial emigration.

It is now becoming clear, however, that the benefits to African producers of the development of European agriculture were neglected in this analysis. Central Province, the area around and to the north of Nairobi inhabited by Kikuyu, was the area most directly affected by European agriculture. This was the area from which labour migration was highest (United Kingdom, 1934). However, it was in Central Province that the growth of agricultural output and income was most impressive. Central Province was in the forefront of high rates of growth of marketed output, high rates of growth of agricultural incomes, and rapid technical change, particularly in the latter part of the colonial period. Cowen has shown how Central Province gained from the introduction of new and improved agricultural technology that became available through settler and plantation agricultural contacts, directly through employment on European holdings (Cowen, 1979). Most notable in the early period was the introduction of dairy cattle and dairy technology that has been described in some detail by Cowen, but tea, pyrethrum and other less obvious crop and livestock improvements were also introduced through contact with settler and plantation agriculture. Government research and extension services, themselves very heavily influenced by the needs of European agriculture, played a much less important role. Indeed, the government positively resisted much of the introduction of improved technology in African areas in the 1930s and 1940s. This was particularly notable in the case of dairy technology up to as late as the mid-1950s, as Cowen demonstrates. It was also, of course, true of coffee and other high-value cash crops.

Initially a relatively small minority of individuals earning relatively high wages began to accumulate and invest in agriculture and rural businesses in Central Province. This was already noticeable in the 1930s (Kitching, 1980; Cowen, 1979) and it became increasingly important as time passed. The crucial importance of urban sector earnings in the development of small farm agriculture in Kenya is now widely recognised, particularly as a result of the 1970s analysis of the Kenya economy done under the auspices of the World Bank (Collier and Lall, 1978). A similar process was going on in the colonial period, during much of which wages earned in the 'large farm sector' as well as the urban areas were transferred to small farm agriculture.

In other African areas contiguous with European farming areas, areas like North Nyanza, parts of Machakos, Nandi and Kericho, labour migration was high but pressure on the land was much less severe and access to the urban market less easy. Consequently the pattern and pace of development was very different from that in Central Province. These areas developed maize and cattle production through the introduction of ploughs which enabled a substantial growth of output to take place simultaneously with continuing high rates of labour migration. Maize replaced traditional crops like millet to a significant extent and the government became concerned about the growth of monoculture that was accelerated during and after the second world war in these areas. In Machakos the resulting soil erosion was so severe that it was singled out for a special programme of rehabilitation in the 1950s.

It was the areas further away from European farms in which agricultural development appeared much less impressive in the colonial period. Central Nyanza and the Maragoli area in the south of Kakamega supplied a great deal of labour to the rest of the economy, without the significant expansion of agricultural production that was experienced in so many of the areas of high labour migration (Kitching, 1980). There were also more remote areas relatively unaffected by what was going on in the rest of the country. Some of these were pastoral areas, but many of the pastoral areas were in fact very much influenced by the advent of the Europeans. The Maasai were the most crucially affected as large areas of their land were taken for European ranching, in exchange for less attractive land in the north to which the Maasai were moved. Furthermore, the Maasai and other pastoral people supplied cattle to European ranches and farms in the early decades of the century and then they found themselves handicapped by the gradual introduction of more and more stringent veterinary restrictions as the Europeans introduced exotic strains into their herds. The pastoral areas suffered from severe restrictions on stock trade and stock movement from the 1930s. The changes that took place in different pastoral areas have not yet been very fully documented. They have not received nearly as much attention as the agricultural areas in the discussion of rural change in Kenya.

THE SECOND WORLD WAR AND AFTER

The Second World War marked the beginning of even greater government involvement in agriculture in Kenya. Government intervention in the marketing of exports during the war set a precedent that was to continue long after its original rationale had disappeared. The stationing of large numbers of military personnel in Kenya during the war also brought the government directly to adopt policies to ensure sufficient production of food for the expanded domestic market. The Increased Production of Food Crops Ordinance (1942) was prompted by a serious food crisis in 1942–43. This set the pattern for the strong government intervention in food production and marketing that has been such a notable feature of Kenya agriculture since. Guaranteed prices, crop insurance and credit gave European farmers additional incentives to grow maize and other essential products. Additional incentives for African farmers were provided by the increased provision of marketing facilities. The implementation of the 1942 Food Crops Ordinance was followed by a substantial increase in food production which accentuated the growing shortage of land in both large farm and small farm areas. Central Province food production was diversified, and in Nyanza there was a substantial increase in production for the market, particularly maize. In the large farm areas the increased pressure on land prompted the replacement of squatter with wage labour on a very large scale, aided and encouraged by the government.

The Resident Labour Ordinance had already been introduced in 1937, making it possible to put increased pressure on squatters and to expel them where the returns from reappropriating the land they were occupying exceeded the value of the labour they provided. During and after the second world war squatters were forced to return in large numbers to areas from which they had migrated 20–30 years previously. In the immediate post-war period government intervention in the agricultural sector was aimed at the production of marketed output for export and for urban areas. It was assumed that this could only be provided by the large farm sector. The small farm sector was to provide for the subsistence needs of the African population (Mitchell, 1946). This position was taken despite the emergence of large and regular marketed outputs from African areas during the war. Indeed this view was still influential at the time of independence.

A new programme of 'closer European settlement' was introduced because it was considered that the large farm areas were too sparsely populated by Europeans. The new policy involved the eradication of the squatter system which was thought to be destructive of the natural resources in the large farm areas (Mitchell, 1946; Kenya, 1944). This was justified as follows (Kenya, 1944):

> In our view the labour situation will not be adversely affected by the eradication of the squatter system. Closer settlement and more intensive farming will indeed provide more employment and better living conditions for both skilled and unskilled Africans and go towards solving the demobilisation problem of Africans in the Army.

But squatting is very different from wage employment from the squatters' point of view. Wage employment does not provide squatters with land, and it makes no provision for squatter families. Many of the squatters had lost any claim to land in the areas of origin to which they had to return. Others had to claim land that had long been in use by relatives or clansmen. Their return greatly aggravated the pressure on the land in the small farm areas and it also led to a large number of land disputes. In Central Province these problems were so acute that they produced what was described at the time as 'general unrest'.

The new settlers who came under the programme of 'closer European settlement' were to occupy land bought from people whose holdings were too large and from land previously held by the Crown. Under the programme a total of 493 ex-servicemen settlers were established in the 1950s. Older farms benefited from the injection of capital and more intensive farming systems which resulted from the sale of some of their land but the 'closer European settlement' programme alone was not sufficient for there to be any noticeable progress towards more intensive mixed farming systems. Troup, the commissioner appointed to look into the problems of farming in the highlands in 1952–53 (Kenya, 1953) recommended much stronger measures to encourage the adoption of more integrated mixed farming systems so that the trend towards monoculture could be reversed.

High export prices and a strong local market for food combined with the new government policies to produce substantial increases in large farm output, exports and employment in the decade following the war. Export marketing boards in Kenya did not lead to the accumulation of substantial surpluses as in other British colonies in the 1950s. The only board that pursued such a policy in Kenya was the Cotton Lint and Seed Marketing Board which was responsible for a crop grown entirely on African holdings. The other boards, the bulk of whose supplies came from European holdings, simply passed on whatever price ruled on the international markets, with appropriate deductions to cover the costs of marketing and processing. Domestic markets were still, of course, protected to the advantage of European farmers. The proportion of land under crops in the large farm areas increased from 11 to 14 per cent between 1938 and 1954. Between 1942 and 1952 the area under wheat and maize more than doubled, as did the sale of milk, sheep and pigs, and sales of cattle tripled. Plantation crop production expanded similarly. Much of the doubling of wage employment recorded between 1944 and 1954 could be attributed directly or indirectly to the growth of the large farm sector.

However, these developments and the policies associated with them had serious implications for some of the small farm areas, particularly the Kikuyu areas. By the end of the war overcrowding in Central Province, Machakos and parts of other African areas had reached serious proportions. The Maher reports (Maher, 1938) on environmental deterioration in some African areas in central Kenya were very much in the minds of those responsible for policy. In western Kenya it was a problem of monoculture as a result of excessive concentration on maize. There was talk of a crisis situation (Mitchell, 1946). With the return of the squatters, the influx of demobilised military personnel, and a determination on the part of the government to keep the urban and export markets for European farms, the crisis worsened. The policy initiatives taken by the government aggravated the situation. The government saw a fall in output and income as a necessary cost of retrieving a deteriorating natural resource position in African areas. The strategy included a reduction in cropped area, the introduction of crop rotations, fallow and grass leys; a reduction in livestock numbers, the introduction of physical soil conservation measures, primarily bench terracing; the use of manure and compost; and the 'rehabilitation' of grossly denuded areas by removing their populations for the necessary number of years.

This strategy could not succeed. Food and other crop prices remained at extremely high levels and crop production continued to expand. Soil conservation measures were particularly unpopular as they were policies to reduce incomes. There was opposition to the programme from the start. In Central Province in 1947 political action brought the soil conservation programme to a complete halt (Sorrenson, 1967: 75). There was also strong opposition to destocking which was made more difficult by the Veterinary Department's refusal to allow exotic strains of cattle in African areas. There were also protests against the government's continued refusal to allow coffee on any but a very limited scale, and other government measures preventing the development of market production in African areas. The programme of moving population to new settlement areas could hardly relieve what was, within the existing policy framework, a problem of major proportions. The settlement programme was abandoned after two years in 1950, by which time 5000 families had been resettled on the fringes of small farm areas.

Perhaps the most serious problem of all at this time, however, was the land tenure situation in Central Province where the earlier system of communal control was rapidly being transformed into a *de facto* system of individual ownership. Overcrowding was severe, but what made the problem acute was the return of the squatters from large farm areas and demobilisation from the army after the war. The 1948 report on the Fort Hall area (now Murang'a), quoted by Sorrenson, stated that the conflict over land was 'turning family against family, brother against brother, in an individualistic race for more acres of eroded soil' (Sorrenson, 1967:79). However, there was a reluctance to sanction individual land tenure and a number of alternatives were still being debated (Sorrenson, 1967). In 1946 there was an attempt to revive communal control on the grounds that it would discourage the 'mining' of land and that it would promote a more egalitarian structure. It was felt that official recognition of individual land tenure would create landlessness, increase friction, and aggravate the soil deterioration that was uppermost in the minds of many government officials. But in 1946 it was already too late to reverse the trend towards individual tenure which had widespread support among landowners in Central Province, and some official recognition already. In 1943 the District Commissioner in Nyeri had agreed to keep an informal register of land rights in response to growing pressure from Nyeri landowners (Sorrenson, 1967).

THE SWYNNERTON ERA

By the late 1940s it was obvious that government strategy for African areas was unworkable. Alternatives were considered against a growing background of unrest culminating in the declaration of Emergency in 1952. Discussions ended with the complete reversal of policy summarised in the Swynnerton Plan published early in 1954 (Kenya, 1954). The Swynnerton Plan is a landmark in the history of Kenya. It marks the beginning of a definite policy of government encouragement of African production for urban and export markets. In the Swynnerton Plan there is a firm commitment to a potentially positive role for African small farm production, complementing and perhaps even competing with European large farm production in Kenya. To some extent this is a reflection of the growing strength, as industrialisation began in the 1950s, of non-settler European interests in Kenya, with a stake in the contribution of African areas to an expanded supply of food and raw materials at a cost lower than that of settler production. To some extent the new policy also reflects wider international interests in expanding production for export markets.

The Swynnerton Plan must also be seen as a response to the growing political crisis associated with the Mau Mau revolt among the Kikuyu in the 1950s. The more positive production policy was a response to this. But perhaps even more important, the Swynnerton Plan involved the final conversion of the government to a policy of individual ownership of land in African areas, and the establishment of rural class structure, which would contain the conflicts which had given rise to the Land Freedom Army.

The Swynnerton Plan contained a strategy for the development of production in small farm areas in the highlands that is still the basis of policy in Kenya today. It provided for what came to be known in Kenya as 'land reform', involving the consolidation of fragments of land where fragmentation was severe and the registration of individual freehold title to land. Its other major component was the development of crop and livestock production for the market through the provision of farm plans, extension services, inputs, processing and marketing facilities and a small amount of farm credit. The Plan provided for a total of £2.6 million expenditure over five years for the highland areas in which the majority of smallholders in Kenya lived. This included Central Province, parts of Nyanza, parts of Machakos, and other smaller highland areas. In the event, total expenditure was much higher than this initial estimate.

The Swynnerton Plan also made provision for the semi-arid pastoral areas, which were to get £0.6 million over the five-year period. For these areas, however, the programme simply represented a continuation of the old policies of self-contained development. It included additional water supplies, controlled grazing management and the development of livestock marketing to facilitate destocking. There was little to suggest that livestock might generate increasing income or sales. It was not until the mid-1960s that a market-oriented approach to livestock was adopted.

A total of nearly £1 million was provided in the Swynnerton Plan for irrigation and swamp reclamation surveys. Some of this research began to bear fruit in the 1960s and 1970s when a few large-scale irrigation developments were taken up, but irrigation has never been very prominent in Kenya's agricultural development programme.

One of the most striking things about the Swynnerton Plan is its complete absence of concern for the lower, hotter, drier agricultural areas which have to rely on food and livestock production and some less lucrative cash crops like cotton to support relatively large populations. These areas had received attention in the colonial period. In these areas, soil conservation continued to be paramount at the expense of output and income. The Machakos district was singled out for rather more extreme treatment. It received a substantial increase in staff and expenditure for a rehabilitation programme to deal with what was seen as the most extensive and critical soil conservation problem in small farm areas at the time (De Wilde, 1967). The programme included the closing of areas for rehabilitation, forced soil conservation works, and destocking, all of which were extremely unpopular and enforced on a massive scale.

The programme for the small farms in the highland areas on which the Swynnerton Plan concentrated was based very consciously on the controlled development of an élite of 'progressive farmers' who would form a solid conservative bulwark against Mau Mau and other political opposition. The new land tenure policy was introduced in the following (much quoted) terms (Kenya 1954: 10): 'Former Government policy will be reversed, and able energetic or rich Africans will be able to acquire more land and bad or poor farmers less, creating a landed and a landless class. This is a normal step in the evolution of a country.'

The plan was for 'energetic or rich' farmers to provide employment and increased incomes for the poor who could not generate adequate incomes farming their own land. Tentative figures produced after the first land reform experiments in Fort Hall in 1955 seemed to suggest that this was a workable strategy. They suggested that surplus population could easily be absorbed in Central Province on 'large holdings', defined here as holdings of more than three acres, which would employ labour, and indeed that the ultimate result would be a shortage of labour. These expectations were not borne out by events (Sorrenson, 1967; Smith, 1976.) It later became clear that it would not be possible to accommodate all of the Central Province population in this way. The result of the land consolidation and registration exercise that was confined in the 1950s to Central Province was undoubtedly to increase landlessness and make it more open, without providing employment on the scale that had been anticipated. This was also partly due to the relatively egalitarian production policies that are discussed below.

Among the products that received support in the new programme of encouraging marketed output, by far the most important was coffee. Coffee had long been a matter for dispute: in the 1920s Kikuyu farmers pressed to be allowed to grow coffee, a demand that was supported by some of the agricultural officers responsible for Kikuyu areas (Sorrenson, 1967; Cowen, 1979). Strong opposition from settlers and plantation owners successfully countered these early demands despite examples from neighbouring Tanganyika and Uganda. In the early 1930s, when the depression had produced some shift in policy towards increased exports from African areas, it was decided to introduce African coffee-growing on an experimental basis in Kisii, Embu and Meru which were far enough away from European coffee-growing areas not to pose an immediate threat to them. There was little interest among African farmers in these areas at the time, however, and it was difficult to establish the 100 acres allowed in each district. The acreage was not increased until 1946 after which restrictions were gradually relaxed, but it was only in 1951 that this applied to Central Province, which was the last area from which the ban on coffee production was lifted in Kenya.

African coffee-growing was supported by the government as part of the very closely controlled programme based on the 'progressive farmer' élite in the 1950s. Only a very small number of farmers in coffee-growing areas were allowed to grow coffee initially, and the rate of expansion allowed for each coffee grower was limited. High standards of husbandry were enforced, adding to the cost of production, and total production was kept to a level that agricultural officials felt they could adequately control and supervise. The result was a tightly controlled programme of expansion of high-quality output, restricted to a limited group. Indeed African-grown coffee continued to register as of higher quality than European-grown coffee well into the 1960s as a result. By 1960, 33,000 acres of coffee had been planted by 105,000 growers averaging less than one-third of an acre each. Official policies affected adversely both those who could have entered coffee production if they had been allowed to do so with fewer resources at the start, and the 'progressive farmers' who could have expanded much more rapidly had this been allowed.

'Progressive farmers' were further handicapped by the government's insistence on cooperative marketing and processing for the small farm coffee crop. Small farm coffee production was associated with compulsory membership of cooperatives with exclusive rights over the handling and initial processing of the crop. The cooperatives were subject to stringent governmental control. They denied a group of potential traders and processors the opportunity of entering into this area of activity on a private basis, and at the same time the government role in cooperatives was such as to prevent the cooperatives from becoming alternative outlets for local initiative and skill. Similar policies were followed for dairy and pyrethrum marketing in the Swynnerton period.

Despite the restrictive policies adopted in the 1950s, coffee production expanded far more rapidly than had initially been anticipated in the Swynnerton Plan. The Swynnerton target for 1968 was passed in 1962–63 and almost doubled by 1964 when nearly 236,000 growers had planted 125,000 acres. This came to a halt in 1964, however, as the government introduced a planting ban in support of the International Coffee Agreement policy of restricting the expansion of coffee production internationally. The dramatic real income and output growth that resulted from planting in the 1950s was evident in the 1960s when coffee was the dominant product responsible for the phenomenal rates of growth of small farm production in Kenya, especially in Central Province and, in Nyanza, in Kisii.

Tea and pyrethrum are the other high-value export crops whose initial expansion dates to the Swynnerton Plan. Sun-dried tea was produced in Fort Hall in Central Province from the 1930s, despite official resistance. The domestic market for tea was protected from an early date, the tea companies sharing the proceeds from the sale of tea on the domestic market at a price well above that obtainable internationally. The tea companies were anxious to avoid any competition likely to erode their profits on this operation and in this they were supported by the government. The production of sun-dried tea was a major threat (Cowen, 1979, and in this volume) to the tea programme adopted as part of the Swynnerton Plan. This was because the financing of the large-scale factory-based programme chosen by the government for the development of small farm tea production depended crucially on control over the market for tea. Factory, planting material and other tea development expenditure was financed through cesses levied on the sale of green tea by the tea development authority. As long as it was possible to ensure that all green tea was channelled through the authority this means of financing could be used but to the extent that there were alternative outlets for green tea it was vulnerable. It was impossible to exercise the necessary degree of control without a complete prohibition on the sale of green tea outside the programme.

The choice of large-scale factory processing meant substantial external capital involvements, and a relatively centralised organisational structure to handle collection, payment and advisory services connected with the small farm tea-growing programme. The initial finance came from a variety of sources including the Colonial (later Commonwealth) Development Corporation, the West German government and later also from the World Bank.

Although the Swynnerton Plan targets for tea were very similar to those for coffee, tea production expanded much more slowly than coffee production, mainly because of the much greater capital expenditure involved. By 1964–65, when there were already over a quarter of a million small farm coffee growers with over 125,000 acres of coffee, there were little over 22,000 small tea growers with only 13,000 acres of tea. However, small farm tea production continued to expand rapidly when new coffee planting on small farms was officially banned in 1964, and small farm tea became progressively more important thereafter until new coffee planting was again encouraged in the mid-1970s when the international price of coffee was so high.

Pyrethrum was also adopted on small farms before it got any official support. An explicit request by European growers for the government to prohibit African pyrethrum production because the market was too small was rejected in 1948. Pyrethrum was incorporated in the Swynnerton programme and it made a substantial contribution to the growth of output and incomes in Kisii and Kiambu in the 1960s.

Dairy production was a problem at the time when the Swynnerton Plan was written. Individuals had been bringing exotic cattle into African areas for some time but the veterinary department was not prepared to provide services to support them. Small farmers thus had considerable difficulty keeping 'grade' cattle and this is reflected in a relatively long history of conflict over such things as rinderpost inoculation and dipping rules (Cowen, 1979). In 1955, when the Veterinary Department finally agreed to the controlled introduction of 'grade' cattle into African areas, it was very much along the restrictive lines outlined for coffee and other cash crops in the Swynnerton Plan. Dairy production expanded rapidly nevertheless, and by the 1960s it too had become a major source of income for small farms.

The increased output associated with the Swynnerton Plan, which had involved the injection of substantial resources in the form of infrastructure, processing and marketing facilities, showed an annual rate of growth of marketed output from small farms of 7.3 per cent from 1954 to 1963 and 12.6 per cent from 1964 to 1970. This was partly due to an increase in the small farm area represented by the subdivision of large farms in the settlement schemes, but it was due at least as much to the very rapid rates of expansion in small farm areas outside settlement schemes. By 1967 the proportion of marketed output that came from small farm areas in Kenya had reached 50 per cent. It has remained around that level since. Between 1964 and 1967 coffee was responsible for 20–30 per cent of small farm marketed output. Its share fell in the next few years when tea, pyrethrum and dairy production played an important role, until coffee again came to the fore with the high prices of the 1970s. Maize was important in some western Kenya districts too.

The growth of small farm output benefited large numbers in the African areas, not, of course, all equally. Official figures suggest that in Central Province between 1963–64 and 1974–75 the incomes of the middle 30 per cent in the income distribution have increased as much as those of the upper 30 per cent (Kenya, 1968, 1977). This is corroborated by Cowen's data which suggest a strengthening of the position of the middle peasantry as a result of the policies of the 1950s and 1960s (Cowen, 1979). There were substantial sections of the population that were barely affected by Swynnerton policies, however. The income share of the lowest 40 per cent in the income distribution fell, but the aggregate real income of this group remained roughly constant between 1963–64 and 1974–75 in Central Province (Kenya, 1968, 1977; Collier and Lall, 1978). This necessarily ignores the people whose position deteriorated to such an extent that they were forced to migrate, but it does give a rough indication of the extent of the improvement in Central Province. The situation would have been less favourable had it not been for the very substantial contribution of urban earnings, responsible for 15–40 per cent of the total in all small farm areas covered by the Integrated Rural Survey 1974–75. (This survey covered all small farms except in pastoral areas and settlement schemes.) The situation would also have been less favourable were it not for the decreased land pressure that resulted from the movement into the former European areas that took place as a result of independence (Collier and Lall, 1978).

While all these changes had been taking place in the small farm areas, the large farm sector continued to receive strong government support. Policies for the expansion of large farm production in the 1950s were based on arguments such as those of the 1953 Troup Report (Kenya, 1953) which had recommended a further wave of white settlement because the average size of mixed farms was still thought to be too large.

The recruitment of new settlers was never seriously considered at this stage, but measures to encourage the introduction of more integrated mixed farming practices were adopted. These included substantial increases in credit provision, infrastructure and services for large farms, which combined with high export prices to make the 1950s 'the most prosperous phase of European farming in Kenya' (Smith, 1976). It was at its peak at the time of the completely unexpected announcement about independence in January 1960.

THE INDEPENDENCE SETTLEMENT

Independence was accompanied by many fundamental changes, the most important of which was the European exodus which made room for a new indigenous élite moving into the positions of settlers and other members of the European community; and which also made room for an eventual 70,000 more small farms on settlement schemes. Furthermore, independence ushered in a new set of aid relationships with a larger and more diversified set of international agencies. It introduced the new political influences of rural and urban African populations, and brought tribalism much more overtly into the policy arena.

Policies for the large farm sector revolved around the concern of the British government to establish conditions in which European farmers who wanted to leave could do so with adequate compensation, while those who wanted to stay could do so in an environment in which their interests were likely to be catered for. The incoming Kenya government was concerned to transfer European farming land to all classes of Kenyans: to the landless and unemployed, to small farmers who wanted to expand, and to the new Kenyan élite. Policies for the former European areas can best be understood against this background.

The independence negotiations appeared to be dominated by a concern, common to all involved, with how to transfer power without a collapse of the large farm sector which was still considered crucial to the Kenya economy. The solution that was devised met this, and other criteria important to the different interest groups, admirably. About one-sixth of the European farming area was subdivided into smallholdings for Africans, a visible transfer of former European land to landless and unemployed in the 'high density settlement schemes' and to the more prosperous small farmers who wanted to expand in 'low density settlement schemes'. This helped to satisfy strong political demands and it made a noticeable impact on overcrowding in Central Province (Collier and Lall, 1978) and probably elsewhere as well. Another one-sixth of the large farm area was sold on a willing-seller-willing-buyer basis to a new group of African large farmers financed by parastatal credit agencies, thus creating a new élite with a vested interest in the large farm sector and all the privileges that were necessary to its continued existence. The result of these arrangements was to allow the Europeans who wanted to leave to do so on generous terms; to restore the confidence of the Europeans who remained; to install Africans in the former European farming areas as large and medium-scale farmers as well as small; and to maintain output and exports at their pre-independence levels.

Settlement schemes, both high and low density, gave smallholders access to land with very heavy loan commitments and commitments to a centralised system of services and marketing on each settlement scheme. Settlers were given credit to enable them to pay for the land at high (1959) prices. They achieved relatively high standards of living right from the start on holdings that were barely developed. The high levels of indebtedness that this involved proved difficult to service (Kenya, 1966c; 1970; Leys, 1975) and indebtedness became the major reason for the continued separation of settlement from general agricultural administration in Kenya in the 1970s. The government tightened up on debt repayment, despite recommendations that debts which cannot really be attributed to settlers be waived (Kenya, 1966c). Experience was very uneven. There were successes in the sense of greatly increased output and income on some settlement schemes. There were also failures. In both cases the repayment of debts incurred to finance the purchase of the land bears heavily on settlers.

The problem of indebtedness was increased by incorrect agricultural recommendations, unviable or unfeasible recommended farming systems, and delays and failures in the distribution and marketing channels that were responsible for poor levels of performance in the early years, which made it even more difficult for settlers to repay their debts.

In the second half of the 1960s, when the 'million-acre' settlement programme was virtually completed, a number of different approaches to settlement were tried. These included squatter settlements, modified low density settlement schemes, and cooperative farming schemes in which part of the farm was farmed as a single unit under a cooperative system of management, while the rest was divided into small individual plots belonging to the cooperators. Altogether these provided a further 35,000 holdings over and above the 35,000 provided by the 'million-acre' programme.

The 'transfer intact' of large farms to Africans raised more overt problems than the settlement scheme programme. It was only with government financial assistance that many individual Africans were able to buy large farms. Up to 90 per cent of the purchase price was provided by the Land Bank, later the Agricultural Finance Corporation, and credit was also available to meet working capital requirements.

Few of the purchasers had any relevant large farm experience. Many were large groups of small farmers lacking any clear-cut organisation. The new owners were soon in trouble, having to resort to selling off assets to service loans and getting further and further behind with loan repayments. The government tried to remedy the situation by providing additional support. This included additional extension services, new large farmer and manager training schemes, and more credit. Despite all the additional support, however, 'delinquency' arose on a large scale. In 1968 the government started exploring ways of 'rehabilitating' farms in severe difficulties, but it was not until 1975 that the government obtained World Bank agreement to a loan of £5 million to 'rehabilitate' 90 farms and plantations over a period of five years. The rehabilitation scheme involved the re-scheduling of debt for farms on which owners accepted management agents on terms agreed with the Ministry of Agriculture and the Agricultural Finance Corporation. The owners also had to accept the training of a manager of their choice to take over at the end of a four-year rehabilitation period.

A few individuals who bought large farms did obtain permission to subdivide them for sale to large numbers of small purchasers. This was an extremely profitable operation, allowing those not making a success of large farming or wanting to move into other spheres of activity to do so on very advantageous terms. It also had its political benefits as it was seen as an act of generosity towards the small purchasers involved. It depended on the willingness of the administration to make exceptions to the general policy against the subdivision of large farms.

The 'transfer intact' programme included the purchase of ex-European farms by large numbers of very small farmers who got together solely for the purpose of buying a farm, often with a view to subsequent subdivision. Once they were in possession of the land they found that the terms of the loan from the Agricultural Finance Corporation precluded subdivision. Some ran into serious difficulties trying to operate the land as large farms. Others contributed off-farm income so that they could repay the loans and subdivide as soon as possible. The government tried to enforce its policy against subdivision by putting in management advisers, 'controlling' settlement patterns, and intensifying advisory and other services, but it was eventually decided to allow subdivision and partitioning of loans in 'hopeless' cases.

What had emerged by the mid-1970s from the 'transfer intact' programme was a group of relatively successful large farmers benefiting from additional government support to the large farm sector as a whole; a group under management orders; a group of 'partnerships' and 'companies' running more or less successfully; and a group subdividing. The 1974–78 Development Plan (Kenya, 1974) contained somewhat contradictory statements of policy, at least some of which implied the intended demise of large-scale mixed farming in Kenya, but even now, in 1979, it seems by no means clear that this will ever be politically feasible. For the moment, the large farm sector appears likely to continue as a source of privilege and patronage for the élite.

POST-INDEPENDENCE POLICIES IN THE SMALL FARM AREAS

Independence also brought policy changes for small farm areas, although these were not very evident until the late 1960s after the major reorganisation of the large farm areas had been completed. The independent government was much more responsive to African political pressures than the pre-independence government had been. The new sources of African political power were rural as much as urban and they ran along regional lines. Rural Africans were able to exert pressure on government policy in a way that had not previously been possible. Regional conflicts came to the fore. The early 1960s was a period of intense manoeuvring by different regional groups vying with each other for positions of power and influence, and for greater shares of the resources that were becoming available. By the end of the 1960s the disputes were more class than area based.

The bulk of government resources for agriculture went first into the former European areas during the immediate post-independence period when the demands made by the independence settlement were immense. One of the early post-independence attempts to reduce the influence of the large farm sector took place over the marketing of milk, which was always an intensely political issue in Kenya. Small farmers in Central Province had become major suppliers of milk but were denied access to the lucrative fresh milk market which was distributed among large farmers through a quota system. The government appointed the Kibaki Commission, the 1965 report of which was never published. The Commission recommended state control of dairy marketing and a more equitable allocation of milk quotas. This was strongly resisted by the Kenya Cooperative Creameries, the large farm milk marketing cooperative which had had exclusive control over fresh milk marketing since the late 1940s. The Kenya Cooperative Creameries brought small farmers, mainly Kikuyu, into the organisation and gave them sufficient access to the fresh milk market to win the political support that was required to defeat the government bill for the establishment of state control over dairy marketing when it came before parliament. This was one of several examples in the recent history of agricultural policy in Kenya of the buying over of political opposition.

The marketing of agricultural products has been controlled by an impressive array of parastatal marketing organisations since before the second world war in Kenya. The boards have been concerned with the maintenance of high domestic prices for the major food products, particularly maize. The Maize Marketing Board has always been crucial because maize is the staple food of most of the population in Kenya and because maize is produced on large farms as well as on the vast majority of small farms in Kenya. The Maize Marketing Ordinance gives the Maize Marketing Board monopoly power as the sole buyer and seller of maize and maize products produced in Kenya. The exception is maize intended for home consumption, and most maize traded within but not across district boundaries. Permits are required to move maize across district boundaries and also to move large quantities within districts. This system results in a great deal of illegal trading in maize. It has also given considerable scope for patronage and corruption particularly in relation to movement permits.

The close control exerted by the Maize Marketing Board over the marketing of maize has been necessary to maintain the domestic price well above export parity levels. It has also been necessary to enable the cost of export losses to be shared by maize producers, consumers and the government. Maize pricing, storage, and export and import policies have been at the centre of major political conflicts between small farmers, large farmers, consumers, government and other interests (Kenya, 1966d, 1973; Leys, 1975; Heyer, 1976a).

The policies later evolved for small farm areas represented a modification of the Swynnerton approach, reflecting the changed internal political balance and the influence of new international aid agencies. Internal political pressures were responsible for a very rapid expansion of education and health facilities in rural areas. Schools and health centres were built by 'harambee' groups organised to put pressure on the government to expand the provision of educational and health facilities at a rate far greater than the government had intended. The 'harambee' movement in the 1960s in Kenya is an impressive example of successful popular pressure being exerted to force the hand of the government. Popular pressures were also partly responsible for the beginnings of a new programme to improve water supplies, roads and other essential infrastructure in the former African areas, as well as the change of policy on the subdivision of large farms.

International agencies were also associated with new production initiatives. Small farm credit became prominent for the first time in official development strategy, cooperatives received much more serious attention, range development was put on a completely new footing, and the improvement of rural water supplies became a major component of government policy. It was in 1966 that the first initiatives were taken by several international agencies to get an experimental programme to try out new approaches to the growing problems of unemployment in selected small farm areas. This resulted in the Special Rural Development Programme discussed below. There were not many large self-contained projects in Kenya. The exceptions were sugar projects developed first under government and then under multi-national auspices in western Kenya, and there were the settlement schemes discussed above.

Much of the Swynnerton policy was retained and extended after independence, albeit in a modified form. Cash crop and livestock development programmes continued to absorb resources in the highland areas. 'Land reform' was extended, despite the fact that opposition to land consolidation and registration was a strong part of the political platform in some areas even after independence. It was justified on different grounds in the 1960s when the commitment to an open market economy was more apparent than it had been earlier. This may reflect in part the new influence of the international agencies. Although some of the earlier political arguments still applied, the prominent arguments used in public for land consolidation and registration in the 1960s in Kenya were: that it would give landowners the necessary incentive for land development; that it would provide security on the basis of which to extend loans; that the under-utilisation of land would be controlled by creating a market that would concentrate land in the hands of those who could use it; and that it would provide a possible future basis for land taxation. The 1965–66 Mission on Land Consolidation and Registration was appointed to investigate ways of accelerating land consolidation and registration, not to consider whether or not it should be undertaken (Kenya 1966a). The Mission was also asked to look into the need for credit and extension services, which were the two elements regarded as essential in the follow-up to the land reform programme. The case for registration appeared to be weak for the range areas. The Mission reported as follows:

> We were in some doubt as to the real need for registration of group ranch land as a condition of loans . . . We are, however, convinced, after discussions with representatives of the World Bank, that the registration of group ranches is a pre-requisite to the loan of money for development purposes. Without the certainty of ownership and the clear right of the group to exclude outsiders, which is provided by registration, no agency would be prepared to lend money for range development (Kenya, 1966a: 31).

Small farm credit became an important feature of government policy only after independence in Kenya. It had not been emphasised by the colonial government which was anxious not to repeat the Indian experience of small farm indebtedness. In the 1950s small farm credit went to little over 100 farmers a year. From 1959 to 1965, apart from credit for the settlement schemes, the average increased to 1000 per year under the influence of international agencies. The 1966–70 Development Plan made small farm credit a major component of the strategy for the small farm sector (Kenya, 1966b: 132–3):

> Kenya is now on the verge of a many-fold expansion of public credit to smallholder agriculture. The Government will shortly negotiate a loan with the World Bank for relending to some 30,000 farmers in eighteen districts... A 30 per cent increase in the present establishment of Government technical personnel ... will be required to carry out this programme... Ambitious as it is this programme will benefit only about three per cent of Kenya's landowning peasantry... Thus the programme is only a first step in Kenya's agrarian revolution. If the credit scheme is successful, the Government is confident that funds can be raised to expand it to cover eventually up to one half of the peasant population.

The following Development Plan was more cautious (Kenya, 1970: 216):

> The problems encountered in administering loans for small-scale farmers have been more serious. Not only have arrears on loan repayment been excessive but the AFC (Agricultural Finance Corporation) has been able to supply credit to only a small proportion of small-scale farmers. Recently, loan repayments due to the AFC from small-scale farmers have been in arrears by about 50 per cent.

The disappointing experience with small farm credit led to a reduction in the allocation in the 1970–74 Plan, but in the 1974–78 Plan small farm credit was once more prominent, in line with the thinking of many of the international agencies involved in Kenya at that time.

Experience with the provision of small farm credit through official agencies in Kenya has been very poor (Donaldson and Von Pischke, 1973; Heyer, 1973). Bureaucratic problems have been responsible for long delays in agreeing and disbursing credit; selection criteria have emphasised the availability of permanent wage or salary income rather than the ability to use credit effectively in farming; loan collection procedures have been cumbersome; the cost of administration has been high; small farm credit has been concentrated to an unjustifiable extent on dairy cattle and related investments despite attempts to diversify. Perhaps the most serious question has been whether there really is much demand for credit in small farm agriculture in Kenya at all. In a situation in which urban employment forms the basis of substantial financial flows back into the rural areas, the need for small farm credit is far from obvious (Donaldson and Von Pischke, 1973; Heyer, 1966; 1973).

Cooperatives were very strictly controlled and supervised in the 1950s. In the 1960s controls were relaxed and cooperatives became involved in handling more produce and in providing a wide range of services. In 1969 it was estimated that there were 600,000 members of small farm marketing and processing cooperatives that were active. These were handling virtually all the small farm coffee and pyrethrum, all dairy products sold outside local markets, and some sugar, cereals, vegetables and livestock products. Cooperatives were expected to market and process crops, to collect taxes, to distribute inputs, to handle credit, and to bring small farmers into the money economy, all with very limited resources, particularly training and skills, but also finance. There are other problems, too. Cooperatives are expected to unite everybody in the rural areas, but it seems rather that in many places they encourage tensions, arising from a continuous struggle for control over scarce resources on the management committees (Hyden, 1973).

Scandinavian aid agencies were behind the Nordic Project, introduced in 1966, through which substantial resources became available for training and the development of new services as well as the strengthening of services already being offered. The first priority was seen as to improve the efficiency with which cooperatives already handling sizeable quantities of small farm output operated. The programme contributed to the expansion of input distribution and credit, and created a cooperative bank and the cooperative college. The extension of bureaucratic controls improved administration and increased services, but continued to undermine the ability of the cooperative movement to serve the needs of its members (Hyden, 1973). It became a source of wealth and patronage to many who gained control and, as King argues in the case of Northern Nigeria (King, in this volume), this may have served the interests of the government bureaucracy as well.

The Special Rural Development Programme which was first mooted in 1966 did not get off the ground until 1970. It involved pilot projects in representative small farm areas to try to find new solutions to what was seen as a growing problem of unemployment in the rural areas, particularly among school-leavers. The idea was to experiment with new solutions, adapting, modifying, developing as things went along until workable projects and programmes were identified for replication throughout Kenya (Kenya 1970: 174–8; 1974: 110; Leach, 1974). It resulted in additional resources for six relatively small pilot areas, several of which were in low, dry agricultural areas for which nothing much had been done in the 1950s and 1960s, but it produced few new initiatives and very little that was replicable throughout Kenya. The real problem with the Special Rural Development Programme was that it never received the political support that it needed from the Kenya government.

In the pastoral areas a completely new approach was adopted after the UNDP-FAO East African Livestock Survey was published in 1965. This Survey was the starting point for the huge Kenya Livestock Development Project financed by the World Bank. It includes the finance and development of group ranches in the sedentary pastoral areas, grazing blocks in the migratory pastoral areas, and commercial 'cooperatives' and 'companies' in the hitherto unoccupied government rangelands that are now being opened up. Group ranches combine communal group ownership of land and land improvements with individual ownership of livestock. Credit is provided for the development of water, fencing, dips, infrastructure and marketing facilities on the security of group land titles and an understanding that destocking will take place. But destocking is not in the interests of many individual participants in group ranching schemes and establishing destocking rules involves conflicts between rich and poor members (Von Kauffmann, 1976). In the migratory pastoral areas, the livestock project put in more water, dipping, infrastructure and marketing facilities without any radical change in the organisation or ownership of resources. In 1975 the problem of organising a system of charging for water facilities and preventing serious overgrazing in the vicinity of the new facilities remained unsolved.

The new 'companies' and 'cooperatives' in hitherto unoccupied areas allow relatively rich individuals to make substantial profits with government and World Bank assistance. Official credit is combined with supervision and services for companies and cooperatives owned by absentees whose ranches are run by managers backed up by government range assistants and Agricultural Finance Corporation staff. State patronage is provided on a huge scale in the name of developing underutilised natural resources in remote areas.

In the lower-altitude agricultural areas the most important single programme has been the sugar programme, most of it now consisting of outgrower schemes. The first to be established were those at Chemelil which opened in 1968, and Mumias which opened in 1973. Both of these are now managed by Booker Brothers. Two more opened in the late 1970s and still further schemes were planned.

These schemes involve a central factory supplied partly by the nucleus estate and partly by a large number of small outgrowers. Outgrowers at Mumiias have been described as effectively renting land and labour to the company, at attractive rates of remuneration (Holtham and Hazlewood, 1976). The company ploughs, harrows and prepares the land for planting and harvests the outgrower cane. Outgrowers are responsible for clearing the land, planting the seed cane, applying fertiliser, and weeding, all under the supervision of the company which brings in casual labour if the operations are not performed to the company's satisfaction. Outgrowers earn much higher incomes than any alternatives offer. There has consequently been a serious decline in the production of food in the area around Mumias (Holtham and Hazlewood, 1976).

The obvious solution for some of the lower altitude areas is to produce food for sale to areas where high-value crops compete for limited land and resources. Apart from crops like maize and wheat which were grown on European farms, food crops have never received much official encouragement in Kenya. Pulses, millets and sorghum, cassava and sweet potatoes have all received very little attention since the 1930s. Part of the problem lies in the food marketing system, particularly as it affects maize. The distribution of maize to deficit areas by the Maize Marketing Board has always been unreliable. The Maize Marketing Board has set its selling prices at prohibitively high levels. This has meant that maize has been grown for home consumption in many unsuitable areas in Kenya exacerbating the vulnerability to famine of marginal agricultural areas, where maize has replaced relatively drought-resistant crops like sorghum and millet. At the same time, areas suited to maize growing have been denied lucrative markets.

The increasing frequency and severity of famine may be partially attributable to the food marketing system, but it is obviously attributable to other factors also. Overcrowding that results from high rates of population growth in areas already densely populated has been severe in Eastern Province, particularly in Machakos and Kitui districts, and in the pastoral areas of the Samburu and Turkana in Rift Valley Province, which have all suffered severely from famine. There appears to have been a much more cavalier approach to the famine problem in Kenya in the early 1970s than in the colonial period. Attempts to suppress information in the case of the 1971–72 famine were combined with minimal efforts to alleviate the situation and there seemed to be little improvement when the next famine arose in 1975.

Severe deprivation and periodic famine also result from migration into areas previously unoccupied and barely usable for agricultural purposes. Migrants have transferred a familiar type of agriculture into areas that can at best support a different agricultural system carefully designed to prevent permanent deterioration in the environment. The result has been the rapid reduction of whole areas to semi-desert conditions, from which people move to repeat the process elsewhere.

CONCLUSIONS

Kenya has been regarded by many as an example of strikingly successful agricultural development in the 1960s and early 1970s. Marketed agricultural output has grown at a very respectable rate and much of this growth has come from small farms. Kenyan agriculture has been successful in providing the food required by the rapidly growing population, most of whom are being better fed. The agricultural sector has also been the source of sustained increases in export earnings, particularly necessary in an economy that has so little other primary production. The achievements need to be put in context.

It is quite clear that poverty in Kenya is partly a regional phenomenon, partly a question of differentiation within particular areas, and partly a question of marginalisation, a process whereby people get squeezed out of rural areas and have to migrate to marginal lands or go and live in the towns where the chances of obtaining any reasonable source of income are low. Even in the most prosperous regions in Kenya, 20 per cent of the population falls below the poverty line defined at Shs2000 per annum per household by Collier and Lall (Collier and Lall, 1978). There are also areas of poverty with insufficient resources to support their population. Then there is the problem of the increasing marginalisation of households that can no longer survive in areas where they have been living. The overwhelming feature of the 1960s and 1970s has nevertheless been increased prosperity. This is less likely to be feasible in the future.

The impressive rates of growth of marketed output that have been recorded since the early 1950s from the small farm areas result from an opening up of market opportunities that had previously been denied, backed by substantial additional resources. Such dramatic and lucrative new market opportunities are unlikely to be available again. The availability of new market opportunities was combined with foreign assistance on a scale unlikely to be repeated, and a temporary respite with respect to land pressure that has now become a more serious problem again. Marginal pressure on resources, particularly land, is likely to give rise to increasingly severe poverty and malnutrution, if not famine. Deteriorating income distribution in the more productive areas is also likely to lead to impoverishment. Additional resources from the government and from overseas will become available only on increasingly disadvantageous terms. Part of the price of the relatively high rates of agricultural growth in the 1960s has still to be paid. The repayment of loans extended in the 1960s and early 1970s is contributing increasingly to the foreign exchange problems from which Kenya is now suffering, without having generated enough of an increase in productive potential to support their repayment.

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5 Commodity Production in Kenya's Central Province

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This essay attempts to show that expanded household production of the contemporary period has been set in motion by international agencies of state-sponsored capital. The outcome has been that middle peasant households have built up a preponderant position in the production of coffee, milk and tea in the old Central Province reserves of smallholder agriculture.[1] Firstly, whereas before the late 1940s the control over household production came to be vested in international firms, after the second world war the immediate regulation of the process of production passed unequivocally to the state apparatus. Secondly, an indigenous class of capital was eliminated from the private circulation of household commodity production: by the early 1960s the purchasing of coffee, milk, tea and other commodities was commanded by cooperative organisations and parastatal authorities. After a series of conflicts between the state and the indigenous class of capital, private merchant capital has been eclipsed in the circulation of agricultural commodities. Thirdly, and above all, contemporary household production has been marked by the general subsumption of households to capital. The separation of labour from the means of production, the defining feature of capitalist production, has taken a specific form. Middle peasant production, on the basis of family labour processes, has become preponderant in the context of the development of the relation between labour and capital.

It is normally thought that the logical course for the development of capitalism is the separation of producers from the means of production. In the classical treatment of the problem, particularly in the original formulation in Lenin's *The Development of Capitalism in Russia* (Lenin 1899) the economic dissolution of the peasantry has been attributed to linear association between commercialisation and the development of capitalist enterprise. Primitive accumulation displaces peasant households from the land and the instruments of production at the same time that a capitalist class assembles the means for setting expanded production in motion. Labour power is then concentrated in the immediate place of production to give effect to the 'progressive nature of capitalist relations in agriculture compared to pre-capitalist relations' (Lenin, 1899). The progressive character of capitalism is portrayed on two grounds. Firstly, that when the concentration of labour is accompanied by the general development of market (commercial) relations, direct wage workers will obtain the benefits of a general increase in the average productivity of labour. Secondly, the concentration of labour power gives rise to a direct expression of the opposition between capital and labour; no longer will the opposition be expressed, in a mediated form, by non-producing classes or classes which act to turn back the development of capitalism.

In the case of Kenya's Central Province, a variant of this classic statement is apparent. The local layers of capital, implanted state agriculture and indigenous capital, which could have concentrated labour in the immediate place of production, have been blocked. Until the 1950s, at least, estate agriculture represented a limited form of accumulation because it could not concentrate labour power in the enterprise without, at the same time, acting politically upon the state to maintain households as producers of directly-consumed output. It acted, therefore, to discourage the commercialisation of household production. An indigenous class did map out a trajectory for accumulation in the reserves of household producers. Indeed, by the mid-1930s it looked as if land was being concentrated in the hands of producers who were expanding production on the basis of hired wage labour (Cowen, 1972a, 1972b). What happened to forestall this accumulation? The intervention of an international layer of capital promoted the commercialisation of production, but prevented the concentration of labour in the form of the capitalist enterprise.

In the early 1930s and 1940s wattle was planted by virtually all households. Whereas the indigenous class of capital had introduced the commodity from the 1910s, by the early 1940s the middle peasantry had become the preponderant source of wattle production (Cowen, 1978). Households survived as units of commodity production. This survival reduced the available supply of wage labour to producers of the indigenous class, and it also prevented the further accumulation of land within the reserves of smallholder agriculture. This essay is concerned with showing how household production was renewed in the 1950s by an international layer of capital which encompassed the apparatus of a late-colonial state. The populist call for a regeneration of the peasantry is also invariably accompanied by a call for all nationally dominated classes to stand up against the further penetration of the most advanced form of capital. There is, however, no comfort for those who search for national liberation in the argument here, that the regeneration of a peasantry has been made possible by advanced capitalism.

FROM WATTLE TO NEW FORMS OF PRODUCTION, 1945–75

At any given general level of productivity per worker, the value of labour power rises if there is an increase in the mass of necessary means of subsistence. Military service during the second world war irreversibly enlarged the general perception of what constituted necessary means of subsistence: the consumption of beverages, cigarettes, sugar, non-khaki drill clothing and shoes started to form a necessary part of household consumption during and after the war (Cowen and Newman, forthcoming). Although it is difficult to give adequate empirical proof, it seems clear that a stagnant rate of average productivity per worker was registered during the post-war period on both estate and small holding agriculture (Kenya, 1953; Liversage, n.d.). Moreover, the post-war boom in commodity production, predominantly wattle in Central Province, failed to meet fully the difference between wages from migratory labour and the cost of reproducing an enlarged mass of means of subsistence.

Prior to 1945 wages from employment, on agricultural estates and elsewhere, did not have to meet the cost of reproducing subsistence as long as revenues from commodity production contributed sufficiently to take account of rising consumer prices and an increase in the mass of necessary subsistence. Now, after 1945, the producer price of wattle bark failed to rise sufficiently fast to cover increases in both consumer prices and the necessary means of subsistence. Between 1948 and 1952 the producer price index for dry-stick wattle bark rose from 75 to 100 (1956 = 100),[2] while the consumer-price index (for an unchanged range of wage goods; Cowen and Newman, forthcoming) nearly doubled from 57 to 91. The result was that the 'real' producer-price (barter terms of trade) index for wattle producers fell over this period, from 132 to 110 (1956 = 100). It is difficult not to conclude that households became poorer and that this was one of the forces making for the 1952 Mau Mau revolt. Well before the revolt state personnel sought to plan new forms of commodity production, which would break the link between migratory labour and household production, to guarantee that revenues from commodity production would meet the total cost of reproducing the means of subsistence. New commodity forms would provide for continuous streams of revenue and would permit the gestation period of the new commodities to be reduced before output could be realised (cf. Mann and Dickinson, 1978). For instance, the stripping of bark from wattle trees was confined to two short periods in the year and the gestation period for the trees was prescribed to be between seven and ten years. In the cases of dairy cattle and tea, however, production consisted of sets of continuous operations and, whatever the seasonal amplitudes over the year, revenue could be obtained month by month throughout the year. Moreover, the gestation periods for the new activities was of two and a half to five years, far lower than the period for wattle before output per tree (in the case of the comparison between wattle and tea) could be maximised.

These two material conditions cannot be over-emphasised in explaining why household producers were to move so swiftly, during the mid-1960s, into new forms of commodity production. At a much earlier period the movement away from wattle towards other activities was spontaneously led by larger producers of the indigenous class of capital. From the early 1940s they had increasingly come to turn wattle plantations over to pasture and, from the late 1940s, moved into tea and coffee activities, when racial prohibitions were lifted on the production of these commodities (Cowen, 1979). Whatever were then the 'relative economic rates of return' on different activities, the movement by households into new forms of production was of a different order of calculation.

At the post-war peak of the producer price for wattle (between 1950 and 1952), bark production would realise nearly Shs750 per acre over its whole production cycle. Logs, if sold, would give an equivalent return. The average annual revenue per acre, given a production cycle of seven years, would reduce the annual revenue per acre to little more than Shs200. At the highest producer price paid for green leaf tea (between 1960 and 1964), the average annual revenue from mature tea was over Shs700 per acre (Cowen, 1974a; Kenya, 1977). Wattle, as a form of household production, was subsidiary to migratory labour in realising revenue to make total wages equal to the value of labour power. The new activities, however, of coffee or tea and dairy production, form the central component of households' renumeration. Without the employment of wage labour, and minimising outlays of non-labour inputs, households can combine the production of two or more activities (tea and milk or coffee and milk) to realise revenue to reproduce the means of subsistence. Remittances from wage labour are now subsidiary to revenue realised from commodity production. The new forms of commodity production permitted migratory workers to extract themselves from direct agricultural wage labour without necessarily undergoing pauperisation.

If the movement away from wattle had been prompted by the post-war increase in the value of labour power, then it was accompanied by an increase in the labour time involved in the production of new commodities. Estimates of annual labour inputs show that between 200 and 800 hours of labour per acre were necessary for wattle bark production (EATEC, 1949), between 800 and 2300 hours per acre in the case of tea; 1400 and 2000 hours per acre in the case of coffee; and 650 and 1100 hours per milking cow in the case of dairy cattle production (Kenya, 1968; Kenya, 1977). The upper limit for wattle production approximated to the lower limits of actual labour inputs per acre for the new commodities.

Given the land barrier which prevented the expansion of land under cultivation, each household maximised revenue per acre of land. An increase in the average productivity of labour in producing commodities would occur, together with an increase in revenue per acre of land, where the increase in the total of labour hours worked by family members was accompanied by a decrease in the number of hours devoted to the production of directly consumed output. Thus by 1971–72 in Magutu location, Nyeri District, between 40 and 60 per cent of all food consumed by households was purchased consumption. On the smallest holdings, households' expenditure on foods increased at an annual average rate of nearly 6 per cent between 1963 and 1972 (Kenya, 1968; Cowen 1974a). Now, the irreversible commitment to commodity production means that revenue from marketed outputs must meet means of subsistence, which increasingly can only be obtained from money expenditures.

This development of commodity relations need not mean the development of capitalist relations of production based on wage labour. However, in this case, household production has been expanded as an integral part of the development of capitalism. Where equivalence in exchange is presupposed, the exploitation of producers is normally ascribed to the extraction of absolute surplus value: while the mass of labour power is augmented by increasing the number of commodity producers, the value of labour time is increased by lengthening the average working day and intensifying the application of labour within each hour of the day. An increase in total surplus value is obtained by widening the difference between the value of labour power and the value produced in a given labour time.

Yet the establishment of household commodity production must involve some conception of relative surplus value. The extraction of relative surplus value, unlike that of absolute surplus value, rests upon a proportionate reduction in necessary labour time of all workers in all countries to obtain an increase in surplus value. A proportionate reduction in necessary labour time does not imply the pauperisation of workers. On the contrary, it supposes that the value of labour time is reduced for any given value of labour power through an increase in the average productivity of labour and, therefore, the cheapening of the cost of means of subsistence. Pauperisation can only be inferred if a reduction in necessary labour time in the production of subsistence commodities is not transmitted to household producers.

The logical distinction between absolute and relative surplus value extraction corresponds to the historical distinction between the formal and the real subsumption of labour to capital. Formal subsumption does not demand that the labour process be transformed by capital. It is easy to see why the uncombined, unmechanised family labour processes of household production should fit a literal writ for the extraction of absolute surplus value. Real subsumption, after all, demands that the labour process be transformed through the combination of labour and advances in biological, chemical and mechanical technology, those conditions which permit an increase in the average productivity of labour.

However, this apparent correspondence between relative surplus and the real subsumption of labour is too schematic. As long as households produce commodities which enter into the full circuit of capital, then they will be subject to the extraction of relative surplus value. A change in necessary labour time is a change in the average labour time required for the production of all commodities which are consumed by all workers, including household producers. This is particularly so when households produce raw materials in exchange for consumer goods. Then a reduction in necessary labour time is secured both in the place of production where the raw materials are used and in the place of household production. And, to repeat, necessary labour time is reduced if households increasingly consume commodities which have been produced under conditions in which the average productivity of labour is rising.

It should not be surprising that middle peasant households have come to command a larger proportion of total sales of each commodity in Central Province. Common-sense assertions of recent years (Leys, 1975; and many IDS, Nairobi, publications) invariably suppose that the Swynnerton Plan must have led to growing inequality between producers in Central Province. In this facile interpretation it is alleged that the intervention of international capital, through the state apparatus, into a countryside of smallholding producers necessarily promotes the formation of an indigenous class of capital. Income distribution must have become worse.

Unfortunately for common sense, the measures we have of the distribution of sales in Magutu and Gatanga in Murang'a district (Cowen 1974b; Cowen and Kinyanjui, 1977) show that the distribution of sales has become more equal, and the larger holdings of the indigenous class of capital have come to account for a lower proportion of total output. The increasing proportion of sales on the holdings of middle peasantry is more pronounced for commodities which are destined to international markets (tea, coffee) than for milk which is marketed internally.

TABLE 5.1 Concentration of milk, tea and coffee sales 1964–76

	Magutu, Nyeri						*Gatanga, Murang'a*	
	Milk			*Tea*			*Coffee*	
	1964	*1970–1*	*1975*	*1965*	*1970–1*	*1975*	*1968–9*	*1975–6*
Gini coefficient[a]	0.52	0.49	0.52	0.60	0.53	0.46	0.62	0.53
Relative mobility index[b]	0.38		0.13		0.41	0.38		0.36

[a] The coefficient, not independent of the arithmetic mean of the distribution, is a concentrated ratio within the range 0 (total equality for any size distribution) to 1 (total inequality).

[b] *Mobility index*: measures the probability of a similar producer, (of say size group x of sales) catching up or overtaking an initially larger producer (of size-group 2x) by the end of the period. Catching up means only that an initially smaller producer has a higher rate of growth of sales compared to the initially larger producer. If each producer caught up with every other producer in the next higher size group, the index would equal 1. It would be equal to 0 if no producers were to catch up with producers in the higher size groups.

This is no empirical illusion. A sustained fall in the formal degree of inequality (as measured by the Gini coefficient) has come from the increased output of the middle peasantry. Sales of coffee, milk and tea from middle peasant holdings have increased at a faster rate (as measured by the relative mobility index) than sales made by larger producers who are dependent upon the employment of wage labour. As we shall observe in the following section, it was this increase in output which followed from the outcome of a series of conflicts between some state personnel and the indigenous class of capital, a class which vigorously confronted the plans to generalise the controls over commodity production.

Generalised controls over household production eliminated the position of private merchant capital in the circulation of commodities. Through the full coverage of the whole range of holdings with new commodities, coupled with large-scale management and processing of these commodities, state-sponsored schemes regenerated the expansion of household production. The state-sponsored schemes intervened against a spontaneous course of accumulation which had been started by an indigenous class of capital. It was as if the state set out to replicate the form of household wattle production while correcting for the partial forms of control upon which expanded bark production had been established.

During the wattle period, from the early 1930s to the late 1950s, the state's Department of Agriculture confirmed but did not fix producer prices, inspected but did not set the quality for bark. The Department accepted, rarely with questioning, the company's producer price for bark which was derived from the international price for extract. Department officials accepted from the company the maximum quantity of bark which was to be produced each season; officials only allocated this quantity between districts, divisions and farmers by means of a quota system. Private capital processed bark and marketed the tanning extract which was produced from the bark. As an international relation of capital, the dominant processing firm was able to determine producer prices, qualities and quantities of household bark. Households and traders persistently evaded quality and quantity controls and the state, which did not possess processing plants and marketing instruments, was forced by the company to impose controls over the production and circulation of commodities.

But now in a period of regenerated household production, the state sought and acquired ownership of the means of production. State authorities established processing and marketing facilities and if they did not lay legal claim to the ownership of land, they superintended the use of land which was made over to commodity production. As such it was the state which came to possess the means by which general controls over household producers could be established. This change in the form of the state's intervention in commodity production was also accompanied by the post-war changes in the internationalisation of capital.

In the pre-war period, capital (in the form of Forestal which attempted to control the international supply of tanning extracts) had moved spontaneously into household production to capture the difference between the lower production price of bark in Kenya and the higher prices in South Africa and Argentina. Forestal relocated its capital in household production in Kenya under the compulsion of competition which threatened the company's hold over its international supplies of materials and markets for extract.

During the post-war period international capital did not move spontaneously into the new forms of household production. Indeed, the order of intervention was reversed: the state assembled capital for expanded production and companies stood as adjuncts to the apparatus of regulation, superintending rather than determining the means of control over household production. Correspondingly, the struggle to renew household production was not fought, in the main, against international companies in the mode of Forestal and its successors. Rather the state was equipped with advances of finance from international agencies of development to fend off the indigenous class of capital from determining the future course of household production. International agencies of development like the Commonwealth Development Corporation and the World Bank fulfil a relation of finance capital but not in the same way or within the same set of relations as the finance houses assembling the means for colonial development at the turn of the century. This post-war period of finance capital is imperfectly understood. The original motive behind the formation of the agencies was to equilibrate sterling and dollar balances and superimpose the movement of capital over and above those movements that were governed by national and sectoral differences in productivity and rates of profit. It was precisely those differences which up to the war had eroded sterling balances. In the post-war period, state and international capital stood aligned, unlike in the pre-war period when the colonial state stood at a measured distance from, and exposed an impotent distaste for, the intervention of international capital.

The upshot of the new alignment was to break the hold of implanted settler estate capital over the possession of land, and to smash the political superintendence of settlers and thereby release the fetters of racial demarcation which had constrained the formation of indigenous capital. But, during the late 1950s and early 1960s, the indigenous class of capital was to find, in the old reserve of Central Province household producers, that a new set of fetters had been placed upon their will and capacity to accumulate. It was as if the Mau Mau revolt had never occurred, as if the image of the 1940s confrontations, between the indigenous class of capital and colonial state, had been recreated in the 1960s to portend a new crisis of confrontation over the position which indigenous capital and the state were to occupy in the renewed period of household production.

CONFRONTATIONS BETWEEN INTERNATIONAL AND INDIGENOUS FORMS OF CAPITAL

The Swynnerton Plans of the 1950s were executed to expand household commodity production and, in doing so, state officials came to confront rather than to aid and abet the class which had previously been formed out of the indigenous accumulation of capital. It was this class which had organised the opposition to the control held by international capital over wattle production. Within the passages between the late-colonial and post-colonial state formations, it was the same class of indigenous capital which strenuously resisted the expansion of the new forms of commodity production.

After all, Central Province production of coffee, milk, tea and other commodities had been propelled forward by the indigenous class before the Mau Mau revolt and reforms proposed in the Swynnerton Plans. As the plans were executed, the indigenous class demanded control over the manufacture of green-leaf tea, over the conditions which determined the allocation of coffee inputs and over access to improved livestock. Yet in each case the blanket introduction of new commodities across the full range of holdings was coupled with large-scale manufacture and processing to forestall the demands of the indigenous class.

We will give outlines of the series of confrontations between the indigenous class and the apparatus of the late colonial and post-colonial states in the cases of dairy cattle and tea production. In the case of coffee during the mid 1960s. Lamb has documented, for Murang'a, the confrontation between the Ministry of Agriculture and a class of wealthier farmers concerned with the location and degree of control to be exercised over smallholder production:

> The coffee planting restrictions (of 1964) were an unusual and interesting example of development policy in that they were designed to control production rather than to maximise it . . . The resources which were made available to expand production were those of the Coffee Authority, to build more processing facilities – and here, although there was some attempt on the part of the Co-operative Committee men to profit from factory building programmes, the expansion scheme was on balance seen as unfavourable to the growers, because it necessitated a further levy on their cash income and confusion over the repayment of loans (Lamb, 1974: 143).

The case is certainly interesting, but it is not particularly unusual. Similar forms of confrontation had occured in Murang'a and in other districts. The post-war forms of control were generalised from the partial forms of control which had been exercised in the pre-war period over wattle production.

DAIRY CATTLE PRODUCTION

Upgrading cattle for the reproduction of higher milk-yielding stock, from herds of relatively low-yielding indigenous stock, was an autonomous process carried forward by the indigenous class of capital from the 1920s. Reproduction was achieved by the purchasing of grade stock from estates. A measure of the extent of this form of reproduction was provided by a report of a livestock officer who visited Fort Hall (now

Murang'a), Embu and Nyeri Districts before 1949:

> The introduction of grade stock since before the war had made enormous strides in the area. Some herds contained predominantly grade cattle of a wide variety of breeds, other herds were predominantly native but all herds contained some evidence of the infusion of exotic blood . . . I am inclined to believe that the upper regions of Embu District have a greater infiltration of grade cattle than has hitherto been realised . . . Here (in Iriani Location, Nyeri) again was the inevitable march of the grade living in clean areas recently cleared of wattle and put back to grass (Report of Livestock Improvement Officer, I, 1949).

Acquisition of stock through purchase and upgrading through bull-servicing led to the expansion of indigenous forms of merchant capital (Cowen, 1974a).

Unlike the protected and concentrated forms of merchant capital in wattle trading, the absence of barriers of entry into the cattle trade precluded the emergence of sustained profits for any one trader. But like the forms of merchant capital in wattle trading, traders assembled the means for setting commodity production in motion through creating a supply of improved stock which was purchased by households. Moreover, improved bull-rearing not only secured the means to obtain sustained profits for bull owners but also served to determine the conditions of production (the form of breed and yield of milk) for households who did not possess the means of production for carrying bulls.

Expanded production of milk was restricted until the mid-1950s by the sway held by estate producers, through the Kenya Cooperative Creameries, over the internal markets for milk. The expansion of estate dairy production had been predicated, however, on international markets for butter production, which collapsed during the mid-1950s, particularly in Britain. Without the support of butter production, estates were forced to reduce the production of whole-milk for the internal market whereas smallholdings, producing as much for household consumption as for revenue from sale, now expanded whole-milk production without the support of butter. But which smallholdings, and by which forms of expanded production?

Before the Mau Mau revolt and the Swynnerton Plan the course was clear: state administrative assistance would provide clean areas upon which grade stock, reproduced by artificial insemination (AI), would be confined to progressive farmers who would sell whole-milk to the local markets within the Central Province reserve. Clean areas were to be created through compulsory dipping, castration of unsuitable male stock and the culling of unproductive lower-yielding stock possessed by all households (Faulkner, 1948). It was not stated that a reduction of stock would force households to purchase milk and so expand the local market for milk. This never happened in fact.

Culling, dipping and the exclusion of grade stock from holdings of smaller households was urged by associations of progressive farmers and was duly met by anti-culling and anti-dipping campaigns, culminating in intermittent but widespread disturbances between 1945 and 1949. When the livestock plans to expand milk production were resuscitated after the revolt they were widely disregarded by the members of the indigenous class, who stumbled over each other in the rush to purchase stock being liquidated by the now disintegrating estates. In 1958 the Ministry of Agriculture stated its intention to plan the introduction of grade stock, in accordance with the pre-revolt regulations including the restarting of artificial insemination schemes from 1956 (KNA: M. of A., 4/241).

State personnel were soon resenting their newly found role of cattle traders who were pressed into the action of acquiring stock from the disintegrating estates (KNA:M. of A., 4/204). Artificial insemination was ignored and even opposed by the indigenous class. As in all other districts, a meeting of farmers at Githunguri in Kiambu District during 1962 passed a vote of no confidence in the scheme. The opposing farmers were described as 'middle class' and elsewhere opponents to the scheme were designated as bull owners and those 'many people who have no direct interest in cattle but whose standard approach is negative' (KNA: M. of A., 4/101, 4/503).

In 1958 the charge for a successful conception through artificial insemination was Shs40, the same charge which was proposed for a self-financing scheme for 1500 head of cattle of white-owned estates of the settled area of Amboni near Nyeri town. At this charge, the estate-owners rejected the scheme and it was not surprising that only a few of the progressive farmers in Nyeri District gave reluctant support to a rapidly floundering scheme which was not self-financing (KNA: M. of A., 4/308). To expand the scheme, finance would have to be assembled to reduce the cost of each insemination so as to induce a larger number of cattle (estimated at 1500 within a fifteen-mile radius) into the scheme. Without the assembling of finance to provide a subsidy to reduce the charge made for each insemination, the scheme would not compete with the private bull-servicing means of insemination which charged Shs10 for each conception. From 1959 the charge for artificial insemination in Nyeri District was changed from Shs40 per successful conception to Shs10 per insemination, whether successful or not. From 1960 the scheme was partly financed by Colonial Welfare and Development Funds to prevent their collapse. It was only following technological change in the improvement of production and transmission of semen that the artificial scheme became competitive with the service provided by the private stud-owners. And again, from 1966, it was the provision of Swedish aid which permitted an improvement in the conception rate from artificial insemination. After 1964 deep-frozen semen with a longer life could be made widely available for non-Guernsey breeds with higher yields of milk per cow, through improved conditions for transmission (closer to the time of the heat period of cows) at a charge of Shs5.50 per dose (KNA: M. of A., 4/503). By 1971, the charge for each insemination had been reduced to one shilling.

TABLE 5.2 The number of inseminations and grants in aid to insemination schemes in Nyeri District, two-year moving average, 1959–70.

	1959–60	*1961–2*	*1963–4*	*1965–6*	*1967–8*	*1969–70*
Number of recorded inseminations	2,050	3,380	3,565[b]	7,760[b]	17,780	30,015
Grants in aid[a]	18,500	10,500	10,800	19,600	53,500	69,000

[a] Government grants include appropriations and grants-in-aid (for recurrent and non-recurrent expenditure) to the Central Artificial Insemination Station and the AI service.

[b] Single-years, 1964 and 1966.

SOURCES: Ministry (Department) of Agriculture, *Annual Reports*, Nyeri District, 1959–71; Kenya Government, *Estimates of Expenditure and Appropriation Accounts*, 1959–70.

Table 5.2 shows a sudden increase in the number of inseminations after 1966. Stocks of cattle from the holdings of all households were incorporated into the scheme to permit a rapid rate of upgrading and an increase in milk output from the holdings of the middle peasantry. Finance from international agencies ensured that the cost of insemination to the household was reduced. Unlike in the case of tea, households did not bear any of the cost of finance out of, for instance, a reduction in the producer price for milk. Once the scheme had become competitive the private ownership of bulls was proscribed by administrative decree. By then however the indigenous class of capital had commanded the organisation of cooperatives which purchased milk from households.

The formal distribution of milk sales among producers has become more equal less rapidly than the formal distribution of tea sales (see Table 5.1). Unlike the case of tea, milk producer prices are determined by a mesh of cooperative organisation pricing and state-administered fiat without reference to international prices. In the period between 1970/71 and 1975 the milk producer price index fell from 125 to 122, whereas the corresponding tea producer price increased from 123 to 213 (in both cases 1971 = 100).[3] Since the increase in the tea price rose in line with consumer price indices, there was no compulsion for producers to withdraw from tea production. In the case of milk, marketed output per household fell at an average annual rate of 3 per cent whereas, in the case of tea, output increased by nearly 9 per cent (Cowen and Kinyanjui, 1977).

To state a more general tendency, the formal distribution of sales from producers in a countryside of smallholdings becomes more equal the more rapidly total sales increase. This proposition of 'growth with redistribution' is rooted in the form and degree of subordination of household producers to international layers of capital. It is not surprising that the proposition has come to be so closely associated with the World Bank.

TEA PRODUCTION

Long before the Swynnerton Plan, coarse jat China hybrid tea stumps, originally stolen apparently from Limuru estates just north-west of Nairobi, had been planted from 1933 in Fort Hall District. Faced with the administrative necessity to remove this illegally planted and low-yielding tea, Department of Agriculture personnel acceded to the demand, made by the indigenous class of capital, that tea production in Central Province be permitted. Reckoning in 1948 that tea might compete advantageously with wattle in the higher areas of the province, the department started a pilot tea project in Nyeri District (KNA:M. of A., 4/166). At the then obtainable producer price of 150 cents per pound and at a relatively low yield of 500 pounds of green-leaf tea per acre (KNA:M. was expected that revenue per acre would be Shs 750 per acre, it of A., 4/166). Wattle bark over a five-year cycle, at 1948 prices could, at 3.5 tons of bark per acre, yield a revenue of Shs 155 per acre. In what form was Central Province production to be expanded?

When approached by the department of agriculture, the Kenya Tea Growers Association (KTGA) had no objection in principle to tea growing by Africans. It did however object to tea growing close to plantations and factories owned by the association's member companies, who acted in collusion under the hegemony of Brooke Bond Limited for the local marketing of made teas. More importantly, it objected to what was termed backyard production by producers marketing sun-dried tea from unregistered tea stumps. Indeed, in 1950 Brooke Bond declared that it was surprised that the state had unilaterally undertaken to expand Central Province tea production:

> The producing companies would naturally consider themselves injured parties if Government tea enterprise were to exploit the

> meagre housing, living and food conditions of African reserve labour in competition with established private enterprise already maintained on a better scale. It's a very old grievance with industrialists, known as the 'song of the shirt', i.e. sweated home labour competing with reasonable working conditions (G. Brooke, of Brooke-Bond East Africa Ltd. to Department of Agriculture, P.2.1950; KNA:M. of A., 4/116).

Brooke-Bond were expressing the now conventional view that household production constitutes both a source of competition with, and super-exploitation for, capitalist enterprise. The material fear of the company was that backyard production would compete with estate production of tea, designated for internal markets, whilst it would be the state, in conjunction with merchant capital, which would appropriate the profits out of expanded household production.

But, unlike the 1930s, the state apparatus was now not adverse to entering into the processing of household-produced commodities. In 1948 the Department of Agriculture's Director said that not only would it be extremely difficult to apply the view of the KTGA that development should only take place on full-scale plantation lines but also that they did not have 'the power to prevent any man who wants to from planting up tea bushes in his backyard' (KNA: M. of A., 4/116). It was suggested then that the Colonial Development Corporation might well finance a state-sponsored scheme for the planting up and processing of tea. In 1951 it was reckoned that a rudimentary factory would be established for 25,000 acres of mature tea at an initial capital cost of less than £20,000 and that without any loan charges for the initial outlay but with an allowance for the costs of seed, transport, tea extension staff and factory operations, the producer price would be 200 cents per pound at at a yield of 500 pounds per acre at current prices (KNA: M. of A. 4/116).

Yet when the Ragati factory in Nyeri District was finally opened during 1957, more than £100,000 was advanced as loan-capital from the Colonial Development Corporation through the Kenya government to the tea scheme. By 1962 the loan fund stood at £320,000. Fixed assets alone at the Ragati factory were valued at the historic cost of nearly £100,000, a sum which was not deemed sufficient, after the factory was opened, to account for required expenditure to meet the actual throughput of made tea (KNA; M. of A. 4/180).

And in like measure, the actual producer price had been reduced to less than 40 cents per pound of green-leaf tea. Between the conception and the implementation of the state-sponsored scheme, international capital had intervened to ensure that household production expanded in a form which ran counter to the propensity for accumulation by the indigenous class of capital.

From 1951, but with a hiatus during the years of revolt, the demand for tea planting was insistent, and state personnel were fearful that any attempt to control the rate of planting would start another uproar politically, as did coffee growing in Kiambu District, and be met with 'most unpleasant political repercussions' in Nyeri District (KNA: M. of A., 4/116, 4/941). Over 1952–53, plans had to be laid down for the manufacture of made tea to meet the output coming from the holdings of planted tea which was due to mature between 1955 and 1957. Conflict raged within the Department of Agriculture not only over the form of manufacture, but over the quality of tea to be produced.

One extreme proposal was to manufacture tea using no more than sisal cloth, boxes, iron sheets and wood-fired drum tunnels at a total cost of £180. At the other extreme, the then most advanced form of manufacture was proposed at a cost of £100,000 to realise the highest possible price for made tea manufactured from high quality green-leaf (KNA: M. of A., 4/116). The first proposal would produce teas for the internal market from a rudimentary form of manufacture of the holdings of the largest farmers. There would be no central factory for processing tea from all households, no control over the quality of tea produced, and no systematic supervision of tea production. Revenue per holding and per acre would be maximised at a producer price for made tea which was lower than the current price of estate-produced tea, designated for the internal market, but higher than the future and actual producer price paid for green-leaf delivered to the eventual Ragati factory. It was this proposal which was aligned to the conditions of production facing the indigenous class of capital. However, it was the proposal at the other extreme, aligned to the desire of Brooke Bond, which was implemented.

Production of high-quality tea was designed to maximise revenue per acre, provided that made tea was designated not to domestic but international markets. Higher quality teas produced by estates were exported; lower quality teas were marketed on domestic markets. During the early 1960s, the marketing of sun-dried tea, which was produced by Central Province producers, had reached a scale which threatened Brooke Bond's hold over domestic markets. For instance, in 1961 the estimated output of made tea from Othaya Division in Nyeri District, equivalent to 310,000 pounds of green-leaf tea, was more than the equivalent output of green-leaf supplied from that area to the state's Special Crops Development Authority (KNA: M. of A., 4/180). Sun-dried tea was supplied to itinerant traders, African and Asian-owned trading companies and a manufacturer of a wide range of commodities, including tea, who had sought an export market for sun-dried tea in Rhodesia (KNA: M. of C. and I., 6/1759).

Sun-dried tea not only realised a producer-price which was higher than the price paid by the Authority, but sun-dried also yielded a higher revenue per acre. The producer price for sun-dried tea did not bear a reduction of 17 cents per pound for the capital levy and revenue cess, elements of the cost which was incurred to operate the scheme and so amortise the loan fund provided by the Colonial Development Corporation. Furthermore, sun-dried tea was merely dried openly, without any manufacture, from the plucking of up to five leaves from each stump. High-quality tea, processed through factory manufacture, was manufactured from the plucking of only two leaves plus a young bud from each bush. The production and sale of sun-dried tea not only threatened Brooke Bond's hold over domestic markets but also subverted the form of control which had been designed to expand household production.

The sale of sun-dried tea was promoted by the indigenous class of capital through its organisation, the Central Province Tea Growers Association. Between 1958 and 1963, the Growers Association engaged in a bitter campaign against the Nyeri Tea Project and the Special Crops Development Authority, seeking to force the state apparatus to change the form of control over tea production. Through the association, the indigenous class campaigned not merely for a higher producer price for tea sold to, and a lower input price for stumps purchased from, the Authority, but also attempted to acquire a share in the ownership of the Ragati factory.[4] The campaign was not successful, but the probability that the class could have destroyed the project for household production should not be discounted.

In 1962, the Commonwealth Development Corporation, together with the West German government, promised to advance £1.1 million to extend household tea production to other districts. Together with tea companies (Brooke Bond, George Williamson, James Finlay) the Corporation agreed to advance £0.73 million for the establishment of additional factories. Further, a loan of £2.5 million was proposed from the World Bank for road construction and other field operations. All these loans were promised upon the condition that high-quality tea for international markets be produced (KNA: M. of A., 4/216). To fulfil this condition the production of sun-dried tea had to be eliminated.

Administrative decree, enforced by legal action from March 1962, was employed to rapidly eradicate the production and sale of sun-dried tea. A series of political actions was undertaken to circumscribe the Central Province Tea Growers Association, which had found a political base as a faction within the Kenya African National Union. Only when the Minister of State for Constitutional Affairs and Economic Planning, Mr Jomo Kenyatta, intervened to support the state apparatus was the death-knell sounded for the association (KNA: M. of A., 4/216). In the same way that the members of the resistance to the state-sponsored schemes for dairy cattle upgrading found a temporary place of retreat in cooperative organisation, the cadre of the Tea Growers Association found a place of managerial employment in the successor to the Crops Authority, the Kenya Tea Development Authority.

CONCLUSION

Both case studies, of dairy cattle and tea production, show middle peasant production reproduced in subordination to capital, irrespective of the form of commodity production. To be sure, the switch from wattle to other forms of production was accompanied by the crisis of revolt, the outcome of which was to demote the direct accumulation in smallholding agriculture by an indigenous class of capital. The reproduction of a middle peasantry in both the wattle and contemporary periods of household production through an international layer of capital is tantamount to the exclusion of the indigenous layer of capital from the most obvious course which would otherwise obtain: the direct separation of producers from their means of production.

However, it cannot be concluded from the foregoing that middle peasant production is deliberately planned to frustrate indigenous accumulation. On the surface of events and from the vantage point of the competition between capitals, one company, Forestal, during the wattle period possessed every interest in regulating the output of one commodity in Kenya. One possible outcome of the company's determination to obtain the means for controlling the international supply of the commodity was the emergence of middle peasant production and the suppression of indigenous accumulation. This pattern of production was not designed by a company, conspiring with a state administration, to eradicate a class of capital straddling between production and trade.

It is no more possible for a class of capital to be willingly destroyed than it is for a class to be willingly created. One thrust behind this study has been the attempt to show that an indigenous capitalist class did not arrive suddenly from nowhere in the early 1960s, having been created by the political will of a late-colonial state, supposedly an extension of a metropolitan state, which was responding to the needs of a holistic and internationally planned capital. Now, and after the events, the outcome of enhanced middle peasant production could possibly be construed as a deliberate intention of state personnel in the late colonial period. In the pre-war (wattle) period, the state in Kenya responded to the movement of capital, a movement which was characterised by the spontaneous entry of firms to control household production. But, in the more recent period, the movement of capital was activated and coerced by the state to become an integral part of its plans for household production.

Yet the execution of the plans for expanded production did not take any expected form which could be predicted from the plans. It may have been expected during the 1940s that the position of a class of traders/producers could not remain ensconced in a reserve of households to be swamped by household production. It may further have been expected during the 1950s after the revolt that the enforced dispossession of settler estates would provide a place for indigenous accumulation outside reserves of household production.

The case which we have examined is one of unintended consequences. It could have been, and probably was, foreseen that the deliberate exclusion of indigenous capital from the private trade of household-produced commodities was sure to provoke antagonism against international capital and the state apparatuses. It was this antagonism against the international company, the Department of Agriculture and the provincial administration which had characterised the wattle trade. But what could not be planned consistently was the outcome of expanded household production. By attempting to expand commodity production, state personnel were disposed to the belief that they were providing the possibilities for entrenching indigenous capital in commodity production. In doing so they obfuscated the relation between the commercialisation and capitalisation of production.

A logic of accumulation, which encompasses both the commercialisation and capitalisation of production, can be expressed by conflicting forms of capital. In this case (as in all cases) a logic of accumulation does not provide its own form of historic expression. If producers are drawn into commodity production through the direct subordination of households to capital, as is argued for instance by Banaji (Banaji, 1977: 34), a logic of accumulation may well suggest that the producers are wage workers. But then it is not sufficient to say, as does Amin (Amin, 1974: 30), that while households become a form of wage labour through a capitalised labour process, they remain a semi-proletariat because they are also encumbered by the possession of land, as a relation which is a residue of a non-capitalist mode of production. It is not sufficient because, in the particular conditions of Kenya, household commodity production has been secured by the most advanced form of capitalism (the international relation of finance capital) rather than by the implanted capital of settlers estates or by the indigenous development of capitalism.

The expansion of commodity production has provided a space in which households have been able to resist direct proletarianisation. There was no resistance, by households, against the extension of commodity relations to household production. On the contrary, commodity production provided the means to reproduce subsistence without the compulsion to engage in direct wage labour. But, equally, the compulsion to reproduce the means of subsistence through family labour runs counter to capital's control over household production, however much it is this compulsion which gives capital its source of control over production.

The individual firm (as Forestal, in the wattle case) plans for a particular level of household production, for a particular quality of a specific commodity, and manipulates the producer price to obtain its desired level of output. The household, for a form of commodity production which is fixed for it at a given producer price, manipulates the level of output to meet necessary subsistence. Households persistently transgressed quantity and quality levels which were fixed by capital. This kind of subversion was distinct from the antagonism of traders and larger producers towards an international form of capital.

Traders and larger producers did not regard the levels of prices and outputs as given to them by an international form of capital. On the contrary, this indigenous class of capital was not free from any logic of accumulation. Their antagonism to capital's control over household production was expressed because another layer of capital had come to control an unplanned increase in production which they had set in motion. And to change the sources of commodity production, let alone the price and output levels, the indigenous class had to act politically against and through the state apparatus and not merely in the immediate process of production.

It was the case that the traders and larger producers had to be displaced from control over production at three levels. Firstly, their command over labour power was reduced by inhibiting the separation of household producers from the means of production. Secondly, their ability to accumulate was weakened by the imposition of price and quantity controls which arose out of the constraints imposed by an international scale of accumulation. Thirdly, the capacity of the class to control the processing of household-produced commodities was severely weakened. The point is that it is possible for this indigenous class to be antagonistic towards the possible outcome of the international expansion of capital. It may further be possible for the opposition of household producers against capital to be represented by this class. But the attempt here has been to show that this indigenous layer of capital cannot be conflated either with other layers of capital or indeed with household producers. Much of the interpretation of the problem in Kenya and elsewhere has been awry by making either one of these two conflations.

NOTES

1. *Smallholder* production refers to all holdings within the old scheduled areas (reserves) and/or land holdings of less than 20 acres. *Middle peasant* households are those which do not hire in wage labour and which, in the main, do not supply local agricultural labour to larger holdings. Generally, in the Central Province of Kenya, holdings of the middle peasantry lie within the 3 to 7 acre group of the size distribution of holdings.
2. This index has been derived from East Africa, Statistical Department, *Annual Trade Reports*, 1934–62.
3. These indices are compiled from Mathira Dairymen's Co-operative Society Annual Accounts and Payment Vouchers, 1964–75 and Kenya Tea Development Authority, *Annual Reports*, 1964/5–1974/5. The tea producer price includes the second payment, but excludes the combined cess rate.
4. KNA: M. of A. files (4 and 5 series) contain records of the voluminous correspondence between the Growers Association and the Special Crops Development Authority.

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6 Ghana, 1951–78: the Agrarian Basis of the Post-colonial State

BJORN BECKMAN

The colonial state created and maintained the preconditions for incorporating West African agricultural producers into the world capitalist economy. The primary effect was the establishment of large numbers of peasants producing for export. The hinterlands were transformed into labour reserves for the export economy. Nowhere was this process more thorough than in Ghana. By the mid-twentieth century one-third of the agricultural producers in this country were directly involved in the cocoa economy, including a large labour force drawn from the northern savannah and from neighbouring countries. The cocoa economy supported the growth of an urban and rural commercial population as well as the development of commercial food crop production. The basic structure of this peasant-based economy had been established already before the First World War, including the present levels of technology and productivity (Szerszewski, 1965; Beckman, 1976a, chap 2).

The colonial state provided the political institutions and economic infrastructure for the penetration of merchant capital. Direct state involvement in production, on the other hand, was marginal. State expenditure on agricultural services was insignificant in terms of the turnover of the cocoa economy and largely irrelevant to its basic dynamics. Also the general level of public services and state activity was low and so was the rate of tax imposed on the transactions between farmers and international capital (Kay, 1972).

This paper treats the transformation of the relations between the state and its agrarian base in the decolonisation and post-colonial period.[1] My immediate focus is the changing forms of state intervention in agriculture and their effects on agrarian structure. I attempt to explain the social basis of intervention as determined by the nature of the state, as well as the consequences for the state itself. The late colonial and the post-colonial state broke into the direct relationship between cocoa


UPPER VOLTA
KASSENA -NANKANI
Bawku
Bolgatanga
Tumu
LAWRA
TUMU
BUILSA
FRAFRA
KUSASI
Lawra
UPPER REGION
WALA
Wa
SOUTH MAMPRUSSI
Janga
EASTERN DAGOMBA
WESTERN DAGOMBA
Savelugu
Yendi
Tamale
NORTHERN REGION
WESTERN GONJA
Bole
Damongo
EASTERN GONJA
NANUMBA
Salaga
TOGO
Kete-Krachi
Worawora
IVORY COAST
BRONG-AHAFO REGION
Sunyani
Ejura
ASHANTI REGION
Kumasi
EASTERN REGION
VOLTA REGION
Ho
Akosombo Dam
Koforidua
WESTERN REGION
CENTRAL REGION
Accra
GREATER ACCRA REGION
Prestea
Tarkwa
Cape Coast
Takoradi
Sekondi
Boundaries
Regional
District
0
100km
Major cocoa growing areas (1960)
Major rice growing areas
Kumasi Regional towns
Ejura Other major towns mentioned in text

Map 3 Ghana

producers and international capital, appropriating a growing portion of the export earnings. In fact these appropriations provided the very basis for the rapid expansion of the state. On whose behalf did the state intervene? How was the agrarian political economy affected?

The post-colonial state provided conditions for the rapid growth of a non-agricultural population, depending on agriculture both for finance and feeding. The ability of a disintegrating peasant economy to perform this dual role, however, was increasingly strained. Declining peasant exports, rising food prices and growing dependence on food imports undermined the agrarian basis of the post-colonial state. Food production and food marketing became a primary field of state intervention. By the end of the 1970s the Ghanaian state had plunged deep into crisis affecting the political economy as a whole. It has been suggested that 'only mismanagement can prevent Ghana from prospering' (*West Africa*; 11 Sept. 1979). While there is no lack of evidence of 'mismanagement', there is a need to look for the deeper roots of crisis in the disintegrating agrarian basis of the state.

I first treat the successive stages of state intervention on the basis of changes in political regimes. The Nkrumah period has been divided into two: the decolonisation phase (1951–60) and the post-1960 years of radicalised state intervention, leading up to the 1966 military coup. The NLC (1966–69) and Busia (1969–72) periods, with their basic continuity of policies, are treated as one. Finally I treat the second military regime installed after the 1972 coup up to the fall of Acheampong in 1978. While these changes of regimes represent some real changes in state – agrarian relations they do not as such provide a basis for more substantive periodisation. Continuities and gradual shifts in these relations developed side by side. In the latter part of the paper I will focus on certain characteristics of the process as a whole in terms of shifts in the balance of social forces. In the last section I also discuss problems of understanding the social basis of the post-colonial state in its relationship to the peasantry and the deepening incorporation of the peasantry into the capitalist world economy.

1 STATE MARKETING AND THE RISE OF THE POST-COLONIAL STATE: 1951–1960[2]

The nationalist government, which was given partial powers in 1951 and granted independence in 1957, inherited colonial policies which contained some important elements of direct state intervention. After the Second World War, state control had been established over the cocoa export trade, the most important commercial activity in the country. Through price stabilisation, rehabilitation, and control measures the

Cocoa Marketing Board was supposed to facilitate the recovery of production, which had been badly damaged by the disruption of trade and the spread of swollen shoot during the war. The Board, however, served simultaneously to make much of the current income from the cocoa trade available for post-war reconstruction in Britain. Highly favourable market prices permitted the accumulation of large funds which were invested in British state securities.

As the nationalist leaders strengthened their positions in the government, these funds were redirected into a national development programme. Export duties were also redesigned to ensure that a growing portion of cocoa income went directly to the Ghana government. Market prices were high enough to make these appropriations compatible with a level of producer prices well above what had prevailed during the past two decades. Fresh planting was stimulated. The introduction of anticapsid spraying, actively promoted by the government, also greatly contributed to the expansion of production. Over the decade, cocoa output virtually doubled.

The export monopoly, control of producer prices, the swollen shoot campaign, and the spraying scheme were thus major cases of state intervention in this period. The social organisation of cocoa production was not directly affected although its technological dependence on the state increased. On the other hand, state appropriations greatly restrained cocoa-financed private investments in other sectors of the economy. The relative position of the cocoa-producing classes as a force of internal private capitalist development was undermined. State intervention in the cocoa trade similarly held back the growth of private enterprise in that particular field.

The massive appropriation of cocoa income by the state changed radically the overall balance of internal class forces in Ghanaian society. It created the conditions for the rise of a large service-oriented public sector, highly dependent, directly or indirectly, on the cocoa trade. This early commitment to a large public service sector was made possible by exceptional and passing market conditions. The mere maintenance of that public sector with its high salaries and its built-in cost increases represented a claim on future earnings which was difficult to meet within the framework of the existing structure of the economy. Employment in the public sector rose to become the principal avenue of individual economic and social advance. Public employees manned strategic positions as middlemen between the export producers and the world market.

The external dependence of the public service classes included the reliance on imported consumer goods and food in particular. Price relations in the 1950s greatly favoured cocoa over the commercial production of food crops. Imports were allowed to expand to meet a rapidly growing demand. The import requirements of the 'modern' economy, however, soon outgrew current foreign exchange earnings. Large foreign trade deficits ate deep into the accumulated reserves.

Much attention had been paid by the state to the problems of the cocoa economy. Food production, on the other hand, had met less concern. Extension services were primarily adapted to the requirements of the export crops. An Agricultural Development Corporation established in this period was largely concerned with the diversification of exports. The transformation of the Builders' Brigade into the Workers' Brigade with food farming as its main activity was treated as a measure to relieve unemployment among the youth rather than as a way of expanding commercial production. Minor settlement schemes served similar purposes.

To sum up

The colonial export economy of the 1950s placed ample resources at the disposal of the government. It was possible to meet the aspirations of an essentially petty-bourgeois nationalist movement for improved economic opportunities as well as broader popular demands for welfare services by redirecting income from the booming cocoa trade, while allowing at the same time real improvements in the earnings of the farmers. State intervention served primarily to facilitate this redistribution and to rehabilitate and protect its productive base. The foundations were laid for a large and demanding public sector and for a major shift in class structure.

2 STATE FARMS AND MECHANISATION: THE BIG LEAP, 1961–66[3]

By the turn of the decade, the pre-conditions for this high-growth, export and public service oriented strategy changed drastically. The successful expansion of cocoa production turned out to be self-defeating. While output virtually doubled, prices were halved and income stagnated. The cost of producing the same income, on the other hand, rose sharply and the surplus available for reinvestment or for public appropriation and redistribution dwindled. The decline in resources available to the government contrasted with rising expectations of public development. After independence and the first years of political consolidation, ambitious plans for an 'industrialised welfare state' pressed for action. In this situation, the decline in public export earnings reinforced the desire to institute major structural changes in order to escape from the debilitating dependence on the cocoa trade. Radical aspirations for planned industrial development were also stimulated by new contacts with the socialist countries of Eastern Europe.

Public development accelerated, relying at first on reserves but increasingly on foreign and local borrowing, including monetary expansion. The import capacity of the economy was placed under heavy pressure and controls were introduced both in order to restrict the overall volume of imports and to give priority to goods considered important to the development effort. The mood of the government was strongly interventionist. The liberal-oriented policies of the 1950s had failed to stimulate any major growth of private investment in those sectors which were considered to be particularly important for the transformation of the economy. The state was increasingly seen as the principal agent of industrialisation. The Volta hydroelectric scheme was to provide the necessary power.

In agriculture, development was identified with mechanisation and large-scale farming. The rapid growth of the non-agricultural population and the need to control imports increased the pressure on the supply of local food crops. Food prices rose and were in the lead of the inflationary upsurge which marked the later years of the Nkrumah regime. The state intervened directly in production in order to fight the growing shortage. Agricultural stations, previously used as experimental farms and nurseries, were transformed into state farms, as part of a new production front. New state farms were established. The agricultural activities of the Workers' Brigade were greatly extended. Large quantities of agricultural equipment and machinery were imported both for the state farms and for the cooperative programme of the United Ghana Farmers' Council, the farmers' wing of the Convention People's Party (CPP), the ruling party. By offering mechanised services for land clearing and, to a lesser extent, for harvesting, the Council sought to encourage farmers to join production cooperatives. The units were small and scattered and the mechanised services were heavily subsidised. Their cooperative character was often fictitious. The poor performance of the state farms is also well documented by available farm records (Dadson, 1970; Miracle and Seidman, 1978a, b). The overall contribution to agricultural output of this large investment in mechanisation and large-scale farming seems to have been negligible. The cost of maintaining the labour force alone greatly exceeded the value of the crop, even after several years' operation. The cost of machinery added to the foreign payments crisis. Difficulties in obtaining spares and adequate servicing contributed to the inefficient utilisation of resources.

In explaining the food shortage, emphasis was increasingly laid on the inadequacy of the system of distribution. A Food Marketing Board was instituted to buy maize and rice at guaranteed minimum prices. Only minor quantities were ever handled by the Board. Storage was considered a major bottleneck and an uncompleted scheme for regional silos belonged to the heritage left by the regime. It has been suggested that the decline of the private transport industry as a result of import restrictions on vehicles and spares was a major cause of poor distribution (Stoces, 1966).

The programme of industrialisation attributed special importance to the processing of agricultural produce. Two sugar mills, two cocoa mills, a jute bag factory, a meat processing plant, and several vegetable oil mills were among the plants commissioned. Most had not reached the production stage when the CPP government was overthrown. Plans to develop the local supply of raw materials were in some cases long-term, as in the case of the jute bag, soap, meat and textile factories, and imported ones were to be used in the meantime. In other cases, such as sugar and tomato processing, production depended on the simultaneous development of local supplies. Difficulties in coordinating the farming and processing stages proved to be major. In the case of sugar, efforts were made to combine estate farming and private cooperatives.

In the case of cocoa the effects of 'overexpansion' were increasingly severe. World prices were depressed to levels where the viability of the industry was threatened. Large crops and poor prices accentuated the shortage of labour, which had been stimulated by the expansion of the non-agricultural sectors, the spread of public education and the general shift in the balance of economic opportunities. While the majority of the cocoa farmers were small independent producers, the bulk of the output came from the labour-hiring holdings of the middle and big farmers (Beckman, forthcoming). Labour shortage was therefore a real threat.

Over-expansion and the new emphasis on food production led to neglect of the cocoa industry. The once powerful Cocoa Division of the Ministry of Agriculture was dissolved. Most of its functions were passed on to the Farmers' Council. The supply of insecticides was cut back and subsidies withdrawn. Relaxed control measures similarly led to the spread of swollen shoot. Consequences for output of this decline in maintenance became apparent in the second half of the decade.

In the field of cocoa marketing, public monopoly was consolidated by making the Farmers' Council the sole licensed buying agent of the Cocoa Marketing Board. Foreign buyers were expelled and the rival marketing cooperatives were absorbed. I have argued elsewhere that the principal function of the Council's monopoly was to consolidate political control over the farmers in a situation where state appropriations were threatened by falling prices (Beckman, 1976a). The monopoly provided at the same time avenues for commercially oriented groups anxious to solicit state protection for their own class aspirations. The trading operations of the Council were fairly successful. The monopoly position was used to enforce a higher quality of the beans delivered by the farmers. On the other hand the conflict between these new middlemen and the farmers was enhanced by malpractices and private profiteering.

To sum up
Agricultural policy in the late Nkrumah period was marked by strong interventionism within the framework of a strategy where state capital was increasingly stressed. Attention was redirected from cocoa to the production of food crops and the supply of raw materials for an expanding manufacturing sector. Emphasis was placed on mechanisation, large-scale farming and public enterprise. Achievements were limited and costs high. Policy was marked by an effort to engage the growing administrative classes more directly in productive activity. Their dominant role in the economy, precipitated by the public service explosion of the 1950s, was reinforced and extended. The relative 'underdevelopment' of the local private capitalist class, so far maintained primarily by the domination of foreign capital, was similarly accentuated. The continued superiority of foreign capital reinforced the leadership of the bureaucracy in the effort to build a national economy, based on modern technology. At the level of ideology, socialist-oriented development was propagated.

3 RETRENCHMENT AND ABORTIVE LIBERALISATION: 1966–1971[4]

The military which overthrew the Nkrumah government in February 1966 led the partial retreat of the bureaucracy from the advanced positions in the economy to which it had been pushed by the CPP. It was also a retreat from the brink of financial collapse. The trade deficit and the balance of payment difficulties as well as the budget deficit of the central government were greatly magnified in 1965, partly as a result of the bumper cocoa crop and the catastrophic fall in prices. The new government saw 'stabilisation' as its primary task. It was also concerned about liberalising the economy. It was greatly encouraged in this approach by Ghana's worried creditors and the guardians of world capitalism. This liberal tendency was continued by the Progress Party government which was brought to power in 1969, under the leadership of Kofi Busia. At the ideological level, the role of the state was played down and pledges were made to encourage the growth of a private enterprise economy. The socialist-oriented foreign relations of the Nkrumah government were abruptly discontinued and a number of Western advisers and consultants were called in.

But liberalisation was fraught with major difficulties. The growth of state enterprise had been encouraged by the weakness of the local capitalist class, made up mainly of farmers, traders and other small businessmen with few employees and using little advanced technology. The expansion of the public economy under Nkrumah had further deepened the gap between the often highly educated bureaucrats in charge of large public organisations and the private local entrepreneurs. The attempt to transfer public enterprises to private owners was therefore largely abortive. The failure to de-nationalise, however, was also related to the continued strength of nationalist sentiments and the restrictions this imposed on the acceptance of foreign ownership and management. Foreign management of the sugar projects, for example, was under constant public criticism. The transfer of state rubber plantations to the US multi-national Firestone was similarly criticised. Proposals for large foreign investment in agriculture met with strong suspicions even from the supporters of the new government. Foreign capital, on the other hand, was not anxious to involve itself in the depressed economy of the post-Nkrumah years.

The liberal policies of the National Liberation Council (NLC) were therefore largely negative in character. State projects were abandoned or discontinued or starved of the resources necessary for the effective management of existing assets. This was also true for the state farms. A vast amount of agricultural machinery was allowed to disintegrate through lack of maintenance or adequate protection. Workers were laid off.

The administrative class, however, was not affected by these retrenchments. Fresh recruitment and upward revision of salaries continued, ensuring that the costs of the state were not significantly reduced. The dependence on foreign trade earnings was as great as ever and there was little margin for raising the producer price of cocoa despite the recovery of market prices. The bureaucracy had been shaken in its self-confidence in managing the economy but it was well entrenched and saw few alternative outlets for its leadership. Behind the liberal rhetoric was a frustrated but resilient interventionism, a continued belief in the primacy of the bureaucracy and a distrust of local as well as foreign private capital.

One example of abortive liberalisation can be taken from the local cocoa trade. The Farmers' Council was dissolved after the coup. Its cocoa buying monopoly was discontinued. Various private Ghanaian organisations, including the old cooperatives, were given licences to buy cocoa. They had little capital of their own and relied heavily on advances from the Cocoa Marketing Board. The new buyers accumulated large debts which they were not able to refund. As a result the Board withdrew further advances and, ultimately, the licences of the defaulters. In the meantime a growing portion of the trade (about 75 per cent by 1971) was handled by the Board's own subsidiary, which had been allowed to inherit much of the staff and equipment from the Farmers' Council. This sequence demonstrates at one level the limitations of Ghanaian private capital. But it also shows how these limitations were reinforced by the persistence of a bureaucratic interest in the trade.

The particular tendency to intervene in marketing was also demonstrated in the field of food production. Food shortages and rising prices, although partly relieved by imports and foreign aid, continued to be a major worry. Much was blamed on the inefficiency of the private marketing system. The state made new attempts to regulate supplies by guaranteeing prices for certain staple crops and instituting state purchasing, but failed to make any inroads into the private market. A highly ambitious scheme to improve food distribution, the Task Force, was planned in 1971 but did not mature before the new military coup. In this field there appears to have been little inhibition against state interference with the 'market mechanisms' despite the liberal commitment at other levels.

The persistence and occasional strong revival of bureaucratic methods by no means excluded sustained efforts to encourage private capitalist solutions. A successful example of state intervention in that direction was the Agricultural Development Bank. It was used to finance private entrepreneurs, especially in sugar-cane, rice and poultry. Its resources, however, were limited and the direct beneficiaries few. The bank was accused by the new military leaders of using conservative banking principles when granting loans (securities in saleable fixed property etc.) and thereby favouring 'a new class of absentee farmers, mainly the high-income group who are able to find the collateral required by the banks' (Acheampong, 1973). It was certainly not a public service which was available to the broad mass of the peasantry.

A similar 'entrepreneurial' approach seems to have marked the extension services of the Ministry of Agriculture which were resuscitated, having at one time been incorporated into the cooperative programme of the Farmers' Council. One of its major projects (in cooperation with USAID) was to identify a small number of 'key farmers' who were to be assisted in preparing 'management plans' and instructed in the use of fertilisers and improved seeds (Ghana, 1970; 53)

The partial retreat to an earlier public service philosophy, in contrast to the direct participation of the state in production in the early 1960s, can be seen in the emphasis placed by the NLC and Busia governments on the diffusion of social amenities in rural areas as the principal method of achieving increased production. By the provision of clean water and electricity for the villages, the youth, now deserting agriculture and adding to urban unemployment, would be encouraged to stay back and cultivate the land. 'Rural Development' became one of the principal ideological banners of the Busia regime. The programme, however, relied on the diffusion of funds from the central government, which continued to be in short supply.

Local food prices continued to rise faster than prices in general and in the context of a stagnant economy food production may well have declined. The workers' demand for higher wages in order to protect their real income and the subsequent clash between union leaders and the Busia government were part of the prelude to the January 1972 military coup.

A few words, however, must be said about cocoa before we turn to the way in which the new government chose to tackle the food problem. We noted above that the 1964–65 bumper crop was followed by a general decline. While producer prices were raised from the bottom mark in 1965–66, they continued in real terms to be well below the average level of the previous decade. The government, not the producers, claimed the main part of the improvement in market prices which occurred during the later years of the 1960s. The shortage of gammalin (the insecticide) persisted, as did farmers' complaints about shortage of labour. Neither retrenchments in the public sector nor the general stagnation of economic activity were able to solve the problem of labour supply. It was aggravated by the decision of the Busia government to expel 'aliens', that is, the immigrants from neighbouring West African countries, without valid work permits (Addo, 1972). These constituted a large percentage of cocoa farm labourers. Although the latter were officially entitled to exemption from this mass deportation, difficulties in securing permits and the general disruption of the alien communities made a strong impact upon the cocoa economy. It is also likely that the unsettled situation of the local cocoa trade (financial failures, withdrawal of licences etc.) had a negative impact on production. The spread of the 'chit system' (payment by promissory notes) was a particular grievance.

A World Bank sponsored project sought to tackle the malaise of the cocoa industry through the scientific rehabilitation of old cocoa areas in the Eastern Region. Farms were cleared, replanted and nursed by Ministry of Agriculture labourers and then handed over to the owners. While this capital (cash) intensive method may have offered few prospects for the majority of small farmers, it pointed the way to a new type of state-supported, 'scientific' entrepreneur in the cocoa sector.

4 OPERATION FEED YOURSELF: STATE CAPITAL AND PRIVATE ENTREPRENEURSHIP, 1978–78[5]

The immediate background to the January 1972 military coup was the drastic devaluation of the cedi undertaken by the Busia government. It was prompted by a new acute foreign payment crisis, which in turn was largely the result of the coincidence of a decline in export earnings and an effort to liberalise the import control system. Devaluation and expectations of new restrictions on imports caused a sharp rise in prices. The problem of prices, and food prices in particular, had been the chief concern of the wage-earning and salaried classes for some time.

Analysis of the strategies adopted by the Acheampong government is restricted by the scarcity of documentation. The publication of basic data on the operations of the economy and the state was largely discontinued. The general picture, however, is one of a strong resurgence of state intervention. Prolific state participation in production and distribution, however, went hand in hand with active support of large-scale, private commercial farming. This contrasts with the more marked 'anti-capitalist' pattern of state intervention in the late Nkrumah period.

'Operation Feed Yourself' was at an early date projected as the corner-stone of Ghana's new policy of self-reliance. How far did it represent a major change of strategy? The strong emphasis on food production seems to have been reflected in a marked shift in budget allocations, although we have no data on actual expenditure. A new element was also the exhortations addressed to the non-farming population, including schools and other public institutions, to grow their own food in backyards and gardens. On the whole, however, it seems to have been a matter of intensifying measures already practised by previous regimes (credits, mechanised services, guaranteed prices, state marketing) in combination with the reactivation of state farming.

Improvement in food supply was reported in 1974–75, including a bumper rice harvest. The import of rice was stopped in 1975 as the country was now said to be self-sufficient in that crop. It was also claimed that the production of maize had expanded sufficiently to permit the export of minor consignments to other African countries. Official reports speak of an annual increase in overall agricultural production of six to seven per cent.

But this official success story contained obvious contradictions which undermined its credibility. Despite reports of expanding production, food prices continued to rise at an accelerated rate. The price index, with 1963 as the base, which stood at 250 by the middle of 1972 had risen by almost 100 points one year later and more than doubled by the middle of 1975. At this point prices were, of course, greatly affected by the shortage of and sharp increase in the price of petrol. Poor rains in

1975, 1976 and 1977 aggravated the situation. When the Acheampong regime was overthrown the annual rate of price inflation exceeded 100 per cent, with food prices still in the lead. But the functioning of the local food market had been seriously disturbed long before this point. A declining part of the food produced entered the official market places. The need to establish alternative lines of supply became vital to large sectors of the urban population. Drastic changes in dietary standards were unavoidable. Private supplies and forms of barter of goods and services were widely reported. Some allocations were made at places of work, mainly those of government institutions and of other large employers. Backyard and outskirt farming had always been part of the production pattern of sections of the urban population. Now it became necessary for the survival of many more. The 'hungry season', well known to the peasantry, was introduced into the dynamics of urban life, although less predictably.

The government blamed shortages and high food prices on the manipulations of traders. These were accused of hoarding and speculation and of diverting supplies to neighbouring countries. While there were certainly many who in these and other ways took advantage of the food crisis, speculation as such cannot explain it. The government resorted to drastic measures, raiding suspected hoarders, imposing 'stringent' price controls, but with little effect except possible further disruptions. The 'informal' food marketing system mitigated against any such attempts at policing. Moreover, direct state participation in food marketing, already attempted by previous regimes with little success, was now repeated on a larger and possibly more damaging scale. The activities of the Food Distribution Corporation were expanded and the army was also used for this purpose.[6]

The growth of the non-agricultural population and stagnant productivity were basic causes of the food problem. It made the market more vulnerable to such other factors as poor harvests, shortage of transport, and disruptive intervention in trading by the state. The immediate cause of the food crisis of the late Acheampong years, however, was government's loss of control over money supply. According to Akuffo's 1978 budget statement the average rate of increase was 80 per cent per annum between 1971 and 1977. Government borrowing from the banks (primarily the Central Bank) grew from 17 m. cedi in 1973 to 719m. cedi in 1976/77 (*West Africa*: 16 Oct. 1978).[7] Much of the inflation can be explained by this fact alone. It was linked to a growing gap between the official and the black market price of the cedi which added to the distortion of the market. Agricultural produce from Ghana was illegally exported to neighbouring countries and the illegal importation of and trade in foreign currencies further inflated money supply. While the oil crisis may have triggered off the inflationary spiral, monetary policy did the main job.

The food crisis was therefore as much a crisis of public finance as one of agricultural production. In fact much caution is required when drawing conclusions as to what actually happened to the production and distribution of agricultural surplus in this period. We must remember that there was a substantial shift in the terms-of-trade in favour of the food producers in the commodity market, both *vis-à-vis* export crops and non-agricultural consumer goods. Much of the shift, on the other hand, may have been absorbed at the level of trading with little being passed on to the actual producers. Government assumptions about the causes of the food crisis, however, were allowed to justify far-reaching intervention in the social organisation of production as well as distribution.

The contribution of the reactivated state farms and other directly productive operations of the state is not known. Ambitious targets were set out in the February 1972 Budget statement. The official information on the fulfilment of the stipulated quota is of doubtful value. The continued inefficiency of the state farms and the Food Production Corporation was publicly criticised (e.g. in the *Legon Observer* in early 1974). Official reports seem to have played down this line of intervention after the initial enthusiasm.

The intervention with the most significant consequences for the social organisation of production was the strong support offered by the state for the expansion of private capitalist farming and the northern rice scheme in particular. Shepherd has reported fully on this, pointing also at the effects on the peasantry in the hinterland of the rice expansion zone (Shepherd, 1978, 1979). The policy, which had been inherited from the Busia regime and at first even criticised by the new leader, was now placed at the centre of the 'third phase' of Operation Feed Yourself (Ghana, 1974). The commercial banks were strongly involved in this exercise which was based on heavily subsidised inputs of fertilisers and machinery. West German aid was enlisted. State marketing and support prices added at first to the private profits but official prices soon lagged behind rapidly rising unofficial ones. Shepherd stresses the dominant role of urban-based farmers with security and contacts in this expansion of capitalist farming, including many civil servants and army officers.

In relation to foreign private capital, a marked shift in government policy can be noted. The Acheampong regime represented at first a revival of a more nationalistic stand on foreign participation in the economy, demonstrated for example by its intervention in the mining and timber industries. However, foreign companies were soon urged to participate in large-scale agricultural projects. In 1974 they were offered a number of special incentives, including the entitlement to an accelerated transfer of profits. Valco, the large American-controlled aluminium company, was to establish a 30 million cedis rice farm jointly with the Ghana National Investment Bank. On the whole, there was a strong emphasis on large-scale farming.

As Operation Feed Yourself was prematurely proclaimed a success, official interest shifted to the supply of raw materials for the local manufacturing industry, the 'Operation Feed Your Industries'. Most of the agro-based factories initiated in the Nkrumah period had worked much below capacity. Some were entirely idle while others relied on imported raw materials. The government claimed swift achievements in this direction but there are few details on record. In this context too the stress was on large-scale commercial farming. There was, for example, a 20 million cedis scheme for establishing 30 cattle ranches, and the National Investment Bank was reported to be engaged on a 4000 hectare cotton project in Brong Ahafo, partly financed by the African Development Bank.

In the case of cocoa, production continued to stagnate and decline under Acheampong despite the remarkable improvement in world prices. The fall in prices in the first half of the 1960s had been a major factor in the crisis of public finance and the fall of the Nkrumah government. A drop in cocoa prices had also contributed to the fall of the Busia regime. The Acheampong government, on the other hand, experienced an exceptional price boom from the 1973/74 season onwards, reflecting the general upturn of primary commodity prices. While international price inflation and the oil crisis undermined the gains, they were still substantial. Average earnings per ton of cocoa were reported to have increased from less than £600 to as much as £3000 between 1973 and 1977 and were still around £2000 in 1978. The price increases were passed on to the farmers at roughly the same rate, but here domestic inflation not only undermined but eliminated any real gains. While producer prices were increased sixfold, this was in fact what seems to have happened to consumer prices as well. Although many farmers profited from smuggling cocoa into Ivory Coast and Togo, this may only have stimulated production in the border areas. Ghana continued to lose ground in the world cocoa market. In the early sixties, Ghana's share had been over one-third of world production. It had now been reduced to less than one-fifth, corresponding to a fall in actual output of between half and one-third. Production expanded elsewhere, especially in the Ivory Coast which in fact took over Ghana's leading role in the late seventies, although the Ivoirian figures were inflated by produce smuggled from Ghana.

Uncontrolled inflation largely destroyed the government's efforts to stimulate cocoa production. But it is necessary to look to the deeper structural problems of the cocoa economy. The decline reflected the basically extractive nature of current methods of production and the difficulties of maintaining output in areas of ageing trees and declining soil fertility. There was also the growing threat of crop diseases and pests in old production areas. The massive application of insecticides in the late fifties and early sixties gave a big boost to output. But returns from these measures were falling and damage was also caused to the natural resistance of the crop. Sustained or expanded production has therefore primarily depended on the ability to bring new land under cultivation. Old areas have been allowed to decay, disease-stricken areas abandoned. But extension to new areas has been limited because of the lack of suitable soils. The social conditions for the migration of communities in search of good cocoa land have also radically changed since the time of the early expansion (Beckman, forthcoming).

The question of maintaining or raising productivity on existing cocoa soils has therefore become the focus of government strategy (as well as of its international advisers). Big estates and plantations with improved technology are propagated as 'much more efficient', although 'bad social side-effects – more unemployment, flow to the cities, etc.', must be avoided (*West Africa*, 8 May 1978). The World Bank sponsored rehabilitation scheme in the Eastern Region, initiated in the Busia period and extended to central Ashanti in the late Acheampong years, represents such an attempt to restructure production with the help of public capital and support measures. There is also the pressure for commercial banks to involve themselves in tree crop investments (*West Africa*, 8 May 1978). I shall return to the implications for the social organisation of production below.

The government's concern over declining cocoa production was reflected also in other measures. A special Ministry for Cocoa Affairs was established in 1975. Attempts were made to improve the system of local purchasing. The monopoly introduced by the CPP government and abolished in 1966 was reintroduced in 1977, this time under the direct control of the Marketing Board.

The cocoa price boom drew renewed attention to the potential of the cocoa industry to generate wealth. But it highlighted simultaneously the structural barriers blocking an expansion. The barriers were both social and political. They were central to the entire political economy of Ghana and reflected the contradictions of the agrarian based post-colonial state.

5 THE EROSION OF THE AGRARIAN BASIS OF THE POST-COLONIAL STATE

The financial basis of the early post-colonial state was the appropriations from a peasant-based export economy. Under pressure from the nationalist movement, part of the appropriations were redirected from the metropolis towards the expansion of the local public economy. The character of the state was dual: on the one hand, it was an extension of the colonial state with institutions, functions and finance determined by the colonial economy; on the other hand, it was a state which had been 'conquered' by the nationalist movement and thus marked by the contradictions of the latter, including broad popular aspirations as well as more narrow class interests. The position of the state as an intermediary between peasant producers and international capital, however, remained unchanged during the period studied here.

The rise of this agrarian based post-colonial state entailed major changes in the development of social forces. It generated a large public service population, including a working class and a powerful bureaucracy. State capitalist institutions proliferated both in production and commerce, often in cooperation with foreign capital. Attempts to reduce state participation in favour of private capital during the NLC-Busia period did not greatly alter this picture. The local private bourgeoisie was weak and dependent on state and foreign capital. The productive state sector relied on subsidies and therefore did not alleviate dependence upon the agrarian financial basis of the state.

The deepening crisis of the Ghanaian political economy since the early 1960s has been the crisis of this agrarian base: on the one hand its inability to sustain the public economy and, on the other, the inability of the latter to transcend or broaden its base. The crisis has manifested itself in several related forms: stagnant or declining export production, a permanent crisis of public finance, high rates of inflation, falling real wages, and a declining ability to feed the non-agricultural population. Let us examine these manifestations.

First, and most importantly, there has been the decline of the cocoa export base. A number of factors have combined to erode the competitive advantages of Ghanaian peasant production in the world cocoa economy:

1. Declining productivity of soils and trees; exhaustion of natural fertility, ageing trees, reduced access to virgin, high fertility soils;
2. Increasing dependence on commercial inputs such as insecticides and fertilisers; vulnerability of fluctuations in such inputs; dependence on credit for the finance of investment and maintenance.
3. Growing shortage of easily accessible land. Rising rent and prices of land, higher initial investment outlays.
4. Reduced access to and control over family labour as a result of alternative economic opportunities, education, rejection of paternalistic work organisation. Commercialisation of labour re-

lations.

5. Reduced access to cheap migrant labour willing to work on a sharecrop basis. Increasing cost of wage labour.
6. Rising level of taxation.

The high levels of taxation, however, did not prevent the crisis of public finance. The public economy was caught in a trap. At first the Nkrumah government had unique opportunities for socialising cocoa income. But it was a one-off affair. The state soon faced the situation where it had to finance and maintain itself from a declining productive base. Its own appropriations and the methods used to enforce them hastened the decline. But there were other fundamental problems facing the industry, related to the declining natural productivity of the cocoa soils. The necessary downward adaptation of the public economy was politically difficult and had thus to be achieved through successive rises and changes of regimes. What was at stake was not merely a slowing down of the rate of public development. It was an assault on the viability of the public economy as it stood. It is not surprising that it is widely believed that imperialism engineered the disastrous fall in cocoa prices in 1964/65 with the purpose of bringing down the Nkrumah regime. The conjunctures of the cocoa economy have affected the public economy directly and indirectly. The crises of the state reflect these conjunctures but also the ability of the state to restrain and control the pressures on its shaky resources. In the absence of such ability, a sudden windfall may be as disruptive as a sudden drop in earnings, as witnessed by the collapse of public finance during the late Acheampong years. In fact there seems to be a direct correlation between such windfalls and a crisis of production, which may further destabilise the political economy as a whole.

The crisis of the public economy takes many forms. At one level it is a failure to meet commitments already built into the present structure. Public buildings, roads and equipment are left to disintegrate for lack of maintenance and replacements. Public institutions are turned into empty shells without the necessary resources to handle the operations for which they were once established. Development projects are abandoned or left half-completed.

In this situation the relationship between the state and its productive base becomes increasingly contradictory. As the state is unable, at least in the short run, to secure an alternative base it must seek to protect the productive capacity of the colonial export economy. To do so it is pressed to reduce its appropriations and increase subsidies of these exports, which of course implies a further reduction in the revenue available for other purposes. Faced with this dilemma, the state resorts increasingly to borrowing.

With the state as the main employer of wage labour and with state expenditure providing the nexus of the urban economy, the crisis of public finance also becomes the crisis of the wage-earning and urban economy. Real wages fall, unemployment increases, workers are made unproductive from lack of other production inputs. After occasional high spells of public economic activity, for example in the field of construction, workers may find difficulties in reintegrating into a rural economy from which they have been partly alienated. Many may be trapped in the cities with decreasing ability to feed themselves and their dependents. Industrial unrest leads to confrontations between workers and the state, and the latter vacillates between repression and wage increases quickly eroded by inflation.

The crisis in food production reinforces the plight of the wage earners and the non-agricultural population. It also undermines the ability of the public economy to take advantage of the occasional windfalls brought by the export economy. According to FAO's regional food plan for 1978, West Africa's self-sufficiency in food has fallen from 98 per cent to 90 per cent between 1963 and 1973. The decline is accelerating and a level of only 80 per cent is expected as early as the mid-eighties. The self-sufficiency of the rural population is also declining. The expansion of export crops and the growth of commercial labour relations in the rural economy have greatly increased the amount of food bought in the market. Tree crop producers have particular difficulties in switching over to food crops in response to changing price relations. Cash crops have absorbed land near existing settlements and the commercialisation of land relations restricts mobility.

The failure of food production may be exaggerated in view of the rapid rise over the past decades of the non-agricultural population. The rapid rise in food imports, however, contributed greatly to the weakening of the financial basis of the post-colonial state. The real incomes generated by the export economy were constantly undermined. But also the real gains in the 'terms-of-trade' of the food producers *vis-à-vis* the rest of the economy were largely eliminated by inflation.

6 BYPASSING OR TRANSFORMING THE PEASANTRY

This paper has reported on the ways in which successive regimes in Ghana have sought to tackle the erosion of the agrarian basis of the state. The dominant strategy for dealing with the food problem has been one of bypassing rather than transforming the peasantry. The state has intervened repeatedly in attempts to create alternative forms of production. When the food problem became acute in the early 1960s, the first choice was to expand state production. The priority of subsequent regimes has been to encourage private capitalist farming. Under Acheampong the two strategies were combined, although with increasing emphasis on the latter. Growing hopes were also pinned at this stage upon foreign-managed large-scale plantations.

Much attention has been paid to the organisation of food marketing. The emphasis has similarly been on bypassing existing commercial channels. Repeated attempts have been made by the state to take on the major responsibility for collecting and distributing crops, and fixing prices. Private traders have been accused of playing a disruptive and exploitative role and of being the cause of shortages and high prices. Whatever the truth of such allegations it seems that state intervention in marketing has contributed to the disruption of supplies.

Neither state farms (despite the size of the investment) nor foreign plantations have made any major impact on agricultural output. The inefficiency of the former and the political constraints on the latter have not been overcome (Sawyer, 1977). The achievements have therefore primarily been in the encouragement of local capitalist farmers. This has involved strong state or bank participation at all stages, from providing credit, machinery and labour for the acquisition, clearing and planting of the land, to the provision of fertilisers and insecticides as well as harvesting and marketing services. Commercial bank and foreign aid and credit institutions have played an important role in promoting capitalist farming.

Units of production capable of supporting a high level of capital input have been encouraged. The state has put pressure on communal landowners to release land for such farms. The use of wage labour has been taken for granted. The prime beneficiaries of the public commercial services have been those who already hold a social position which enables them to do business with the government and the banks. They have been mainly people capable of handling applications and accounts with personal property as security, and able to buy the labour power of others. These modern farmers are frequently absentee owners, business men or bureaucrats with close contacts with the relevant banks and state institutions. With adequate support their farm business is profitable and capable of fast rising output. Their net contribution to self-sufficiency is more doubtful in view of the levels of subsidies and imported inputs (fertilisers, machinery, foreign advisers etc). The high degree of subsidisation makes this 'progressive farmer' strategy impracticable as a general strategy. What is hoped is that it will support a self-propelling process of transformation. It presupposes the accelerated disintegration of peasant relations of production including communal property. Labour must be 'freed'. The social differentiation of the peasantry and the concentration of holdings must be consolidated. By increasing the resources of the big farmers their capacity to control the land and labour of the small ones will increase.

The potential strength of such a strategy is its ability to increase the production of food crops available to the market. Its effects on the material levels of the rural population in general are less promising. For how long will such expensive pockets of 'progressive' farming merely exercise a destructive impact on the social relations of production in their hinterlands with little positive transformation? It is not only the Indian experience which indicates frightening perspectives of social decay following in the wake of such 'revolutions' (Feder, 1977).

Such threatening social and political consequences have in fact resulted in certain rethinking in international aid organisations, represented in the Ghanaian case by World Bank and West German projects. The peasantry is to be transformed by less disruptive methods than the capitalist farmer strategy promoted in the past (Williams, in this volume). Experiences from northern Nigeria, however, where such 'small-farmer' development projects have been initiated by the World Bank, do not indicate that the general implications differ much from those outlined above. The net may be spread more widely and less reliance may be placed on heavy machinery and state subsidies. But the selective allocation of farm inputs and credits will not only breed its own logic of differentiation and concentration but will interact with and reinforce such processes already at work within the peasantry (Shepherd, 1978). With international backing, state promotion of the disintegration of the peasantry will continue.

7 IMPERIALISM, PEASANTS AND THE STATE

Why is the state promoting the disintegration of peasant relations of production? Why does it receive international support for this undertaking? In whose interest is the peasantry being superseded? At a high level of generality we may argue that we witness the beginning of a more advanced stage in the process of 'the compulsory incorporation of the rural producers into the world market' (Williams, in this volume). The role of state intervention in this process reflects the basic character of a peripheral capitalist or neo-colonial state, dominated by imperialism. The concrete historical experience studied here allows us to explore some of the implications of such general propositions.

Peasant producers in the past have served international capital well. They have provided a primary commodity base for accumulation on a world scale as well as modest markets for manufactured goods. Transactions in both directions have also served the accumulation of merchant and finance capital. The colonial peasantry was in fact established as a peasantry in the course of this successful incorporation (Beckman, 1978). Why can this relationship between the peasantry and capital not continue? The answer lies in the transitional nature of this mode of incorporation with its built-in dialectics of conservation and dissolution being increasingly tilted towards the latter (Amin, 1975).

The usefulness of peasant production to world capitalist accumulation lies in a series of inevitably passing advantages: the continued availability of land at low or no rent, and of a quality to support adequate levels of production without investment in machinery or chemical inputs; access to cheap family labour such that the cost of labour and the reproduction of labour power is partly borne outside capitalist relations of production; access to cheap migrant labour, also reproduced outside capitalist relations of production, encouraged by the uneven character of regional development under colonialism; the existence of a state with little other ambition than to facilitate the operations of an extractive colonial economy.

Now all these factors have changed as we have already discussed above. The epoch of imperialist primitive accumulation based on control over colonial lands and peasantries is drawing towards an end. The usefulness of peasant relations of production is being exhausted, just as the ecological plunder of the West African forest is an irrreversible process. The appropriations of the post-colonial state have merely hastened the process. The dialectics of conservation and dissolution continue. On the one hand the state is pressured to reduce its appropriations. On the other hand, 'rehabilitation' seeks to introduce new relations of production, more easily controlled by state and capital.

How anxious is international capital to secure its continued access to peasant production? Is it a temporary holding operation? With the expansion of large-scale cocoa plantations in social formations more fully controlled by capital as in Brazil, its interest in the future of the Ghanaian peasantry is likely to diminish. According to recent forecasts, Ghana's share in world cocoa production will continue to fall from 20 per cent at present to 14 per cent by the mid-1980s. The share of Brazil, on the other hand, is expected to rise from 17 to 24 per cent (*West Africa*, 16 Oct. 1978). There are pockets of peasant production elsewhere which remain to be tapped, as in the Ivory Coast where also the political conditions for an extractive neo-colonial export economy are more conducive.

What will happen to Ghana? Will it become an 'abandoned area', just as the once prosperous slave-based sugar economies of the West Indies and north-eastern Brazil, which were allowed to sink into deepest underdevelopment? Andre Gunder Frank has argued that those areas most closely integrated with the metropolis were those to suffer most from underdevelopment (Frank, 1969). It may not be difficult to see the relevance of such propositions in the context of the extractive colonial economies of West Africa. But the interest of contemporary imperialism is likely to transcend this stage of primitive accumulation and has in fact been assisted in doing so by the rise of the post-colonial state. Both as a customer for manufactured goods and as a partner in expanding capitalist accumulation, the post-colonial state is superior to the peasantry. The interests of international capital are tied closely to the continued viability of the post-colonial state. Its interests in the viability of the peasantry are secondary. There is a mutual interest in overcoming the debilitating dependence on declining peasant production.

It remains to be seen whether the effort to restructure production under the more direct control of capital (and the state) will succeed. The rehabilitation projects of the World Bank have yet to prove their capacity for reproducing and extending an alternative pattern of production, without continued heavy subsidies. Other forms of direct control may be attempted. Compare, for example, the remarkable expansion of oil palm production in the Ivory Coast, with its combination of plantations and highly controlled, semi-proletarianised 'outgrowers' (Marcussen and Torp, 1978). In the meantime also the usefulness of the post-colonial state to international capital, whether as a customer or as a partner, continues to depend on the ability of a disintegrating peasant economy to foot the import bill. The crisis of the agrarian basis of the post-colonial state is deepening.

NOTES

1. This is an expanded and revised version of an earlier paper (Beckman 1976b). Section 4 on the 1972–78 period is completely revised. Sections 5, 6 and 7 are new.
2. For general references on this period see Birmingham, 1966; Beckman, 1976a: chap. 2.
3. For general reference on this period see Killick, 1978; Beckman 1976a, b.
4. For general references for this period see Killick, 1978; Esseks, 1975.
5. For general references to the Acheampong period, see contemporary reports in *West Africa* magazine. On agricultural developments in northern Ghana I draw heavily on the work of Andrew Shepherd, see Shepherd, 1978a, b, and in this volume. For the situation of the cocoa industry in the early 1970s see Kotey, Okali and Rourke, 1974.
6. For general references on state intervention in marketing, see Harriss, 1978.
7. The cedi was tied to the dollar over this period. During the year 1976 its value fluctuated between 42p and 56p sterling, officially, and between 14p and 25p on the black market.

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7 Agrarian Change in Northern Ghana: Public Investment, Capitalist Farming and Famine

ANDREW SHEPHERD

There has recently been a famine of unprecedented proportions in north-eastern Ghana, and there have been extensive food shortages throughout the north. Famine and food shortage come in the wake of considerable change in the pattern of development of the north during the last ten years. This paper attempts to interpret these changes, and the disasters which have followed, in the light of the north's history and of its changing position in the national and international economic context.

It will be argued that the recent emergence of capitalist farming in what used to be a labour-supplying area has impoverished peasant farmers in two ways. Peasants in the land-surplus areas where capitalist farming now dominates have lost land and opportunities to the urban-based capitalist farmers. In the land-short areas, which provided most of the migrant labourers from northern to southern Ghana, peasants have suffered from the drain of private capital, labour and trade away from the land-short to the land-surplus areas, and to the growing urban centres of the north. And a very large proportion of state capital, even of that ear-marked for agriculture, has benefited the larger urban centres in both the land-short and land-surplus areas. It is further argued that the development of capitalist farming is not a brief episode, but a long-term trend transforming the northern Ghanaian economy and its relation to the southern economy. Development projects at present under way in the north, ostensibly to improve peasant farming, will have to fight an uphill battle to persuade the Ghanaian government to create the conditions for an improved and viable peasant agriculture.

1 THE INCORPORATION OF THE NORTH INTO A NATIONAL MARKET

In the late 1890s the territory which is now northern Ghana became part of the British Empire. An area of low and comparatively homogeneous population, few easily exploitable natural resources and a difficult climate typical of West Africa's guinea savannah hinterland, it was never destined to attract much British investment, private or public. From early on the administration looked on the north as a source of labour above all else. Up to the 1930s minor efforts were actually made to develop mineral resources (Der, 1975) and cash crops in favour of the metropolitan economy, but without success. But from 1930 until the second world war it was accepted that what the imperial economy asked of the north was the provision of part of the labour force required to man the gold-mines, cocoa farms and government works in the fast growing southern economy.

At first forced labour recruitment was necessary to create a flow of labour from north to south (Thomas, 1973). But the flow of voluntary migrants from the north and from Upper Volta to the mines and cocoa fields was big enough by the 1920s to dispense with the unpleasantness of forced labour. At first much of the migration was seasonal. It provided cheap labour as labourers returned to their home communities when sick, unemployed and old, and the young were raised there. Labourers also made a contribution to the survival of their families by returning home at harvest, and by remitting cash and subsistence commodities. In the short run, seasonal migration may have relieved the pressure on land in those migrants' home communities suffering from land shortage. But in the longer term the consequences of heavy out-migration for these communities has been more serious: the absence of able-bodied men has eroded the community's capacity to survive independently of exporting migrant labour through, for example, the loss of skills (Skinner, 1965).

The areas of northern Ghana from which the flow of migrants was especially strong were the extreme north-east and north-west. These were subject to in-migration from surrounding French territories in which a regime of forced labour had been imposed (Asiwaju, 1976), and became critically overpopulated.

The pressure of population on a delicately balanced ecology was a danger well recognised by colonial administrators and agricultural officers in the north-east. But the colonial government at no stage made available sufficient funds to counterbalance the outflow of 'human capital'. The administration made efforts to introduce from the 1930s an ecologically sound system of mixed farming, similar to that introduced in northern Nigeria, of which the major item was the use of bullocks and ploughs (Lynn, 1942). Progress was slow, and always restricted by very limited government investment both in the infrastructure of the north and in the scheme itself. However, by 1960 in the Kusasi area of the extreme north-east, 12 per cent of households had adopted bullock ploughing (Chitsike, 1975; Uchendu and Anthony, 1969). Elsewhere results were negligible. The socio-economic, political and ecological consequences of the uneven pattern of adoption have not been sufficiently investigated.

The colonial government's only serious solution to the problems of agrarian decline in the north-east was to encourage out-migration, both to the south, and to ineffectual resettlement schemes in the less populated areas of the north (Hilton, 1960). The best known of these, the Gonja Development Corporation, like its sister organisations in Tanganyika, Nigeria and the Gambia, was designed to produce groundnuts for export. It was an expensive failure (Quansah, 1972), like the other schemes which were intended to produce groundnuts for export to Britain in large quantities and in a hurry through the mechanisation of rain-fed, savannah agriculture.

The Second World War marked something of a change in government thinking about the role of the north. During the war, efforts were mounted to increase food production in the north, as elsewhere, to try to eliminate the growing need for food imports, principally in the south, which was becoming a food deficit area. After the war considerable administrative energy continued to be invested in propaganda about the virtues of growing food crops, especially rice, for cash. But while there was *some* material public investment in northern agriculture, the results of agricultural investment remained disappointing. And even this trickle of investment in peasant farming was cut back after independence in 1957, when investment in large-scale mechanised cooperatives controlled by the agricultural wing of Nkrumah's Convention People's Party (CPP) was given priority over improving peasant farming. Since 1967 there has again been some government investment in mixed farming in the north-east, but the interest of both national and regional bureaucracies in the Upper Region has recently moved towards sponsorship of, and participation in, capitalist rice farming in the Gbidembilise valley in Builsa district, and to the Tono irrigation scheme, both large-scale, capital-intensive projects which will only ever benefit a few farmers, and almost none in the north-east. Elsewhere in the north the sponsorship of capitalist rice farming took a grip on government agricultural institutions before any major programme of investment in peasant agriculture was initiated.

General public investment in the northern economy speeded up markedly under the independent CPP government. By 1960 this regime had absorbed or eliminated all regionally based opposition and felt free to invest in the regions according to its interpretation of the national interest (Ladouceur, 1973). Investment in the north was mainly infrastructural, although some agricultural processing industries were set up or planned for, and a guaranteed market provided for rice growers. Rice was the commodity for which large areas of the north were believed to be ecologically and demographically suitable, and for which there was a swiftly growing demand in the south, as urban populations and incomes rose. It was to be produced on state-managed, mechanised, 'cooperative' farms organised by the CPP's farmers' wing, the United Ghana Farmers' Cooperative Council (UGFCC) (Beckman, 1976; Dadson, 1970; Miracle and Seidman, 1969). The scheme had only had two years of operation in the north by the time the CPP regime was overthrown in 1966.

But there is little reason to believe that its prospects of success were great. What the UGFCC required of peasants was only their labour for the production of an increased regional food surplus. What it gave in return was a share of the crop. This was to be achieved by a degree of mechanisation which did not reduce the need for labour per unit area cultivated except for one or two agricultural operations, namely ploughing and land clearing. A pattern of mechanisation which generally increases the seasonal skew of labour requirements, it was in this case bedevilled on two counts. Firstly, these were times of the agricultural year when labour demands on the mechanised farms competed with the peasants' own food farms' requirements for labour. Secondly, the low level of development of local labour markets within the north at this time constrained the extent to which farmers (or the few traders and others who joined the UGFCC) could hire labour. Sufficient proletarians were not available to man what was basically a partnership between state capital and northern labour.

The flow of labour to the south was not reduced during the 1960s, but its deployment in the south was probably altered in favour of urban employment, as cocoa farmers became less able to pay competitive wage rates, and labour shortages were increasingly severe. This shift can be seen as against the medium to long-term interests of the state, dependent as it has remained on cocoa revenues for its foreign exchange.

During the 1970s labour shortage on cocoa farms has become even more pronounced. In 1969 the Aliens' Compliance Order (Addo, 1972), which led to the expulsion from the country of non-Ghanaian Africans, significantly reduced the supply of non-Ghanaian labour to cocoa farmers. With regard to northern Ghanaian migrants, they undoubtedly took part in the change of direction of flow of migrants mentioned above; but they also had increasing opportunities to work closer to home as capitalist rice farming developed in the land-surplus areas of the north during the 1970s. For northern farming families the shift towards urban residence and employment or self-employment of migrants in the south has meant that migrants have returned home less often to help on the farm at times of peak labour demand (Nabila, 1974), as migration has tended to become permanent or semi-permanent rather than seasonal. Agricultural employment opportunities nearer home, however, may have partially cancelled out this effect during the 1970s.

The relationship between the northern and southern economies has been fundamentally altered by the growth of capitalist rice farming. But change has occurred in a manner which has suited the southern-based state's definition of its own interests, namely that industrial, urban and even rural economic growth in the south depended on the availability of a marketed food surplus from outside the country's core economic region. That the supply of labour from outside that core would be disturbed by a more even regional distribution of agricultural growth was either not thought significant or was believed to be capable of circumvention, possibly through new, more capital-intensive forms of cocoa production (cf. Beckman, in this volume). The social interests directly hurt by the expansion of the northern economy, on the other hand, were those of northern peasant farming families, as will be seen below, and those of southern cocoa farmers. That the latter did not protest this new threat to their livelihood might be an indication of several trends within the Ghanaian political economy. Firstly, the political and economic low ebb which cocoa farmers in general had reached by the 1970s, relative to occupational groups which had taken an increasing share of wealth and national income since independence, such as the armed forces, bureaucrats and urban businessmen. Secondly, leading cocoa farmers, who might have represented the interests of cocoa producers in general, invested their profits outside the cocoa sector and had come to share the interests of the southern, urban middle classes, and specifically their interest in cheap food. Thirdly, cocoa producing areas themselves became food deficit areas: cocoa farmers therefore also have an interest in the availability of cheap food to feed their labourers. (This is not to suggest, however, that this interest was met by the expansion of rice farming in the north, which *did* occur.)

2 THE DEVELOPMENT OF CAPITALIST RICE FARMING IN THE NORTHERN REGION

By the second half of the 1960s the pressure on the government to invest in import-substitution agriculture was very heavy. Peasant food crop farming could not meet the increased demand for food as per capita income, population, and the proportion of non-agricultural employment increased during the 1960s. These pressures eventually resulted in a substantial investment programme to open up the shallow river valleys of the Northern Region (NR) for the commercial, mechanised farming of rice to feed southern markets. By the late 1960s it was believed by the ruling élite that only the swift growth of output attainable from individually managed, capitalist farms had any hope of meeting targets set for self-sufficiency in rice production in the short term. Much of the infrastructure put down by the CPP in the north remained usable and it was believed that capitalist farming, unlike peasant farming which had suffered so long from neglect and even disinvestment, did not require expensive and administratively difficult efforts of agricultural extension. Neither belief was founded on much more than prejudice. However, two sources of pressure combined to make the development of capitalist farming inevitable throughout Ghana, and most dramatically in the north. Post-CPP governments have all been ideologically committed to promoting the interest of private Ghanaian businessmen. Providing the means for capitalist farming supposedly reconciled political and/or economic obligations to private business with objectives of agricultural growth. Secondly, the Ministry of Agriculture, under the influence of USAID during the late 1960s, favoured the 'progressive farmer' approach to agricultural development. Neither strategy has been seriously challenged since that time. Their particular success in the north has been the result of easily available factors of production: land, labour and state and commercial finance capital.

The rice farmers who have taken advantage of this strategy have been mainly northerners, mainly Dagombas, and mainly residents of Tamale, Savelugu, Yendi and other small towns in the Northern Region. Some of the most prominent and wealthy farmers were trained as artisans by colonial government departments in Tamale during the 1950s; others joined the UGFCC as rice farmers between 1963 and 1966. Some of these and others joined the cooperative movement after 1966, but all those who were able left the cooperatives for their own individually managed and financed farms during the late 1960s when it became apparent that cooperative membership did not bring as swift returns as private farming. Most of the northern rice farmers have had, and in many cases still keep, other jobs, mostly in trade or government employment.

More recently, from 1973, a growing number of southerners – mainly civil servants and army officers resident in the north – have been encouraged to join the boom by the permissive attitude of Ghana's second military regime (1972–79) towards part-time and absentee farming, and by the obvious profitability of rice farming. Rice farming has been one line of business which government employees have been able to use to cushion themselves against the falling purchasing power of their salaries. Many of Ghana's most powerful citizens now have large rice farms, often managed by paid employees or relatives, and they use their influence to ensure themselves a very high rate of profit. Their ability to manipulate the allocation of resources has understandably aroused many bitter feelings amongst less well-placed northern rice farmers.

The important rice farmers were predominantly urban residents, and their labourers also became increasingly urban residents, as will be seen later. Most of their income thus circulated in the urban centres of the north. In financial terms the rural areas of the north benefited little directly from the entire investment in rice farming. Increasingly during the 1970s the only rural people wanting to earn an income from rice farming, and that not a high one, were peasant women and children and possibly men migrating out of the north-east at times of famine. Indirectly, however, it might be argued that the growth of agro-business in the north had rapidly raised the rate of urbanisation and thus the demand for food. It was this new demand of which peasant farmers took advantage to reduce their and their families' need for employment on rice farms.

The acreage of rice farmed in the NR increased from 36,000 in 1970/71 to 140,000 in 1976/77.[1] Most of this, 95,000 acres in 1976/77, was in Tamale agricultural district. The year of greatest expansion and hopes was 1975/76, following the bumper harvest of 1974/75 when a state of national self-sufficiency in rice was declared, a little prematurely as it turned out. For output fell by between one-third and one-half in 1975/76, and did not improve substantially the following season.

With the help of various multi- and bilateral aid programmes, notably the Ghanaian-German Agricultural Development Project, the state has provided the foreign exchange, subsidies, a minimum of infrastructure and a guaranteed and protected market in order to create the conditions under which investment and rapid expansion could take place. The expansion of rice farming has depended on bank finance above all else. Investment in rice production was led by the state-owned Agricultural Development Bank from 1968 onwards, but other banks incorporated in Ghana soon followed suit, notably the foreign-owned commercial banks and the part state, part privately owned National Investment Bank. By 1976 there were some 800 bank-financed farmers in the region, each farming 50 acres or more; there were also another 100 in the Upper Region where there was only one large valley suitable for mechanised rice cultivation.

The intervention of Standard and Barclays Banks, with their relatively commercial lending principles, forced the Agricultural Development Bank (ADB) to commercialise its own lending to rice farmers, so as not to lose its best customers to the commercial banks. As a result it has become almost impossible for peasant farmers without collateral or influential contacts to acquire loans for rice production. The ADB has now segregated its loan giving in the region: loans for rice cultivation go to urban residents with security and contacts; most smaller working capital loans for other less mechanised crops go to groups of, or to individual, peasant farmers. Thus a dual agrarian structure is emerging in the region in which the bulk of agricultural investment is concentrated on a small number of capitalist rice farms, and a much smaller amount spread over a much larger number of peasant farmers growing groundnuts, maize, yams and cotton.

Capitalists and peasants

Although individual peasant farmers may have derived considerable benefit from the investment in mechanised rice production, the relative deprivation of their communities and of the majority of the region's rural communities has increased. Furthermore, in the case of land and the opportunities derived from access to land, the rice farming areas have suffered considerable losses, as net transfers have been made from the peasant to the capitalist sector.

Although in theory subsidies and supports have been available to all farmers, in practice the favoured position of capitalist rice farmers ensured their priority of access to all scarce resources. Not only have most peasant farmers failed to draw a significant benefit from government subsidies, but the subsidies on agricultural machinery have indirectly harmed their interests: they have encouraged a land-extensive and extractive style of cultivation, and undoubtedly kept labourers' wages low during the early 1970s (Winch, 1976). But the economics of northern agriculture changed during the 1970s.

The rapid rate of urbanisation in the north, coupled with the deflection of rural energies towards a crop which was largely marketed in the south, and whose production apparently reduced the production of more traditional northern food crops, created expanding markets and higher prices for staple food crops in the north. New opportunities in cotton farming (see below) also provided peasant farmers with alternative cash-earning opportunities in the rural areas, which have been more lucrative and dignified as well as more secure than working as casual labourers on stranger farmers' rice farms. The creation of wage-labouring opportunities on rice farms no doubt enabled peasants to earn a cash income without migrating and without putting a larger area down to crops. But the return to labour was neither very great nor at first very regular. When the acreage of rice began to expand rapidly from 1973 onwards it is likely that the demands on peasant labour to provide wage labour began to bite into the labour requirements of household farming. Over wide areas in the Northern Region between 1973 and 1976 peasant men withdrew from wage labour. Although peasant women and children continued to be employed, rice farmers had to rely to an increasing extent on urban casual labour, transported daily out to farms in tractor trailers and lorries for land-clearing, planting, weeding and harvesting. This considerably raised the price of labour relative to other inputs. The share of labour in total costs of production rose from about 20 to 40 per cent between 1973/74 and 1976/77. Together with the increasing inadequacy of agricultural machinery supplies to the region and volatile market conditions, wages increased and profits were reduced to the extent that by 1978 many rice farmers could not afford to hire urban daily-paid labourers.[2]

Permanent (monthly or annually paid) labourers have always been recruited from the rice farmers' towns of residence – in the case of the northerners often from their kin groups. The transfer of the casual agricultural labour market from the rural areas to the towns, at least as far as male labour is concerned, merely confirmed the developing dual character of the region's agriculture, as land became the only crucial factor of production contributed by the rural areas to capitalist farming.

Land has until recently been easily available and acquired cheaply by rice farmers, who have practised an ecologically destructive large-scale shifting cultivation, moving after four or five years' cultivation from poorly tended and increasingly weedy and infertile fields of up to several hundred acres, to new valleys where they repeat the process. Little permanent investment has been made in the land, even in the limited form of water control, contour ploughing and hedging. Peasant communities, ignorant at first of the value of their land, have had large tracts rendered useless in the medium term. At first this affected land within approximately twenty miles of Tamale; more recently farmers have moved out fifty or even seventy miles in search of new fertile fields as accessible valleys close to Tamale have become saturated.

Land has been acquired from chiefs, either for a small gift or, as is increasingly the case, for lump or regular amounts of money or rice paid to the chief. Up to 1976 peasant farmers had been dispossessed of land in only a few cases. But only a few chiefs have actively limited the appropriation of valley bottom land by outsiders in order to ensure that their own subjects can have easier access to rice land. The result has been that some enterprising peasant farmers wishing to farm rice have had to migrate from their own communities to do so, as their chief had allocated all suitable land to stranger farmers.

Rice is cultivated on the heavy but rich soils of river valleys which flood during two months of the rainy season – land which was not used by peasant farmers except for end of wet season cattle pasture.[3] It is significant that the communities which have attempted to change customs of land allocation in favour of their own members have been those to which rice farming has only spread recently, and which had an opportunity to learn about the destructive power of the system of rice farming from other communities (Shepherd, 1979; chap. 5).

Many chiefs have benefited as a result of their control over land. Stranger farmers have helped them to acquire bank loans, tractors, or at least have offered them free tractor services; less influential chiefs have simply felt obliged to surrender land to farmers supported by the government, and have not benefited much themselves. Where benefits did accrue to chiefs, they were not redistributed within the chiefs' communities, with the result that chiefs have become *economically* quite distinct from their subjects. At the same time the institution of chieftaincy has been reinforced at a regional level by this new wealth of its office-holders. While the legitimacy of chiefs may have been reduced within their own communities, their status and ability to extract a price from 'development' have improved in the region. A monopolistic, and largely covert, market in rice land has grown up, whereby chiefs sell land use-rights either for an undefined period or, in cases where opposition to strangers appropriating land has been articulated, for a defined period of three to five years, after which land use rights revert to the community.

If mechanised farming continues to receive the support of the state without which it would collapse, more and more of the land in the north will come under the effective control of stranger commercial farmers. These farmers have begun to diversify their businesses from rice grown in the river valleys where peasants do not farm to crops which are grown on the 'uplands' where peasant farmers grow their food and cash crops. In the area immediately to the north and west of Tamale, where fallow periods have already been reduced by more than half in some areas and where the ecological balance is already quite delicate because of population pressure, the expansion of capitalist farming on the uplands would mean a direct reduction in the land available to peasant farmers. Conflicts over land use in such areas cannot be far away, and it is likely that they will be much more bitter than the conflicts which have emerged over the allocation of valley bottom land.

At present the conflict of interests between rice farmers and peasant farmers in the NR cannot be seen as an absolute one. A few peasant farmers have become substantial rice farmers in their own right. These have tended to be those involved in trade or with other extra-village contacts, living in the larger and more accessible villages of the region. However many peasant farmers have made *small* rice farms (Chitsike, 1975).

In 1974 a Ministry of Agriculture survey estimated that 31,000 acres out of a total of 85,000 were farmed in units of less than 50 acres (Ghana, 1975). The vast majority of these have been dependent on tractor-owning farmers for mechanised services, supplies of fertilisers and to some extent produce marketing. The terms of trade in this dependence have been controlled by the capitalist farmers, and have largely worked to their benefit. For example, fertiliser has been both highly subsidised and in short supply; rice farmers were able to make 100 per cent profit by selling their fertiliser allocation on the open market. They have not only demanded cash for these services, either 'on delivery' or after harvest, but some have demanded labour services at times determined by themselves; some have also demanded that the peasant sell part of his crop to the tractor owner. Those farmers dependent on paying for tractor services after harvest have been especially vulnerable to these sorts of demands.

Not surprisingly, most peasant farmers have not had the resources to exert sufficient control over such a difficult physical and social environment to accumulate capital through rice farming. Above the level when a farm could be manually cultivated and harvested, access to agricultural machinery, and thus to capital, was the crucial determinant. Success has generally required sponsorship by a big farmer, a bank or both. Rice farming has nevertheless continued to be seen as a major peasant path to riches. But tractor owners, coming from outside peasant communities, have only made their tractors available to peasants for hire at or after peak rice farming times of the year. For this reason, rice has remained the major crop to be farmed extensively by those peasants able to hire tractors. Had they had a greater degree of control over the means of extensive production, other crops more profitable on a small scale but demanding tractor operations at a different time during the season, might have been grown more extensively (Shepherd, 1979; chap. 7).

Farmers and the State

In 1975 and 1976 the Ghanaian economy entered an inflationary spiral to which stagnation in food production had contributed. Rice farmers were among the first groups to suffer from the state's reactions to its seeming inability to control the hyper-inflation, to which its own policies had also contributed substantially (Beckman, in this volume). The state had by its subsidies and market protection created the conditions under which mechanised rice farming could thrive. Up till 1975 its relations with rice farmers had not been antagonistic. The supply of inputs had matched the demand reasonably well, and extensive state intervention in the buying and processing of rice had supported the capitalist farmers, providing them with reasonable prices for large quantities of rice. But during 1975 and 1976 it came into conflict with rice farmers, many of whom organised themselves into the Tamale Rice Growers Association. The government refused to adjust the producer price upwards, in a situation of high national and West African demand and rising costs of production. The immediate cause of producer price rigidity was undoubtedly the government's general difficulty in settling its bills, the result of a gross imbalance between revenue and expenditure. Price rigidity brought unity of political purpose to bank-financed farmers in their opposition to a state which refused to recognise the facts of their financial situation.

Faced with the inflexibility of the state, farmers and traders created and operated a bulk private market in rice, serving Ghana and its hungry neighbours, thus thoroughly undermining the state's attempts to monopolise rice marketing. Big farmers and traders profited greatly from this big business, as did army officers, civil servants and businessmen with access as agents, retailers or corrupt dealers to the small proportion of rice which continued to be distributed through state institutions. This 'rice politics' contributed further to national food price inflation, which became severe during 1975 and 1976.

The conflict was one between a state which saw its long-term interests in the procurement of cheap food for southern cities, and a group of capitalist farmers pursuing adequate profit margins. The state attempted to hold down the producer price for rice to the extent that a reasonable return was not possible, despite subsidies: however, its capacity to control its subject farmers' economic behaviour was too small for this strategy to be successful even in the short term. Increasingly, its only resort lay in military action against 'subversive' farmers. Military actions (house raids, searching for hoarded rice, market raids seeking to enforce government minimum prices as market maximums) only dislocated the local market and put an even higher premium on the illegal export of rice, all of which aggravated the already serious food supply situation in the north. Rice farmers' faith in the regime stood at a low ebb. It was reduced still further by the common perception that military and other part-time farmers were well placed to profit from the situation. However, rice farmers' historical and necessary dependence on the state coupled with the politically repressive nature of the regime made outright political opposition difficult. Similarly, dependence on a southern-dominated state meant the rice farmers as a class were unlikely to develop into a regional political leadership with a specifically *regional* political message.

State employees in the north, and certain powerful figures in Accra, both civilians and military, were able to transform political power and social status derived from office into economic power. This created a politically and culturally expressed opposition between on the one hand full-time, northern rice farmers and on the other hand employees of the state who had become part-time rice farmers. The latter included both southerners and northerners. As far as northern public opinion was concerned, the prominence of this conflict within the rice farmers' ranks reduced awareness of the wider issues inherent in the rice economy. These issues were: (1) the fact that rice farming remained highly subsidised despite having progressed far beyond any pilot phase. The subsidies represented a continuing net flow of capital into the rice economy, and in recent inflationary years little of the subsidies have reached southern consumers. (2) The large element of foreign exchange in the subsidies (Winch, 1976; Ansell, 1976), and the continued provision of the bulk of Ghana's foreign exchange by southern cocoa producers, mean that the rice economy was built and maintained on the cocoa producers' backs, like most of the state's attempts at economic diversification since independence. The transfer of capital is therefore from cocoa producers to rice producers. (3) The second type of transfer was between peasant and capitalist economies within the north. At first rice farmers took advantage of the low price of labour in the region; and throughout rice farmers have used, and most of them grossly misused, land which had been a part, however minor, of the peasant economy.

The expansion of capitalist rice farming faces three major obstacles in the immediate and medium-term future. Firstly, there is a serious shortage of casual agricultural labour in the Northern Region. This is especially serious in view of the continued inability of the state to provide sufficient combine harvesters either in public or private ownership to harvest even most of the land mechanically cultivated.

Secondly, there is a developing shortage of easily accessible valley bottoms for rice farmers to expand or shift into. However, this obstacle may be removed by 'opening up' the valleys of the White Volta, and in national terms by moving agricultural investment into other regions.

Thirdly, and most serious of all, is the question of subsidy. While some subsidies have been reduced (on mechanised land clearing and the purchase of agricultural machinery, for example) major subsidies (on fertiliser in particular) continue to prop up an uneconomic form of investment. However, the Ghanaian-German Agricultural Development Project and the World Bank, both now investing heavily in attempts to increase the incorporation of peasant agriculture in the north into the national market, have both pressed the government to reduce subsidies. It remains to be seen how long the rice economy will be able to continue to depend on the support of the state, or indeed of the banks, for its extractive activities with such opponents in the field of battle.

3 AGRICULTURE IN THE NORTH EAST: TOWARDS AN ANALYSIS OF FAMINE

Peasant agriculture in the land-surplus Northern Region has not yet been irreparably harmed by the clearing and cultivation of thousands of acres of bush for mechanised farming, although in certain areas the time when capitalist farmers come into direct conflict with peasants over the distribution of land may not be far away. The growth of alternative cash earning opportunities in the region's rural economy has put a limit on the extent to which peasant farmers have become proletarianised.

For the land-hungry north-east (Hilton, 1968) in the Upper Region, by contrast, it will be argued that the reorientation of the northern economy as described above represents an unmitigated disaster. The causal antecedents of the deterioration of agriculture in the north-east which reduced the capacity of many in the area to withstand the effects of drought during the 1970s are: (1) the historical processes described in section 1 concerning the disabling effects on the local economy of long-term out-migration; (2) in the more recent phase of incorporation, the geographical unevenness of the development of productive resources within the north, a development which has paid scant heed to the special and urgent needs of the north-east; (3) the way that uneven development has not only led to the neglect of the north-east but also to a conspiracy to allow famine to proletarianise a substantial number of north-easterners; and (4) the intensification of peasant agricultural production for the swiftly growing urban markets within the north. The evidence for (1) and (2) has been presented; the evidence for (3) and (4) is unsatisfactory but, in view of the seriousness of the immediate and long-term predicament of the north-east, worth presenting in the hope that further research will be stimulated.

In 1973 the Gbidembilise valley, a valley stricken with river blindness in the Builsa traditional area of the Upper Region, was 'discovered' to the outside world as potentially the most fertile rice valley in the whole north, by Sissala migrants. It was at this time that state employees began to acquire bank loans to launch rice farming enterprises. In the UR there was no established group of capitalist rice farmers as there was in the NR: there were thus fewer obstacles in the way of the quick expansion of state employees' farms. The ADB also began to give loans from its Bolgatanga branch to rice farmers based in the UR for farms in the Nasia valley near Janga, in the NR. Thus the flow of investment capital allocated to the UR partly flowed out of the region and partly into one area within the region. Ministry of Agriculture resources have largely been organised to support this distribution, although sizeable investments have also been made in two irrigation schemes of limited regional impact.

Peasant agriculture will have benefited very little from these investments. Only the promotion of cotton growing by the Cotton Development Board (see below), and the well-boring programme implemented by the Canadian International Development Agency and the government of Ghana, have been intended to improve rural living standards; only the second has had much impact in the north-east. In the north-east the number of peasant farmers using bullocks and ploughs has again increased since the late 1960s, helped by some small but pioneering mission projects (Chitsike, 1975).

However, it is not clear that even if these relatively small successes could be replicated more widely, the recurrence of famine could be prevented. The poorest and most land-hungry areas and the poorest families do not have the capacity to adopt mixed farming: investment in mixed farming may only increase village and district level disparities, unless other measures are taken at the same time to spread investment opportunities more evenly.

Furthermore, famine risk will not be reduced unless measures are taken to reduce the impact of the development of capitalist rice farming on the capacity of the area to survive drought. Its impact has been transmitted, firstly, through the labour market in the north, and the pressure on the north-east to provide labourers to the rice economy; and, secondly, through the reorientation of the market in staple foods in the north.

One of the symptoms of the poverty of the north-east's agriculture has been the extensive hungry season experienced almost everywhere annually between April and July. The effects of increased food shortage in this season have been (1) to encourage out-migration, especially of younger men controlling little compound land; (2) to increase the dependence of food deficit households on the market, and on the generosity of kin away from the immediate vicinity (Fortes, 1936). We have seen that out-migration is likely to have aggravated agricultural problems in the long term; we shall see that dependence on the market has offered little security recently, even to those with money to make purchases.

In poor seasons hunger has become famine, and poorer households have become unable to adjust their consumption patterns without suffering severe malnutrition and/or some members migrating to earn cash with which to buy and, if necessary, to bring back food. There have been several famines recently – 1945 and 1946, 1954, 1974, and probably worst of all, 1977. These are named famines in Kusasi.

During late 1976, when it was obvious to residents of the north-east that there would be famine in the north-east, single men began migrating into the Northern Region to find work harvesting groundnuts and then rice. But in 1977, with food prices in the north-east soaring way above most households' purchasing power, and with there being besides very little food in the rural markets at all by June, it was reported that whole compounds were migrating out of some areas.

The reasons for the famines are no doubt complex, and in the most recent case they would be hard to disentangle from the general lack of order in Ghanaian economic and political life. The substance of the case made here, however, is that famine was not simply the result of poor rainfall, as some have claimed. Adequate and well distributed rainfall has always been the exception, not the rule, in the north-east.

One immediate reason for the severity of the 1974 and 1977 famines has been the government's denial of their existence: in both years food aid was sent too late, with disastrous consequences in 1977. If the famine had been recognised as such earlier, local government officers and others acting as food aid distributors would not have been so tempted to appropriate grain for their own purposes and gain. As a result local food prices would not have increased so dramatically over and above national food price trends. In the face of very firm evidence, the government persisted through at least the first quarter of 1977 in denying that any specially grave situation existed in the north-east. This makes it hard to resist the unpleasant conclusion that the north-east, and other badly hit areas to which aid was similarly denied, were the object of a conspiracy, at least of neglect.

The almost casual way in which food aid stored in Bolgatanga was refused to starving villages in August confirms this hypothesis. The refusal followed an instruction from Accra that, after the early millet harvest in July, food aid should be suspended. But by this time very little food had actually reached the needy in badly affected villages – despite the honest efforts of many individuals and some institutions; and in any case the early millet harvest was a failure in some areas.

An indicator of the severity of the famine was provided long before it reached its peak. In Kusasi district, between 55 and 80 per cent of children were reported as underweight by July 1976, compared to 35 per cent in July 1973[4]. Reactions of those who have suffered have apparently taken pathological rather than political forms (increases in fatal illnesses, fatality of normally curable illnesses, suicide, blindness, madness and emigration) although in some areas villagers refused to pay taxes and to register as electors for the referendum on the country's future political system.

How is this neglect to be explained? Part of the explanation must no doubt be sought in the workings of the Ghanaian administration. It is likely that District and Regional administrators in the north withheld information about impending famine until too late, fearing for their jobs should the local impact of government policies be exposed so bluntly.

Even after the Ministry of Economic Planning in Accra had assembled all the data necessary to predict the suffering which would occur in the absence of large amounts of food aid, the regime chose not to act on the basis of available information. Part of the explanation for governmental neglect must thus be sought elsewhere.

As a result of the 1969 Aliens Compliance Order, but mainly because of low wage rates relative to perceived opportunities for wage and cash earning elsewhere, labour has become short both in the cocoa economy of the south and the rice economy of the Northern Region. In the south, governments have long taxed the cocoa trade to an extent which has not allowed cocoa farmers to intensify production by employing more labour at higher wage rates. The revenue accruing to the state has been directed largely into urban economic activities, which have attracted wage labour away from the cocoa economy. In the NR the refusal of peasant farmers to work for rice farmers has forced the latter to rely on urban sources of wage labour, which have nevertheless not been sufficient to meet demand at peak periods.

Now, those in power in Ghana, since 1972 an alliance of senior military and administrative personnel, have become deeply involved in both cocoa and rice economies, and particularly in the northern rice economy, as employers of labour. The famine in the north-east will have provided a new source of freely available labourers, willing to work at the low wages offered, and will have solved some rural labour shortage problems in the short term.

Another more deeply rooted process has caused a decline in the capacity of the north-east to withstand drought. This was the breakdown of the market on which, it will be remembered, deficit farmers have depended for their survival during lean times. Prior to the 1970s, periodic food shortages in the north-east had been countered by imports into the area of millet, guinea-corn and other crops in smaller quantities, which were grown in the less densely populated NR. Occasionally, when there was no surplus grain there, traders were encouraged by differential prices to transport quantities of maize to the north-east from Ashanti (Hunter, 1967; Gold Coast, 1945–56). The purchase of grain in the north east was financed by cattle sales. Food shortages in the north-east were at least to some extent countered, and their effects softened by this trade; and 'imports' stabilised prices until the new harvest. But the redirection of the trade in food in northern Ghana in response to changing relative prices and guaranteed markets over the last ten years has undermined whatever balance existed in food distribution *within* the north.

The emphasis on rice farming in the Northern Region has, according to Ministry of Agriculture figures, gone hand in hand with a reduction in yam acreage and a stagnation of millet and guinea-corn acreage in the region. Since a constant average yield over time is the most that can be hoped for under present production conditions of these crops, production has stagnated or even declined. This has added to the soaring inflation of food prices regionally and nationally; supplies of rice have not been sufficient to offset that. At the same time the phenomenally quick administrative and commercial growth of Tamale and Bolgatanga, the two regional capitals in the north, meant that traders found it more profitable to transfer what surplus grain peasant farmers in the NR did produce to these two towns, and not to the north-east. The growth of government employment in the north and closer incorporation of the north into the national market, which the growth in administration was partly designed to service, are thus major sources of the breakdown of the local economy in the north-east, just as the growth of administration and administrative expenditure have been a major source of Ghana's national economic crisis during the 1970s (Beckman, this volume).

Secondly, in the north-east itself farmers had also been increasingly encouraged to grow rice and groundnuts for sale to the state rice and vegetable oil mills in Bawku, Bolgatanga and Tamale, where they were processed and then 'exported' to the south. It is possible, but not proven, that this has caused a decrease in the production of millet and guinea corn in the north-east.

Thirdly, and perhaps most importantly, the growth of Bolgatanga as a centre of high purchasing power relative to its hinterland not only acted as a magnet for grain produced in the NR, but also seems to have attracted much of the produce formerly marketed only in the rural areas of the north-east. Thus for example in June 1977, at the height of the hungry season, about 1000 bags of produce were apparently being transported by traders from Bawku district to Bolgatanga each day. The Bawku District Chief Executive imposed a ban on all produce leaving the area, but was overruled by the Regional Commissioner, who allowed only a one cedi tax per bag leaving the district. Despite the famine and the tax, it was obviously still profitable to move food out of the area. Similarly, in August, when there was plentiful food, if at high prices, on the Bolgatanga market, there was little or no food on Bawku market, and little or none in many villages and compounds. A plausible but tentative hypothesis will be put forward here to explain this paradox.[6]

In communities in the north-east there tend to be more women than men and more dependents than able-bodied producers. We have seen that the cause of these patterns is the high rate of out-migration of young men, and that in the last twenty years the trend has been away from seasonal and towards semi-permanent out-migration. This has been accompanied by worsening ratios of farming to non-farming population.

This process, coupled with increasingly widespread shortages of fertile land, has over many years reduced the capacity of some families to produce enough grain to last them through the hungry season and leave some grain over for seed requirements. They have often had no alternative but to become indebted to their better-off neighbours and kin. Their indebtedness forces them to sell a part of what they produce immediately after harvest, when prices are of course at their lowest, in order to repay debts and maintain their creditors' confidence. Their better-off neighbours and traders who buy their grain are then able either to store it and sell when local prices are sufficiently enticing, or to sell sooner or later to a middleman who has the capital to buy, store and transport grain in larger quantities.

Prior to the growth of Bolgatanga, grain produced in the rural areas of the north-east stayed in the area. When poorer farmers ran out of grain in the months after harvest, they were able to buy it 'back' from richer farmers and traders. But the growth of Bolgatanga and the improvement of the area's communications has rendered it much less profitable for traders to keep grain circulating locally, as well as less profitable to bring in grains from outside it. The same reorientation of peasant production throughout the north towards the needs of urban consumers will also have reduced the possibilities for women petty traders from the north-east, who used to travel into Mamprussi in the Northern Region to buy grain during the hungry season (Fortes, 1936), since production and marketing of staples in Mamprussi has been reorientated towards urban markets.

Not all rural households will have suffered from the famine, but reports indicate that the great majority have suffered in one way or another. Some households – those afflicted with onchocerciasis, the poor, the semi-landless – and within those households some individuals – the old, the young, the mad and the diseased – will have suffered most. Those deriving benefit from the famine have here been identified as the richer farmers, traders, some administrators; more indirectly, rice farmers and other employers have benefited from the release of labour. Just as most marketed grain has ended up in the urban areas of the north, so probably has most of the economic gain deriving from the famine and from the long-term deterioration of agrarian conditions in the north-east.

This result, of course, merely reinforces the urban and regional biases which have long characterised Ghanaian investment policy, and which created the conditions for the deterioration and for the famine. It was, after all, the urban and industrial bias of investment during the 1950s and 1960s which led to the low wage-paying capacity of the cocoa sector, and the same bias which dictated the low producer price for rice during the 1970s. Resources available for investment in the north have similarly been directed largely at urban growth – Bolgatanga itself being a flagrant example.

At a national level investment in peasant agriculture has been neglected, partly because of an urban and industrial bias in state spending, reflecting the distribution of power in Ghanaian society, and partly because of the low status and inefficiency of peasant farmers, as they are perceived by Ghanaian policy makers. The failure of peasant agriculture to meet plan targets set by policy makers for food crop production has been taken as confirmation of the policy makers' view.

At a regional level, peasant farming in the north has been especially neglected, partly because of the colonial government's policy of separate development and its administration of the north as a labour reserve; and partly because the northern economy has been developed since the war to suit the interests of dominant urban groups in Ghana.

In general peasant farming in the north has survived neglect relatively unscathed – indeed, in the areas where government intervention has been negligible in all spheres of life, agricultural progress has often been greatest. Thus Salaga and Nanumba, the big peasant yam producing areas of the NR, have been neglected by government. Their populations have expanded rapidly since the war as a result of immigration of farmers from further north and from Togo.

But the north-east was neglected and suffered for it. Population pressure has, over fifty years, caused environmental deterioration and shortage of land unequalled in the north. The result has been outmigration, equivalent in a subsistence-oriented agriculture to disinvestment: human capital has effectively been transferred to more productive sectors of the economy. But the transfer has not increased the productivity of agriculture in the north-east in the long run.[7] Given different and less uneven investment conditions, the north-east's most precious resource – labour – might have been put to local use in preventing environmental deterioration and improving the productivity of land. But this was not to be, given the extractive colonial and postcolonial economic system.

4 WINDS OF CHANGE?

While it has been accepted in its propaganda by Ghana's rulers since 1966, and most emphatically by the second military regime, that peasant agriculture has top investment priority, agriculture as a whole has received a stagnant or declining portion of development expenditure in recent years, and has continued to receive about half the proportion allocated to agriculture in such comparably developed economies as the Ivory Coast or Kenya. And, as we have seen, the benefits of state investment in agriculture, at least in the north, have accrued largely to capitalist and part-time or absentee farmers.[8]

But this type of development strategy, which has largely excluded the rural population, has in the 1970s been challenged on three fronts: (1) The Cotton Development Board's combination and management of state capital and peasant households' labour-power (and managerial capacity, to a small degree) has contributed to the greater resilience of peasant farming in parts of the NR and the western UR. Between 1969/70, the CDB's first operational year, and 1976/77 the number of farmers sponsored by the Board grew to 38,063, cultivating 24,829.5 hectares, the great majority of which were in the north (*West Africa*, 5 Dec. 1977). The expansion has occurred mostly between 1974 and 1976, in response to an artificially very high producer price to its farmers. The rationale for such a policy was the state's new insistence that not only should food imports be substituted for when possible, but so should industrial raw materials. Possible contradictions between the two policies were not anticipated, as little analysis of the opportunity costs of either strategy was carried out. The Board's contribution to peasant resilience would seem to have been a temporary one for several reasons. Firstly, producers could shift out of cotton growing as easily as they had slipped into it. In the inflationary economy of the middle 1970s food prices quickly caught up with the cotton producer price, which consequently became less attractive. Secondly, in some cases growing cotton, which had initial advantages as a cash crop such as the availability of tractor services, seed, fertilisers and insecticides, encouraged producers to grow it at the expense of household food production, the surplus from which would otherwise have been the major cash crop component of household production. In such cases also, households soon left cotton farming. This obstacle could not be overcome within the constraints imposed by the rationale of producing cotton as an import-substitute to feed southern textile mills. Its removal would have required an all-round improvement of peasant labour productivity. Thirdly, and most seriously, the Board was continuing in the well-established mould of encouraging economic growth at the expense of the economic independence of the producers. If peasant farmers could have been assured of a reliable supply of manufactured inputs, dependence on them would not have been quite so negative. By the middle 1970s, however, such reliability was out of the question in Ghana's chaotic economy. A high level of dependence was thus utterly inappropriate.

(2) The Ghanaian-German Agricultural Development Project (GGADP) has since 1974 shifted its attention from support for capitalist rice farmers to improving the all-round performance of peasant agriculture through a greater geographical and social spread of inputs and 'intermediate' technology, and through research and development efforts.

(3) The World Bank, true to the rhetoric of its new lending style (World Bank, 1975a; Van de Laar, 1976; Williams, in this volume), has in 1977 launched a similar programme in the Upper Region, aiming to increase the productivity and incomes of the majority of farmers (Shepherd, 1978). Both these projects try to propagate 'appropriate' innovations, although neither has sponsored sufficient research, nor sufficient farmer participation and influence in planning and implementation, to be confident of what appropriate innovations might be. Both aim to start a self-sustaining process of agricultural growth, as an end in itself and as a means to enlarging the market for domestically and internationally manufactured goods. Both have put pressure on the Ghanaian state to reduce agricultural subsidies. The GGADP succeeded in 1976 in raising the price of its mechanical land-clearing services to farmers to an economic level; but, while subsidies on agricultural machinery (and to a lesser extent, fertiliser and improved seeds) have been substantially eroded by black market prices, prices which even many capitalist farmers have had to pay, the *structure* of state-determined farm prices has remained unchanged. Removing subsidies may well shake the earth under rice farmers' feet, and thus stimulate favourable conditions for investment in peasant agriculture. But there is a danger that, while achieving this, the de-protection of capitalist rice farming advocated by the World Bank will shift the industry-agriculture and urban-rural terms of trade further against agriculture in general, since it is unlikely that subsidies on and protection of industrial and urban life will be removed simultaneously.

All three projects directly or indirectly threaten established interests in the north and in Ghana as a whole. If successful, labour would be (and in the first case has been) transferred out of the cocoa and rice economies and the cost of urban labour would rise if rural out-migration were substantially reduced. To the extent that subsidies on capital inputs are eliminated, the rice economy will crumble, unless yields (or the world rice price) increase considerably. A yield increase would require a more labour-intensive and land-intensive agricultural style and organisation; this could probably only be achieved on partially mechanised peasant family farms, in the framework of a price structure which gave young men incentives to stay on the farm. This result, and enhanced peasant production in Ghana, would in general however require major changes in Ghana's political economy. In its turn this would require a new mobilisation of peasant farmers nation-wide.

Neither of these objectives are likely to be achieved by international aid agencies alone. Given their self-imposed constraints deriving from the application of a package of technical solutions to complex social, economic and technical issues, these projects are likely to reinforce existing processes of socio-economic transformation, to the extent that they can achieve anything at all in Ghana's continuing economic chaos. The impact of the 'Green Revolution' is extremely unlikely in this case to be evenly distributed in social and economic terms.

From this analysis, two points emerge as of particular significance for the long-term development of the north. Firstly, the major constraint on improving peasant farming is the relationship between peasants and capitalist farmers. In the NR peasants have been dependent on capitalist farmers for access to the means of production. And their communities have been impoverished by the capitalist farmers' appetite for land. In the Upper Region, where mechanised capitalist farming has been more localised and less extensive, it has nevertheless had indirect effects on peasant agriculture. It has contributed to the drain of capital and labour out of the north-east, for example. More seriously, the re-orientation of northern agricultural production towards the needs of southern urban markets by means of state market intervention has disrupted regional trade patterns which ensured that the periodic food deficits, especially in the north-east, were made up by transferring surplus produce from elsewhere in the north.

Secondly, if peasant farming is to survive and grow, the dominance of capitalist farmers, and the urban areas from which they come, in terms of access to resources, purchasing power, and ultimately political power, will need to be challenged.

NOTES

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1. Ministry of Agriculture, Tamale and my estimates. For an elaboration of the genesis and development of capitalist rice farming see Shepherd, 1979.
2. Personal communication, Nick Van Hear.
3. No research has been done on the damage caused by rice farming to cattle rearing. For the uses of valley bottom land in Northern Nigeria see Van Raay, 1975.
4. This information comes from Gill Gordon, Institute of Development Studies, University of Sussex. Weight curves of children are recognised to provide one of the most sensitive indices of approaching danger of famine.
5. Ghana, 1972 and 1975, and Tamale district office figures.
6. This is based on the research of Ann Whitehead near Garu during 1974 and 1975. I am grateful for her permission to use her work here.
7. The evidence presented by advocates of out-migration as beneficial to both sending and receiving areas is in my view unconvincing; for example see Menezes, 1966.

8. This occurred to a lesser extent in southern Ghana, where the ADB's lending programme has been more heavily peasant-oriented.

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8 'Rural Development' and the Rural Economy in Niger, 1900–75

PEPE ROBERTS

INTRODUCTION

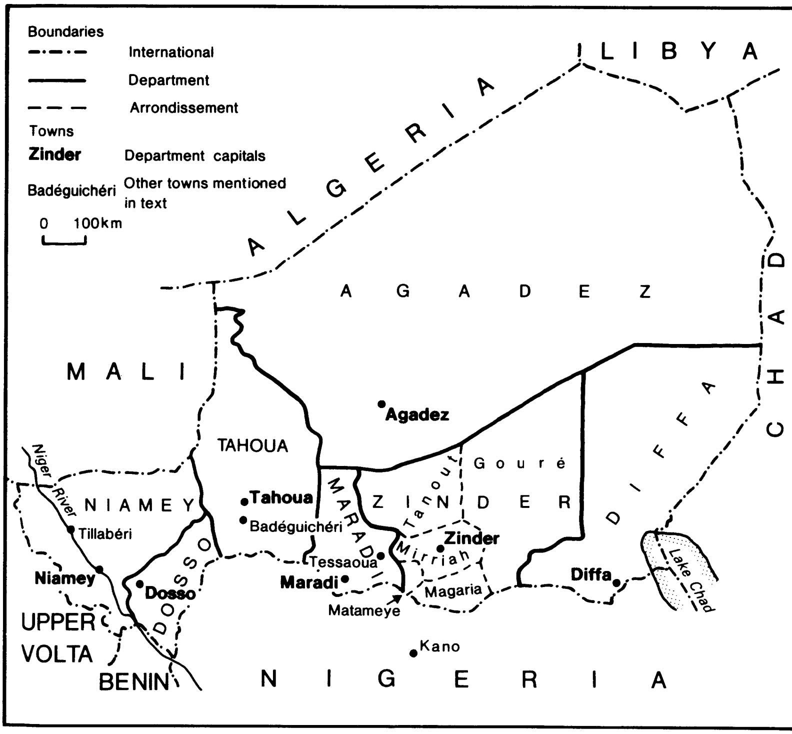
Until the exploitation of uranium began in the late 1960s, Niger depended almost entirely upon agricultural and livestock production and was accounted one of the poorest countries in the world in terms of per capita income. Only 2.4 per cent of the entire land area can be cultivated under present conditions (*West Africa*, 9 July 1979). Agricultural and livestock production has been severely threatened by the process of desertification, the effects of which were to prove catastrophic during the late 1960s and early 1970s, the period referred to as the Sahel drought.

The staple crops of Niger are millet and sorghum. Cotton is produced in the Ader-Doutchi-Maggia region, an area of plateau and flood valley mainly in the Tahoua department; rice is produced in the Diffa area and on the flood plains of the Niger river in the *arrondissements* of Tillabéri and Niamey. But groundnuts are by far the most important commercial crop, accounting for 60 per cent of foreign earnings until the late 1960s. The bulk of groundnuts are produced in the centre and east of the country, in the Departments of Maradi and Zinder: production in the Dosso area has never amounted to much more than 5 per cent of the total.

This paper examines the history of agricultural and rural development policy from French conquest to the mid 1970s, focusing on the main Hausa-speaking groundnut producing areas. Particular attention is paid to the perceptions held by the colonial and independent administrations of the nature of peasant society, and of the problems of development, which have shaped the choice of rural development strategy.

FRENCH CONQUEST AND COLONIAL RULE 1902–57

An apologist for the French administration of Niger described the years of colonial rule as essentially an administrative period (Séré de Rivières, 1965: 266). It is certainly true that there was little in the form of a positive agricultural policy. Moreover, most of the interventions in the system of agriculture were based on ideas borrowed from other, better tended, colonial territories in French West Africa.



Map 4 Niger Republic

The objectives of colonial rule were to restore and maintain political stability and to ensure that the colony would finance its own administration at least cost to the metropolis. The suppression of rebellion, taxation, forced labour, army recruitment and compulsory grain storage summarise the main administrative efforts before the Second World

War. These modest targets were not, as we shall see, exactly what the conquest had been undertaken for. But nor did they justify the sublime belief that colonial rule had left Niger's 'ancient social structures unharmed'(Séré de Rivières, 1965: 281). Séré de Rivières' belief derives from the view that peasant society is stagnant, invulnerable and unresponsive to change and therefore responsible for its own 'backwardness'.

The colonisation of Niger was one of the last stages in the establishment of a French empire across the Sahel, from the Niger to Lake Chad. This hinterland, it was hoped, would provide a vast emporium of trade for the metropolis when it was linked to the established coastal ports and enclaves by a road and railway system (Roberts, S., 1963: 302). Dreams of wealth had rather faded under pressure of military expansion, an expansion described as *à bout de souffle* by the time a French column reached Zinder in 1902 (Fugelstad, 1974: 20). Hopes of material wealth very soon collapsed when it was confirmed that Niger, like the other Sahel states, lacked even manpower for the construction of rail and road (Roberts, S., 1963: 311). Nor did the country stay peaceful over the first twenty years; it was rocked by uprisings and remained under military administration until 1922. Insecure, immensely distant from the centres of French settlement, and apparently with no economic future, French colonial officers found little justification for their presence, either military or economic (Rash, 1972: 8). Gloom pervades the reports of the Commandant of the Territory in 1903: 'Although this dry and arid region can maintain a scattered population, it will never provide any riches ... what strikes one most is the stillness which reigns, the country seems static and empty. Confronted with this dying countryside, one is invaded by the painful sentiment of death rather than of life' (Colonel Noël, quoted in Rash, 1972: 301).

The proximity of Zinder, the capital of Niger from 1911 to 1926, to the Nigerian border provided no comfort. Indeed it added to anxiety, even resentment. In the British colony, commercial agricultural development was proceeding apace, in contrast to its absence and supposed impossibility in Niger. Kano was the main commercial entrepot of the region, French conquest having caused a decline in Zinder's importance (Baier, 1974: 69). In 1901 Captain Moll had pointed out rather peevishly that the persistence of the north-south trade across the Nigerian frontier was not the object of French conquest:

> Apart from the civilising mission she is pursuing in her colonies, France has created a colonial empire to develop her external commerce. Indeed, we only occupied the region of Niger to Chad to find an outlet for our products and a source of raw material for our industry. This aim will be achieved by the connection of these terri-

> tories with France to the benefit of French commerce . . . by monopolising the routes which distribute the products of French industry (Captain Moll, quoted in Johnson, 1976: 99).

But this object was not to be realised: when the Nigerian railway reached Kano in 1913, Zinder was supplied with British exports through British territory.

When the colony was finally secured in 1922, the French abandoned Zinder to establish the capital at Niamey. The distance of Zinder from other French territory, and the nature of its 'tributary' status to Kano had been an embarrassment to the administration (Bernus, 1969: 24). Niamey was grotesque as a choice of capital from the point of view of communications with the rest of the territory, but was only 100 kilometres from the border of Dahomey (now Benin), within the shadow of the French flag. Equally important, however, was the conviction that only in the Niger river valley could successful commercial agriculture be undertaken. Indeed, this period produced proposals that the territory of Niger should be dismembered and a *Térritoire de Zinder* be established in which taxation alone would pay for minimal social development, while the investment of development capital should be restricted to a Niger colony in the riverine area surrounding Niamey (Abadie, 1927: 355). Ironically, the move to Niamey took place just before peasant farmers along the Nigerian border began to take advantage of the Kano railway to export agricultural produce. The move facilitated the neglect of the centre and east of the colony for a couple of decades and was the prelude to a series of efforts to develop agriculture in the west and to make profitable the road and rail route to the coast through Dahomey, rather than through British territory.

During this period, attitudes of disdain towards the conquered peoples, particularly the sedentary farmers, were frequently expressed. A number of factors account for these attitudes. Niger was regarded as a 'penitential' colony within the French colonial service to which were posted officers who had proved themselves undesirable elsewhere. Postings were short and while in residence officers made little effort to understand the economy or society: 'They relied on their immediate entourage, consisting of 'boys', *matas* (native concubines) and *brigadiers chefs*, often strangers to the country and with their own interests to pursue, to mediate between themselves and the native population' (Fugelstad, 1974: 23).

The French developed a respect for the Tuareg, whose resistance to conquest was more difficult to overcome and whose contemptuous attitudes towards the sedentary population they may well have absorbed (Rash, 1972: 61). The descriptions of Tuareg society far exceeded in quantity anything on the Hausa-speaking areas, and these perpetuated a hideous prejudice. The historic and commercial links between the Hausa states of Niger and the Hausa/Fulani states of Northern Nigeria which the French so much resented may also have contributed to French reluctance to acquaint themselves better with Hausa society. As Rash has pointed out, the indifference of French administrators to the territory they were governing led to ignorance and to a tendency to believe implicitly, and slavishly reproduce, Colonel Abadie's views on Niger, published in 1927 (Rash, 1972: 10).

It is worth examining briefly some of the opinions Abadie held of Hausa society. His contempt for the Hausa farmer was the basis of his explanation for the poverty of the colony:

> As for the poverty of Niger colony, it comes from the low population density and, it must be said, from the idleness of its population, combined with its poor climate and commercial prospects... The Hausas are very lazy, improvident, have little energy and are at the mercy of their more audacious neighbours... The cultivated areas would be much greater than they are now if the population were greater and, more important, more hard-working, and if they could be brought to understand the great advantage to be had from selling their excess production (Abadie, 1927: 20, 127, 262).

Abadie's description of the agricultural system is remarkable for its lack of understanding of the problems of rain-fed agriculture in a marginal area. Yet what seemed to irk him most was the *success* of the farming methods. His description of millet cultivation is a case in point. The cultivation of millet, he explained, required very little effort for extraordinarily good results: 300–400 hectolitres of grain were produced from one hectolitre of seed, a result which he compared resentfully with yields in France where wheat farmers achieved yields of only 30–40 hectolitres from the same quantity of seed, after *incessant* labour *and* the use of manure and fertilisers. But what might appear to be a matter for respect was a situation with which fault must be found. The ease of realising good yields was the source of the Hausa farmer's 'natural improvidence', a failing which could only be corrected through civilisation. 'Civilisation' had not had much chance to prove itself at that time since the improved methods of cultivation, including ploughs brought over from France, had produced, Abadie admitted, disastrous results (Abadie, 1927: 262). By the end of the 1920s, government promotion of agricultural development in Niger was limited by lack of personnel and consisted mainly of crop-trials in the government farm at Niamey where there was also a model sheep farm and a model ostrich farm. Ostrich feathers had been an important item of desert trade in the 1870s and 1890s, but European demand collapsed in the first decade of the twentieth century (Baier, 1977).

The French administration during this period however were, like the British in Nigeria, obsessed by the possibilities of cotton production in Africa. It was in the cause of cotton that the British had invested capital in the Kano railway and it was this crop which drew the French to the riverine areas around Niamey. In Nigeria the British failed to anticipate the rise in world demand for vegetable oils and the consequent decision by peasant farmers to produce groundnuts rather than cotton. Private traders promoted the crop, provided loans and organised transport to the railhead with little assistance from the colonial government. In that year, 1913, Nigerien groundnuts from the border areas added to the unexpected output (Hogendorn, 1970; Collins, 1974: 29). However, the whole region was smitten by drought the following planting season and farmers reverted to cereals. The French did nothing to promote groundnuts in the following years and the border areas remained without adequate road facilities until the late 1920s. This discouraged the establishment of trading companies, which did not arrive in Magaria and Zinder until 1929. Meanwhile, pursuing their hopes for commercial agriculture in the Niamey area, the French administration decided against the construction of a railway from Zinder to Kano. Pessimism about the future of this area, combined with the cost of freight on the Nigerian railway, influenced this decision. Instead, a rail link was proposed from Niamey to the railhead at Parakou, Dahomey, a distance twice as far as that from Zinder to Kano and much more costly. This, too, was never constructed. However, throughout the 1930s the main thrust of the administration's rather feeble efforts to encourage commercial production was focused on the area around Niamey, while agricultural policy in general was limited to the pursuit of another obsession: grain reserves.

The most sustained effort by the colonial government to intervene in the rural economy was the enforcement of cereal reserves. This policy, subsequently to be applied indiscriminately throughout French West Africa, originated in Senegal where the massive extension of groundnut production from 1890 onwards had caused a decline in food production and the disappearance of food stocks (Suret-Canale, 1971: 47). Contributing to such a decline, however, was the imposition of forced labour and the increasing burden of taxation. Yet despite these very real constraints upon the decline in food production, the necessity of enforced grain storage was frequently attributed to the improvidence of African producers: 'At its birth in 1910 the organisations known as Sociétés de Prévoyance aimed simply at protecting Africans against their habitual improvidence by creating grain reserves' (Thompson and Adloff, 1958: 357).

Sociétés Indigènes de Prévoyance (SIP) were introduced to

Niger in 1923 but on only a voluntary basis until the 1931 famine led the administration to impose more stringent regulations (Fugelstad, 1974: 24). Until then, SIP were composed of all the farmers and pastoralists of each *cercle* and were financed by contributions from each village collectively, reserves being formed at canton headquarters under the control of chiefs. The contributions were supposed to form the basis of a fund for the construction of village wells and the provision of credit for agricultural development (Séré de Rivières, 1952: 83). However, by 1935 these activities had been limited in Niger to the distribution of a few tons of groundnut seed, mainly in the area around Niamey (Boyer, 1935: 86). From the point of view of the administration, grain reserves were the solution to the 'lazy native' problem. Abadie attributed their necessity to the failure of farmers to stock enough seed grain: 'As the Negro is naturally improvident, he has no more seed to sow and he would be the prey of famine were it not that the administration has been building up seed reserves against the ever present risk of drought' (Abadie, 1927: 262).

Paradoxically, enforced cereal stockage may have been so unpopular because Hausa farmers in drought-prone areas had adopted a strategy of trading part of their cereal harvest to protect themselves against crop failure. In the pre-colonial period, the purchase of livestock from pastoralists in exchange for grain and salt had provided farmers with the means to obtain cereals, when required, from the less vulnerable farming areas further south (Baier, 1974: 145; Lovejoy and Baier, 1975). Such strategies had been undermined by the events of the first two decades of the century, including the 1913 drought which decimated pastoralists' herds and destroyed the price advantage of trading cereals for livestock, a situation which had been made worse by the Tuareg uprisings of 1920 which cut off livestock supplies (cf. Shepherd, in this volume). Hausa farmers, always willing to commercialise their produce, had also taken advantage of the increasing demand for food crops in Nigeria as a result of the introduction of cocoa and other export crops. By 1908 prices were high enough in Kano to attract millet at the expense of the trade to Agadez. This provided producers with access to the trade goods and livestock available in Nigeria. Unfortunately, this north-south trade in no way advantaged the French colonial economy. Efforts to tax the import and export of livestock across the border had driven market places into Nigeria until customs charges were abandoned in the 1920s. Measures such as compulsory grain reserves hindered the development of regional trade and certainly contributed, like forced labour and conscription, to driving some of the population into Nigeria (Spittler, 1977: 232).

In any case, it is scarcely conceivable that famine should have been the result of the fecklessness of farmers. In the first place, Hausa farmers surround millet cultivation with a ritual of care (Nicolas, 1975). Secondly the experience of famine during the first three decades of French domination provides no evidence that they were brought about by careless farming, unless this was the result of French intervention. The 1913 famine, which caused many thousands of deaths, was the result of a drought as serious as that of the early 1970s (Durand, 1977). Moreover, forced labour had removed men from the fields at crucial times. The prelude to the 1931 famine, which led to the compulsory imposition of grain reserves, was marked by increasing severity of taxation and other forms of coercion. The famine was experienced almost entirely in the west where head tax had been increased from 1.25 francs to 7 francs between 1918 and 1929. Forced labour had been imposed on a large scale to construct the new capital and the Dahomean railway. This labour had been paid at shockingly poor rates and under conditions leading to high levels of mortality. These impositions greatly increased the rate of male migration out of the territory. Crop failure itself was mainly the result of poor rainfall exacerbated by devastating locust attack. These conditions were localised and scarcely touched the centre and east of Niger. Yet grain reserves were imposed throughout the country without discrimination (Fugelstad, 1974).

Compulsory membership of SIP after 1931 involved the mass of the farming population in deliveries of millet. Each household was required to set aside grain at a fixed quantity per head. This quantity varied through French West Africa from 100 kilograms to 150 kilograms per person and it all had to be conveyed to an official granary. Thompson and Adloff have drawn attention to the severity of such a measure applied in the context of other forms of coercion:

> Thus a family of ten had to supply 1,000–1,500kg. of grain, which in some cases meant virtually its entire production. Before the war, forced labour prevented the male members of a family from devoting their whole time to farming, requisitions took some of their output and payment of the head tax often required them to sell part of their harvest (Thompson and Adloff, 1958: 356).

Collective compulsory membership of SIP involved dues which, although small, were collected at the same time as the head tax and became identified with fiscal charges. Arbitrary and regular levies in cash and kind probably amounted in total to more than pre-colonial levels of taxation in the centralised states (cf. Salifou, 1971). To make matters worse, the administration scorned local methods of conserving grain, leading to considerable losses (Raynaut, 1975a: 13).

Finally, the conditions providing the rationale for grain reserves in Senegal did not apply in Niger. There is no reason to suppose that cereal production would have declined during this period, other than as a result of French rule. It was not until the mid 1930s that groundnut production became widespread in the border areas, and this could have been adequately offset by cereal production elsewhere, if trade had been encouraged.

Unpopular from the very beginning, the SIP came to be regarded as a measure as coercive as those of the indigénat,[1] forced labour and military conscription (Fugelstad, 1974; Nicolas, 1974: 771). After the Second World War, resistance to compulsory grain storage was widespread in French West Africa, particularly in Niger where rioting took place over the issue in 1946 (Thompson and Adloff, 1958: 356). The policy represented a gross misunderstanding of the existing farming system and was justified by slander of that system. It formed part of the general policy of running the colony at least cost, avoiding the risk of importing food. Meanwhile, peasant producers in the centre and east of the colony were contributing increasingly to exports through the production of groundnuts.

As we have seen, peasant producers began to export groundnuts to Nigeria in 1913 but drought the following year, the absence of transport, other than camels, and of trading companies delayed any expansion in production until the mid 1920s (Collins, 1974: 35). From then on, production expanded at an ever increasing rate except for a period during the depression when the prospect of declining production was averted by increasing taxation, and for a period during the Second World War when the administration used coercion to maintain production when the lack of trade goods entering Niger discouraged farmers (Péhaut, 1976: 707; Collins, 1974: 72). Official figures show an increase in production from 18,000 tonnes (shelled weight) in 1929 to 182,000 tonnes in 1968. Estimates of the area under cultivation indicate an increase from 73,000 hectares in 1934 to 349,000 hectares in 1961 (Raynaut, 1975a: 15). These estimates must be taken with caution but the figures indicate broadly the magnitude of the progression. Two main problems of interpretation arise. First, figures of commercial output do not take into account unspecified quantities of groundnuts entering Niger from Nigeria and, less frequently, the volume of Nigerien production sold in Nigeria (Collins, 1976). Nor do they indicate quantities being produced for local consumption and trade which may vary from year to year. Secondly, estimates of the area under cultivation are extrapolated from unsatisfactory estimates of yield per hectare. How did peasant producers manage this tremendous expansion in production?

One of the effects of colonial rule was the containment of the Tuareg, which enabled farmers to expand cultivation into areas which had previously been unsafe. In fact, this was part of a general process of de-urbanisation as opportunities for urban trade and artisanry declined and because residents of large settlements were more vulnerable to arbitrary requisitions by the French administration (Chirot, 1968; Spittler, 1977; Baier, 1974). There was also population increase, arrested from time to time by famine. These conditions led to a general expansion of agricultural production. Cultivation entered areas which previously had been occupied by pastoralists. This caused friction between farmers and transhumant pastoralists which by the 1950s led the administration to try to limit by edict the northern extension of cultivation, but to no avail. It was, however, millet which was being produced in these areas, north of Zinder and Tessaoua (Péhaut, 1976: 758). The varieties of groundnut available at that time were not cultivable in these latitudes. It was along the Nigerian border that climate and commerce favoured groundnut production. In the west, despite the administration's persistence, producers have never been interested in groundnuts.

Apart from the early period when, no doubt, farmers experimented with varieties and inter-cropping patterns to achieve the best yields under current conditions, the expansion in groundnut production was due largely to an expansion of the area under cultivation, rather than improved yields. Until the 1960s, few improved methods of cultivation were available to the farmer and, of these, most proved to be of no use. Most research on groundnuts had been carried out in Senegal where alarm over soil infertility as a result of over-cropping had been expressed well before the Second World War. Research in Senegal had focused on the development of higher yielding varieties, densities and, less successfully, fertilisers. In Niger, the agricultural station at Tarna, which had been moribund since its foundation in 1927, was linked to these Senegalese research stations in 1949. However, by 1960 results from Tarna and from Senegal had scarcely begun to spread within Niger except for a few tons of improved seed. The use of bullock ploughs was barely known, their positive benefits still uncertain, and in any case the types available from Senegal were too expensive for the majority of Nigerien farmers with their lower incomes (Péhaut, 1976: 810–20).

The main effort of the colonial government with regard to groundnuts was to try to increase the efficiency and reduce the costs of groundnut marketing, reforms intended to benefit the producer (Collins, 1974: 146). However, these reforms were also intended to make it possible to export groundnuts through Dahomey, a much longer and more expensive route than via Kano, but preferable in the early 1950s when it was feared that the Nigerian railways would reduce the quota accorded to Nigerien groundnuts. *Opération Hirondelle*, launched in 1954, tried to evacuate groundnuts from Zinder and Maradi through Niamey and had, as a subsidiary aim, the object of increasing groundnut cultivation in the Niamey area. This effort again failed (Péhaut, 1976: 791).

The colonial government periodically expressed anxiety about the extension of groundnut production which they feared would threaten cereal production and soil fertility. District officers urged producers to limit their output which from time to time they believed to have reached its peak, only to see it rise again the following year (Raynaut, 1975: 37). Anxiety over low yields led to efforts to diffuse technical innovations. The 1953–57 development plan provided for credit to be made available to credit mutuals which replaced the discredited SIP. Small groups of farmers would provide mutual security against loans, mainly tendered for the purchase of plough equipment. This policy, however, succeeded only in placing funds in the hands of the traditional aristocracy and local government clients, had no perceptible effect on productivity and was abandoned after independence following the discovery that large sums of money had been embezzled (Collins, 1974: 257).

RURAL DEVELOPMENT AND THE RURAL ECONOMY: 1957 TO 1975

The circumstances under which Niger acquired independence between 1957 and 1960 were such as to make desirable both an increase in groundnut exports to finance development and the increasing costs of administration, and an effort to seek the political support of the mass of the rural population. From 1960 to 1965 the commercial output of groundnuts virtually doubled, although from 1962 the volume was boosted by the illegal sales of Nigerian groundnuts in Niger (Péhaut, 1976: 1268; Collins, 1976). From 1956 to 1970 the head tax doubled also (Collins, 1974: 95). The independent government made more earnest efforts to increase agricultural productivity, especially in the case of groundnuts. Indeed, during this period anxiety about the food situation seems to have been suppressed.

The first efforts of the government to devise a rural development strategy which would both increase productivity and appeal to the masses failed. Hamani Diori's one-party government, which was brought into power in 1958 with the clandestine assistance of the French government, had little support nationally. The urban population and much of the peasantry had supported Bakary's Sawaba party which had been driven into exile (Charlick, 1972: 8). Diori depended on an alliance with the traditional rulers and the merchants, those who had benefited from the agricultural policies of the last decade of colonial rule. Their success in blocking the mass of the peasantry from access to credit and technical services was taken to be the main barrier to the development of agricultural production which could only be circumvented by a policy of political integration from the grass-roots upwards, but which would nevertheless have to avoid undermining the traditional aristocracy in the first instance. Party cadres were sent out into the rural areas to promote party policies, party funds, solicit labour to construct party houses and plant party groundnut fields. But the latter were regarded in much the same light as colonial forced labour, while the traditional aristocracy and the merchants continued to benefit from the credit and marketing systems (Charlick, 1972: 11). New strategies for rural development were obviously required. Before examining the nature and relevance of these strategies chosen by government on the advice of external development agencies, however, we must turn to the conditions of the peasantry during these years of expanding commercial production.

The system of production into which groundnuts were integrated was based on the household, in the case of the mass of the Hausa peasantry. In normative terms, a household consisted of a male head and his dependent male and female kin and affines, each of whom owed labour service for a specified number of days a week. In return, they received part of the total joint production in the form of food, distributed from the household granary. In addition, dependents could plant their own crops on land given them by the household head (Nicolas, 1975). The particular way in which taxation was imposed by the colonial government meant that the household head became responsible for the payment of his own and his dependents' taxes. Households were thus forced into producing both food crops and groundnuts, for groundnuts came to be the main source of cash earnings. Taxes are collected immediately after the groundnut marketing season. Even though most farmers pursue dry season off-farm activities, earnings derived from these are not available at the right time of the year. The grain reserves enforced by the French administration limited opportunities for commercialising cereal production and kept the price of grain down, at least during the period following the harvest. The actual price of millet at this period scarcely increased at all between 1948 and 1970 (Reynaut, 1975b: 1). Producer prices for groundnuts, on the other hand, were relatively high. France provided a protected market for groundnuts, paying higher than world prices during the 1950s, and there was some advantage in maintaining higher prices than those offered in Nigeria, both to prevent groundnuts being sold across the border and to attract Nigerian groundnuts into Niger (Collins, 1974: 95; 1976). Nevertheless, Raynaut has calculated that while the sale of 17 kilograms of groundnuts would have paid the head tax of one person in 1948, 27 kilograms would have been needed in 1959 (Raynaut, 1975b: 2). These circumstances forced households to expand groundnut production and to maintain cereal production as best they could.

Nevertheless, during the 1950s at least, it is unlikely that farmers produced groundnuts only to pay taxes. Cash incomes also provided access to essential imported commodities, some of which replaced the products of local artisans, sold by the foreign import-export companies. Indeed, these companies put pressure on the administration to ensure that the money paid out to groundnut producers was received back again through sales. Péhaut has argued that profits from sales were higher than those on the export of agricultural commodities (Raynaut, 1975a: 36; Péhaut, 1978: 317). In addition, cash financed an increasing level of ceremonial, higher marriage payments and other social transactions. After independence, however, taxation increased much more rapidly than did the producer price of groundnuts, which actually dropped by 20 per cent in 1967/78. In that year, taxation has been calculated to have accounted for 65 per cent of groundnut earnings (Raynaut, 1975a). It is difficult to establish a full picture of the effect of these appropriations upon rural social relations because of the lack of studies carried out before the drought. It is generally held that the constraints upon household heads to pay the taxes of their dependants has led to the disintegration of the extended household as unit of production, and to high levels of seasonal migration. Little is known of the extent to which households have come to depend upon wage labour to substitute for lost domestic labour, or of the importance of wages and remittances to maintaining an impoverished peasantry. It is clear, however, that the level of indebtedness is extremely high (Nicolas, 1974).

Raynaut's study of a village in the Maradi valley in 1969 gives some idea of these effects at the local level (Raynaut, 1976). Here, 20 per cent of the land in use had been mortgaged or purchased, the original owners being either emigrants to the towns or forced to sell or rent their land to raise money for taxes. This village was rather exceptional in that it possessed swamp land on which valuable tobacco, cotton and vegetable crops could be grown during the dry season to supplement income from groundnuts. Even so, taxes amounted to nearly 60 per cent of the average household income from groundnuts and swamp crops combined, and only 50 per cent of households had access to swamp land. Most households *produced* enough millet, if the exceptionally large contribution by women working on their individual plots is included, to meet their basic subsistence requirements. But many were forced to sell off part of their crop after harvest to raise more money. They were then involved in a cycle of poverty which forced them to buy back cereals at the beginning of the planting season to feed their household, at prices which had doubled or tripled in the meantime. In order to do this, many were forced to take wage employment themselves, thus neglecting their own fields, and putting at risk their own harvest. They were constantly forced into a cycle of indebtedness, and ultimately in danger of having to sell or rent their land. This cycle of poverty was even more marked than in a neighbouring village which possessed no swamp land at all, although the studies were carried out in a year of good harvests.

However, Raynaut argues, there was relatively little economic differentiation between households, even between those possessing swamp land and those without, since overall incomes from farm production were so low. Nor was there any sign of the emergence of a class of large landowners: rented or purchased land was mainly acquired by traders or bureaucrats from Maradi who used it to provide themselves with millet to avoid high market prices at the end of the season.

This village, as Raynaut points out, was exceptional in more ways than its ownership of swamp land. It lacked a traditional aristocracy which elsewhere has benefited from the political and economic patronage of successive governments to accumulate wealth (cf. Charlick, 1972; Collins, 1974). Studies of other areas do not suggest that wage labour was widely used before the drought period in the late 1960s, or that households had disintegrated to the extent that this study suggests (cf. Charlick, 1977, on the Matameye *arrondissement*). Nevertheless, two tendencies during this period are widely confirmed. First, the decline in the capacity of rural households to feed themselves throughout the year without recourse to the market. Secondly, the domination of the peasantry by a merchant class and its high level of indebtedness in the constant pursuit of cash.

The decline in the capacity of households to meet the subsistence needs of their members has had a profound effect upon the pattern of food production and the relationship of the household head to his dependents. It is apparently common for household granaries to be closed at the end of the harvest, leaving dependents to fend for themselves during the dry season until they were opened again to feed returning migrant labour during the planting season (Nicolas, 1975: 99; Raynaut, 1968). Women, in particular, are forced to depend upon the production from their individual plots to feed and clothe themselves and their children, which they do by specialising in producing groundnuts for sale as seed grain, and by processing groundnuts and food crops for daily sales. In the village which Raynaut described, the presence of valuable swamp land, which had been appropriated entirely by men, had reduced pressure on the uplands, allowing women to cultivate a significant proportion of this land and contribute very greatly to total food production (Raynaut, 1976). However, in other areas where there is greater pressure on land, women's fields are not only very small but they are given the least fertile patches of land (Niger, n.d. : 20; Roberts, P., 1979).

The dominance of a merchant class, rather than a class of large farmers, arises from the low levels of productivity in agriculture, whether of land or of labour, combined with the high risk of crop failure.

These conditions do not attract capital investment; they attract speculators. Nicolas' study of the extensive level of indebtedness in Hausa society prevailing before the drought emphasises the tremendous power of the *alhazai*[2] who dominated 'the traditional aristocracy, local officers of the one party state, elected councillors and, by careful distribution of gifts and loans, the whole of the civil service' (Nicolas, 1974: 765). Speculation in grain and other food crops was one of the main causes of famine experienced during the Sahel drought (Nicolas, 1974: 764; cf. Harriss, 1978).

The processes of impoverishment, indebtedness, migration and disintegration of rural social structures accelerated most rapidly in the decade before the drought. It is impossible to generalise their effects throughout the groundnut zone. Nevertheless, little account of them seems to have been made in the strategies for rural development proposed in the mid 1960s.

In 1965, Niger produced a ten year development plan which included numerous proposals to alleviate the standard of living of the rural population. Agricultural targets were quantified in nearly every sphere that could be quantified, and some that could not. Targets for staple crops, for example, were based on estimates of the nutritional needs of a unit of consumption: 'an average man, 25 years of age, weighing 65 kilograms, working six hours a day' in terms of calories, proteins and so on (Funel, 1976: 7). These calculations were multiplied by the estimated population and then divided by the diet of different regions. Since Niger suffers from a lack of reliable statistical data in almost every area upon which such estimates might be based, including population size and rate of growth, nutrition levels and requirements, the volume of production destined for consumption, the range of yields and inequalities in consumption and income, these production targets were little more than fantasies.

The plan recommended a decline in the rate of increase of the production of millet over the following decade. It is difficult to know on what evidence this decision was based (Funel, 1976: 7). Rather better data was available on current commercialised output of groundnuts, and targets were based on the capacities of the country's oil-processing plants and demand on the international market. A decline in the rate of groundnut production was also recommended. This proposal did not arise entirely from concern about food production, but because Niger was anticipating the loss of its protected groundnut market in the EEC. World prices were low at the time and it was feared that there would be a problem of disposing of groundnuts if the enormous increase in production, achieved over the previous decade, continued.

It is, however, the strategies proposed by the plan to achieve its ends which are of more interest, since they indicate the perception of a variety of development agencies, at the time, of the nature of peasant economy and society in Niger. First, the plan was apparently based on the assumption that development depended on the transformation of Nigerien society from its 'traditional' and 'fatalistic' attitudes to 'modern' ones (Funel, 1976: 4). Thus the introduction of productivity programmes was to be preceded by the intervention of Animation, which would open up the rural population to the possibility of development. Secondly, rural development would be implemented through a cooperative organisation which would find its strength in the traditional, egalitarian values which, some ardently maintained, were the continuing basis of village life (Belloncle, 1968).

Neither of these key strategies had originated in Niger. They had both been recommended to a variety of other countries. An experimental 'animation' programme was in progress in Matameye (Charlick, 1972). Both strategies share the vocabulary of 'participatory development' or 'development from below'. Neither of them was to demonstrate that these ideals had been fully espoused by the state.

The widespread employment of animation in Francophone Africa indicates that it is a strategy thought to be appropriate to a wide variety of circumstances. It is a strategy based on a concept of development, central to which is the belief that the peasantry itself constitutes an obstacle to its own progress. De Wilde, for example, explained the adoption of animation in the Ivory Coast in 1962 as the attempt 'to apply the generally recognised principle that all activity viable in the long term in the agricultural sector must have an impact upon the *mentalité* of the peasantry' (de Wilde, 1968: 195).

It is also a strategy which can apparently be adopted to particular circumstances. In Niger, for example, it was thought that the reluctance of the peasantry to adopt innovations was because of a suspicion of, and hostility towards, bureaucrats, which might even to some extent have been justified. Animation's initial aim, therefore, was to reform the attitudes of peasants to bureaucrats, and bureaucrats to peasants, by instituting dialogue between them. Dialogue would enable the parties to understand each other better and enable peasants to formulate their problems and combine to seek solutions to them. Then the community would elect representatives who would be trained in specific skills which they would communicate to their fellow villagers, an innovation which would also ease the severe shortage of personnel in the technical services throughout the country.

Animation would also help to circumvent the influence of the traditional aristocracy upon the peasantry by providing the means through which 'animated' villages would be linked to each other and, through a hierarchical structure, ultimately to the government in Niamey to which they could express their needs. Thus, animation perceives the problem of development as an attitudinal and structural problem. It also assumes that there are no fundamental differences between the state and the peasantry which cannot be overcome by greater mutual understanding. Animation will assist peasants to develop a *mentalité* which will conform to the state's perception of its developmental goals.

The unequal character of this dialogue between the development agencies and the rural population is aptly illustrated in the history of *animation féminine*. This service, introduced inevitably after, and in the footsteps of, animation (masculine), was originally conceived with almost no reference whatsoever to rural women's needs: 'the approach to women considered appropriate by the national services and the outside sources of financing was based on Western paternalistic attitudes, usually accepted by the nationals who wished to be modern (women seen as mothers and spouses, dependents on the man, with a role in the home etc.)' (Barrès, 1979: 1). Even when the under-financed and under-staffed animation féminine service succeeded in establishing a list of priorities on the basis of information from rural women, the agricultural and veterinary services refused to collaborate, while for some time external sources of finance were not interested.

The concept and application of animation principles make any attempt at evaluation of their effects impossible, since they are 'based on the desire to achieve essentially qualitative changes which may not be translated except in the more or less long term into quantitative results' (De Wilde, 1968: 195). But dialogue cannot go on for ever and in fact tends to get reduced to a public meeting. In the context of the development programmes in Niger, animation has become the advance guard of technical services promoting agricultural innovations, health programmes and so on. If the rural people do not subsequently purchase plough equipment, or call in an animation-trained midwife to deal with their wives' childbirth, has animation failed? Has it failed to alter the *mentalité* or is it because these innovations and skills are actually useless to the people? Animation becomes trapped by its own assumptions: resistance to the superiority of the innovations it promotes is interpreted as the irrational response of traditional peasants.

Such a tendency could only have been reinforced by the way in which targets for the animation service were established in quantitative terms in the 1965 development plan. Funel describes the way in which the demand for ploughing equipment was to be anticipated:

> a calculation was made, for each year and each region, of the number of *paysans-animateurs* to be trained, the number of household heads who would, as a result, be brought into contact with animation, assuming that 8 *animateurs* contact 1,000 people at the rate of 6 people

per household. Then the percentage of households which would want to purchase the equipment was calculated. The establishment of objectives by such a method relies on a series of hypotheses: animation must maintain its pre-determined rate of contact . . . there must in fact be 6 people in each household and, above all, that members of households really will want this equipment (Funel, 1976: 13).

Such an approach to development favours the evaluation of programmes in terms, for example, of the volume of agricultural inputs distributed. It does not suggest how one might find out whether plough units are of any use to their owners. A disturbing instance of this is provided by the animation féminine's programme of training village midwives (*matrones*). Evaluations of this programme tend to indicate that midwives claim to apply their training, but do not in fact do so. Explanations frequently invoke the influence of tradition, or the refusal of husbands to allow their wives to be attended by the *matrones*. These explanations are no doubt true, to some extent. But the fact of the matter is that almost nothing is known about the extent or cause of death in childbirth, pre-natal or peri-natal mortality (Blazy, 1973: 24). There is no way, therefore, of knowing that these practices do any good whatsoever. Under such conditions an essential factor in animation's practice is lost, the demonstrable usefulness of its advice.

Animation principles appear to be based on the assumption that 'traditional society' does not provide an appropriate framework in which to generate social and economic development or, more mundanely, an increase in agricultural output. Yet it can be argued that the other strategy adopted to achieve rural development was based on almost the opposite assumption. The cooperative reforms introduced in 1966 were promoted in the belief that traditional society contained all the innovative ideas and behaviour necessary for development. These would be released by reconstituting the village as a collectivity. Here, it was argued, social, economic and political homogeneity had been retained to such an extent that the resources made available from the creation of cooperatives would be used to the benefit of all (Belloncle, 1968).

To some extent, as Collins has argued, the incompatibilities between the two approaches can be explained fairly simply. Animation seems to have been viewed by the government as a political strategy aimed at increasing the influence of the political party in the rural areas, while its potential for creating the conditions for economic development was secondary. There was never any real intention to finance development plans originating from grass-roots demands (Collins, 1974: 262). Cooperatives, however, would provide the means by which producers would finance their own development, as well as providing security for government credit, a monopoly of groundnut marketing and a source of national development funds. Nevertheless, the democratic principles which the animation service applied to the organisation of cooperatives conflicted with the basis for the reformed cooperative structure. Animation expected to organise election of officers, avoiding the candidacy of the traditional élite. Cooperative agents increasingly convinced themselves that the traditional élite were valid leaders of an egalitarian village community (P. Roberts, interviews with UNCC agents, Zinder, 1976). Subsequently, under pressure from government, cooperative agents lost interest in any democratic basis for cooperatives at all as long as they remained solvent (Collins, 1974: 259).

The government institution which was to run the cooperatives was established after independence among a number of parastatals created to extend control over credit and groundnut marketing in Niger. The export of groundnuts was taken over by the *Société nigérienne de commercialisation de l'arachide* (SONARA), while the *Union nigérienne de crédit et de coopération* (UNCC) was responsible for the promotion of the cooperative movement. For the first four years it supervised 'pre-cooperatives': voluntary associations in which membership was obtained by purchasing share capital which provided access to credit and a dividend on marketed produce, which it sold to SONARA on the same basis as private buying agents. These pre-cooperatives were not a success. However, explanations differ as to the nature of their failure and, consequently, the reforms needed to turn cooperatives into agencies of development. Collins points out that the pre-cooperatives ran severely into debt on the credit they received, and the cost of recovering bad debts exceeded the manpower available, while salaries of personnel (including foreign technical assistants) already exceeded UNCC's annual budget (Collins, 1974: 270). Experts from the French development agency *Institut de recherches et d'applications de méthodes de développement* (IRAM) tend to emphasise that the pre-cooperatives favoured rich peasants and local political leaders, who might ultimately succeed in excluding smaller farmers from membership by raising the initial share capital, and who in any case would not use their additional income for farm investment but for usury or prestige consumption (Gentil, 1974)

The reforms of 1966, sponsored by IRAM, introduced village collective membership, each village marketing its produce on a cooperative scale, a cooperative being composed of several villages. The cooperative shares out a dividend, is supposed to authorise credit applications for individual members and shares collective responsibility for debts. Members elect their own salaried officials who attend annual training courses on how to run the market, and on the functions of cooperatives in development. UNCC, which still markets to SONARA on the same basis as private buyers, but is now the only buying agency in some markets, deposits a fixed percentage of revenue from marketing into central funds to finance national training and extension, and into savings funds held in the name of each cooperative, which are supposed to be available for expenditure on collective projects designed by members.

The marketing activities of cooperatives, which were not intended to be their main objective, have nevertheless become so. There are several reasons for this. First, government pressure on UNCC to maintain its financial viability during the periods of low prices in the late 1960s and disastrous harvests in the 1970s has meant that efficiency in marketing has become a priority. Collins maintains that the government has not been involved in the decision to reform the cooperative movement as an agency for development. Its only concern was to maintain the efficient marketing system which had been established during the colonial period (Collins, 1974: 369). Secondly, the period of tutelage under the UNCC until the cooperatives become fully self-managing, carrying out their own marketing and controlling their own dividends and savings funds, has never been defined. UNCC has the power to decide when cooperatives are capable of self-management and has indefinitely withheld approval, since there are no criteria by which this can be judged. By 1976 cooperatives still had no legal status and could not borrow money on their own account.

Finally, the notion that 'traditional society' in the Hausa-speaking areas of Niger has ever been socially, economically or politically homogeneous is absurd. Pre-colonial Hausa society contained domestic slaves, commoners (*talakawa*) and an aristocracy. It contained Muslim and non-Muslim peoples, traders, artisans and endogamous occupational castes. These hierarchies have been profoundly affected by colonial rule, but not destroyed. The ruralisation of society at the time of conquest also led to the settlement of villages which lack an aristocracy, while most large traders live in towns. But the absence of social and economic differentiation within a village does not prove that it does not exist. Such a conclusion reflects a perception of a rural society persisting in its supposed 'traditional isolation' (World Bank, 1975: 3). It does not take into account such factors as the extent of patronage and clientage, poverty and indebtedness which link urban to rural society and which dominate the peasantry (King, in this volume).

This is not to deny that communities in Niger lack any communality. Reciprocal labour groups (*gaya*) existed and apparently still exist (Charlick, 1977: 9). As Nicolas has pointed out, a 'communal and cooperative principle' still persists in certain levels of rural society. But the society: 'is characterised by a relatively high degree of individual autonomy which is steadily increasing. In the first place, quite the opposite of the model upon which the plans for Nigerien rural development are based, the local village community is profoundly divided and the efforts to reorganise it in the image of cooperative communities are entirely without foundation' (Nicolas, 1974: 742). The choice of a cooperative strategy in Niger derives from a stereotyped, even romantic, view of African peasant society.

UNCC also has the task of distributing equipment, fertilisers and so on, on credit, to its members. The problem of evaluating its impact in this field is similar to that we have described for animation. There is a tendency to assume that the availability of these factors of production is an automatic indicator of an increase in productivity. Raynaut has pointed out that official statistics are extremely misleading. The existence of an agricultural service to disseminate these inputs led to the conclusion that: 'the increase in production that has taken place between 1961 and 1967 . . . has been the result of improvement in yields, not of an extension of area under cultivation. This assertion seems to be totally gratuitious' (Raynaut, 1975a: 36).

The fungicides, fertilisers and ploughing equipment distributed by UNCC are still of doubtful utility. Unfortunately, this has been left to the farmer to discover first and the agronomist to confirm later. Fungicides are widely used but mainly for domestic purposes since they are not sticky enough to adhere to the seed. For nearly twenty years the agricultural service has promoted bullock ploughs but most farmers do not possess enough land to get an adequate return on the investment even though the price has been subsidised by the European Development Fund for several years. Fertiliser trials on cereals have been inconclusive and on groundnuts there is a considerable element of risk if rain fails at the crucial moment. Nevertheless, the demand for fertilisers is high as farmers have discovered that they give good returns when applied to swamp crops, especially sugar cane. The most successful innovation has been varieties of high-yielding and drought-resistant groundnuts. However, although these are widely in use, their adoption has created further problems since they have permitted groundnut cultivation to enter areas previously devoted to cereals. The availability of these (or any) varieties of groundnuts has been restricted since the drought, and their distribution has been largely taken over by the *Préfectures*. These have also taken it upon themselves to decide which varieties are appropriate for local climatic conditions. Farmers resent this restriction on their selection, which is based on a much more intimate knowledge of local conditions, and circumvent it by exchanging seed.

It does not seem to be the case, in fact, that the cooperatives have had access to very large quantities of credit. UNCC claim that because of the drought and the poor harvests after 1970, there has been very little demand. Crop failure increases the risk of indebtedness. Their own figures indicate that virtually no credit was distributed between 1972 and 1974 and even in the years following it appears that either demand or supply is very limited. In 1974–5, a ludicrously small amount of equipment was distributed: 114 donkey ploughs, for example, among a membership claimed to number 318,129 throughout the country (UNCC, 1975). In some cases it appears that cooperative members do not even know that credit facilities exist. In Matameye, where some cooperatives have been established for over a decade, and where the Zinder Rural Development Project has been established since 1972 (see below), Charlick found that in 1976 only 36% of the farmers he interviewed were even aware that the cooperatives could provide credit (Charlick, 1977: 13). A number of reasons are possible. First, UNCC officials no longer tour local cooperatives to meet members but maintain contact only with elected officiers at annual training courses. It is quite possible that they do not report back. Since UNCC and animation have abandoned the effort to democratise the cooperatives, it appears that many of the 'elected' officers are wealthier peasants, traders and the traditional aristocracy[3] who consent to each other's loans, in the full knowledge that failure to repay credit consitutes a debt that falls on all members: 'Thus public credit allows the rich to have their debts paid by the rest, while at the same time equipping themselves with the modern farming equipment, because of the cooperativist fiction on which the system of rural development is based' (Nicolas, 1974: 765).

It does not seem that cooperatives are serving the poor farmers well. What purpose do they serve? They have enabled the state to acquire greater control over groundnut marketing, which has provided it with capital funds for investment. They have provided a means to recover bad debts incurred from the lending of official credit, although the latter has been extremely restricted in supply. They have provided employment for an increasingly large bureaucracy, many of whom have been trained outside Niger at great expense.[4] They have provided salaried offices, and a large slice of the credit available, to 'elected' officials who in most cases appear to be the already wealthy or influential and many of whom have become entrenched in office.

This control does not yet constitute a monopoly: private markets still exist and farmers can sell their produce to them if they are within reach. They lose their dividend if they do so but, as Collins (1974: 324) has pointed out, private buyers may offer gifts or credit which are equally attractive, especially as the payment of dividends is often delayed, an issue which enrages cooperative members. It is difficult to calculate the percentage of groundnuts purchased by UNCC. Since the drought, unofficial prices have been higher across the border, which may have induced large flows. The author saw Nigerian lorries loading groundnuts in Magaria in 1976, before the Nigerien groundnut season had opened, and many of the border markets still have private buyers.

UNCC figures indicate that it purchased approximately 25% of the crop in 1974/75, a decline of about 10% from 1970/71 (UNCC, 1975).

Three years after the ten year development plan was produced, groundnut production began to decline. A variety of factors has been adduced, none of which fully explain this almost unprecedented phenomenon. Common Market legislation deprived Niger of its protected French market and forced the government to reduce the price of groundnuts from 22,150F/tonne to 18,000F/tonne in 1967/68. Further difficulties ensued, including the devaluation of the franc by 12.5 per cent and the Nigerian Civil War which increased the price of consumer goods and restricted their supply in Niger. It is difficult, however, to ascribe the decline to a deliberate reduction in planting by peasant farmers. Head taxes increased from 980 francs in 1963 to 1450 francs in 1970. The same rate applies to rich and poor and the poor farmer was scarcely in a position to refrain from cultivating the only crop which assures some cash income. The situation was, however, even worse than official figures showed. From 1967/68 the volume of groundnuts from Nigeria, where prices were going down, increased Niger's commercial purchases, which concealed to some extent the decline in production (Collins, 1976: 269). Moreover, Niger's production included increasing quantities from areas not previously cultivated under groundnuts which suggests that, in the long established areas of production, the decline was even more dramatic.

The decline was attributed in general to a crisis of declining yields brought about by the abandonment of fallow and other practices leading to desertification. Other factors, such as increasing levels of migration, cannot be calculated. Male migrants in some areas were leaving for up to eleven months in the year, rather than merely the dry season, because of the chronic shortage of food. Such migrations were also, no doubt, compelled by fear of arrest or forced sale of farmers' lands for non-payment of taxes (Nicolas, 1974: 765; author's interviews in Zinder Department). An ecological crisis was real enough, however, and provided a problem more amenable politically to a long-term solution. It allowed the state to evade the issue of reducing taxation, and to avoid confrontation with the merchants. These were to profit enormously from financial arrangements made with the government to export foodstuffs to Niger in the early 1970s (Nicolas, 1976: 764; cf. Shepherd, in this volume).

International development agencies were called in to establish rural development programmes which would focus on the problem of declining yields. The Zinder Rural Development Project, financed by the European Development Fund, proposed to carry out large-scale experiments with base fertiliser in the areas most affected by soil infertility. It also proposed to work through, and intensify the activities of, the cooperatives, animation and the other technical services, to improve farming practices (Niger, 1971; Roberts, P., 1977). By the time the project began, the groundnut zone was devastated by the Sahel drought and harvests were disastrous for several years. Groundnut purchases in Niger dropped from 109,674 tons in 1972–3 to 25,553 tons in 1973–74 and an incredible 3,758 tons in 1975–76 (cf. Forrest, in this volume). Under such conditions, no productivity programme could demonstrate its effects. It is therefore only possible to examine its definition of the socio-economic problems of agricultural production in the area, and the strategy devised to overcome these. This strategy was apparently to be adopted in rural development projects throughout the country (Interview with the Minister of Agriculture, September 1976).

The declining production of groundnuts was attributed in general to poor yields, resulting from soil deterioration. It was also attributed to population increase and pressure on land, placing groundnuts in direct competition for land with cereals (Roberts, P., 1977: 3). In this situation, peasant farmers were favouring cereals, a conclusion which appears to have largely depended on the acceptance of a notion of peasant behaviour summed up in the phrase *la mentalité paysanne*, or the peasant farmer always ensures his subsistence base first. It was not a notion which could be substantiated from the data available to the project, since figures on the evolution of cereal production were the most dubious of estimates. Migration to the northern limits of the cultivable land provided the evidence of population increase, the rate of which again was merely an estimate.

Attributing the causes of decline to this stereotyped notion of peasant behaviour is not likely to generate an appropriate strategy of intervention. Like the ideas behind animation and cooperatives, it assumes that rural development is a general problem, not tied to the specific conditions in which peasants seek to exist. In fact, it diverts attention from these problems. Secure in the belief that 'cereal production was rising at the same rate as population growth, except in unfavourable years' (Niger, 1971) intervention can focus on commercial crops, without any further anxiety about 'subsistence'.

In fact, the project proposed to increase productivity of land under cereals as well as groundnuts, but it started off with more emphasis on groundnuts. The project did not have at its disposal any radically new farming practices, and certainly none for cereals. Rather it dedicated itself to the task of seeking the participation of peasant farmers and their attachment (*adhérence*) to its goals, through a network of peasant demonstrators elected through the cooperatives. The project, which was managed by UNCC, depended almost entirely on Nigerien staff, employing only two expatriates for short-term contracts and, of course, several 'support missions' and other foreign experts. Thus the project assumed that the main obstacle to rural development was communication, and that the lack of adoption of 'improved practices' was because they were still unfamiliar in the village environment. The best extension method would be to train peasant demonstrators who would apply these practices on their own farms, to provide convincing demonstrations of their validity.

This analysis of the situation, which depended on the assumption that a 'subsistence economy' prevailed, and that peasant farmers were normally producing their subsistence crops at a level adequate to meet their needs, took no account of the constraints forcing them to sell cereals even in good years. Overall production may have been barely adequate, taking into account the fact that male migration exports consumption requirements. Forced sales of cereals to traders, who stocked them to sell at higher prices later in the year, provoked a vastly unequal level of consumption. The state-owned *Office des Produits Vivriers* (OPVN), established in 1970 to purchase and stock cereals against rising prices and deficits, bought at low prices in competition with private traders to whom they also sold in bulk and had a minimal effect on keeping cereal prices down (Harriss, 1978: 48). Its marketing outlets were usually inaccessible to peasant farmers, and its pricing policy denied peasant farmers any possibility of increasing their production of cereals in preference to groundnuts.

The project addressed itself, as usual, to males, primarily heads of houeholds, on the assumption that a 'traditional' pattern of household production prevailed. It did not take into account the absence of migrant males or the responsibility held by women to feed their families through their own productive and commercial activities. It relied on the existing structure of cooperatives to provide credit to farmers.

Shortly after the project began, the poor rainfalls of the late 1960s culminated in the catastrophic drought of the early 1970s and the worst famine of the century. In 1974 Diori's government was overthrown in a military coup which attacked the 'corruption, oligarchy, injustice and indifference' of the civilian government (*West Africa*: 22 April 1974). Under these circumstances, the project was slow to take hold and it was not until 1975 that its management began to pick up the pieces. Its extension methods were revised to provide training for 'young farmers' in residential centres. The training received here provided numerous problems in terms of its relevance to farming practices. Supervised work in organised labour groups, on farms located near the centres, with equipment and fertilisers supplied and maintained on the spot, were not the conditions which young farmers find at home. Nevertheless, the project staff were plagued with anxiety that they were getting the 'wrong' kind of candidate: the riff-raff of the village, or dependent males who would not be permitted to introduce the new practices when they returned to the authority of their household head. By explaining the lack of application of the techniques they had acquired in terms of these sociological factors, the project avoided questioning the relevance of the improved methods to the majority of farmers (Roberts, P., 1977).

Subsequently, the project adopted the method of Pilot Zones or 'oil spots' where intensive extension work was carried out, largely supervised by *aides-encadreurs*, ex-schoolboys with six weeks' agricultural training who replaced the peasant demonstrator network. These areas were supplied with free fertilisers, in an effort to improve soil fertility over a wide area, free seed and spraying facilities, much to the envy of surrounding communities where fertiliser was largely unavailable (Roberts, P., 1977). Under these conditions, concepts such as the *adhérence* of the population to the goals of the project seem illusory.

CONCLUSION

In this paper we have stressed the irrelevance of the assumptions behind the forms of intervention into the rural sector imposed by successive administrations. In the early colonial period, the accusation that peasant farmers were naturally improvident led to a perverse and inappropriate insistence on food storage. This, combined with the neglect of intervention in commercial production, produced the transformation of the rural economy which we have described. In the post-colonial period, the concept of development assumed the persistence of 'traditional society' to be the obstacle to its own development. Animation sought to modernise the peasantry, while cooperatives attempted to restructure a mythical past. These policies excluded any effort to examine the effects of the development of merchant capital and state appropriations upon the peasant economy. The assumption of the prevalence of a 'subsistence economy' provoked a complacency which was to result in the catastrophic effects of the drought. Meanwhile rural development projects have assumed that lack of communication is the main obstacle to higher productivity, an assumption which has diverted attention from the irrelevance of many of the 'improved' methods of farming under present conditions, and from an examination of the conditions under which 'rural development' might, indeed, be created.

NOTES

Much of this paper is based on secondary sources on Niger, which are meagre. However, so little is published in English on Niger that the opportunity of bringing it to the attention of a wider audience should not be lost. The author spent August-September 1976 in Niger as a consultant for the EEC Development Fund, evaluating the first stages of the Zinder Rural Development Project and the Badéguicheri Valley Development Project.

1. *Indigénat*; 'native status': the right of the administration to impose penalties on its subjects without recourse to judicial authority. The system authorised fines or imprisonment to be meted out to those who failed to pay their taxes, do forced labour and a range of other offences (cf. Suret-Canale, 1971: 331).
2. *alhazai* (sing. *alhaji*): title of a Muslim who has made the pilgrimage to Mecca, and an indicator of wealth and social status.
3. These categories are not exclusive. As in all peasant societies, most farmers trade and, as we have seen, Hausa peasant society has never approximated that fictional 'subsistence economy' favoured in some concepts of African rural econômies. The difference lies in the gulf between big traders and little ones (cf. Nicolas, 1974).
4. UNCC was, in fact, in financial difficulties by 1967/68, even though it benefited from a considerable amount of external aid, including foreign personnel who numbered far more than those employed by the expatriate companies which marketed about the same quantity of groundnuts that year (Péhaut, 1976: 1285).

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9 Agricultural Policies in Nigeria 1900–78

TOM FORREST

A 1900–40

Under colonialism the peasantry was incorporated into the world economy and into a hierarchical system of administration which extended down to the rural areas. The incorporation restructured economic relations as both external and internal markets expanded. Improved transport and communications, labour migration and the growth of towns and mining industries increased the spread of commodity production. Commodity production was further extended by the monetisation of taxation and domestic transactions. Through the organisation of land and labour by peasant farmers, Nigeria became one of the world's major producers, not only of palm oil, but also of cocoa and groundnuts, as well as cash crops for domestic consumption. During the depression groundnut producers increased their export output substantially, despite falls in real producer prices, in order to sustain their incomes and meet their tax requirements. Cocoa farmers kept up a relatively high rate of planting in the 1930s because, as Berry suggests, current opportunity costs and incomes were favourable and institutional features of labour employment encouraged them (Berry, 1975: 79–87). Important areas of food production like Tivland (Benue State) and Ilorin Province were hit by the depression when exports of foodstuffs to the south were reduced. In the north, commodity production weakened traditional mechanisms for overcoming food shortages. In particular, central stores of grain built up from the grain tithes were dissolved by monetisation (Watts, 1977).

Until the Second World War direct intervention by the colonial state in agricultural production and marketing was very limited. In the first decade of the twentieth century a few botanical gardens and model farms under the control of the Forestry Department experimented with the introduction of new plants and varieties, and distributed seeds and plants, in order to promote trade. Particular efforts were made to promote rubber cultivation by both peasant producers and foreign plantations. In 1910 the Agriculture Department was founded in the south

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and in 1912 another department followed in Northern Nigeria. The colonial administration favoured peasant production of export crops to generate revenues but, apart from cotton and, to a limited extent, palm oil, encouragement did not extend much beyond work on experimental stations, the provision of marketing facilities and produce inspection. Thus the rural economy was left to the 'invisible' hand of the market, to the peasantry, to merchant capital and a network of agents and buyers.

The expansion of peasant commodity production and the open economy were justified at an ideological level by the principle of trusteeship in its extended version of the Dual Mandate (Robinson, 1965). Although there was no coherent colonial agricultural policy there were strong views in favour of peasant production. This was combined with a belief in the benefits of the scientific administration of agriculture (Masefield, 1972). The colonial government resisted Lever's campaign for plantations which began in 1906. In 1907 Lever asked for land to plant oil palms and to establish oil mills. In 1920 he demanded freehold concessions for planting and later, in 1925, a labour supply guaranteed by the government and the exclusive right to buy and process fruit from the peasants (Hancock, 1942). He was answered by Governor Clifford in 1920 in an address to the Nigerian Legislative Council (cited Hailey, 1938):

> As further agricultural industries in tropical countries which are mainly, or exclusively, in the hands of the native peasantry (a) Have a firmer root than similar enterprises when owned and managed by Europeans, because they are natural growths, not artificial creations, and are self-supporting, as regards labour, while European plantations can only be maintained by some system of organized immigration or by some form of compulsory labour; (b) Are incomparably the cheapest instruments for the production of agricultural produce on a large scale that have yet been devised; and (c) Are capable of rapidity of expansion and a progressive increase of output that beggar every record of the past... For these reasons I am very strongly opposed to any encouragement being given ... to projects for creation of European owned and managed plantations to replace, or even supplement, agricultural industries which are already in existence, or which are capable of being developed by peasants.

Clifford's position was no doubt hardened by the need to avoid controversy over the land issue, and apprehension about the ability of the colonial regime to contain widespread opposition. The case for the peasantry was strengthened by a number of other factors.[1] Many of the early plantations established in West Africa had failed. There was commercial opposition to Lever's attempt to secure a monopoly for his company (Hopkins, 1973). Finally, there was the overwhelming fact of peasant incorporation and the exports of groundnuts, cotton, cocoa and palm oil. In 1936 there were only 14,556 acres of plantations, mainly owned by the United Africa Company. When plantations did expand in the 1950s, it was the result of state enterprise and not private investment.

The most active and direct intervention by the colonial administration in support of metropolitan capital was its attempt to spread cotton cultivation. It was the power of the cotton lobby and its parliamentary connections which were instrumental in building the railway from Lagos to Ibadan and later securing the finance to extend it north to Kano. The British Cotton Growing Association (BCGA), which was formed in 1902, reached agreement in 1904 with the Imperial government to purchase cotton, to erect ginneries and establish model farms, and the government agreed to pay a grant to the Association. The BCGA first attempted to establish plantations in the south, following the steps of the Royal Niger Company which had a number of small plantations for rubber, cocoa and coffee. Acquisition of land provoked controversy in Ibadan, and in Abeokuta the Association was rebuffed (Nworah, 1971). Elsewhere the Association's fitful and ill-managed efforts petered out. In 1909 the government took over the New Moor Plantation from the BCGA and in 1912 the new Department of Agriculture took over plant breeding and distribution of the new Allen Long Staple variety from the Association in the Zaria area. Until 1922 the BCGA was the sole exporter of cotton and bought on a commission basis from the Lagos merchants. It then gradually withdrew from buying and restricted its activities to ginning. The Agricultural Department worked closely with the BCGA and pressed for the erection of ginneries before the arrival of the railway to cut transport costs and raise prices to the producer. In 1923 the Director of Agriculture estimated that about 14 per cent of the department's total expenditure (£7000) was due to cotton extension work in the North.

Despite the efforts of the administration and the BCGA to encourage cotton cultivation around Kano with free seeds, subsidised railway rates, local authority grants and extension work, it was the production of groundnuts encouraged by the Hausa traders which expanded (Hogendorn, 1970). The price of seed cotton proved unattractive and the local cotton industry could offer better prices. A similar failure to secure seed cotton was experienced by the BCGA and the local administration in Tivland (Dorward, 1975). Under pressure of direct taxation (1912), the Tivs sold some 16,240 lbs of seed cotton during the first six months of 1913 while nearly 5 tons were collected directly in tax. But taxation was much more successful in expanding benniseed cultivation. All efforts to expand cotton production and induce cultivation of the Allen variety around Oyo and Abeokuta failed. Cotton production did expand especially in the North around Zaria and Funtua, but in the 1920s cotton exports only averaged £570,000 and in the 1930s they were lower. A recurrent problem for the cotton lobby was the failure of Manchester cottons to compete with the local hand-woven cotton industry which could take a high proportion of domestic supplies when prices were low (Currie, 1936).

Other efforts by the Department of Agriculture to promote export crops were limited in scope (palm oil, cocoa, rubber, ginger) or were unsuccessful (tobacco, citrus, groundnuts in Ilorin province). The department was small and suffered from discontinuities in staffing. On the eve of the depression there was a staff of 56 officers. In the cocoa belt a successful cocoa fermentation scheme began in 1922 with a premium for fermented cocoa. Fermentaries later increased without the department's assistance. In 1921 the department began experimental breeding of oil palms and also investigated ways of improving efficiency of processing. Sales of screw presses introduced in the late 1920s were initially slow but, after 1934, hire purchase terms arranged by the Native Administration and higher palm oil prices resulted in a moderate increase to 734 presses in 1937. Concern with the efficiency of processing was also apparent in the attempt to attract firms to set up oil mills after 1925. This failed because the government would not sanction monopoly rights over supplies, and because crushing mills in Europe had excess capacity. In 1927 the department began to distribute free selected seedlings to farmers for the establishment of cultivated palm groves. In 1935 the Cultivated Palm Ordinance provided financial incentive to registered farmers to undertake such planting by way of a rebate of the export duty. However, by 1938 only 5530 farmers out of nearly 1,000,000 had planted these seedlings, 9213 acres in all. Among the reasons given for this disappointing performance were plot fragmentation and land tenure complications, administratively cumbersome and inadequate financial incentives, periodic shortages of seedling supplies, the absence of significant price differentials for higher quality oil, and the fear that the government would eventually impose a tax on the planted trees as it had done in some cocoa districts (Kilby, 1969).

O. T. Faulkner, the Director of Agriculture (1921–36), vigorously applied his philosophy that extension work must be preceded by research. This led to differences in extension work between Nigeria and East Africa. In Nigeria agricultural officers spent more time on isolated experimental stations and had less contact with farmers. A series of experimental stations were set up to conduct rotation experiments to find systems of permanent cultivation which would maintain soil fertility. These investigations were influenced by the teaching of the Cambridge School of Agriculture and by the historical evolution of European farming. Bush burning and shifting cultivation were considered undesirable and the intensive method of cultivation in use in the Kano close-settled zone were positively applauded. In the south, the emphasis was on the introduction of a green manure crop into rotations, while at Samaru research station in the North it was on cattle manure, fodder crops and mixed farming. Green manuring had little practical outcome. The green manuring experiments of Umuahia, Yandev, Samaru and Kano failed and those at Ilorin and Ibadan never spread beyond the government stations.

After five years of experimental work at Samaru, mixed farming extension work was began in 1927 in Kano and Zaria provinces. It was tailor-made to the requirements of the carefully constructed Native

Authorities and the control exercised by administrative officers. After a cautious start, a vigorous extension policy was launched, directed at Emirs, Native Authority Officials and village heads (Holmes, 1937). The Native Authority administration was responsible for farm centres, demonstration units, advances for bullocks and implements, and extension work. In 1935, out of a total of 621 mixed farmers, half were classified as Emirs, NA Officials or village heads. It was widely believed that mixed farming would increase the acreage under cotton, and mixed farmers were encouraged to extend their acreage of export crops. Mixed farming methods were developed at the Empire Cotton Growing Corporation's seed multiplication farm at Daudawa (near Funtua). At the start of the mixed farming campaign, locally made wooden ploughs were used. In 1934 Ransome steel ridging ploughs were imported. These were later replaced by superior Emcot ploughs. The impact of this series of technical innovations has not been studied. Opposition to the mixed farming policy came from Nadel (Nadel, 1942) who, from his detailed studies of the rural economy of Nupe (Niger State), attacked a policy which, he argued, would strengthen the landed class and progressively create a class of landless labourers.

After the war, the number of mixed farmers climbed from 10,943 in 1952 to an estimated 40,000 in 1965. Mixed farming required close supervision and there was a high failure rate. This was as true of the mixed farm pilot settlement schemes, where optimal, 40-acre, self-contained family holdings were laid out, as it was for the individual farmer, visited by extension workers. Technical rules, like cattle pens and farm yard manure, which the department struggled to impose, proved unpopular and the ban on hiring out of ploughs and sale of working oxen made little economic sense. Tiffen, has shown how the department's policy impeded access to ploughs in Gombe until a second-hand market for ploughs developed, and the department lost control over the supply of ploughs (Tiffen, 1976). While mixed farming seldom, if ever, led to the intended ideal of a fully integrated system combining animal and crop husbandry it did lead to the expansion of plough cultivation.

Cooperative societies grew out of early attempts by the Agricultural Department in association with Cocoa Manufacturers Ltd (Cadbury and Rowntree) to improve the quality of cocoa, the existence of local agricultural societies, and a general desire by the colonial authorities to regulate conflicts in the produce trade. In 1922 cocoa fermenting societies were established. These societies later became marketing societies and together with other agricultural societies were loosely supervised by the Agricultural Department until 1931. The Cooperative Societies Ordinance was passed in 1935 and henceforth state recognition and financial assistance depended on registration. A major reason for the Ordinance was the presence of influential African buyers like those of the Ibadan Cooperative Planters' Association, who had opposed the extension of supervision by the department, and who could ally with the nationalist groups against the growing concentration of foreign capital in the produce trade. A similar pattern had occurred in the Gold Coast where cooperatives were established in 1927 as a response by the government to demands by the Accra intelligentsia and commercial interests for an Agricultural Bank and a reduction in the margins of foreign merchants. The Nowell Commission, which inquired into the prolonged hold-up of cocoa in 1937/38 by farmers, brokers and buyers in opposition to a foreign buying pool in the Gold Coast and Nigeria recommended cooperatives for Nigeria as a means of replacing Nigerian buyers and providing competition for European exporters, thereby incurring the hostility of both parties (United Kingdom, 1938).

The expansion of peasant production in the inter-war period was accompanied by a growth in the concentration and penetration of merchant capital which took advantage of a succession of booms and slumps to effectively shut out competition from large African buyers (Shenton and Freund, 1979). While the colonial government protected the merchants' freedom to trade, the authorities did not restrict their 'freedom to combine' (Gertzel, 1959: 8). Merchant companies consistently tried to establish and maintain buying pools in various export crops and in imports. For example, the UAC/Holts combine, which had a monopoly of transport on the Niger, depressed groundnut prices along the Minna-Baro railway below those in the Kano area further north, and producers switched to foodstuffs (Hancock, 1942). Further appropriation of surplus labour was secured through the system of advances from merchant firms who attempted to control buyers and build up market shares. The buyers lent to peasants who pledged their crops before harvest. Buying combinations led to opposition from African traders and farmers' associations who tried unsuccessfully to export cocoa and palm oil directly to the US and Europe (Hopkins, 1966). This conflict in the colonial economy led to disagreement between the Colonial Office and the colonial administration in their attitude to the merchant companies, especially the UAC. This was documented by the Nowell Commission, where it was shown that the 1937 buying agreement had the prior support of the Colonial Office. The conflict was resolved in favour of the firms by the wartime regulations which officially sanctioned, strengthened and extended the operation of buying syndicates, by a quota system in the purchase of produce and by a ban on new entry (Bauer, 1954).

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During the war the mobilisation of soldiers, the expansion of tin and coal mining and the reduction of imports all contributed to food price inflation. The most effective general devices for control of inflation were the lower prices paid for export produce by the marketing boards and the restrictive policy of the currency boards. The authorities also attempted to control and regulate the prices, movement and production of foodstuffs and strategic commodities. These measures were not effective in detail (Oyemakinde, 1973), but the food control section of the Nigeria Supply Board made bulk purchases of foodstuffs from rural areas at low pre-war price levels, for the armed forces, mines and large urban centres. This may have achieved a small measure of success in Lagos, but there is lack of evidence on the proportion of the city's food supplies that passed through the controlled Pullen markets and on the prices paid by the ultimate consumers (Prest, 1948; Onitiri, 1966). Agricultural officers were involved in the production campaigns for groundnuts, palm kernels and rubber, and in attempts to restrict the inter-provincial movement of foodstuffs. In Gombe, price controls and regulation of the movement of grain simply aggravated shortages. The lucrative gari trade to the North from Aba division, which had grown to some 35,000 tons in 1943, was suppressed in order to increase the supply of palm kernels (Nwaguru, 1973). In Tivland where the benniseed crop was reduced by migration to Lagos and the Jos mines, agricultural officers tried to prevent farmers switching out of benniseed to chillies. Later in 1946, controls were placed on the export of yams for fear of a food shortage.

The ideology of colonial development which emerged from the war contained a much more active and purposeful role for the state. It was believed that change was needed and, following the influence of Keynes's work and wartime experience of planning, that solutions could be found and engineered by the state. Plans and national accounts now became a part of the apparatus of economic thought. The Colonial Development and Welfare Acts of 1940 and 1945 had broken with the principle that colonies had to pay for themselves, and great importance was attached to external assistance, in form of capital funds and equipment, as a means of achieving economic growth.[2] In Nigeria these attitudes gave rise to the Production Development Boards and to a variety of state schemes to transform peasant agriculture and introduce mechanised cultivation and irrigation. They also marked the beginning of a period in which a flow of foreign experts and international reports (World Bank, 1954; FAO 1966; Johnson, 1969) made prescriptions for Nigerian agriculture.

Mechanisation, which was promoted by the Agricultural Departments and the Development Boards, involved the cautious introduction of tractor cultivation and included pioneer oil mills, rice mills, corn mills, sugar crushers and wind mills. Eight experimental single tractor farms were set up in the North and a number of mechanised group farms were started in the West. Regional workshops were sited at Samaru, Ibadan and Abakaliki. By the mid-1950s, much of the initial enthusiasm for tractor cultivation had gone. Most tractor farms had closed down and work at Mokwa and Samaru concentrated on improved methods of cultivation. Tractor hire units were run at various levels of subsidy. Newlyn (1955), who lists 23 mechanised schemes in Nigeria, found that it was only the mechanised rice schemes on flood plains in the North that came close to paying their way.

There were a number of continuities with the inter-war period like the mixed farming scheme and cooperatives. Biological research work was expanded at West African and Nigerian research institutes and was heavily biased towards export crops with repercussions for the development of staple food crop technology in the future. Extension work expanded slowly and was very uneven in scope and intensity. In the North where agricultural staff generally concentrated on research work, cotton extension programmes in Gombe and Gusau coincided with attractive cotton prices and led to significant increases in yield. In the West, where extension work gave priority to government projects, cocoa spraying for capsids and black pod disease resulted in substantial gains. In the East, there was considerable expansion of swamp rice production and milling in Ogoja and Onitsha provinces in the decade following the war.

Marketing Boards

The preoccupation with export crops continued to dominate agricultural policy in the post-war years as the British tried to boost production to meet the dollar shortage within the sterling area. The marketing board system provided a means of protecting the export trade from American competition as well as a deflationary device for controlling the level of imports. It later became a source of state funds for industry, and for the growth of the bureaucracy and political class. It also received intellectual support from the development economists who cast agriculture in a subservient role as a source of funds, labour, markets and backward linkages for industry (Helleiner, 1965).

The marketing boards (Cocoa 1947, Groundnuts 1947, Cotton 1947, Oil Palm 1949), which were statutory export monopolies, had their immediate origins in the wartime regulations of the producer trade. Under the West African Produce Control Board (1942) the merchant firms became agents buying on a commission basis, and minimum producer prices were fixed. Large trading surpluses were built up and until 1954 the boards used these funds for agricultural purposes, dividing them between stabilisation of prices and incomes (70 per cent), development (22½ per cent) and research (7½ per cent). In 1954 the boards were regionalised following constitutional changes, and they inherited accumulated surpluses worth £87 million which were held as securities in London, ostensibly for the purpose of stabilisation. The financial surpluses were then run down, and there began a deliberate policy of building up trading surpluses to finance regional development programmes and party political expenditures. The Western State Marketing Board trading surplus over 1963–68 was £38 m, more than double the surplus over 1955–62. Over 1955–66, 34 per cent of the total financial resources of the West were accounted for by trading surpluses, export duties and produce sales taxes. Comparable figures for the East were 18 per cent (1955–65) and for the North 23 per cent (1955–64). Most authors, whether for or against these state monopolies, agree that their primary role has been taxation. Weeks has calculated effective tax rates using supply and demand elasticities, which allow for the fact that, in the absence of the boards, producer prices and supply would be higher (Weeks, 1974):

	Cocoa 1947–70	*Palm Oil 1948–66*	*Palm Kernels 1948–66*	*Groundnuts 1947–70*	*Cotton 1949–70*
			(percentages)		
Actual tax rate	42.3	22.6	36.4	20.0	24.4
Effective tax rate	47.2	30.6	47.3	27.6	30.6

In addition to this tax burden, export crop producers paid other taxes like import duty on consumer goods and poll tax.

The marketing boards marked a major change in the relation of peasant producers to the colonial state and capitalist accumulation. Whereas the colonial state prior to 1940 had held the ring for accumulation by merchant capital and ultimately metropolitan capital, the appropriation of surplus labour was now brought more directly under the control of state machinery through its pricing, tax, and credit policies. Public finances were used to support and subsidise the establishment of capitalist relations within Nigeria, as merchant capital shifted into manufacturing to protect its position in the Nigerian market. Licensed produce buying was taken over by Nigerian traders who had previously established themselves as the agents of foreign merchant capital. At the centre, an urban based, bureaucratic and political élite, which derived its power and wealth from education, access to state machinery, and commerce rather than from agriculture and landownership, endorsed a mechanism by which wealth generated in the peasant sector could be appropriated. At the same time as the state itself came to be held responsible for rural development and the provision of amenities, there was little incentive for debate about rural development or agrarian policy within the nationalist movement.

In 1954 Bauer attacked the operation of the state export monopolies, arguing that the build-up of trading surpluses by the Board would lead to the deprivation of the peasantry and to vastly increased state powers and expenditures that would not promote the general welfare (Bauer, 1954). In many respects Bauer was correct. In 1964 Helleiner tried to justify the heavy levels of taxation, arguing that Nigerian economic development had been aided through the device of channelling a portion of export earnings via the marketing boards away from the producer to other governmental decision makers (Helleiner, 1964). He argued that the state agencies made better use of the funds than peasant producers would have done in the absence of taxation. Yet the evidence is that most of these funds were squandered by state agencies, political parties and individuals, or yielded very low returns. Helleiner argued further that peasant savings were low. The very slender evidence that is available does not really support Helleiner's pessimism about peasant savings. The flavour of the conventional wisdom of this period is caught by Anne Martin who concluded, after a study of palm cultivation, that:

> a prime incentive to increase earnings is to increase personal prosperity, largely by purchase and display of consumer goods . . . the prospects for voluntary 'social investment' in education and housing are good, they are less good in the provision of capital for industry and agriculture, including improved communication, and this has to be taken into account in the framing of public fiscal policies (Martin, 1956).

Other studies did not support this view, which was often no more than a projection of élite values. Upton in a study of six villages in the south found marginal propensities to save of 0.5 (Upton, 1967). Tiffen estimated that Gombe cotton farmers over the period 1952–60 invested at least £408,000 in land, ploughs and oxen, and that personal savings were by far the most important source for this investment (Tiffen, 1976).

Apart from state taxes, the marketing board system also involved the transfer of enormous incomes to a few licensed buying agents. For example, over the period 1960–67 the number of LBAs in cocoa averaged 125 per year and they received annual average allowances of over £2.4 m, which was 12 per cent of farmers' receipts. For cotton, the annual average allowance over the same period was over £1 m, almost

18 per cent of farmers' receipts. The allowances to LBAs may be only part of their income. LBAs can secure additional profit by buying below the official gazetted prices. Many LBAs have other sources of income. In a study of 60 cocoa LBAs in the Ondo/Ife/Ilesha area it was found that the top 10 per cent, who accounted for over 50 per cent of total earnings, secured about 60 per cent of their earnings from sources other than cocoa marketing (Essang, 1971b). A study of the investment expenditure of LBAs in the south found the following pattern of investment: produce buying 46 per cent, real estate 21 per cent, transport 14 per cent, trading 7 per cent, contract work 6 per cent (Essang, 1974). Only about 6 per cent of LBA investment went to industry or agriculture, again indicating that wealth from the marketing board system was not being used in ways that its proponents assumed.

Plantation and settlement schemes

In Nigeria the full force of a Fabian-inspired vision of a rapid increase in the production of oilseeds aided by foreign management, public funds and large-scale mechanised cultivation was diluted by the caution of the colonial administration and the fact that lack of rolling-stock was holding up evacuation of produce by rail. The West African Oilseeds mission of 1947 was convinced that the introduction of some degree of mechanisation into the peasant economy of West Africa was a matter of vital necessity and it proposed large-scale schemes. It was argued that the policy of mixed farming had been overtaken by developments in the use of machinery and that more speedy results could be achieved by the introduction of mechanised tillage, leaving the place of cattle to the important role of providing meat, milk and manure.

The direct result of the mission was the Niger Agricultural Project at Mokwa, which managed to replicate the disastrous experience of the Tanganyika groundnuts scheme, though on a much smaller scale. When the Colonial Development Corporation withdrew from its partnership with the Nigerian government in 1954, less than 80 settlers were involved and a loss of £123,473 was sustained. The settlers, who were drawn from peasant communities, resented an authoritarian management which told them where to live, where to farm, what to grow and when to perform various agricultural operations. They also lacked incentive under the share-cropping scheme designed to recoup capital expenditure and operating expenses. No preliminary investigation of labour requirements was undertaken and it was discovered later that weeding, which could not be mechanised, required about 17 man-days per acre. Each settler on his 24-acre plot had the impossible task of doing 408 days work in 6 weeks. In 1954, when the Agricultural Department took over the scheme on an experimental basis, there was severe soil erosion and in 1958 the department reported that the search for a suitable crop and methods of cultivation was still continuing.

Within the colonial administration the post-war enthusiasm for projects designed to bring changes in technology and scale to peasant agriculture was formalised in the notion of group farming or partnership schemes. The purpose of group farming was:

> to secure improvements in agriculture through the application of capital, particularly although not necessarily by mechanisation and through more efficient land utilisation . . . by group farming we do not mean collective farming . . . but the grouping of a number of individual holdings with only that degree of reorganisation and common control which is necessary to secure the benefit of the capital services provided (United Kingdom, 1950).

The grouped peasantry were to be managed in the first instance by an organisation able to command credit and established on lines that would progressively effect its own replacement. Local contributions were made by the Native Administration and various departments of the Administration. Control of settlers was provided for by NA (Settlement) regulations introduced in 1950.

In the North, where there were no plantations, a variety of schemes were started including mechanised rice schemes, mixed farm settlements and resettlement schemes. The earliest and one of the more successful was the Anchau scheme begun in 1937. The original interest in the scheme was the clearance of a tsetse-free corridor of some 700 square miles east of Zaria, but Colonial Development Funds were only forthcoming on the condition that 'economic development formed part of the scheme' (Nash, 1948). Compared with the rash of schemes in the late 1940s and 1950s the project was remarkable for its thorough preliminary work (population, settlement, soil and vegetational surveys) and integrated effort over a period of ten years (roads, villages, wells, markets, piggeries, sugar crushers and citrus). In 1940, 2000 people were housed in 9 villages, until it was claimed that by 1945 some 50,000 persons had benefited from project expenditures. Freedom from tsetse proved temporary. The cattle population migrating along riverine routes acted as hosts for reinfestation (Ford, 1971).

Many of the later settlement schemes were concerned with the control of population movements from the Jos Plateau and other hill areas to the virtually unpopulated plains. There was a similar concern with resettlement and soil conservation in discussions over the relocation of population from the congested areas of Igboland (Anambra and Imo States) to Ahoada, in Rivers State, and the Cross River plains.

Both Forde (1946) and Chubb (1947) doubted the economic attractions of the proposed settlements and favoured a general creep from the periphery. In the event, only the Kwa Falls Scheme, north-east of Calabar, with 200 families materialised. Some of the northern schemes were little more than administrative responses to the opportunity to order and police previously inaccessible population in nucleated settlements, and they proved unpopular (Ghide, 1972). The Shendam scheme (1947), which settled ex-servicemen, was taken as a model of a low-cost, gradualist approach, aimed to conserve soil fertility and increase the production of food and export crops. It owed its success as much to a voluntary process of migration, fertile soils, and the profitable food markets of the Jos mining community as to supervision by the administration. By 1955, when 19 villages were established and 535 families settled, it had become virtually self-sustaining. Some schemes like the Wawa Bush Project were prompted by the hasty provision of funds by the Colonial Office (£264,000) and failed completely. Overall the record of these schemes is a bleak one, with high costs, low returns and very few people affected. Tiffen has shown how immigrant farmers near Gombe were able to meet settlement costs comparable to those of settlement schemes at Mokwa and Kontagora and achieve higher incomes (Tiffen, 1976). The provision of local government services and extension in areas which immigrants are voluntarily opening up makes better sense.

In 1948 in the West, the Agricultural Department wanted to rehabilitate areas where cocoa was dying out due to swollen shoot and it was under criticism for emphasis upon experimental investigations when food prices were high. A wave of plantations and mechanised food farms was launched, funded by the Regional Development Board. As an official explained: 'for the Colonial government, the application of capitalist methods to the development of land which cannot be undertaken by government because it has not the resources, and will not be undertaken by non-Nigerian capitalists because they can get no permanent title to land is . . . the main concern of the Regional Development Board' (Teriba, 1966). The official expectation for most of these projects was that, on eventual transfer to African private farming interests, the Board would get a price to cover establishment and operating costs as well as a profit margin. The schemes were thus expected to evolve into capitalist farms. The immediate objectives of the plantations were to establish sufficient supplies of crops to operate processing plans, act as reservoirs of improved planting material, centres for the instruction of farmers in the general principles of plantation management, and a demonstration effect of model plantations. There is no evidence that any of these objectives were met. In 1962 the plantation acreage devoted to oil palm, rubber and cocoa was 1.4 per cent, 4.1 per cent and 0.6 per cent of the total acreages of these crops in the West. There is no record of serious efforts at its propagation to agricultural extension workers or, more important still, to the generality of farmers in the Region. Improved planting materials were, for the most part, supplied only to government-owned plantations. The agricultural partnership schemes, where chances of direct contact of farmers with modern plantation techniques and management were greatest, were the least successful of plantation schemes. As Teriba writes, if anything they demonstrated the futility rather than the viability of large-scale farming. The most obvious defects of the projects were: (a) no detailed investigation of soils, climate or marketing; (b) at least one major project in each political division of the Regions; (c) high overheads; (d) persistent neglect or misapprehension of local labour supply conditions, the consequent price of which was irregular labour supplies and vast expenditures on housing and social amenities for migrant labour.

The lessons of the plantations were not learnt, and in 1959 the Western Region government embarked on Farm Settlement schemes. According to an FAO official the Gezira scheme in the Sudan (see Barnett 1977, 1980) and the Israeli Moshavim were the systems offering the best solution to the organisation of peasant production in Africa. The initiative was taken by Chief Akin Deko, the Regional Minister for Agriculture in the West, who went to Israel and with Israeli technical assistance and FAO support introduced Moshavim to Nigeria. There was a widespread belief in the demonstrative impact of a complete break from 'subsistence' agriculture, and the Minister saw the farm settlements as the spearhead of a possible agrarian revolution. The aim was to make farming sufficiently attractive to school-leavers by provision of social amenities and relatively high incomes. The settlements would then act as models to facilitate extension work. Yet little effort was made to formulate the economic conditions for the success of these schemes. By the end of 1966/67 £6.4 m had been spent at the cost of £4000 per settler, which was double the amount originally projected. This represented some 8 per cent of the total development budget in the West. Moreover the number of field personnel assigned to the settlements equalled the number assigned to the general settlement programme in the Region. Many of the settlers resigned. Okediji found some of those left behind sullen, hostile and prone to violence (Okediji, 1968). Idachaba found an adverse demonstration effect with the mass exit of young people from areas surrounding the schemes (Idachaba, 1973). As with the earlier plantation schemes, political pressures increased the number of settlements and led to the simultaneous expansion of the scheme. This ruled out the possibility of monitoring, experimentation and a steady accumulation of experience. The settlement schemes failed as an attempt to transfer an institution from an environment with a totally different historical experience and ideological commitment. They were also over-researched by academics. Over twenty articles and monographs have been published.

In the East there was similar concentration of state expenditures on plantations, oil mills and farm settlements by the Production Development Board and later the ENDC (Eastern Nigeria Development Corporation). The bias against the small peasant farmer is clearly shown by opposition to a proposal for credit for small hand-presses at a time when palm oil prices were favourable to farmers in the early 1950s. Saylor found all the existing government oil palm plantations were economically unviable (Saylor, 1968). With few exceptions, foreign investors and aid donors generally showed a marked lack of interest in plantations and settlement schemes. There was no incentive to private investment if the government took 40 per cent of the world price. When foreign companies did invest, they concentrated on rubber which was not taxed by the Boards. An exception to the plantation approach was the Oil Palm Rehabilitation Scheme which gained favour as disillusionment with the heavy investment, limited participation and economic weakness of the estates and settlements spread. This involved free provision of fertiliser and NIFOR (Nigerian Institute for Oil Palm Research) seedlings, thinning of existing plants and cash subsidies of £10 per acre over a 5-year period for a minimum of 5 acres. By 1967 nearly 50,000 acres had been planted. Also in the early 1960s a more pragmatic conception of rural development involving low-cost community projects gained official support. When hostilities broke out in 1967, there had been considerable administrative reorganisation, and over 100 small plantations had been established, run by cooperative members who leased land from their village communities. By 1967 the following acreages had been planted under the various schemes in Eastern Nigeria: oil palm rehabilitation 49,950; ENDC estates 29,100; farm settlements 5353; community plantations 11,750 (Floyd, 1969; Purvis, 1970).

Cooperatives

After the Second World War, state support and regulation of cooperatives had persisted, but the movement had never gained widespread support amongst farmers. The main activity was the cocoa marketing cooperatives in the West. The cooperative share of the cocoa trade averaged 15 per cent over 1948–67. Experiments in the formation of food marketing cooperatives met with little success (Osuntogun, 1972). Investigations in Kwara State found that farmers prefer loose associations of middlemen who tend to pay good prices. Cooperatives have not done very well just because producers insist on immediate cash payments when they sell their products (Ogunfowora, 1973). Beer argued that the movement suffers from excessive central control and bureaucracy and lacks financial independence (Beer, 1976). He noted that links with MANR (Ministry of Agriculture and Natural Resources) are virtually non-existent. His arguments have been echoed by King in the North (King, 1975). King found that cooperative buyers operating from secondary (union) level are, from the point of view of the members of primary societies, indistinguishable from private LBAs and their agents. Isolated exceptions to this pattern have occurred but they are the product of special circumstances, such as tobacco cooperatives controlled by a private monopoly buyer and banana cooperatives in the Cameroon in the 1950s from local community initiatives (Ardener, 1958). Where the economic advantages of 'cooperation' are clear, like rice milling in Abakaliki or bulking for long distance trade in Umuahia, farmers and traders combine without state assistance or registration (Welsch, 1966; Jones, 1976).

State credit is supported by the belief that urban institutions can supply and administer flows of cheap credit to the rural sector where, it is held, shortage of capital is a major constraint on production, savings and incomes are low, and interest rates high (Ogunfowora, 1972; Teriba, 1973). These ideas are combined with analysis of rural credit in terms of neo-classical assumptions which ignore the existence of non-capitalist relations of production. In the 1950s and 1960s there was a succession of attempts to provide credit through regional credit institutions and cooperatives. The Western Nigeria Finance Corporation (1955–64) wound up with a debt of 2.4 m naira.[3] Its successor, the Western Nigerian Agricultural Credit Corporation, achieved 50 per cent debt repayment, and administrative costs that were more than twice the amount of loans issued (Abaelu, 1973). In 1970 the deficit for cooperatives in the North was 2.7 m naira. Cooperative credit has not led to self-sustaining rural credit institutions or to a larger volume of savings. Cooperative officials have been hostile to, or ignorant of, existing savings clubs like *esusu* (Morss, 1976). King found that in reality co-operative pre-season loans operate no differently from government-sponsored group credit schemes (King, 1975). With government guaranteed bank overdrafts they depend on management by government officials and the authority of local community leaders, and have often been used as channels for party political patronage and recruitment. In spite of these meagre achievements, the rhetoric of grass-roots cooperation continues unabated, and cooperative officials, like their colonial predecessors, attempt to extend cooperative principles through legislation (see Nigeria, 1978c).

C 1970–78

A reorientation of state policies towards agriculture has occurred since the end of the civil war. Agriculture's central role in the provision of finance for state-sponsored industrialisation has been overtaken by the need for increases in the output of food to moderate increases in the cost of living, contain wage demands by workers, and bolster dependent capital accumulation. At the same time, the historic conjuncture of large centralised oil revenues, a more powerful federal initiative under military rule, and slow agricultural growth,[4] has provided a new basis to sustain and expand the public economy and its agricultural policies. At the core of the federal initiative is a strategy to increase agricultural output through the introduction of new technology supported by infrastructure and intensive management. Elements of this strategy were present in the 1960s and there was nothing in the limited agricultural debates over the economic benefits of settlement schemes, as against smallholder schemes and the effects of the marketing board system, to question it. The bureaucratic and managerial classes, the new wave of agricultural economists, and foreign advisers and institutions like the IBRD supported the new emphasis on technology for the peasantry.

We can conveniently identify three related changes in policy. First, taxation through the regional marketing board system was reduced, and the system itself subsequently dismantled and replaced by national commodity boards. Second, under the Third Plan, federal policies have given priority to increased food production through the provision of subsidised credit and fertiliser, integrated development schemes, state food farms and irrigation projects (Nigeria, 1975). Third, since 1974 concern over the acceleration of food price inflation and the rise in food imports has prompted other measures like Operation Feed the Nation, tariff regulation and new incentives for foreign investment in agricultural production.

After the civil war, the marketing board system was in crisis. The immediate cause of the crisis lay in the stagnation of exports and the growth of the home market. Heavy taxation combined with the protection given to industry turned the terms of trade against the export commodities. Population growth and relative price movements ensured that the sluggish output was switched to the home market and that resources were used for the production of food crops. As early as 1963 the Central Bank had sought, with World Bank support, control over crop prices and financing (Ekukinam, 1974). In 1968 the Central Bank established its right to consultation over producer prices and became the exclusive source of credit for the marketing boards. In 1973, when federal control of marketing boards prices was finally established, producer prices raised, and produce sales tax and export duties abolished, cocoa was the only crop that still offered much scope for the generation of trading surpluses. Upward revaluation of the naira also discouraged exports. In recent years only cocoa and palm kernels have made significant contribution to export earnings (see Table 9.1). In 1977 seven national commodity boards were established (Nigeria, 1977c). These boards, which include the important staple food crops, offer guaranteed minimum prices, appoint licensed buying agents, and have exclusive rights to export produce. With the exception of the cotton and cocoa boards, they have attracted little produce, as minimum prices, set in relation to world market prices, are below local market prices. Together with the National Roots and Grains Production Companies which are to set up 4000-hectare mechanised farms in each state, the boards establish the institutions for direct state intervention in food production, storage and marketing.

The Third Plan set out through the allocation of large federal and state expenditures to increase domestic food production through the transformation of peasant production to modernised capitalist production. The following table lists the main expenditures under the revised Third Plan (Nigeria, 1977e):

Federal expenditure on agriculture under the revised Third Plan

	Naira (millions)
1. Irrigation	535
2. Nigerian Agricultural Bank	150
3. Large-scale food farms	132
4. Fertiliser procurement and distribution	100
5. Cash crop rehabilitation	100
6. World Bank projects	44
7. Strategic grain reserve	40
8. National Accelerated Food Production Programme and Farm Service Centre	23
9. Roots and grain production companies	5.2

Note: The major items not listed are agro-industries, the River Basin Development authorities, research institutes, National Centre for Agricultural Mechanisation and rice, oil palm and rubber projects.

Many of the ideas and assumptions behind these expenditures can be found in an earlier study by US-trained agricultural economists (Olayide, 1972). The study is remarkable for an unbridled technocratic vision. It begins by drawing attention to low levels of nutrition and an imminent national food disaster, and it criticises the Second plan for lack of expenditure on agriculture and food production in particular. Target outputs are estimated in order to close the gap between projected supplies based on past output trends and demand projections. These targets can act as indicators to guide the manipulation of new inputs and the flow of federal funds. The increases in output are to be achieved by the eventual elimination or reduction in the number of small-scale farms through the state-induced application of imported technology. This exercise, and the conception of planning which it involves, is premised on state control of production and the market which does not exist.

It is difficult to find an entirely convincing explanation for the huge planned expenditures on irrigation. In the 1950s a number of irrigated rice schemes were established in the Niger province and a rice research station established at Badeggi, near Bida. Concern then shifted to pilot projects to grow wheat and rice in the far north. Many small-scale pump schemes for vegetables were started. By 1968 the total area under irrigation in the country was 13,000 hectares (Strong, 1968). In the 1970s large-scale irrigation projects were started in the Chad Basin, Hadejia-Juma'are valleys and the Sokoto-Rima valleys. An irrigated area of 274,000 hectares is proposed by 1991 at the cost of 2200 m naira at 1977 prices (Palmer-Jones, 1977). These large projects are not based on any technical evaluation of the existing small and medium scale projects despite many statements of the need for such evaluation (Popoola, 1974). The drive for an irrigated agriculture is partly a reflection of its ecological appeal and the satisfaction of drought psychology, though the viability of large-scale irrigation as a primary anti-drought strategy is highly conjectural (Watts, 1977). It is also closely linked to the idea of substitution for imports of wheat which has been the subject of unwarranted optimism in the past. In 1976 Nigeria produced about 7000 tons of wheat and imported 733,000 tons (see Table 9.2). Wheat imports have grown at a fast rate and it remains to be seen whether irrigated wheat can supplement and compete effectively with imported grain when low bread prices are important to those in power. A further attraction of irrigation lies in the symbolic appeal of a modern, transformed agriculture, associated with a reorganisation of tenure, dictation of cropping patterns, resettlement, planners, state bureaucrats and foreign experts (Essang, 1975). This brings with it the danger of a loss of self reliance and sufficiency among the peasantry which produces high costs through the poor performance of the state sector.

The fertiliser programme and operations of the Nigerian Agricultural Bank attempt to increase production through state regulation and subsidy. Free distribution of fertilisers began in the North in 1950, and subsidised sales were introduced in 1961. In the period 1962–67 subsidies worth 1.9 m naira were financed out of marketing board surpluses (Wells, 1974). After the civil war federal capital grants were used by the states to cover distribution and storage costs. Federal subsidies were increased to offset the rise in world fertiliser prices and grants totalled 6.2 m naira in 1975/76 (Nigeria, 1977a). In 1977 federal government took overall responsibility for fertiliser procurement from the states and a National Fertiliser Board was established (Nigeria, 1977d). For 1978/79 federal expenditure is estimated at 75 m naira. The high levels of subsidy (75–85 per cent) and increased imports of fertiliser have undoubtedly improved access, but it has also meant indiscriminate use, large profits for traders and rich farmers, and high federal expenditures.

Reports by the FAO (FAO, 1966), the American Universities Consortium (Johnson, 1969) and the World Bank (1973) recommended the creation of a national credit institution that would have more freedom from political pressures and achieve a greater operational efficiency than the earlier regional credit agencies (Nigeria, 1970). The Nigerian Agricultural Bank which started operations in 1973 had by April 1978 approved loans of 286 m naira, with 124 m naira actually disbursed. Lending to state governments, state corporations and cooperatives at 3 per cent for on-lending at 5 per cent accounted for 58% of the loans, with the remainder accounted for by loans at 5 per cent to private companies and individuals. The bank does not operate on a commercial basis. For on-lent funds, the level and spread of interest rates are low, and state governments guarantee repayment. For private loans, the stringent conditions can only be met by companies and large-scale farmers. As far as the peasantry is concerned, state credit remains a blunt instrument for restructuring productive relations. It is accompanied by frequent appeals to farmers to group themselves, or cooperate, so that they can become more creditworthy.

Another attempt to direct a flow of urban credit to agriculture is the use of a prescribed sectoral allocation (6 per cent) for commercial bank loans backed by Central Bank sanctions. Banks have also been directed to increase their branches in rural areas. On a broad definition of agricultural loans, commercial bank lending stood at 139 m naira at the end of 1977. Under a new decree bank lending for agriculture and livestock production is supported by Central Bank guarantees for up to 75 per cent of loans. (Nigeria, 1977b).

Since the 1960s the World Bank has replaced USAID as the largest single external source of funds to the rural sector. During the First Plan (1963–67) USAID committed $44 m to agriculture (Le Moignan, 1970).[5] By 1977 the International Bank for Reconstruction and Development (IBRD) had committed over $230 m to agriculture including rice, cocoa, oil palm and livestock projects. The most significant component of the IBRD programmes are the Integrated Rural Development Projects (IRDP). The IRDPs began in 1975 on some of the richest farmland in the North, at Gusau, Funtua and Gombe, with a combined planned expenditure of 98 m naira funded by the IBRD, federal and state governments. Previous extension efforts in the North were concentrated in these areas. Two further projects began in 1977 at Lafia (53 m naira) and Ayangba (64 m naira), and other projects at Bida, Ilorin, Oyo North, Ekiti/Akoko and Egbado are planned. It is the intention of the federal government that each of the nineteen states should eventually have an IRDP. Existing projects are to be extended to cover whole states on a less intensive basis. This zonal management approach implies both a devolution of responsibility by state ministries and control over the activities of local government authorities. This approach does not conflict in principle with any of the ideas contained in the National Accelerated Food Production Programme (NAFPP). The NAFPP concentrates on the distribution and demonstration of small farmer packages for wheat, sorghum, millet, rice, maize and cassava, and the provision of agro-service centres under state ministries.

The core of the IRDP approach is the attempt to raise the productivity of farmers by the introduction of new technology and intensive project management. Stagnation of output is perceived as the problem of the rural sector. It obstructs the smooth running of the dualistic model of development. In this perspective stagnation arises either from the physical absence of improved input requirements, and/or from the absence of resources (or access to them) to finance their introduction, and/or from the absence of price incentives (Paine, 1977). The projects seek to overcome these obstacles by the creation of infrastructure (roads, dams, farm service centres, seed multiplication farms, cotton markets and staff quarters), and the provision of technology (fertiliser, insecticides, seeds, sprayers, ox ploughs and tractor units) through the network of farm service centres which also provide credit, marketing and extension facilities. In terms of the IBRD policy paper, rural Hausaland appears to represent an intact social structure with well defined communities, authority structure and absence of gross inequalities of wealth or access to land (World Bank, 1975). This means that management can apply the strategy unmodified, and work through the existing social structure. While this approach is common to all projects, variations in the rural economy and in project management lead to differences of detail in strategy between projects. For example, the Gusau and Gombe projects place more emphasis on the use of mass media as an alternative to low level individual extension work than does the Funtua project. At Gusau group farming, which may bring together as many as 200 adjacent farmers for sole cropping, credit and technical assistance, is common. The Funtua project covers 759,000 hectares with a population of 500,000 persons or 78,000 farm families. In the 1976/77 crop season inputs worth 588,000 naira were supplied, with 350,000 naira on credit (253,000 naira for fertiliser). Village heads were used to assess

TABLE 9.1 *Nigeria: commodity exports*

	Av. 1953/5	*Av. 1963/5*	*70/1*	*71/2*	*72/3*	*73/4*	*74/5*	*75/6*	*76/7*	*77/8*
COCOA										
Producer price	355	216	295	297	297	354	487	660	660	1030
Export volume	98	212	272	228	214	194	175	219	168	192
Export value	60	76	143	101	112	159	181	219	321	378
GROUNDNUTS										
Producer price	71	61	63	67	75	80	145	250	250	275
Export volume	390	566	138	106	199	30	–	2	–	–
Export value	51	72	24	19	46	7	–	0.2	–	–
PALM OIL										
Producer price	132	82	81	76	76	84	204	265	265	295
Export volume	200	139	20	2	–	–	11[2]	3	–	–
Export value	26	22	3	0.2	–	–	1	0.5	–	–
PALM KERNELS										
Producer price	65	52	61	61	61	61	124	150	150	150
Export volume	440	409	241	212	138	186	171	272	186	57
Export value	22	45	26	16	19	44	19	27	33	13
COTTON										
Producer price	112	90	102	102	123	132	156	308	308	330
Export volume	26	26	22	1	8	–	–	–	9	3
Export value	15	13	11	1	5	–	–	–	10	4
RUBBER										
Export volume	25	69	51	41	49	61	61	34	28	31
Export value	8	23	12	7	19	33	15	14	11	13

NOTES: 1. Producer prices are marketing board or pre-fixed prices.
2. Export volume and value are for calendar year shown last.

SOURCES: Helleiner (1966), World Bank (1974), Smith (1978), Central Bank annual reports. Quantities are in 1000 metric tons and values in Nm at current prices. 1978 figures are provisional.

credit-worthiness and identify progressive farmers. Lending was withheld from villages if serious default arose. High levels of repayment were achieved at high administrative cost and in the 1977/78 season credit sales were scaled down to 64,000 naira for larger items like sprayers and ox ploughs. In 1977/78 inputs worth over 1 m naira were supplied on a first come first served basis with 16,800 tons of fertiliser at a subsidy of 80 per cent accounting for half the total. Extension work is focused on a core of 13,000 (1977) progressive farmers who provide a channel for the introduction and dissemination of technology on the 'trickle down' philosophy. A farm management section deals solely with an important group of large-scale farmers who are also traders, contractors and civil servants. It supports commercial bank loans for tractors by preparation of farm plans and soil surveys, and gives detailed advice on management, budgeting and access to inputs. It is the aim of the project to give all farmers the opportunity to obtain inputs. A sample survey in the third year of the project indicated that 66 per cent of small or mixed farmers (52,000) had used at least one input or received extension advice. This impressive measure of project 'participation' needs supporting evidence on the size distribution of farms and the distribution of the inputs.

A monitoring and evaluation unit is located in Kaduna with subordinate units attached to each project. The functions of this unit include reporting to state and federal governments, coordination between projects, staff training and planning. Contrary to some expectations, information provided by the unit has had little or no effect on the policies of project managers. The evaluation unit lacks a well defined, accepted role in relation to management. Managers are concerned, in the first instance, to implement the basic strategy and achieve the targets laid down in final project reports. Their priorities include the identification of progressive farmers, yield and output, and the extent of farmer participation. Classification of farmers that emerge at the project level refer to scale and technology and are determined by extension strategy. Some short-term evaluation may be feasible between seasons, but longer term evaluation can only be undertaken after a number of years and the results used in the design and implementation of future projects. Even if an attempt at evaluation is made, fundamental questions about 'what to evaluate and for who' remain (Phipps, 1976). At the level of economic and agricultural criteria answers may be clear, but assessment of the welfare implications of the projects requires an interpretive or critical understanding of projects in the context of peasant society.

The schemes place emphasis on 'efficient' marketing through improved market structure and regulation, increased competition and price information. Evidence of small trade margins in grain markets is not considered a sufficient condition for efficiency. In addition, evidence

TABLE 9.2 *Nigeria: food imports*

	Total[1] Nm	% Total Imports	Milk		Wheat		Rice		Other cereals and preparations		Sugar		Fish		Meat		Oils and Fats	
			Q.	V.	Q.	V.	Q.	V.	Q.	V.	Q.	V.	Q.	V.	Q.	V.	Q.	V.
1964–6 (av.)	46.4	8.8	22.3	7.1	55.6	7.1	1.2	0.2	18.0	3.3	78.3	5.6	34.3	14.3	0.5	0.3	5.1	0.3
1970	57.7	7.6	52.8	13.0	258.7	15.4	1.7	0.1	44.9	6.5	90.5	11.4	6.6	2.9	–	–	3.1	0.8
1971	87.9	8.1	64.7	21.7	359.0	20.7	–	–	75.7	12.5	138.1	17.9	7.7	2.7	–	–	3.1	0.7
1972	95.1	9.6	77.8	24.8	296.7	22.0	5.8	1.0	52.0	8.0	121.4	21.8	20.8	5.3	–	–	6.3	1.1
1973	126.3	10.3	62.7	22.2	1088.4[2]	37.3	1.1	0.3	64.3	11.5	134.1	30.9	13.2	7.1	–	–	5.8	1.4
1974	154.8	8.9	67.3	28.3	318.3	50.7	4.8	1.4	64.0	17.6	74.4	26.8	14.7	7.4	0.4	0.3	11.6	3.6
1975	297.9	8.0	85.9	54.9	407.3	55.0	6.7	2.4	75.0	30.1	115.2	74.0	40.0	38.6	3.7	3.2	24.5	8.9
1976	440.1	8.5	101.3	63.3	733.1	97.8	45.3	20.1	78.4	30.9	164.4	78.6	85.5	76.6	13.7	11.7	61.9	24.7
1977	736.4	10.4	148.4	97.8	719.6	96.4	413.2	154.9	176.6	70.2	363.4	125.6	100.4	78.6	23.4	21.2	na	47.0
1978	1020.7	12.4	n a	106.1	n a	77.8	n a	175.8	n a	93.4	n a	157.2	n a	125.7	n a	63.6	n a	73.3

NOTES: 1. SITC Section 0. Includes minor items not listed and excludes oils and fats.
2. Includes drought relief supplies.

SOURCE: Federal Office of Statistics. Annual Trade Summary, various issues. 1978 figures are provisional. Quantities are in 1000 metric tons and values in Nm at current prices.

of spatial price disparities is held to indicate a thinness and lack of integration in the market which needs to be overcome (Jones, 1968, 1976; Hays, 1975). To this end a primary objective of the road construction programme is to iron out price differentials. Also the spread of import and export parities must be reduced and exchange rates correctly valued to bring Nigerian prices into line with world prices and secure full integration into the world market. The preceding arguments about the efficiency of domestic marketing rest on an approach to the structure, conduct and performance of marketing systems the method and interpretation of which have been severely criticised by Harriss (Harriss, 1978). Evidence does not support the inferences that have been drawn and the method is such that no conclusions can possibly be drawn. Furthermore these static neo-classical arguments about efficiency ignore the social relations of production and exchange. Clough has shown how inter-village wholesalers, who store grain in rural areas, use urban credit to secure large profits from seasonal price movements, and also extract a flow of grain from farmers through usurious credit relations (Clough, 1976). Wholesalers form part of the hierarchical market and credit system in which large farmer/traders also have access to sufficient capital to give loans, and take advantage of price movements to finance wage labour and speculative cattle investments. Poor farmers are forced to sell grain immediately after harvest at low prices to meet taxes, debt repayments and ceremonial expenditure on manufactured items. Later in the season they work as wage labour for middle and rich farmers in order to obtain food at high prices, thereby neglecting their own farms. The market does not therefore allocate resources. It articulates a whole system of inequality which involves control over commodities, money, labour power and means of production.

The acceleration of food price inflation which began in 1974 stemmed from the underlying structural situation, but it was intensified by the effects of northern drought, the world-wide commodities price rise, and the very rapid increases in money supply following the monetisation of oil revenues through government spending (Table 9.3). Federal policy was to contain inflation through increased imports. This policy was implemented by successive budgets which reduced duties on food items to very low levels by 1977, and by the managed appreciation of the naira. In 1976 Operation Feed the Nation was launched in an attempt to boost food production.

The political economy of food imports reveals a number of contradictions. Food imports are primarily directed at lowering the cost of living and containing wage demands by workers. They also satisfy the effective demand of the numerically small, richer, urban classes who, though they spend a lower proportion of their incomes on food than the poor, nevertheless account for a significant proportion of the nation's expenditure on food (high-value products like meat, oils and fats, dairy products and vegetables). Food imports, which are often subsidised in the country of origin, compete effectively with local products (rice, vegetable oils and maize), so that farmers switch out of these crops thereby

TABLE 9.3 *Food price index (Annual average monthly index)*

	Index	*% change over previous year*
1960	100.0	–
1961	109.8	9.8
1962	118.0	7.5
1963	106.7	−9.6
1964	105.7	−0.9
1965	110.5	4.5
1966	133.1	20.5
1967	119.3	−10.4
1968	112.6	−5.6
1969	133.9	18.9
1970	164.5	22.9
1971	211.4	28.5
1972	216.6	2.5
1973	223.6	3.2
1974	258.7	15.7
1975	367.2	41.9
1976	465.7	26.8
1977	591.5	27.0

NOTE: This is an urban low-income group index.
SOURCES: World Bank (1974); Nigeria, Central Bank (1978).

aggravating the conditions that gave rise to the imports. Among urban consumers price effects are reinforced by taste transfers to rice and wheat, so that effective demand is diverted from local products and the urban cost of living is reduced relative to rural conditions. Large food imports compete directly for foreign exchange with agricultural machinery and fertilisers, and they are likely to prevail because they are the easiest option. Once established it becomes difficult to remove food imports.[6] State supply agencies began large-scale importation of rice and meat in the second half of 1975 (see Table 9.2). The subsidised import of chilled meat was ended by the protective 1978 budget which also raised the duty on imported rice from 10 to 40 per cent. The following month, meat imports were allowed to continue under licence and the rice duty was reduced to 20 per cent. Only in the event of a severe fiscal crisis, when the national bourgeoisie is forced to cut food imports and subsidies, will it support and enforce cuts in the urban real wage.

Operation Feed the Nation (OFN) was a hurried political initiative launched in the middle of the 1976 farming season by a military regime that was anxious to secure support from urban groups and students. It was designed to promote self-reliance through the mobilisation of labour and the additional supply of subsidised inputs (fertilisers, seeds, pesticides, chicks, fishing materials). The campaign was characterised by heavy publicity and exhortation in urban areas through newspapers, radio and television to cultivate backyard gardens and keep poultry. An administrative structure was constituted with a National Council headed by the Army Chief of Staff, and state councils headed by state governors. At the state level, division of responsibilities between OFN executive committees which controlled federal funds and state ministries of agriculture was not clear and led to some conflict.

Some 30,000 students who customarily take long-vacation employment with state governments were directed to work on farms and help with fertiliser distribution after one-week orientation courses. In practice, students as the visible sign of OFN in the countryside were largely unoccupied. State ministries, suddenly confronted with an influx of students, struggled to find employment for them on state farms, schools and vegetable gardens. Peasants saw OFN as a government and student affair. Out of a total 9.5 m naira, 6.5 m naira was spent on student wages. The following year, student participation was voluntary and candidates were shortlisted. This proved to be the last year of student participation. As the chairman of the Niger State OFN Committee remarked: 'instead of contributing to the success of the scheme, most of the students were only interested in the 96 naira being paid to them at the end of every month'. Efforts were then concentrated on the establishment of OFN farms in the post-primary educational institutions.

The state exercises very limited control over productive capital in agriculture despite a formidable bureaucratic presence in terms of agricultural ministries and corporations. The persistent tendency, apparent since the late colonial period, for direct intervention in production was given a fillip by the explosive growth of oil revenues but, a few poultry and plantation units aside, there is no evidence of accumulation by state capital. Agricultural development corporations, inherited from the regional development corporations or created by new states, usually rely on state subsidies to support ineffective and wasteful bureaucracies. Large-scale state food farms and livestock units have similarly made little contribution to output. Recent examples include the Bendel state food farms and the Cross River State Model Farms. The latter farms were begun in 1972, and by 1977, 12,198 acres were acquired and 3167 acres developed. The scheme suffered from excessive central control from the Cabinet Office, and undisciplined managers. The farms, which were not mechanised, sustained a financial loss of over 850,000 naira in a nine-month period in 1977 (Nelson, 1978). Federal investments include sugar estates, the roots and grains production companies, the ambitious irrigation schemes and 72,000 hectares of oil palm estate in Ondo, Bendel, Imo and Cross River States.

Apart from large-scale state schemes, the 1970s have also seen a much stronger state support role for large-scale capitalist farming, including plantations. The state has encouraged foreign ventures with incentives, participation agreements and very generous new terms for foreign investment.[7] Multi-national firms have begun to invest in food production and processing. The state has also attempted to create a class of large-scale mechanised farmers through the lending policies of the Nigerian Agricultural Bank, through credit guide-lines for commercial banks, through land clearance grants, and duty-free access to all kinds of imported agricultural machinery. This policy, which derives from the bureaucracy, is directed at national food self-sufficiency. It has often resulted in waste. Funds, in excess of the absorptive capacity of capitalist agriculture, have been used unproductively by civil servants, contractors and groups of privileged farmers.

The general thrust of agricultural policy is directed at the creation of a differentiated peasantry and pockets of capitalist farmers. Direct intervention in domestic marketing systems is negligible, though the institutions for costly attempts to subsidise urban consumers through price controls and storage have been created. Exposure to international market forces has intensified and widened in scope. Furthermore, and very significantly, Nigeria is subject to dynamic international pressures which arise from its position within the world capitalist system and specifically from the growth of its food deficits. Nigerian agrarian conditions and policies present a challenge to the development agencies of the Western world who have found a new coherence under the aegis of the World Bank.[8] The spread of the IRDPs will effect a significant proportion of Nigeria's peasant population and farmland. It may bring some reorganisation to the agricultural ministries and erode the public monopoly of agricultural services preparing the way for corporate suppliers of industries inputs and financiers. Whether it will improve production technologies on the best agricultural land and bring a sustained increase in agricultural output, which is the prime objective, remains to be seen. Certainly it will accelerate the differentiation of the peasantry, and bring new forms of collaboration, integration and external control.

NOTES

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1. Historians with a taste for conjecture may feel that the long-standing argument that a peasant oil palm industry would give way to international competition from plantations has finally been resolved by the following figures:

	Palm oil exports (tons)	
	1960	*1976*
Nigeria	186,000	0
Indonesia	109,000	406,000
Malaysia	92,000	1,335,000
Ivory Coast	0	91,000

Source: Modebe (1978)

2. In Nigeria the fact that the first decade after the war witnessed unprecendented outflows of capital through the marketing board system was conveniently ignored.
3. On 1 Jan. 1973 the naira replaced the Nigerian pound (1 naira = £0.5). At the end of Dec. 1977, 1 naira = £0.84.
4. The World Bank estimates annual average growth rates for agriculture at −0.5 (1960–70) and −0.2 (1970–76) (World Bank 1978). The International Food Policy Research Institute estimates the growth of food production at 0.5 per cent annually (1960–75). U.S. Department of Agriculture figures for food production give 1.76 per cent compound (1963–73) and 0.7 per cent (1970–74).
5. Le Moignan's (1970) contains a critical Study of the Consortium for the Study of Nigerian Rural Development (Johnson, 1979).
6. There is some discussion of import substitution in Forrest (1977).
7. Integrated agricultural production and processing were transferred to schedule 3 of the Enterprises Promotions Decree in 1978, allowing 60 per cent foreign equity. Other measures include tax holidays and exemptions, and capital and investment allowances.
8. The Washington-based International Food Policy Research Institute has predicted on present trends that by 1990 Nigeria will have a food deficit of 17–20.5 million tons. This deficit would constitute 35–39 per cent of Nigeria's food needs. According to the Director of the Institute, J. W. Mellor: 'This gap is not going to occur, the interesting question is how it goes about not occurring'. *New York Times*, 21 December 1977. J. W. Mellor was one of a number of Americans associated with the dominant, technology-first strategy in India. For a clear account of the influence of American advisers on Indian agricultural policy see Rudra (1978).

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10 Cooperative Policy and Village Development in Northern Nigeria

ROGER KING

The six villages included in the study of village credit and marketing cooperatives in northern Nigeria (King, 1976) varied widely in prosperity, local politics and economic opportunities, even when they were close neighbours. Government cooperative policy was, on the other hand, identical in each case. This paper examines the interaction between the villages and government policy and notes the gaps between stated objectives and real achievements. It asks the question: why, if the needs, opportunities and problems of village populations vary so widely, does the government persist in treating them all the same?

COOPERATIVE POLICY

The programmes of two cooperative divisions, those of Kano and North-Eastern States, affected the villages in the study. They were almost identical and were of a type which can be found in a large number of African and Asian countries. Simply stated, the policy was to encourage a single cooperative in each village in order to modify the produce marketing and agricultural credit institutions of the village.

The general approach to cooperatives, enshrined in the Cooperative Laws (1956) and the cooperative divisions' bureaucracy, originated before Nigerian independence in 1960. It is similar to that existing in many ex-British colonies. The major period of expansion of cooperatives was, however, in the 1960s during the period of elected government. The result was 2500 cooperative credit and marketing societies with 250,000 members registered with the cooperative registrars of the six northern states in 1972. This represented about seven per cent of the potential membership of male heads of farm households.

The period of expansion was also a period of carelessness and political corruption in which societies were sometimes formed in order to distribute political bribes on behalf of a political party under the guise of agricultural credit. By 1970 the total debt owed by cooperatives to the government was 2,776,870 naira (Youngjohns, 1970; 1 naira = £0·65 in 1976). The military government of that time called a halt to the cooperative activity and precipitated the period of reconsideration and reorganisation from which the cooperative divisions were emerging in 1973 at the beginning of the six-village study.

Though chastened and more cautious, the cooperative divisions resumed the same procedures and activities as before. They operated through area cooperative officers located in rural towns which house the administrative area offices of the state governments. Under these officers are cooperative inspectors, young men who perform the clerical work and most of the village visits. The mode of operation which is described for these officials adds up to a classic procedure for guided institutional change. Here a new institution, in this case the cooperative, is offered to villagers as a superior way of doing things. On the assumption that this is in fact the case, the job of government officials is merely to teach farmers how the institution works, provide a little initial encouragement in the form of preferential loans, and overcome the lag in norms of behaviour by some well-meaning propaganda. The sort of innovation this suggests should soon leave villagers independently managing their (much improved) affairs while the government settles back to a benign role of auditor and supervisor.

The administration of village cooperative credit and marketing societies in fact involved the government officials to a much greater extent than this scenario of guided change. All the societies' credit was in the form of guaranteed overdrafts at commercial banks, and the officials were mostly interested in ensuring that the loans were repaid. The officials worked closely with, and to a large extent controlled, the cooperative unions, which were 'secondary' cooperative societies composed of the member village societies of the area. By doing so the government took over the tasks of wholesaling credit to farmers and managing the agricultural produce purchased by the village societies.

Government officials did not restrict themselves to providing credit to primary societies, but also administered its distribution to individual members within the societies. They kept the records of individual loans. There was little if any scope for initiative by the societies themselves. Each member of each active cooperative received an agricultural production loan from the government at the beginning of each farming season. In the study year, Kano charged 15 per cent interest and North-Eastern State (now broken up into several smaller states of which Bauchi is one) 10 per cent. For the majority of members the receipt of this loan was the sole reason for belonging to the cooperative. The method of administration was a model of simplicity which required the minimum of contact between the government officials and the village. The area officer and the inspectors visited the village for a day and filled in the loan application forms for the cooperative members. Usually the amount applied for depended on an estimate of the area farmed, arrived at with the help of the cooperative leaders. The distribution of the credit required one further visit. On this visit the cooperatives would assemble and in turn receive cash from the cooperative officer, while the record was kept by a cooperative inspector.

This streamlined procedure required the assistance of a 'strong' village leader who could assemble the members at the officers' request. This requirement was even more important at the end of the year when repayments were collected by the village cooperative leaders and passed on to the government officials. Thus the societies were visited infrequently. Apart from the two initial visits the area officers tended to stay in their offices, while the inspectors visited villages with some reluctance. They had little to do when they arrived and the more sensitive ones were embarrassed by their youth and lack of farming knowledge when dealing with villagers. When they did go, they felt obliged to mouth idealistic phrases about farmers being good cooperators, the importance of the cooperative principles and so on, a mild form of propaganda which both speakers and listeners sensed to be irrelevant to the reality. In some cases the job was made more difficult by long distances between villages and the absence of public transport or funds for motor cycles.

The method of cooperative marketing was also simple. Large loans were given to individual members of societies who were appointed cooperative buyers. These were 'elected' by the societies but always turned out to be prominent village leaders and produce buyers. Once appointed, their connection with the village cooperative came to an end and their relationship was entirely with the cooperative union under the control of government officials. In return for buying agricultural produce from cooperative members and non-members alike, they received purchasing loans and a commission on everything delivered. It was a lucrative appointment; but the average cooperator considered cooperative marketing to be irrelevant to himself.

In these functional relationships between the village cooperative and government, cooperative principles are largely irrelevant. The cooperative 'model' is concerned with a group pooling its capital together, taking democratic decisions about its utilisation and distributing the proceeds in the form of bonuses and dividends. None of these is a feature of the cooperatives studied here. It is true that all cooperative members bought a share when they joined, but they had never received any return on it and it was regarded as a membership fee paid to the government in order to obtain government loans. There was very little scope for democratic decisions both because of the authoritarian nature of village organisation and because the state government, which supplied all the funds, made all the important decisions.

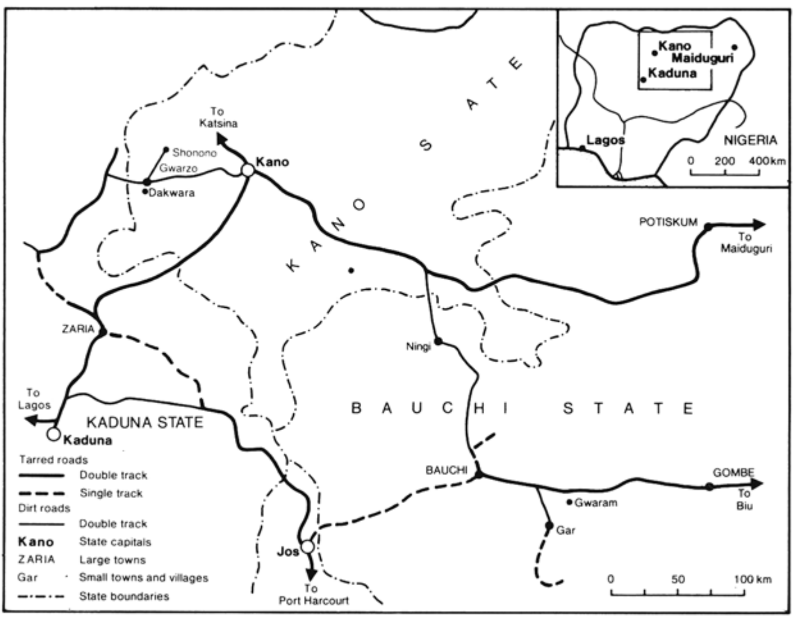
Nevertheless this state of affairs was not readily admitted and, where it was, it was characterised as a transitional stage of government support preceding more independent village cooperatives. Cooperative officials felt obliged to push for closer adherence to the letter of the cooperative law, a thankless and futile task when the cooperators could clearly see that the regulations would serve no function. Some of them were clearly unsuitable and involved written procedures, including fourteen types of written record, in almost totally illiterate communities.

As is usual with cooperative policy, there was an impossible burden of claims made for its effect on rural society. The excessive claims have the dual effect of increasing support for the idea of cooperative policy and causing disappointment with its achievement. These are worth mentioning since the cooperative objectives stated in the regulations and by-laws provide a point of reference for later conclusions about their actual impact. Essentially cooperatives are put forward as 'modern' institutions which will promote agricultural development and farmers' interest by improving marketing and credit. They provide a method of the farmers themselves achieving the objectives through self-management and self-financing – indeed they will do it at a profit. Cooperatives are proposed as competitive business operations, regulated and encouraged by government, which are supposed to deliver a confusing array of socially beneficial side-effects. They will provide an alternative to old-style authoritarian local leadership. They will encourage improved methods of agriculture by supplying expert advice and improved inputs. They will encourage 'the spirit and practice of thrift, mutual help and self-help' and 'promote cooperative spirit among members to work for the improvement of local educational and living standards and to encourage the development of the cooperative movement of Northern Nigeria.'

THE VILLAGE STUDIES

The economic life of a Hausa village is complex. The annual production of millet, sorghum, groundnuts and cowpeas is the basis of its welfare, but much else exists. Almost all men who farm also have other interlocked economic activities. Trading is popular and prestigious and economic mobility in villages often depends on the fortunes of trade. Cooperative marketing dares to tread in a territory where expertise and institutions are already well developed.

Cooperative policy presumes to improve not only the institutions for marketing produce but those providing credit. Existing village credit institutions are active and, as far as they go, well adjusted to the needs of annual agriculture. Most loans come from friends and relatives at little or no interest, in cash, and have the hire of labour for weeding as their main justification. The slender evidence available suggests that changes in recent years have been away from food to cash loans, and away from high-interest loans from local commercial sources in favour of mutual obligation as a basis for lending (King, 1976: 107). Savings are also mobilised by reciprocal relationships and, in the case of women, rotating savings and credit clubs (*adashi*).



Map 6 Northern Nigeria, showing villages in study of credit and marketing cooperatives

Studies were made in 1973–74 of six villages, three of which are described in detail below. Of the six, half were administered from Gwarzo in Kano State and half from Bauchi in what was then the North-Eastern State and is now Bauchi State. The operations of the cooperative offices and cooperative unions in Bauchi and Gwarzo were also researched in detail.

The selection of the villages was partly determined by the small number of active cooperative credit and marketing societies in early 1973. Only the 'best', that is, those with good loan repayment records, had been reactivated and they must be considered atypical on these grounds. The six villages were deliberately chosen to include different economic situations. The three in Kano State were located just inside the land-scarce Kano close-settled zone and were close neighbours. In the area of the other three villages land was plentiful and the difference is reflected in the 190 kilometres which separated the most distant of the villages. In each state the three villages varied in size and in ease of access by road. Only three village studies are presented here. They serve to emphasise the common characteristics and to give an idea of the scale of variation between villages.

GWARZO – LARGE, WELL-SERVED, COMMERCIALISED AND SHORT OF LAND

Gwarzo is a large village, in many ways a town, situated at the western extremity of the close-settled zone surrounding Kano city. The 70 kilometre drive from Kano city is by an all-season laterite dirt road bordered, except for patches of unusable iron pan, by uninterrupted cultivation and regular village settlements. Continuing on past Gwarzo in a westerly direction the road quickly deteriorates into ragged and uneven dirt, traffic is rarely seen and crops give way to tracts of uncultivated bush. The road finally joins the tarred Zaria-Katsina road 40 kilometres to the west.

The village itself with a population of 7600 owes much of its character to the shortage of land for allocation to its members and to its long established role as market, craft and administrative centre. The visitor from Kano passes cloth dyeing pits on one side of the road and new white state ministry offices on the other before reaching the entrance to the village's heart, which lies behind mud walls to the right of the road. Inside the walls the village is a labyrinth of alleys between the high red walls of family compounds, but there is one road which leads to a central clearing flanked by the office, compound and court of the District Head. The District Head personally administers the village although day-to-day affairs are delegated to Ward Heads.

Gwarzo has received a disproportionate amount of attention from state ministries and possesses a primary school, a secondary school and a hospital, the last two outside the village walls. A string of small shops, providing goods and services such as tailoring, hairdressing and bicycle hire, have established themselves in the narrow area between the village walls and the main road, together with a single small hotel. There are also shops across the main road, opposite Gwarzo's main gate, but these belong to a sparser settlement coming under the separate administration of Dakwara village, which was another of the six villages in the study.

In spite of the conspicuous commercial activity, the great majority of Gwarzo household heads derive most of their income from farming. As throughout Hausa society, farm and non-farm activities reinforce each other. But the average Gwarzo household of 9 people has only 1.5 hectares of cultivated land, less than half the average for all villages in the study. The result is that there is intensive labour use in cultivation and less labour is hired to supplement the family than elsewhere. This, together with using twice the average intensity of both organic and chemical fertilisers, has allowed Gwarzo farmers to maintain farm incomes at a level comparable with that in the other villages in spite of the land shortage. The immediate prospects for increased farm expenditures are limited, with presently available technologies. Alternative power sources such as bullocks or tractor hire are not needed and additional expenditure of only N5 on fertiliser would bring the average farmer to the recommended optimum.

Cooperative members, all of them receiving cooperative loans well above this amount (average N39), ostensibly for increasing agricultural expenditures, are in no way a group of average farmers. Of the cooperators in all the six villages Gwarzo's were most clearly defined as atypical in the village (Table 10.1). They possessed three times the average amount of land, owned more animals and had significantly greater investment in trading and both old and modern crafts than the average household. Their economic well-being was reflected in a significantly larger household size. Wealth means more wives and children and a lower likelihood of sons breaking away. As a group they were characterised by a disproportionate number of younger, well informed, cosmopolitan and prosperous farmers and traders. By comparison with non-cooperators their farms were less intensively cultivated and wage labour was much more important, though still less than half of total labour.

The cooperative was started in 1954 and had a chequered history during the sixties when like many others it became tainted with political corruption. In 1973 it had 51 members, a small select minority of the population. As far as it was possible to establish, the important leaders were the cooperative president, who was a major trader and one of four cooperative buyers, and the cooperative secretary. The secretary was the scribe to the District Head, and was an exceptionally cultured and respected young man in the village, who did not labour on his own farm.

The cooperative leaders were relatively wealthy men linked by their common interest in commercial activities.

The credit provided by the government to each cooperative member was in addition to that provided by the vigorous informal credit market.

TABLE 10.1 *Cooperators and non-Cooperators in Gwarzo (1973–74)*

	Cooperators (average)	*non-Cooperators* (average)	*'t' test* *significance level*
Sample size	20	20	
Age	37.1	48.2	0.01
Family size	14.1	9.3	0.01
Cultivated area per household (hectares)	4.3	1.5	0.01
Investment in trades and trading (naira)	67	36	0.05
Expenditure on hired labour (naira)	94	39	0.01
No. of visits to urban area per year	12.5	5.9	0.05

More than a third of village household heads (cooperators and others alike) received informal annual loans, averaging 57 naira, making the cooperative loans a minor addition to the total volume. In the volume of informal loans Gwarzo was exceptional though matched by the other large nodal village (Ningi) in the six-village study. It is probable that the cooperators, the most creditworthy members of the community, would have had access to plentiful credit without the cooperative's assistance.

Results of multiple regression analyses of farmers' expenditures indicated that the loans to cooperators did result in increased farm expenditures, a little on chemical fertiliser, but most on hiring labour, though both inputs remained well below the average for non-cooperators. Informal credit also seemed to have a small positive effect on chemical fertiliser, but none on labour, no doubt reflecting the fact that half of the recorded informal credit went to non-cooperators with no need for extra labour.

This result suggests that the claim of government cooperative officials that production credit went to 'real farmers' who would spend it on agriculture was superficially true, though hiring more labour was their principal expenditure. On the other hand there was no group in Gwarzo less in need of support to improve their economic position and a new credit institution was one of Gwarzo's least pressing needs. Gwarzo's specific need, discounting land redistribution, is for non-agricultural activities for the poor and land-short, and new agricultural technologies that match their situation – which will deteriorate in the immediate future with increasing population pressure.

While the needy did not benefit, the cooperative leaders certainly did, especially the four appointed cooperative buyers. The cooperative provided services to an exclusive rich men's club in Gwarzo and maintained a link between local government (via the District Head) and the state government (via the cooperative officer).

SHONONO – SHORT OF LAND, SHORT OF AMENITIES AND VERY POOR

Shonono is 20 kilometres to the north-east of Gwarzo at the end of a rough dirt track which is sometimes impassable during the rainy season. Like Gwarzo it is a fairly large village (4600 population) and its economic life depends on an agriculture utilising land subject to the increasing population pressure within the boundary of Kano close-settled zone. Whereas Gwarzo is fringed by the bustle of commercial activity and by the modern buildings of state ministries, Shonono has a quiet and isolated appearance. A small primary school on the road approaching the village is the main evidence of state activity. Inside the walls a wide sandy avenue which rarely sees a motor vehicle, and which is bordered by large shade trees, leads to the new and impressive mud compound of the village Head. Beyond this space the village walls enclose the usual crush of compounds separated by a maze of alleys. Shonono had little contact with state officials. It had no weekly market, though permission to start one was granted in 1974. It had no dispensary, no government extension agents, and a serious shortage of wells for drinking water. Although it is not immediately apparent to a casual observer, the household compounds of Shonono shelter many chronically poor people who suffered seriously in the near-drought year of 1974–75.

Shonono's relative poverty is a combination of lack of land, lack of investment in agriculture, and a low incidence of non-agricultural activities. Although Gwarzo farmers had less land, they had been able to use non-agricultural activities to finance high levels of fertiliser use which maintained their farm incomes. This option of diversifying economic life away from agriculture to increase incomes and reduce risk was not available to poor Shonono farmers. They could be fairly characterised as locked into the classical 'vicious cycle of poverty' where low incomes led inevitably to low investment, thus ensuring low incomes and so on.

In this they were a unique group in the six-village study. A large proportion of Shonono farmers were too poor to purchase agricultural inputs which were available and which they wanted to purchase.

The informal credit institutions of Shonono reflected the community's poverty and did nothing to help poor farmers improve their position. Compared to other villages the volume of loans was lower (one-third the amount per capita of Gwarzo), the bias towards wealthier farmers was stronger and the incidence of 'commercial' loans at about 30 per cent interest per annum was greater.

Nearly all the informal loans recorded went to cooperative members who also received cooperative loans. As a group the cooperative members (83 in number) had higher incomes from both farming and trading than the average. They borrowed nine times as much informal credit, spent three times as much on agricultural inputs (four times as much on both organic and chemical fertiliser) and invested seven times as much in trades and trading activities. It was this interest in trading, mainly in agricultural produce, that most clearly differentiated cooperative members from non-members (Table 10.2).

The composition of the cooperative owed its character to an elderly and prosperous trader who had been its president since its inception in 1960. The President maintained autocratic control, holding the profitable post of cooperative buyer himself, while his son held the post of secretary. The cooperators in Shonono were not merely a group receiving privileged attention from government, but were also the wealthy families of the village opposed to the upstart Village Head. In this Shonono was unusual, breaking the recurring pattern of cooperatives in the remoter rural communities being dominated by the Village Head. The Shonono Village Head was a young ex-schoolmaster appointed over the heads of the families accustomed to supplying village leaders. His authority was being resisted by the older and more eminent cooperative president. The village was divided and restless with a high level of discontent being generated against the young Village Head, particularly regarding his insistence in maintaining customary rights such as the obligation of villagers to supply free labour to the Village Head. An additional source of bitterness in 1974 was his padlocking of the village's only convenient drinking-water well supplied to the village by the state government.

The analysis of farmer expenditures suggests that cooperative credit did little to change village agriculture. Chemical fertiliser was slightly affected, as was hired labour, but the expenditure levels could only account for about a third of total loans. In all likelihood the remainder was absorbed by the trading activities of cooperators. This result is consistent with an analysis of the cooperators' farming activities, which

TABLE 10.2 *Cooperators and non-Cooperators in Shonono (1973–74)*

	Cooperators (average)	*non-Cooperators* (average)	*'t' test* *significance level*
Sample size	19	19	
Age	45.3	37.5	0.01
Family size	14.4	8.6	0.01
Cultivated area per household· (hectares)	3.9	2.6	not sig.
Investment in trades and trading (naira)	94	14	0.01
Expenditure on hired labour (naira)	92	30	0.01
No. of visits to urban area per year	4.9	1.9	0.05

shows that the opportunities for profitable use of extra labour or fertiliser (the main variable inputs) were below the average of 17 naira received as cooperative loans. This situation was aggravated by the late distribution of cooperative credit, which was perhaps responsible for the informal loans taken by half the cooperative members. These informal loans were significantly related to seed purchases though, again, most were not used in agriculture at all. Cooperative members purchased far greater quantities of organic fertiliser, but this reflected privileged relationships with nomadic herdsmen during the preceding dry season rather than the effect of credit.

The cooperative in Shonono supplied loans to an exclusive group who were the least needy group in a needy village, who had lower productive agricultural opportunities than others in the village and who were best served by existing credit institutions. The group ensured the continued prosperity of its autocratic leader and cooperative buyer, who was also one of the factional leaders in the village's political dispute.

Ordinary farmers gained nothing from cooperative activity. Indeed the growth of a privileged group improving their economic position through trading activities supported by government credit must raise the question of whether land will also become concentrated in the hands of this group, as happened in Gwarzo. The wealth being accumulated by a small number of eminent traders in Shonono is not visible as investment in the community. Unlike the land-poor in Gwarzo, Shonono farmers have no alternatives to farming and little access to informal credit.

Policies which were adapted to improving the position of Shonono's chronically poor majority would probably be concerned with small-scale savings and credit activities (N5 – N10 per farmer per annum could meet present needs and opportunities), associated with agricultural advice. At the time of the study it seemed that conflict and suspicion would result in village leaders preventing the formation of independent groups even if the Cooperative Division were to promote them.

GAR – SMALL, POOR, BUT RICH IN LAND AND POTENTIAL

While neither Shonono agriculture nor the typical Shonono household benefited from cooperative activities, a similar programme in Gar had a positive effect on both. Two of the key characteristics contributing to this difference are evident as soon as a visitor first sees Gar. It is surrounded by an abundance of unutilised potential farmland and its population of 2200 is half that of Shonono.

Gar lies on a good dirt road which links the excellent, though often deserted, Bauchi-Gombe highway with Yankari game reserve, a developing tourist resort. The nearest large town is Bauchi which is, since 1976, the capital of the new Bauchi State. Bauchi has long been the base of state ministries and it is the focus of local government power in the form of the Emir of Bauchi. The 61 kilometre journey from Bauchi to Gar is mostly through flat uncultivated bush. Over the last 25 kilometres, one turns south on the dirt road and travels through increasingly rugged country with some thicker woodland until Gar is reached on the edge of a river plain between steep hills. The last part of the road is frequently impassable in the rainy season.

Gar, which is taken here to incorporate the neighbouring hamlet of Fanti, is a lengthy straggle of compounds, demonstrating a relocation at the roadside. Unlike Gwarzo and Shonono there is not a tight concentration of buildings within walled boundaries and this is symbolic of a community of very different character. Hausa is Gar's common language but, unlike the other five villages in the study, it is not a Hausa-Fulani community. Its residents include members of more than a dozen small tribes which have come to settle there. This fact allowed it to fall outside the British colonial regime's practice of excluding Christian missionaries from the Muslim north, and a quarter of the population is Christian. The remainder is Muslim.

The missionaries have provided the two modern amenities of Gar, a dispensary and a school. Nearly 50 per cent of the household heads had some formal schooling – which was four times the average of the other villages in the study. There is little state government activity in Gar. It does not even have its own market.

The agricultural potential of Gar is immense. Not only does it have almost unlimited land available, it also has a share in fertile *fadama* land which is seasonally flooded by the river. This is mostly used for profitable sugar-cane cultivation, which disproportionately benefits a few farmers. In spite of these resources the per capita agricultural income was below the average for the six villages. The evidence suggests that this is largely due to the complete failure to use fertiliser of any kind. The result is that yields are below those of all villages except Shonono, which also uses little fertiliser. However in Gar there is a cultural rather than an economic explanation for this. As the only non-Hausa-Fulani village in the sample it is the only one without a tradition of using manure from nomadic Fulani herds. This is carried over in the attitude towards chemical fertiliser. A neighbouring Hausa-Fulani village in the six-village study (Gwaram) used both sorts of fertiliser and achieved far higher yields.

It is not only fertiliser which could raise agricultural productivity in Gar, but also bullock power. With an opportunity for extensive farming which does not exist in Gwarzo and Shonono there was fierce competition for the limited number of bullock ploughs available for hire in Gar. The need was all the more pressing as wage labour was expensive, probably due to employment opportunities in Yankari game reserve. On the whole, economic activities outside of agriculture, including trade, were at a relatively low level. This seemed to be partly due to cultural differences which did not encourage the mutual reinforcement of farming and trading activities typical of the Hausa-Fulani households.

The cooperative, first registered in 1963, had 95 members, nearly half the household heads of the village, and it was expanding rapidly. The very smallness of the settlement militated against the village cooperative representing a privileged minority while the expansionist attitude of the cooperative leader reinforced the tendency. The result was that the average cooperator had very similar characteristics to the average farmer in the village (Table 10.3). The only important exception was the inclusion in the cooperative of the two Gar farmers who were exceptionally prosperous. One of these was the cooperative leader. As in Shonono, leadership was firmly grounded in a single individual, but an individual of quite a different type. The leader in Gar was nominally cooperative secretary and was also one of the two cooperative buyers.

TABLE 10.3 *Cooperators and non-Cooperators in Gar (1973–74)*

	Cooperators (average)	*non-Cooperators* (average)	*'t' test* significance level
Sample size	20	20	
Age	39.7	38.5	not sig.
Family size	8.7	7.3	not sig.
Cultivated area per household (hectares)	5.1	3.0	not sig.
Investment in trades and trading (naira)	31	29	not sig.
Expenditure on hired labour (naira)	53	36	not sig.
No. of visits to urban area per year	15.7	6.8	not sig.

He was a young man of thirty, and he was the largest farmer in the village, the largest trader, the son of the Village Head, the only villager to speak any English and the only owner of a motor cycle. His next objective was to buy a tractor. In effect he ran the village. The author was firmly assured that courtesy visits to his father, the official Head, were unnecessary.

In the study year the cooperative leader made a great deal of money as the principal cooperative buyer. A special feature was the large-scale purchase of food grain by the government, ostensibly to counter the effects of the drought. The cooperatives were used for this buying operation and the cooperative leader was able to purchase large amounts of grain for which he received a generous personal commission. The government cooperative division subsequently sold some of this grain at below market prices in Bauchi town to reduce urban food prices. In return for his commissions the cooperative leader willingly agreed with government cooperative officials to allow the entire cooperative's loan repayments to be taken from the proceeds due to him for grain deliveries, and to accept the task of collecting individual loan repayments himself. This was the most explicit example in the study of the relationship between the 'right' of cooperative leaders to become favoured cooperative buyers in return for the 'obligation' to use their influence in collecting loan repayments. In 1973–74, however, the large-scale extraction of food grain at harvest in a year when production was low caused a shortfall of food grain later in the year. In another village known to the author the purchase of grain for famine relief was followed later by distribution of subsidised grain to relieve the resulting famine. It was not possible to discover whether this happened in Gar.

The informal credit available in Gar was unexceptional in type. One-third of the farmers took loans for the farming year with an average value of 29 naira. Cooperative loans averaged 35 naira and they were different from those in the other two villages as they were distributed in two instalments and one-third of the value was in the form of chemical fertiliser. Both these innovations were unpopular, which led the Cooperative Division to reduce the instalments from the three originally planned.

The effect of credit on the agricultural expenditures of recipients was dramatic. All the cooperative credit was neatly accounted for in increased fertiliser, labour and seed expenditures. This, however, paled beside the effect of informal credit which apparently increased expenditures by 2.3 times its own value. The difference was in the timing. Informal loans were given early enough to secure the future hire of bullock ploughs; cooperative credit was not. Once land is ploughed and sown it imposes its own requirements for labour and this may explain informal credit's startling effect. It is probable also that farmers underestimated the 70 per cent increase in weeding wages that occurred over the previous year.

The verdict on Gar is that cooperative credit found a target suited to its stated aims of increasing agricultural production and farmers' incomes. The characteristics ensuring this were Gar's unexploited agricultural potential and the representative membership of the cooperative. To a Gar farmer membership of the cooperative is an advantageous and attainable opportunity. Nevertheless cooperative credit did not match the total credit needs perceived by farmers. They would have liked the annual loans earlier and, most of all, would have liked medium-term loans to purchase work-bullocks and ploughs. The purchase and utilisation of animal power would provide a popular and natural basis for cooperation among Gar farmers.

A complete assessment of the Gar cooperative also takes into account the trading activities of its leader who ensures its survival by enforcing loan repayments. In the study year his pursuit of personal gain under the guise of cooperative buyer almost certainly overstepped the mark of merely providing a useful market to villagers, and resulted in over-extraction of grain. The use he eventually makes of his growing wealth and economic dominance in village life must also be weighed in the balance in a final evaluation of the cooperative. With the existing cooperative organisation it is unlikely that Gar farmers could receive the credit they desire without also accepting the other activities of the cooperative leader.

VILLAGE VARIETY

The first conclusion to be drawn from the village studies is that each village responded in a distinctly different way to uniform state intervention in its economic life. The differences were both in the nature and in the magnitude of the response. The response ranged from villages where cooperative credit had little or no effect on agriculture to those where it was dramatically stimulating; it ranged from those where poorer farmers were almost totally excluded to those where every section of the community participated equally.

If the other three villages of the original study are also considered this result is confirmed. Dakwara village, whose territory begins the other side of the main road from Gwarzo, had three times the land per capita and a farming economy in complete contrast to the mixed farming and commercial interests of Gwarzo's residents. Its politics too were different and the elderly Village Head drew around himself a cooperative based on historical blood ties rather than wealth. The effect of cooperative credit in the community was correspondingly different.

Similarly the village of Gar was separated by only 12 miles of uncultivated bush from neighbouring Gwaram. But the Gwaram farmers using different cultivation techniques (especially in relation to fertiliser) had significantly higher farm incomes and were more than twice as wealthy on average. The cooperative run by Gwaram's Village Head was exclusive and conservative (on religious grounds), in contrast to the all-inclusive and expansionist policies pursued in neighbouring Gar. The single remaining village, really a town, Ningi, was distinct from all others in nearly every way. Situated on a hill, and dominating the surrounding region, it had unusually high rainfall, its farms were significantly larger, its average farm incomes were twice those of any other village and the extent of hired labour (about 50 per cent of all labour during the main farming months) indicated the existence of an economy of a different type. Politically it was most similar to the other large settlement, Gwarzo, and its cooperative was again the preserve of the village's wealthy traders.

Why are these villages so different? Probably the most basic reason is the amount of land they have available to them relative to their population. The division of land between villages has historical origins which the study never attempted to probe, but the fact is that this division coupled with different patterns of population growth and migrations has left villages with varied endowments of resources. This has two complications. The first is that the agricultural technologies suitable for the villages (and the non-agricultural activities), and therefore the credit needs, are different. The second is that in villages where land has become most scarce, the society has tended to become stratified according to land ownership. Thus the scarcity has a political effect and is probably indirectly responsible for the existence of the distinctly wealthy groups comprising Gwarzo and Shonono cooperatives.

The other major source of variation is the position of the village in the total rural economy. Of the six villages four had economies based on agricultural production while two were market and administrative centres where agricultural produce was assembled before transportation out of the rural areas. In these two centres agriculture was combined with lively commercial activity, characterised in part by financial markets able to meet most needs without outside help. In these villages not only was cooperative credit unnecessary but the local politics gave rise to a different sort of leadership. Rather than the leadership deriving its authority from the 'traditional' ruling families, it derived it from the wealth of successful businessmen in the community. In the villages less closely linked to urban areas, the 'traditional' authorities were not challenged by such people and the cooperative was formed on a different basis.

These sources of variation are, however, only the broadest of differences. In each village there were specific factors which could be almost as important: the possession of fertile *fadama* land by Gar, the feud between the Village Head and the cooperative leader in Shonono, the possession of craft skills by Gwarzo villagers, the historical division between those with pastoral and arable farming ancestors in Dakwara, the religious zeal of Gwaram's Village Head, the climatic quirk which gives Ningi its high rainfall. The list could be continued indefinitely and although it is clearly desirable that rural development practitioners should be aware of the existence of radically different village types, it is also clear that only the members of a particular village are likely to possess the sort of specific knowledge which would enable identification of that village's peculiar potential and problems.

STATE UNIFORMITY

What is the significance of the results? Government policy is on the surface a way of increasing agricultural investment in rural areas to improve the livelihood of the rural population. The policy is justified by a conventional wisdom which puts forward a particular view of the rural economy. This is: (1) agricultural investment does not take place because farmers are too poor; (2) credit is necessary to help farmers to make investments; (3) informal credit is inadequate and grossly exploitive of farmers; (4) cooperatives provide a fair and democratic method of providing farmers with the formal credit which they need.

This view provides a justification for cooperatives. It is certainly believed by most junior level government officials and is at least stated by most higher level officials. Yet it is clear from the village case studies that the ideology is not a fair reflection of reality. Its continued existence must originate with a wish to continue with a heavily subsidised credit policy in defiance of the reality. Local administration costs alone were N0.45 for each N1 loaned. Why for example is there no mechanism for cooperative officials to be made aware of farmers' (all farmers) needs, and to respond to them? Discussions with farmers would reveal different priorities for each village. The villagers, with the assistance of cooperative officials, might well devise new bases for group action and new requirements for government services. But this does not happen. Instead cooperative officials rarely visit villages and almost never solicit the views of farmers. Visits tend to involve lectures by cooperative officials on the virtues of cooperatives, the needs to adhere to the rules and the importance of prompt repayment. The most junior officials who, the villagers realise, have very little power or authority, say as little as possible.

The behaviour of local officials, based on the view that a standardised policy is beneficial to the entire rural population, is their way of dealing with a situation shaped by those above them. They are after all not dependent for salaries or promotion on the rural population. Their supervisors have standardised success criteria such as the volume of produce purchased, the volume of credit distributed and the percentage of loan repayments.

Given the objectives of increasing figures such as these, the method of local cooperative administration is seen to be well adapted to the situation of local officials. To administer a successful cooperative officials need to make a minimum of only two visits to a village in a year, one visit to complete the loan application forms and a second visit to hand out money. The problematic parts of the operation are taken off their shoulders by village leaders who really know how to run things in the villages. Thus the cooperative buyers operate in exactly the same way as they operate in their private buying capacity. They deliver the produce to the cooperative union in return for payment. The loan repayment is guaranteed by village leaders who have a particular interest in guaranteeing the loans as they are greatly benefiting from being cooperative buyers. The system ensures that government officials become closely allied to those with local economic and political power. Only through these people can they increase the amount of produce purchased and ensure repayment. Moreover, the wealthier the cooperative members, the better they can enhance another indicator of success, the amount loaned. The only indicator which is not increased by this method is the number of active cooperative members. The dependency on village leaders is by no means against the taste of local officials. For anyone stationed in a rural area or visiting rural areas as part of his job, the generous hospitality of local leaders makes the difference between entering an unfriendly territory and entering one with all sorts of social privileges and pleasures.

EXPLANATIONS OF GOVERNMENT POLICY

If local cooperative officials are merely doing what they have been trained to do in their own interests, the reasons for insensitivity to local situations must be found elsewhere, with the policy makers. There are several possibilities, all of which probably contribute to the explanation. The first is ignorance, a vague belief that the cooperative ideology is correct in spite of the reality of its impact. The present policy may even be pursued simply because the British thought it was a good thing in colonial days and nobody has thought to question it since.

The second explanation is bureaucratic ossification: once a bureaucracy is set up it creates its own requirement for continuing. In the case of cooperatives this is certainly true. 'But credit and marketing is what cooperatives do' was the comment of one exasperated official. If they start to do something different they will step on the toes of other government divisions and the members of the Cooperative Division will suddenly discover their skills and experience inadequate for the new activities.

A third explanation is that a standardised procedure is easier to manage than one responsive to local situations. This argument rests on the belief that local staff are of low ability and generally overextended – and what they do must be simple. The staff in the study were certainly not overextended; they had time on their hands. But it is true that credit is superficially the simplest of rural development strategies. The ideology underlying it suggests that all you need to do is lubricate the rural economy with a little money and the wheels of development will gain momentum of their own accord. However, nothing is done to develop what capacity local officials might have in becoming involved in rural development. Their training, for example, is laden with courses on accounting and cooperative regulations but has no courses on agriculture, rural life or dealing with rural people.

There is a fourth explanation which has nothing to do with ignorance, inflexibility or incapacity. This is that the institutional form of the cooperatives and their activities are consistent with unstated government objectives and that satisfactory performance with respect to these is the reason for their persistence. The clearest achievement is that, regardless of the varied effects on agriculture and rural welfare, the policy was consistent in its reinforcement of the relationship between government and rural leadership. In the agricultural communities where traditional influence was transformed or replaced by members of a commercial élite the link was with them. The leadership benefited from receiving marketing credit and channelling production credit, while the government was helped in the difficult task of recovering annual production credit. The requirements of the rest of the population were incidental, and in the minority of cases where production credit did reach those who needed it and could make good use of it, this was an accidental result. The institution created in the villages was insubstantial and dependent on government patronage. If credit or the rewards of leaders were removed it would collapse immediately. The sophisticated organisation described in the rule books would not provide a framework for the rural population to mobilise their own resources and undertake activities immediately useful to them. Rather, the existence of the sophisticated legally registered cooperative, dependent on government credit and authoritarian leadership, inhibited the formation of small simple self-sufficient groups which could be responsive to local needs and might form the basis of genuine village institutional development. The policy is effective in keeping 'rural development' under government control.

The nature of this 'development' might also reflect government priorities. Cooperative marketing ensures that existing traders have enough money to purchase the groundnut crop and encourages them to deliver their purchases to the government (cooperative union). It does this without giving farmers an increased choice of buyers and without rewarding farmers with cooperative dividends. The policy is consistent with promoting groundnut exports but not with increasing farmers' incomes.

Annual production credit also tends to promote cash sales by farmers. Repetitive annual credit unconnected with new investment involves farmers in an unnecessary cycle where they are obliged to pay interest and sell their produce at low, harvest-time prices in order to repay their credit. The alternative of providing savings institutions to adjust the farmers' income flow to their expenditures is ultimately more to the farmers' advantage. In most of the study villages the credit did not even go to those whose poverty and access to informal credit could justify subsidised annual credit at all. Instead it went to wealthier villagers and strengthened their commercial and agricultural superiority, reinforcing in some communities the existing differentiation into larger labour hiring farmers and poorer labour supplying farmers.

The policies strengthened the more commercial farmers and encouraged others to become more dependent on the market, regardless of whether or not this change increased production or improved rural welfare. In some cases it did the opposite. Examples are Gwarzo where the larger landholders were served although their poorer land-short neighbours had much higher yields; and Gar where the government purchased food grains through the cooperative and sold them cheaply to diminish urban unrest caused by high food prices in Bauchi, while Gar was left short of food.

CONCLUSION

The characteristics of cooperatives in northern Nigeria are found in other countries with a colonial background (Niger: Collins, 1974; Charlick, 1972; Ghana: Miracle and Seidman, 1978; Sudan: Khider and Simpson, 1968; Western Nigeria: Beer (1976); Northern Nigeria: Hena, 1974). They involve the rural communities in the larger economy in a way which entails risky dependence on decisions beyond their control, and which erodes systems of self-sufficient food production. Equally serious is the failure of a supposedly democratic institution to provide any means of expression for ordinary members. This is in itself a failure of development, an involvement of the population in an unfamiliar system without corresponding provision of the skills and understanding which would allow it to effectively participate. Beyond that failure are the wasted local opportunities. Each of the study villages had special needs and economic opportunities, some agricultural, some industrial, which with ingenuity, encouragement and a little money could be realised through group action. The activities would be different in each case and so would the nature of the groups. The existing cooperative policy through its suffocating uniformity and control involves the forgoing of economic, social and personal development among the rural population. Instead it forges marketing and financial links with the government which serve mainly to promote the availability of rural produce for urban consumption and export purposes.

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11 The Kano River Project, Nigeria: the Impact of an Irrigation Scheme on Productivity and Welfare

TINA WALLACE

The Kano River Project is a large-scale, capital-intensive irrigation scheme designed to cover an area of 58,000 acres in Kano State, Nigeria. The project comes under the authority of the Hadejia-Juma'are River Basin Development Authority, and is the first of several such schemes which will eventually cover 146,000 acres in Kano State. The project was started in 1971, and the initial research was conducted in 1976–77 when the scheme was still in its first phase, and restricted to 3000 acres. Millions of naira are already committed to developing irrigation in northern Nigeria, and although the first scheme is still in its infancy it is important to look closely at the progress and problems of the project and raise key issues relating to irrigation now. This paper will focus particularly on the stated reasons for introducing irrigation and the specific assumptions which have shaped the design of the project and, in turn, the implications these decisions have for present and future rural development in the area.

THE PRE-IRRIGATION SITUATION[1]

It is necessary first to sketch in briefly a few points concerning the pre-irrigation farming. This pattern of farming still continues for all non-scheme farmers in the area, which is part of the Kano close-settled zone, a densely populated crescent of land around Kano city where the average number of people per square mile was estimated to be 586 in 1970/71 (Baba, 1974). The population is predominantly Hausa[2] and Muslim, living in settlements ranging from old walled towns to very dispersed hamlets.

The men are farmers and operate a farming system based on one growing season a year, lasting from May to October. During this season the food crops are grown, guinea-corn and millet, also cowpeas, rice and some vegetables. Groundnuts have been grown quite intensively in the area for cash, though now fewer groundnuts are exported from the area and this crop is increasingly being consumed locally. Ideally a farmer aims to grow enough food in the one wet season to last all year but, in practice, while the larger farmers produce a surplus, the smaller farmers are forced to buy much of their grain during the year. Land is unequally distributed with holdings ranging from as little as 0.5 acres to 10 acres; the quality of the land varies greatly also, with *fadama* (river valley) land which can be planted in the dry season being the most highly valued, and bush land the least. Most farmers own several scattered plots of land, some of which they farm every year with the use of manure, others are left fallow some years to restore fertility.

Under the Land Tenure Law (No. 25, 1962), all the land is owned by the Nigerian government, but people have 'customary right of occupancy'. Legally, land sales are prohibited but in practice people do sell, pass on by inheritance, pledge or loan their land. Land tenure is complex. One man may have a variety of rights in difference pieces of land: for example, he may own one plot by inheritance from his father; he may use another which he is holding in trust for an absent brother; he may farm land which belongs to his wife; he may have a plot which has been pledged to him and which he in turn has rented out for a season; he may have joint ownership of a farm with brothers and sisters. Several people can have different interests in the same plot, when farms are not divided between the children at the father's death; land may be owned by one man who has given it out to another, who farms part and has pledged part; the owner's sister may also have claims to some of the produce from that plot. While most land is obtained through inheritance, there is much buying and selling on farms and Baba found that in 1971 27 per cent of land in the Kura area (16 km from the Kano River Project) had been bought.

Clearly farming has altered over time, particularly since the introduction of cash crops under colonial rule which were grown in order to pay heavy cash taxes, and in response to new market opportunities introduced by the opening of new roads, a market economy and motorised transport. The monetary value of land has risen and labour has been increasingly commercialised as the economy has been affected by incorporation into the wider capitalist economy. Similarly, non-farming activities have changed over time. While there has been a significant decline in crafts in the district, also in long-distance trading, there has been an increasing involvement in short-distance trading, shopkeeping, service jobs and koranic activities. Non-farming occupations play a crucial role in the economy – a role which has been grossly underestimated in the literature and in the calculations made by researchers and consultants about the income and use of time of Hausa men.

The local authority structure in Kano is hierarchical, headed by the Emir with a chain of authority reaching the farmer via the District Head, the Village Head and the Ward Head. This hierarchy is quite separate from the federal and state governments, and although they often carry out overlapping functions their interests do not always coincide.

THE DECISION TO IRRIGATE

Ever since the early days of colonial rule discussion has been going on about how to improve the farming in the densely populated area, where much fertile land can be cultivated only once a year because of the limited rainfall (Palmer-Jones, 1977a). The federal military government (FMG) eventually decided that they would tackle this problem by introducing irrigation on a large scale in the north and in 1970 the pilot phase of the Kano River Project was started at Kadawa, south-west of Kaduna.

By introducing large-scale, capital-intensive, technically complex, partly mechanised irrigation into the area, the government has accepted certain assumptions about 'rural development'. Alternative strategies such as improving rain-fed agriculture through increased use of fertilisers, feeder roads, improved access to remote areas, have been largely neglected.[3] The introduction of the River Project shows that the FMG believe that the best way to improve productivity and relieve poverty is to bring modern technology and skilled advisers into the rural areas. As Nigeria does not have the necessary manpower this means that they have to rely heavily on expatriate staff. This approach certainly fits in with the Third Plan, an analysis of which shows that the 'major bottleneck (to rural development) is assumed [by the writers] to rest with the provision of expert advice and services by the state, rather than the deprivation of the resources and incentives with which the peasant farmer can develop agriculture themselves' (Williams, 1976). This point needs stressing, and is well summarised by Omulokin (1977: 5) in a critique of the plan:

> The standpoint taken in many cases can be characterised as technocratic, economic and authoritarian. However up to the present the weak point in most agricultural development has been the relative neglect of human and social aspects. It is apparently taken for granted that by introducing technological innovations or economic measures to stimulate production or orders from above, a betterment of social

conditions will ensue automatically.

Crudely, then, the decision to irrigate means that rural development is deemed best done through the input of massive sums of money, modern technology and outside experts. In this paper I want to look at the implications of this approach. First, it is important to define what is meant by 'rural development' within the context of the irrigation programme. The Third National Development Plan states clearly what is envisaged: 'The main objectives of rural development are to increase rural productivity and incomes, diversify the rural economy and generally enhance the quality of life in rural areas' (Nigeria, 1975).

The primary aim is to increase food productivity: 'it is hoped that... the emphasis on a great number of input programmes for the peasant farmer will facilitate the achievement of the required production levels' (Nigeria, 1975). The consultants echo this, stating the main objectives of the Kano River Project as 'the acceleration of agricultural production by irrigation and the differentiation of crops' (Nedeco 1976: vol. 1. p. 65). The priority is to grow more food. By growing wheat in the dry season it is clear that this food is for the growing urban population, wheat not being part of the rural diet. But the concept of rural development being expounded by the government, the consultants, and indeed such bodies as the World Bank, is that there must be more than simply increased agricultural productivity; they say rural development in the 1970s must improve the welfare of the rural people. The Third Plan and the consultants' reports make a clear link between increased productivity and rural welfare; if more crops are produced there will be 'an increase in employment opportunities. In general the enhancement of rural economic growth and the improvement of the quality of rural life' will follow (Nedeco, 1976).

It is clear that the cultivation of wheat benefits only the growing urban population, since rural people do not eat wheat. The two aims may be in conflict. For example, a large farmer using machinery may produce higher yields but to enable him to do so many small farmers would need to be dispossessed of their land. While no automatic connection between the two aims can be assumed theoretically in the light of past agricultural experiences, this assumption has increasingly dominated the literature and the thinking of development agencies.

It is my intention in the rest of this paper to look closely at these two stated aims of rural development and to see how far they are compatible in practice on the irrigation scheme. By looking at the assumptions that have been made and decisions that have been taken about the land, the labour, the management and the technology on the Kano River Project, I want to comment on the direct government intervention approach to rural change and to assess whether the changes are in fact leading to greater productivity and/or rural welfare.

LAND

One major issue facing any introduction of change by the government in land development is who controlled the land previously and who should now control it. The most absolute form of control is through ownership, and government intervention in agriculture has often involved removing the land from the control of the peasant (e.g. enclosures in Britain, collectivisation in Russia). This approach has been used on some large-scale irrigation schemes in Africa, the notable documented examples being the Gezira in the Sudan and Mwea in Kenya. The obvious logic behind this is that, if the government is spending a lot of money on a project, it should have the greatest control over the operation of that project, and this is best achieved if it can remove any obstinate or undesirable farmers from the land. When the land is not owned by the farmer, the management has the power to dictate terms to him; Barnett (1977) concluded that in the Gezira this control of the manpower contributed to its success in producing high yields of cotton.

When the decision was taken to irrigate, the question of land ownership was raised on the Kano River Project. Originally the Dutch consultants recommended that the government should purchase all the land involved and then hire it out under tenancy agreements, or even perhaps run it as a state farm with hired labour. In fact, this did not happen, and up to now the farmers who previously owned the land around Kadawa are still owning the land which is now under irrigation. This has some crucial implications for the running of the scheme, for productivity and welfare.[4]

Before looking at these, though, mention should be made of the farmers from the area who have lost their land. Some 13,000 had to be moved from their homes and farms to make room for the damming of the river and the building of the Tiga dam, which covers 44,000 acres. Families had to be moved from the project area itself to make way for staff housing, office buildings, a 1000-acre government farm, a cattle farm, and for roads and canals. Some of the people affected were paid straight compensation for their land, compounds and economic trees and left to move themselves and find alternative places to settle. They were paid at a rate of 80 naira an acre, a price which reflected the relatively low cost of land at that time but which totally failed to compensate them for the fact that the market value of land rose dramatically after irrigation. Compensation was raised in 1977 to 250 naira an acre. People moved from Tiga were not compensated in cash but in kind. They were moved to new resettlement villages and provided with new farms which often proved to be inferior to their previous land. Their villages still lack adequate water supplies after seven years of waiting for the promised pipe-borne water. While the people who have been pushed out of the pilot area have been able to find themselves new places to live, they have found it difficult to buy new farmland – many farm on borrowed land – and there is a serious question mark hanging over how many people can be absorbed into the surrounding villages once the project expands. The consultants for Kano River Project II have not yet been able to locate any vacant land on to which they can move farmers to make way for their project.

For those farmers in the project area who became irrigation farmers, their relationship to the land has been altered less dramatically. All the land was mapped and measured and then plots were reallocated, coinciding as nearly as possible with the original plot, simply shaping the farms into rectangles. Each farmer lost 10 per cent of his land during this exercise, but no consolidation of land was carried out and each man retained full control over his new plots – he can sell, rent, loan his land, farm it or leave it fallow, without any reference to the scheme management. His decisions about what to do with his land are nevertheless affected by the introduction of the scheme, because while he retains the ownership of the land, the scheme owns the inputs necessary for dry season farming – water, seeds, fertilisers, tractors and relevant knowledge – and they can withold access to these if the farmer does not use the land in the way the scheme requires. For example, the growing of guinea-corn in the wet season is incompatible with the growing of wheat in the dry season, as the wheat should be planted in November while the guinea-corn is still on the fields. Thus the management threaten to withhold the dry season inputs for a farmer if he grows guinea-corn on his fields, a practice which many of them want to continue, as guinea-corn is the staple food. Many farmers have not given up growing their guinea-corn and this causes a dilemma for the management. Because the farmer owns the land they cannot remove him from the land. If they refuse to plough his field for the dry season, the tractor drivers have to waste time skirting small plots. Leaving the land idle is of no benefit to the project. This conflict of interests can arise over other issues; for example, if a farmer fails to repay his credit from last year, if he does not pay for the tractor hire on time, if he refuses to farm his land because he is too busy, too poor or sustained too many losses the year before. One aim of the management is to utilise all the irrigated land to raise the productivity as much as possible, so punishing farmers by witholding crucial services does not serve the management's interests. This is a conflict management cannot easily resolve because they cannot remove uncooperative farmers (defined in their terms) from the land. They articulate this concern frequently:

> Some farmers cooperate but it is not satisfactory because we have to *ask* farmers, not tell them what to do (interview, scheme official, 1977).
>
> The Scheme at Lake Chad is easier because they bring people there and they have a yearly contract with rules and regulations and the farmer can be thrown off the Scheme. Land at Kadawa should be acquired and then we can have proper control (interview, scheme official, 1977).
>
> The government might take over the land in order to get sufficient production. You need to control the land so you can control the farmer. Land reallocation and land consolidation can only be carried out on a voluntary basis in co-operation with the farmers concerned. Additional legislation is essential to the successful implementation of the project. Apart from related land matters this legislation should cover water use, payment of charges, compulsory cultivation of some crops and so on (Nedeco, 1976: vol. 2, 83).

Undoubtedly, the management of the Kano River Project would like to have full control over the land so that when a farmer fails to fit into their pattern he can be replaced. They see improved productivity as requiring the expansion of their control. Whether or not the management controlling the land and regulating who has access to it would improve productivity, it is certain that it would not serve the aims of 'rural welfare', as the farmers most likely to be removed from the land would be those with limited access to cash, those who had sustained losses in their farming the year before, those who lacked resources to buy guinea-corn and so had to grow it, those who were too sick or old to cope with all-year-round farming. Is it for this reason that the land has not been compulsorily acquired?

Clearly, since the 1916 Land and Native Rights Ordinance in the north, reiterated in the 1978 Land Use Decree, the government legally owns all the land and can acquire it at will, paying only for improvements and crops. The government has no qualms about taking the land and the 1978 decree made it easy for them to do so throughout Nigeria; the decree 'facilitates easier acquisition of land both by the government and individuals for the setting up of economic development and individual projects' (*Daily Sketch*, April 1978). While the FMG could take over the land there are several constraints on them, unrelated to the needs and wishes of the small farmers.

Firstly, if the government took over the land, it would mean compensating over 100,000 people, which with rates now running at N250 an acre would be very costly. Secondly, if they did buy the land, they would need to consolidate it, for reasons of efficiency. According to the consultants the most administratively convenient system would be plots of no less than four acres. If that was done many farmers would be unable to acquire plots as tenants, as the average landholding is less than two acres. With high unemployment in Nigerian cities the FMG is concerned to keep people on the land: 'land is the biggest asset, the only means of livelihood of the peasants. Without it they move into the cities to join other hordes, together they constitute the burning splinter of political thuggery' (*New Nigerian*, 14 June 1977). This they want to avoid. Thirdly, there would be a very real possibility of some rural opposition, a situation that Nedeco noted: 'actual damage is being done to peoples' existing interests from the very start of project implementation. This situation requires the utmost care in order not to evoke serious popular resistance to the project, in which it should be stressed, the Kano State Government has so far succeeded amazingly well' (Nedeco, 1976: vol. I, 65).

Finally, the northern élite probably oppose any federal take-over of the land. In the present situation they can rent or buy their way into the lucrative land irrigation scheme. Men with prior information are buying land cheaply from farmers whose land (unknown to them) is scheduled to be irrigated in the future; one District Head has recently acquired over 200 acres through purchase and gifts from the Emir. Discussions in Kano reveal that directors of insurance companies and banks, businessmen and members of the élite are renting land from poorer farmers to grow wheat and tomatoes in the dry season. The project is opening up new opportunities for these men – the government has spent over 3000 naira per acre improving the land, and while many small farmers are unable to bear the costs of the new irrigated farming, those who can take some risks and have some financial backing can make large profits. The newspapers recognise this:

> All the brouhaha about uniform land tenure law in the country is absolute rubbish. In the first place land in some parts of the country belongs to individuals and families. And it has been used to generate capital for commerce and industry which give rise to greater economic development. How can this be justifiably denied the people in the other half of the country who are just waking up to such immense opportunities? (*New Nigerian*, 14 June 1977).

The Head of State is clearly encouraging Nigerians with money to invest in agriculture in the 1978 budget and he has handed them low interest loans through the Nigerian Agricultural Bank and commercial banks, a five-year tax holiday for those willing to invest in combined agricultural production and processing, and other financial benefits. The recent budget unashamedly supports the 'armchair farmer'; the measures are in Obasanjo's words generally 'designed for modern and large production farmers' (*The Punch*, 3 April 1978). Leaving the land in the hands of individuals on the Kano River Project allows some of the bourgeoisie to invest in agriculture and make handsome profits.

Leaving the land in the hands of the peasants has important implications. The evidence from other schemes such as Mwea and Gezira shows that, even with efficient management, many problems are encountered with farmers when they do not own the land themselves. The farmers have little commitment to the projects, they invest their money off the scheme, they become absentee landlords. They take no initiative on the scheme, so that the government has to continue putting in huge resources of money and manpower to supervise the running of the scheme on a day-to-day basis. The farmer prefers to retain the ownership of the land and control over his own affairs. In a situation where the climate is unpredictable, government agencies are not one hundred per cent reliable and the problems involved in farming are many; the farmer is best able to raise productivity if he has some autonomy and flexibility of action.

It should be stressed, though, that even if the government leaves the land in the control of farmers, which is in the best interests of the farmer and probably of productivity, the relationship of the farmer to his land has been, and will increasingly be, altered fundamentally. Under irrigated farming the farmer is obliged to buy a variety of services from the government; he is compelled to sell the crops he grows. He may no longer be an 'artisan cultivator obtaining family livelihood from production with variable surpluses offered on the market, on the basis of tradition and locally varied practices of husbandry, but must become a businessman competent in market operations and small scale financing and receptive to science generated information about cropping practices' (Pearse, 1977). In order to get a return from the land a lot of money must be invested with which to buy services and the required inputs. For the smaller farmer this may prove too heavy a burden even if they get credit for water, seeds, tractor hire; they may not make a profit at the end of the season due to poor yields, low crop prices, high labour costs, and will enter a vicious cycle of debt. Some are being forced out of the dry season farming. As early as 1973 Nedeco reported 'that some merchants and grain dealers from outside Kadawa were attracted by the results of 1971–2. So they rented land within the irrigation area and cropped it' (Nedeco, 1976: vol. 12). One-third of farmers with irrigated land rented it out in 1977 to wealthier men who have money to pay for the extra labour needed to farm and the ability to carry a loss if necessary. This movement of land from poorer farmers to richer ones will increase the inequalities in the area of the project, and open up new economic opportunities to the urban élite. It is extremely unlikely, even if farmers retain ownership of the land and productivity rises, that the project will improve the living standards of the small farmers.

MANAGEMENT AND TECHNOLOGY

While the farmers own the land on the Kano River Project, the scheme owns the technology required to make the land produce crops during the dry season. The government and consultants give priority to the technology on the Kano River Project; it is seen as the crucial factor in raising production. In this project, as in many others, the emphasis on the supremacy of the technological requirements justified the introductuon of 'the conveyor belt, command type [of management] demanding from the farmer a rigid work schedule' (Tijani, 1977: 4). Given the government's stated belief that rural development moves slowly because of the lack of technology and expertise in the rural areas, the role of the management becomes paramount, the farmer's role is subsidiary. This is clearly illustrated by the Nedeco reports:

> The implementation of the pilot scheme proved that certain rules – to be strictly observed by the farmers – are essential to alleviate the impact of abrupt change from simple rainfed to complicated irrigation agriculture. The Extension Service and Water Management divisions informed farmers verbally of these prescriptions to which they reacted differently. Experience showed that observance should be enforced. Officially, the Local Authority should approve the rules and regulations and promote obedience of the farmers to the project management. The local farmer is rather simple and illiterate . . . the only way to achieve positive results during the first two years was to make the extension worker run after the farmers.
>
> Experience showed that with good and efficient extension service and certain strict rules farmers can be trained in practising co-operation in due time (Nedeco, 1976: vol 2, 84, 40).

The official approach to the farmer is that he is simple, possibly stubborn, illiterate and has to be pressurised into change to fit in with the demands of the new technology. The role of the management is seen as the crucial factor in increasing productivity and bringing about 'rural development'. Accordingly the management has control of all the other factors of agricultural production: specialised knowledge about planting strategies, water regulation, control of credit, tractor hire, water supplies. Information travels down the hierarchy from the top; there is no mechanism through which the farmer can contribute information, register complaints, or participate in decision-making at any level.

This division of control between the farmer and the management, the land and the necessary technology, leads to conflict between the interests of the farmer and those of the management. Given the government assumptions about the necessity for altering the organisation of production in farming and introducing large-scale, bureaucratically managed irrigation, then logically they should expand the control of the management and further inhibit the power of the farmer. Some of the reasons why this has not been done have been looked at in terms of the land issue; now it is time to consider other constraints on expanding the power of the management. Firstly, there is an acute shortage of manpower in Nigeria in irrigation, second there is a lack of commitment of Nigerian and expatriate salaried staff to working in rural areas. Thirdly, the government has a shortfall of necessary inputs which means that the provision of vital services and inputs cannot be automatically guaranteed. Even if the inputs are available the government sector is plagued with inefficiences in areas such as transportation, close supervision of distribution of inputs and provision of tractor services. Finally, any bureaucracy in a changing situation is a relatively inflexible institution, capable of responding only slowly to change.

These are not, in my view, minor problems which can easily be dismissed. The problems of having to rely on outside power are manifest. Nigeria has to compete on a world market for engineers, surveyors and consultants, and is constantly short of staff. Those men who do come have to be paid substantial salaries and allowed to export 50 per cent of their earnings. For those Nigerians and expatriates employed on the scheme there has been a marked tendency to move to Kano; both the Chief Agricultural Officer and the Chief Engineer hold administrative posts in Kano, leaving the day-to-day running of the project in the hands of fairly junior men. There are as yet no training programmes in Nigeria; once these are set up the time taken to train a man is long and costly. Once he is trained he will have access to jobs outside of irrigation, and while salaries are higher in the private sector it will be difficult to keep staff. At present there simply is insufficient manpower at nearly all levels in Nigeria. Schultz estimated that the Kano River Project alone 'will require all the agricultural graduates from Kano State for the next twenty years' (Schultz, 1976).

The shortage of suitable manpower has created several problems, significantly lowering productivity. The tractor drivers are poorly supervised and do not always plough fields on time, so that planting is late; water supply has been erratic because of inadequate control, causing loss of crops; lack of spare parts caused by bad communication and coordination of management has led to delays in the repairing of pumps, vehicles, tractors. Wider problems outside the direct control of the management, such as shortages of petrol and diesel and limited supplies of fertiliser, have also reduced the efficiency of the scheme. These national shortages and inefficiencies affect all projects; in 1978 the World Bank Project in Kaduna State had a vast deficit on its fertiliser requirements. Even if all the problems of supply and staffing inefficiency could be solved, this approach to rural change would still face basic problems on the project; the reduced autonomy of the farmers, the lack of provision for the farmers to take part in controlling the allocation of water, the timing of the tractor operations, the repayment of credit if the management fail to produce the inputs on time, the decision of which crops to grow in which fields. Because the farmer is 'being developed' there is little concern in any scheme based on a strong centralised management hierarchy to learn from the farmer. This places the farmer in a dependent and therefore vulnerable position, putting him at the mercy of the ideas and efficiency (or otherwise) of the management. If he has no control over the date of the ploughing of his field, or in ensuring the regular supply of water, then he cannot be expected to take much initiative on his land. Thus on the Kano River Project (as in Gezira) the farmers pay little attention to the running of the scheme, such as the necessary upkeep of their canals, because they feel the government should do it. It is more than just a question of there being 'no adequate arrangement made for the maintenance of such irrigation structures such as delivery canals and water division structures' (Wudiri, 1976); it is a fundamental problem caused by emphasising the role of management and allowing the farmer little room in the design or running of day-to-day affairs.

While the management see that the best way of resolving the conflict of interests between the farmers and themselves is to take over the land, there is no evidence to show that the management can increase productivity; indeed one agriculturalist at Kadawa has pinpointed management as 'currently a more important constraint on yield' (Redden, 1975/76). Even with improved staffing it is difficult to imagine a salaried management being more committed to raising productivity than the farmers, whose livelihoods depend on their yields.

LABOUR POWER

The third aspect of the scheme that I want to look at is the labour – looking particularly at the assumptions the consultants made about the availability of labour, and the calculations they made in relation to labour to prove that the scheme would be profitable for the individual farmer and would provide rural jobs. In this section the focus is less on the conflict of interest between the goals and control of the management and those of the farmer, and is more on the assumptions the consultants made about the farmer and his work and the reality of the farmers' situation.

The consultants, Nedeco, and all other consultants who have submitted reports on rural development projects in northern Nigeria, have shown that an abundance of labour is available, expecially in the dry season, and that labour will not be a constraint on participation in irrigated farming, nor will it be an item of expense to the farmers. They reach this conclusion because they perceive the farmers are 'underemployed', as having family labour always available to them, and they make low estimates about how long the work itself will take. The calculations they make in relation to labour are crucial in convincing the government that the irrigated farming will be profitable to all farmers and that therefore they will be keen to work in the dry season. For example, Nedeco calculates that for the 'average farmer' the time taken to grow one hectare of wheat is 110 man-days; of these 74 can be done by family labour, meaning that the farmer only has to pay for one-third of the labour, which is estimated to be relatively cheap – 50 kobo in 1973. (Rural male wages were 2.10 naira per day in 1978). Each of these assumptions needs careful study.

All over Africa peasants are said to be 'underemployed', if not unemployed. Farm management studies are made, labour is measured in hours and days worked per year; these figures are subtracted from a computation of the number of hours the researchers estimate a man should work a day, eight hours, based on a Western industrial model. The shortfall in hours is estimated to be the extent to which the man is underemployed. Although many criticisms have been made of this approach, it continues to dominate thinking in many rural development projects and the work of such organisations as the ILO, and needs further critical comment. The assumption that there is some given number of hours a day which equals full employment is a specifically capitalist definition of work, derived from an economy totally different from the one in question. Work cannot be done by the hour regularly every day in an agricultural economy where the rainfall dictates farm work, so the consultants conclude from this that while a man is working hard in the rainy season, he is unemployed in the dry season. David Norman puts this view well: while in the dry season 'male adults in the survey village are in general underemployed' (Norman, 1972), in the wet season there is a labour bottleneck and the key factor in limiting increased production is the shortage of manpower. Thus in the dry season, when farming is not possible, the men should be available for dry season farming to fill their unemployed hours.

This conclusion ignores some rather key facts. Firstly, because men are so busy on their farms in the wet season, they need to spend considerable amounts of time in the dry season on other essential activities, such as house-building, manuring the farms and collecting firewood. In an industrial capitalist economy (from which the concept of underemployment derives) a man may get his house repaired at any time, he may marry at any time, but in Hausa society these activities must be done after harvest when he has some time and some money available. Secondly, this conclusion ignores the time that men spend on non-farming occupations. These are dismissed as 'secondary occupations' and largely ignored in all calculations. Nedeco wrongly claimed that only 38 per cent of the men had occupations in the dry season; other consultants estimate similar figures. Nedeco goes on to say that although 'the income from off-season activities is hard to estimate because it varies highly from farmer to farmer . . . only a very small percentage of farmers earn an appreciable income from off-season activities' (Nedeco, 1976: vol. 2, 83). The latest report submitted to Bookers by the Ahmadu Bello University research team reiterates the same view, that secondary occupations are only done by a few and that 'introducing a new programme like an irrigation scheme will not interfere with the activities of the large proportion of the population in the dry season' (Yusuf, 1977: 55). Even for those who do have other occupations, it is estimated that they will abandon them in favour of irrigated farming: '95 per cent will definitely abandon their possible secondary activities in both the wet and dry season if their future agricultural activities demand it' (Nedeco, 1976).

The statements that few people are engaged in non-farming occupations, and that they will happily abandon them to do dry season farming appear to have little basis in Hausa reality. Polly Hill and M. G. Smith (Hill, 1971; Smith, 1955) describe in detail the range of economic activities. David Norman (Norman, 1972) acknowledges their importance in his Zaria studies. In the baseline study in Chiromawa we found that 300 out of the 312 household heads interviewed had at least three non-farming occupations, covering such jobs as grain trader, kola trader, koranic teacher, shopkeeper, blacksmith, hired labourer. Not all these occupations play an equal role in the economy of the individual farmer; wealthy men have access to a wider range of occupation opportunities and these trading or transporting activities may be their priority concern; similarly for a large shopkeeper or koranic mallam. For a market trader, small butcher, tailor, the job may be equally as important as farming in their economy. For others – woodcutters, donkey transporters, water carriers – it is a way to earn a few kobo to supplement their farming. Occupations other than farming have always been important in this society, and though the nature of the occupations is changing over time, from crafts and long-distance trading to transport, shopkeeping and hired labour, they still play a crucial role in the economy. For each farmer the importance of his occupations will vary, both according to where he lives (in Chiromawa there are many services and other opportunities, as it is a small town situated on the main Kano-Zaria road; in more rural places the opportunities will be less) and according to which occupations he has access to. There is no empirical basis for Nedeco to talk of the average farmer, most of whom have no 'secondary occupations'.

Furthermore, there is no evidence to support the contention that once dry season farming is introduced the men will drop what non-farming occupations they do have and will use their labour exclusively for farming. David Norman found that, even in the wet season, farmers reserved some of their labour for other occupations, thus limiting their agricultural productivity. M. G. Smith found that even though agriculture was more lucrative, many Hausa people put their time into other occupations for prestige reasons, and because trading is more enjoyable than farming and less work (Smith 1956: 147). The evidence from Chiromawa is that while farmers want to maximise their profits, they also want to be sure of an income. While there are risks and unpredictable factors in the dry season farming, such as price fluctuations (in 1977 tomatoes sold for up to 3 naira a tin, in 1978 for only 50 k), low yields due to late planting because of the unreliability of tractor services, water supply etc., many men are continuing with their other dry season occupations. Others do not have the money to finance dry season farming; yet others do undertake dry season farming, but use hired labour while they continue with their tailoring or butchery. The importance of non-farm occupations to rural men varies, but all of them engage in some non-farming activities and it cannot be assumed that they will readily abandon these jobs in favour of farming. Indeed, the evidence indicates the contrary, that non-farming jobs are important to many householders and they will continue to put their labour into these jobs whether or not they have access to dry season farming.

The second set of assumptions concerning availability of a constant supply of family labour to all farmers is equally unfounded. Nedeco (and all the other planners) base their analysis of the organisation of labour for farming on the concept of *gandu*. Briefly, a *gandu* relationship is one in which the father (or elder brother) owns the land and the labour of all the members of his household, and he provides food for these dependents, tax, clothes and protection and sometimes small plots of land (*gayauna*); in return he has control over the labour of the sons or the brothers, who work for him on the farms. He disposes of the product. How well this 'ideal type' illuminates relations of agricultural production in the past is not relevant here; that it is inadequate for describing the present is clear. Buntjer, Hill, Goddard and Norman all commented on the low incidence of *gandu* where the father was clearly in control of the labour of his sons, at any one time no more than 20 per cent of the population are working in this kin-based co-operative relationship (Buntjer, 1972; Hill, 1971; Goddard, 1971; Norman, 1972). For those who are involved in a *gandu* relationship, the variation in labour organisation is great: one man may be paying his sons for their labour, another man may have access to the labour of his sons only after the sons have returned from school or other employment, in another the cooperation may have nothing to do with farming but involve a sharing of incomes only. Certainly in Chiromawa, apart from the discovery that even within what people call *gandu* there is a wide variety of labour organisations, it was found that many men are farming alone or with the use of hired labour, their sons or brothers having borrowed or bought their own land. Over 35 per cent of the family land in Chiromawa is farmed using hired labour. That family labour will increasingly become less available as the scheme develops is evidenced by the fact that already 25 per cent of the sons over 16 in Chiromawa have labouring wage jobs on the scheme – a young man can earn 2.10 naira a day working as a casual labourer for the scheme or for an individual farmer.

Thus the assumption that the system of *gandu* is a uniform set of labour relations which makes free family labour available to the household head, and that it will continue under a changing economy is misguided and led Nedeco to grossly overestimate the number of men with access to free labour. Because of their concept of the average farmer they missed the obvious fact that many men never have any sons, and for those who do they only have access to their labour for a certain period in their life cycle.

Men on the irrigation scheme find that in order to irrigate their land more time is needed than Nedeco assessed, partly because the water flow is sluggish and it takes longer to draw the water from the canals on to the fields; and that in order to handle the planting, irrigating and harvesting of the crops, as well as sometimes doing their other occupations, they are forced to hire substantial amounts of labour, which is expensive. For some farmers this is a crucial factor; they cannot get credit for labour hire, they must pay their labourers before they know whether they will make a profit or a loss, and in Chiromawa the inability of some of the smaller farmers to bear the costs of hired labour has forced them out of the scheme. The high cost of labour has been ignored: 'no special allowance is made for hired labour. A farmer who wishes to forgo some of his potential income by hiring labour does not affect the financial or economic profitability of the project' (Nigeria, 1977: vol 6, 5), yet it is proving to be a key factor in forcing some people off the scheme, opening the way for richer farmers who have access to labour and cash to pay them to come in and use the facilities the scheme offers to increase their wealth.

IRRIGATION, PRODUCTIVITY AND RURAL WELFARE

Having looked at some specific issues relating to land ownership, scheme management and the provision of labour to work on the irrigation project, it is valid now to discuss in more general terms how far the Kano River Project, and similarly related schemes, are achieving the stated government aims of increasing rural productivity and improving rural welfare.

There is little doubt that the overall vision for these irrigation schemes is that they should provide wheat and vegetables for a growing urban population. Indirectly, the money that is earned from exporting these foods out of the rural areas is expected to benefit the rural population, but there is no provision within the scheme to grow crops which will directly improve the rural diet – wheat is not consumed rurally except as a delicacy, a cake (*alkaki*). The Nigerian government wanted to reduce the food import bill on wheat, especially after the world crisis in wheat in 1972 where they were competing for a scarce commodity. They wanted a guaranteed supply of wheat to the millers (the cost and reasons for growing wheat are discussed by Palmer-Jones, 1977b). Similarly, the growing of vegetables such as tomatoes was intended to meet urban needs, to keep the Cadbury factory running, making tomato purée for the urban market. Although the farmers boycotted Cadbury and the factory had to close in 1975 because of the low prices they were offering to the farmer for his crops, the bulk of the vegetables were nevertheless transported out of the area to the major cities such as Kano, Lagos and Kaduna.

Certainly the scheme is producing wheat and vegetables for the urban market; to that extent it can be said that the scheme has raised the productivity of this area. Two crops are grown a year. Water, fertiliser, improved seeds have raised the level of crop output, though the average yields of 1.9 tonnes per hectare fall well below the consultants' predictions of 4 tonnes. Late planting, poor management, farmers refusing to farm plots and leaving them fallow, farmers lacking adequate labour and the appearance of some diseases have all contributed to the low outputs. But when considering the scheme's impact on productivity, it is not only the yields at Kadawa that need studying. The project has absorbed most of the regional investment in agriculture, which has implications for agriculture in the rest of the state.

By investing huge sums of money in the irrigation project the government has made certain decisions about how to raise agricultural productivity. While Kadawa has been flooded with fertilisers, extension officers and agricultural assistance the bulk of farmers in Kano State have received few improvements to their wet season farming. It should be counted as a loss in production that these farmers have not received more fertilisers, better roads, improved seeds – inputs which have been shown to be able to increase productivity. Also some farmers have actually lost production capacity on their land, both because they have been evicted and because the building of the Tiga dam has altered the flow of the Kano River. About 13,000 farmers were removed from their farms to make way for the Tiga dam. The quality of the land in the seven resettlement villages is varied, but for the most part it is less fertile than the riverine land they had access to before. For people below the dam the level of the river has dropped and they have lost the seasonal flooding of their land which enabled them to farm crops in the dry season. For example, the hamlet of Chiromawa, Kwari, has been greatly affected. Previously, two-thirds of the 65 farmers had *fadama* land where they grew sugar-cane and a variety of vegetables. Many of them also fished in the river. All but five of them have now lost their *fadama* land and can only use these farms in the wet season. If they want to fish they must now migrate to Tiga dam. The evidence from further down the river at Hadejia is that the staunching of the flow of the river led to partial drought and real hardship, the economy of the Hadejia valley has been undergoing drastic changes and its contribution to the state and national economies through its production of fish, cotton, wheat and vegetables has been much reduced. What was until recently an attractive destination for migrants is now experiencing seasonal and permanent out-migration (Stock, 1977: 1). Although it is possible that from 1977 onwards the river will flow more steadily all year round, no information about this has been disseminated to the farmers and no use was made of this water by them in the 1977 dry season.

While the irrigation scheme increases the output of wheat in the local area, it inhibits the growth of guinea-corn. While maize is supposed to be grown in its stead in the wet season (because it is a higher yielding crop and it can be harvested earlier than guinea-corn, giving ample time for planting wheat in November), whether or not farmers will change their diet and eat maize, a nutritionally inferior food, instead of guinea-corn is open to question. For the moment they are certainly reluctant to give up growing their staple food crop, and they do not wish to rely on buying grains in a situation where ill health, lack of water, poor prices may prevent them from making money in the dry season farming. The farmers have shown themselves unwilling in some cases to decrease self-reliance in food where profits cannot be assured. If they grow guinea-corn on the scheme land in the wet season, they either leave their dry season farm fallow or plant late, reducing their yield of wheat.

The primary goal of many farmers in this uncertain environment is 'security rather than profit maximisation' (Norman, 1972: 118). Even after working for many years on the Gezira Scheme, farmers continued to use irrigation water first for their food crops (*dura*) and only secondly on their cotton, showing 'the primacy of *dura* in the tenants scale of values.' (Barnett, 1977: 178). Thus the Kano River Project is likely to suffer a loss of production caused by the late planting of wheat or even the non-planting of wheat where farmers prefer to assure themselves of their food supply and grow guinea-corn in the wet season.

Thus the extent to which the vast investment in the Kano River Project is significantly raising agricultural productivity is open to question. In the early seventies the issue of cost did not seem to be important as oil wealth was abundant but, as is clear in the 1978 budget, Nigeria has had to call a halt to much public spending. The budget has been cut for Kano State and Governor Sani Bello is talking of introducing 'austerity measures'. With only 7,072,340 naira available for recurrent expenditure in agriculture in Kano State it is time these questions of cost and return were seriously considered by the government. (The huge costs in running the irrigation scheme are discussed by Palmer-Jones, 1977b.)

The expense might well be justified if the injection of money into the rural areas is significantly raising rural welfare; to what extent is the Kano River Project improving rural incomes, employment and leading to a 'better quality of life'?

Undoubtedly the huge input of manpower, money, machinery into improving the land has meant that potentially good yields can be gained from the land and incomes can be raised. For those farmers with reasonable areas of land, access to labour or cash to pay labour, who manage to get their farms ploughed on time (before December) and who have a consistent supply of water in the dry season money can be made. In 1977 the price for tomatoes sky-rocketed and even smaller farmers were making good profits. But some small farmers found that the cost of the inputs, particularly labour, has more than outweighed their gains at the end of the season, especially if they planted late, and water supply was erratic – often these farmers have registered their protest by refusing to repay their credit. So while there are obvious signs of wealth now in villages in and around the scheme – motor cycles have been bought, a few cars, many bikes, new buildings – incomes have not soared for everyone on the scheme. Sickness, inadequate family labour, inefficiency on the part of the management, cash constraints, have in many cases prevented the poorer from gaining the same advantages, forcing them to rent out their land to richer men – other farmers and even businessmen from Kano who have been able to benefit from the project. This scheme, like many others of its kind, will benefit unequally the farmers with access to land, money and labour and may well eventually force the smaller farmers off the land.

The aim to increase employment means increasing the opportunities in wage employment. There has undoubtedly been a rise in wage job opportunities in the area; the scheme employs men in construction, agriculture and livestock. Some local farmers have greatly expanded their capacity for employing hired labour. The increase in skilled jobs such as extension and irrigation has been filled by men from outside the area; the more educated people take these jobs. The project has become a focus for migration and the labouring jobs are filled both by local people and by migrants. The unskilled jobs are precarious, men are constantly being sacked and having to buy their way back into work, but they do nevertheless provide the men with access to cash incomes which were not available before. In turn the rise in the amount of cash available has stimulated other aspects of the economy and there has been an extension in butchery, building houses for rents, tailoring and other such services. But thus far the generation of employment has been haphazard and spontaneous and the setting up of rural food processing plants and packaging centres advocated as part of the scheme has not materialised. It has not provided employment for most of the farmers who lost their land to the scheme.

This stimulation of the economy and the increase in the availability of paid work has to be set against the number of people who have been uprooted from the land, some of them being forced to take paid work as their access to land has been removed. Similarly, the income opportunities of the *fadama* farmers and fishermen have been substantially reduced, and the farmers not involved in the scheme either as employees or irrigated farmers have hardly benefited at all. Nedeco were very concerned about the plight of these off-scheme farmers and stressed the need for extension work and the provision of wet season inputs for these people to improve their farming. In the early years of the project experiments were started in this field and proved successful. Yields rose from rain-fed agriculture, but since 1974 shortages of staff have prevented this programme being continued. By focusing efforts in one small area, other places are being neglected, which means that 'the project will primarily only benefit approximately 50 per cent of the local population, while the remaining 50 per cent will either be burdened with the negative effects or, at most, succeed in picking up secondary benefits' (Nedeco, 1976: vol. 1, 65).

The issue of the improvement in the quality of life is less tangible and harder to pinpoint. If the quality of life includes control over one's own affairs then the farmers on the scheme have suffered, they are increasingly vulnerable to outside people and events over which they have no control. This is an important loss in an area susceptible to drought, where survival in hard times depends on self-reliance, not the actions of the government.

While incomes have risen for some, others have lost money and, by investing heavily in dry season agriculture at the start of the season and then making no profit, they have got involved in a spiral of debt. For those on the scheme there has been an improvement in roads, two clinics have been built, the economy has been stimulated. But even for these farmers, nothing has been done to improve domestic water supply, and the spread of disease through the irrigation canals is growing. Similarly the problems of disease on their land, in a situation where there is no dry season to destroy aphids, have not yet been tackled. For those in the area off the scheme nothing has been done about roads, or farm inputs – the huge injection of money into the scheme has had a very limited geographical impact.

The needs of the migrant Fulani and their cattle have been noted but in practice ignored by the scheme. The Consultants dismissed them in a paragraph: 'During the dry season, after the crops are harvested, all resident livestock is allowed to roam freely and untended in various fields . . . at this time of the year also the nomadic Fulani herds on their way from the north to the south are allowed to linger in the area grazing on the crop residues of newly harvested fields. This tradition, which is not supported by any legal stipulation, will have to be abolished after the land has been brought under irrigation' (Nedeco, 1976: vol. 2, 21).

Thus while some are benefiting directly from the scheme, including some urban businessmen, the effects of it are limited to a tiny percentage of farmers involved directly in the scheme and are concentrated within the scheme itself on those farmers who have access to land, money for labour and the ability to sustain losses when inefficient management or falling market prices cause them to make a loss in any one year.

CONCLUSION

The Kano River Project is still in its early stages. In the light of the discussion presented in this paper it is clear that this large-scale irrigation is costly and it is questionable whether this approach will substantially increase productivity overall, and whether it will increase agricultural production more than equivalent investment in wet season agriculture state-wide would. The introduction of this technology and management significantly alters the relations of production of the farmer, who is forced to be dependent on the new bureaucracy, who is required to grow food for profit rather than consumption, who has been pushed on to a smaller land base (irrigation infrastructure absorbs 20 per cent of available land), who has to invest heavily in inputs, including labour, in order to reap a harvest. Many small farmers cannot bear the costs or carry the risks of farming primarily to feed the urban population and they are being pushed off the land by the larger farmers.

This project approach to increasing productivity is expensive, it is hampered by lack of staff, it undermines the autonomy of the smaller farmers. At the moment it is not as productive as the experts predicted, because they ignored the social and economic realities of the farmers needed to work the scheme – poverty, the need to secure food before cash, their involvement in non-farming economic networks, and the realities of an inefficient management.

The project approach only directly affects those involved in it; the bulk of farmers in Kano State are unable to benefit from this investment, many have been positively harmed by the loss of *fadama* and by resettlement. Because the planners believe that this approach will better raise productivity, alternative approaches, which have been seen to increase agricultural output (De Wit, 1978: 9), have been ignored – for example, making credit available to small farmers to buy fertiliser, distributing fertiliser and improved seeds more widely, opening up remote areas with new roads.

These schemes can only raise rural welfare by bringing the farmer an assured profit. Because of all the variables affecting yields and market prices this has not been done, and many farmers have lost money and self-sufficiency to this venture. Other aspects of improving welfare are largely ignored by the scheme – rural nutrition, health, education, water supply, better housing are omitted from the plans. These schemes do little to improve the lot of the mass of small-scale farmers, they even undermine some of them. While it is far from clear that intensive management and technology focused on small areas can meet the challenge of feeding the urban population, let alone improve the situation of the rural producer, it must be time for the government to re-examine its agricultural policy. The wealth and prosperity of Nigeria was built on the backs of the small-scale agricultural producers. It will continue to be fed essentially by them. Thus it is necessary to introduce measures that strengthen the ability of the majority of farmers to feed themselves adequately and the urban areas, not to focus on a few and boost large farmers and large scale schemes which are unlikely to be able to solve the impending food crisis in Nigeria.

NOTES

The research data presented here comes from a baseline study carried out in the town of Chiromawa, a town of 3000 people situated on the Kano-Zaria road, 50 km south of Kano, opposite the Kano River Project irrigation scheme. The questionnaire for this initial study was worked on by Dr Palmer-Jones, Mrs C. Jackson and Mr M. Dottridge and was administered in some other villages in the project area. The work presented here comes only from the survey I did in Waziri and Kwari wards of Chiromawa.

1. Historical changes in occupations and farming in this area are discussed in Dottridge, 1977.
2. For detailed information about the farming systems in Hausa society, see Buntjer, 1972; Goddard, 1972; Goddard, Fine and Norman, 1971; Hill, 1971 and 1977; Norman, 1972; Smith, 1955; Tiffen, 1971 and 1976.
3. For details of possible alternatives to irrigation in the area on wet season farming, Schultz, 1976; Netherlands, 1976, and the work of the Guided Change Project, 1978. Schultz was particularly outspoken in this matter: 'Existing technology. i.e. improved inputs, credit and extension, could increase dry land productivity 50–100 per cent in the next 40 years. Effective, co-ordinated government action will be required. The result will be greater increase to food output than could be achieved through development of all possible irrigation schemes in the Basin.'
4. For a discussion about the conflict between productivity and welfare see Barnett, 1977; Chambers and Moris, 1973; Mbithi, 1973.

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12 Evaluating the Gezira Scheme: Black Box or Pandora's Box?

TONY BARNETT

The Gezira scheme has frequently been cited as an example of 'successful' agricultural development. It was inaugurated more than fifty years ago and remains an important model for agricultural planning in the Sudan, and elsewhere. In evaluating the Gezira, it is necessary to say something about evaluation techniques. The discussion in this chapter begins with some general comments about evaluation. Questions are posed in connection with social cost benefit analysis which is by far the most common approach to evaluation, and a contrasting view is sketched. This is done from a perspective which assumes that there is a difference between *planning once and for all transformation* and *planning for change*. From this position, the project is seen as a series of socio-economic relationships existing through time, whose internal movement and development should be the prime objects of evaluation.

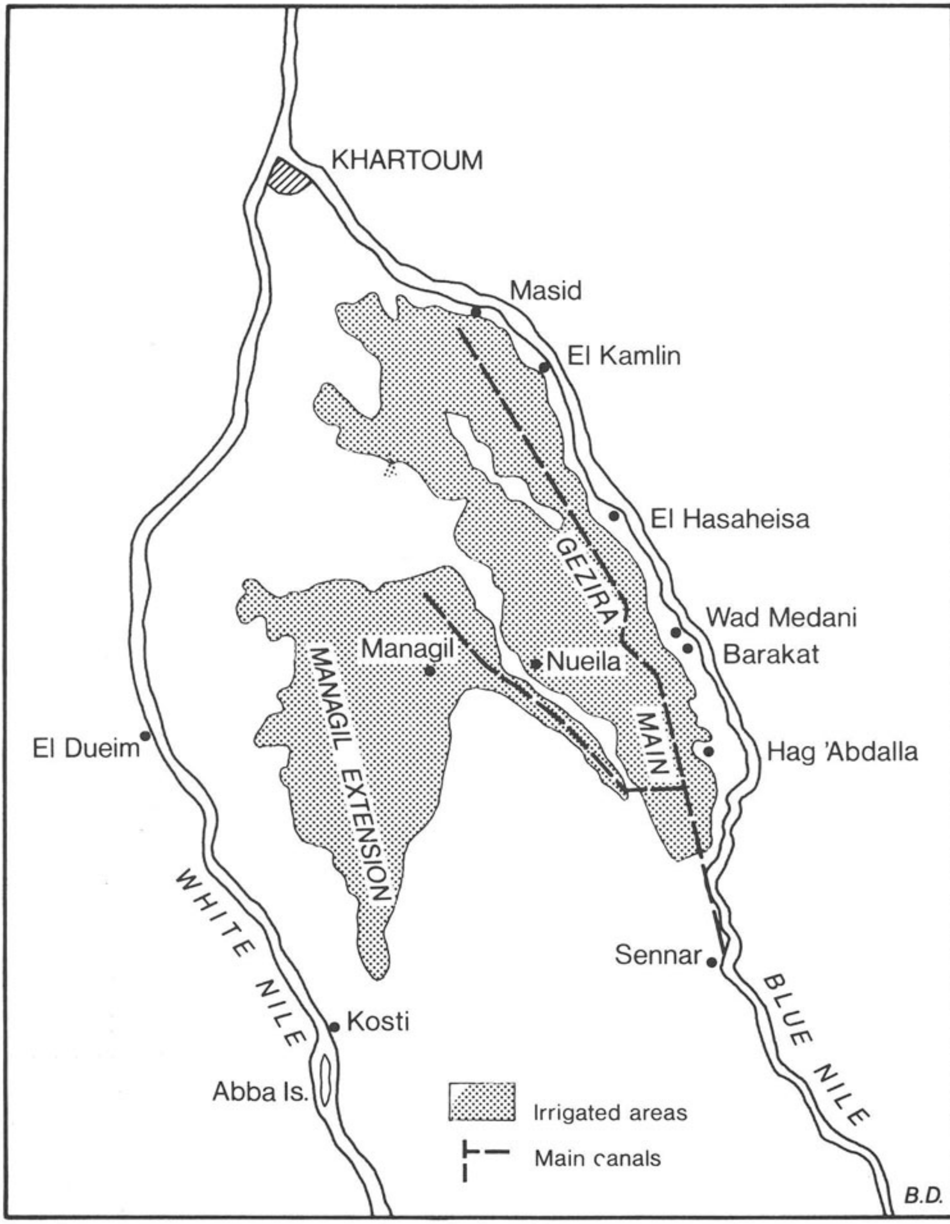
CURRENT EVALUATION TECHNIQUES

Social cost benefit analysis lies at the core of current evaluation techniques. The technique has been hedged around with *caveats*, but its central assumptions are simple, and derive from commercial profitability analysis. Little and Mirrlees begin their explanation of social cost benefit analysis with the statement that 'It is easiest to approach the subject of social cost benefit analysis by first considering how a private profitability analysis is conducted'. They continue: 'The starting point of the analysis is to specify all the expected inputs and outputs of the project, and to put a price to each input and output. In this way, one arrives at anticipated expenditures and receipts' (Little and Mirrlees, 1974: 7). This process provides 'the raw material with which the economic evaluator works, whether he works for an enterprise or in a planning bureau' (Little and Mirrlees, 1974: 8). When undertaking *social* cost benefit analysis, the essential logic of the process remains the same:

> The essence of a cost benefit analysis is that it does *not* accept that actual receipts adequately measure social benefits and actual expenditures, social costs. But it does accept that actual receipts and expenditures can be suitably adjusted so that the difference between them, which is therefore very closely analogous to ordinary profit, will properly reflect the social gain. The prices used, after such adjustments have been made, will be called 'social accounting prices', or for short 'accounting prices'. The difference between receipts and costs measured at accounting prices is, therefore, most appropriately called 'social profit' (Little and Mirrlees, 1974: 19).

The assumptions made by this approach can be questioned. First of all, the concepts of investment and of profit can be understood in a number of ways. They can be seen as neutral, economic concepts, referring to the inputs and outputs of a productive process, as derived from neo-classical production theory. These concepts can be operationalised as columns of figures and lines on graphs. In this form they provide information for management and for planners. Looked at from another perspective, they are by no means technical and neutral, but deeply ideological. They contain implicit assumptions as to how society operates and how it ought to operate. For example, the adequate and satisfactory balancing of investment and return to investment carries an assumption of 'efficiency'. The concept of efficiency is dependent on *whose* efficiency is being considered. The overall balancing of inputs and outputs to a system of production may take place at the cost of considerable inconvenience and inefficiency for those involved in direct production. Chambers (Chambers, 1976) and Harriss (Harriss, 1976) have suggested that one criterion for evaluation of irrigation projects should be convenience or reliability: 'the convenience, it should be noticed, is that of the cultivator' (Chambers, 1976: 7). Chambers further specifies the general notion of convenience into the components of 'predictability of water delivery' and 'appropriateness of water delivery'.

In contrast, the notion of efficiency commonly employed in social cost benefit analysis is a managerial concept reflecting assumptions as to whose perspectives on society and production are to receive most weight. It is the perspective of those who plan society from above, rather than that of the people who live and experience production from below. As Layard presents the simple case for social cost benefit analysis: 'The basic notion is very simple. If we have to decide whether to do A or not, the rule is: do A if the benefits exceed those of the next best



Map 7 The Gezira Scheme

alternative course of action and not otherwise. If we apply this rule to all possible choices, we shall generate the largest possible benefits, given the constraints with which we live' (Layard, quoted in Stewart, 1975: 31).

If we examine the concepts used in this extract, some critical points can be identified. The concept of 'the largest possible benefit' implies the most efficient transformation of investment to output. This presents the notions of output and profit as criteria of success which, although located in the logical system of neo-classical economics, in fact stand outside of social relationships. The ideas of investment and profit do not describe the social processes of production and consumption: instead they stand at the beginning and end of the production process, and thus serve as numerical indices of the *managerial* success or failure of a project, rather than the success or failure of a project as experienced by those who live and work within it.

At the root of this criticism lies a deeper one of the idea of social benefit. As it is currently derived and used the idea of social benefit is merely another version of profit. Social cost benefit analysis takes the idea of profit out of its logical and theoretical framework, the neo-classical theory of the *managed* firm, and attempts to apply it to a complex, usually only partially and imperfectly managed society. This is an inappropriate transposition for while a firm undoubtedly can make a profit, but does not do so for all its participants, societies do not make profits and the question of the distribution of wealth and income is not infrequently a contentious issue.

Closely related to the preceding remarks, is the second critical issue, that of calculating any Pigovian welfare function for a society, which is in some respects an ideological notion in itself. The problem of whose benefit becomes a major issue. Stewart (Stewart, 1975: 37) has demonstrated that the attribution of values in social cost benefit analysis is not merely a technical difficulty. It is a problem of politics and ideology. Governments, for whom and by whom social cost benefit analysis is carried out, are representatives of particular interests. The state cannot be regarded as a neutral body, a social governor. Rather, it represents particular classes and class interests. Because of its ideological nature, Stewart argues, the apparently technical procedures of social cost benefit analysis allow planners and politicians to avoid a central issue, the use of alternative fiscal means to bring about changes in the distribution of benefits within society, rather than the complex, and not necessarily effective process of compensation between social groups and sectors of the economy through shadow pricing.

The third critical issue in the use of social cost benefit analysis, and of evaluation procedures which are dependent on it, is what might be called the black box fallacy, which has been implicit in much of what has already been said. Evaluation concerns itself with a range of criteria, but a crucial one must always be the success or failure of the project in terms of its profitability. At this stage of the discussion it will be useful to distinguish between two perspectives adopted by planners. There is a distinction to be drawn between planning change, meaning planning for a transition from a preceding state to a static *ex post* state, and planning *for* change, meaning that it is assumed that the *ex post* state which follows the planned intervention will set up and sustain its own new dynamic and impetus. The distinction can perhaps be characterised by making a distinction between a black box paradigm and a Pandora's box paradigm. Current popular perspectives employ the former paradigm where inputs and outputs to a system of production are identified and, as long as the transformation from inputs to outputs is sufficiently efficient or profitable, then the project is judged a success. Yet the operation of the newly established system (i) remains largely unexplained and unconsidered as a problem, (ii) is assumed to be continuous and relatively static. Such assumptions are bound to be made, given the profitability goal which underlies the exercise. Yet in fact the black box has plenty going on inside it, and it does change over time. Recent work, such as that of Lele (Lele, 1975), has failed to take account of these changes. In her consideration of production in agricultural projects, Lele discusses the supply of factors and choices of intervention in relation to inputs. The intervening processes are assumed not to be problematic. Lele presents a false impression that a system of production, and thus the resulting level of output, can be modified in predictable ways, without giving attention to the social and political processes within the project system. Thus for example, she suggests that women's domestic commitments can be altered to increase the level of inputs, and market facilities can be improved to raise the level of output to the market, without considering that domestic commitments form part of a whole series of social and economic relationships. She suggests that once an intervention has been made the forces in a system will be juggled around, like pieces of glass in a kaleidoscope, form a new pattern and remain static until the next intervention disturbs the pieces again.

A more realistic view is that of the Pandora's box paradigm. This is meant to suggest a view of change which is to a degree unpredictable and which emerges from the processes at work in the black box when it is opened by means of a planner's intervention. Looked at from this perspective, an intervention like an agricultural project does not merely transform state A to state B and stop there, with hopefully a raised level of output. Rather, state A which is itself in some condition of internal change is moved into a new direction of change. The processes of change do not stop after the planner's intervention. It is the project as a process of continuous change, and the nature of that change, which should be evaluated. While profitability or 'social benefit' may be achieved, the processes set up by the changes may well be extremely unfortunate for some or all of the people, despite the satisfactory level of profitability. The green revolution is a clear example of a profitable intervention which induced, in some cases, unfortunate results in the form of impoverishment of sections of the rural population (Griffin, 1974).

Throughout what I have said so far, I have drawn a distinction between social benefit and profitability as criteria, and the experience of people 'who have hearts as well as heads, and play their own game' (Crozier, 1964). This is intended to suggest very definitely that the perspective from which evaluation must start is that of the direct producer, the person who actually wields the hoe or picks the crop I have indicated that in this context profit and society are concepts which serve to obscure the nature of social relationships. The notions of fettering and liberating can be taken to refer to the possibilities which the changing structure of the project holds for the groups living and working within it. In his discussion of cooperation Marx puts it as follows, talking of the entry into the labour process of individual wage labourers:

> Being independent of each other, the labourers are isolated persons who enter into relations with the capitalist, but not with one another. This cooperation begins only with the labour process, but they have then ceased to belong to themselves. On entering that process, they become incorporated with capital (Marx, 1867: 315).

The approach to project planning which sees change as a once and for all transformation, leading to production processes producing profit, assumes that labour is a factor of production belonging, as Marx indicates, to the management of the project, or to capital. And yet, people do have their own experience of and aims in projects. This is the Weberian tradition of analysis, a tradition which in many respects questions the exterior, 'objective' analytical perspective of neoclassical economics. Goldthorpe expresses this point succinctly in a recent article on inflation. For him, the aim of a sociological analysis of inflation (or of anything) must be:

> to investigate how inflation, understood as the monetary expression of distributional conflict, is ultimately grounded not in error, ignorance or unreason on the part of the actors involved, in the way that economic analyses are constrained to suggest, but rather in *on-going changes in social structure and processes*. And moreover, once such changes are established as analytically basic, the goal and potential of

> sociological analysis should then be to show how the actions of rank-and-file employees, union leaders, governments, etc. are, if not rational in the economists' sense, still *intelligible*: that is to say express a logic which is adequate from the actor's point of view, in the situation in which he finds himself and which at the same time is apprehensible by the outside observer (Hirsch and Goldthorpe, 1978: 195).

The alienation referred to by Marx and the implied failure by economists to recognise the situational nature of 'rational' responses in society referred to by Goldthorpe, are in some respects mirror images of the same process. In the second case, the rational responses of sections of the population are denied rationality and validity by those who claim to seek the interests of society, for example, those who practise or commission social cost benefit analysis.

I am using these arguments to remind us that human beings, as individuals and as groups, are restricted in the realisation of their objectives by others, acting as individuals and as groups. Clearly the form of production undertaken, and the relations of production which characterise it, can act as obstacles to the realisation of basic objectives, such as standards of health and nutrition. Yet measures of social costs and social benefits when applied as criteria to a project presuppose that anticipated consequences can be reduced to a single common denominator, a notional monetary value.

The real need is to develop an approach to evaluation which brings into the foreground (a) the kinds of rational response of various groups of people to a particular project and (b) the ways in which the organisation and relations of production act to block the aspirations of some people, and thus produce rational responses, such as restriction of production, which appear irrational when appraised from the viewpoint of management. As the project develops and changes over time, so these responses, relations and perceptions will alter and develop in relation to each other, in many cases fettering the actual level of productivity achieved and also restricting groups and individuals in the pursuit of their objectives. It is these kinds of criteria which ought to be in the forefront of evaluation, and which will be illustrated in the evaluation of the Gezira scheme which follows.

EVALUATING THE GEZIRA SCHEME

The Gezira Scheme is situated in an area of very low rainful between the Blue and White Niles, south of Khartoum. It was founded in 1925, but was the outcome of plans and negotiations which began in the early years of the century, soon after the reoccupation of the Sudan by the British and Egyptian forces. It covers an area of something over 740,000 hectares and produces a main cash crop, cotton, as well as subsidiary crops of millet, rice, wheat and groundnuts. It provides income and employment for a large number of Sudanese people in an area which, without irrigation, would otherwise be typical Sahelian dryland cultivation and herding. (Detailed accounts of the Scheme may be found in Gaitskell, 1959; 'Abd al Rahim, 1968; Barnett, 1977.)

It does not require a social cost benefit analysis to indicate that, without the Scheme, the people of the Gezira and probably of the Sudan in general would have been less well-off than they are at present. Even so, a recent writer (Simpson, 1978) has noted that incomes in the Gezira Scheme 'are not higher than those recorded for traditional farmers from rain-fed areas in the Central Sudan'. However, inasmuch as the Scheme (i) produces crops, (ii) supports a population, (iii) earns foreign exchange and (iv) continues to operate, it is a 'success'. Although I have indicated elsewhere (Barnett, 1975 and 1977) that in a broader perspective this view has to be hedged with reservations, I do not want to discount the positive elements in the Scheme. The impact of capitalism on non-capitalist societies is always ambiguous.

The Gezira Scheme constituted a radical transformation of the political economy and the environment by means of the application of very extensive gravity irrigation from two dams constructed on the Blue Nile. Production of cotton, the main export crop of the Sudan, came to dominate the lives of the people. Production for exchange became paramount, in order to provide revenue to the colonial and then the post-colonial state; and profit to the commercial management company in the colonial period, and to the post-colonial state after independence in 1956. It did this through the medium of a state management and purchasing corporation, the Sudan Gezira Board (SGB).

In characterising the Gezira Scheme, we can begin from two basic spheres of production, the production of cotton, almost wholly marketed through the SGB, and the production of grain, consumed and traded by the tenants independently. There are four elements to consider in relation to these two spheres of production. These are (i) the state, (ii) the *nas tayyibin* (a term which will be explained), (iii) the tenants, (iv) the labourers, some of whom are members of the community but not tenants, and others of whom form the migrant labour groups, referred to collectively as *fellatta*. Formally speaking, the SGB is responsible for management and marketing of cotton; the government, through the Ministry of Irrigation, for the supply of water; and the tenants for the provision of labour. Tenants have access to land on the basis of an annual lease, renewable on condition of satisfactory agricultural performance. We can now examine the relationships between these groups as they develop out of production, in order to illustrate the kinds of fettering processes which have developed within the Scheme.

The Sudan is heavily dependent on cotton production. It is a major source of revenue. In 1977 it accounted for 57 per cent of total exports by value (*Sudanow*, April 1978). As the Gezira constitutes about 12 per cent of the total cultivated area in the Sudan, its contribution is obviously crucial. The state, through the SGB, controls land in the scheme. Under the colonial government, land was taken into state control through a system of leasing from the original owners at an attractive unimproved rent for an initial period of 40 years. In practice, this meant that the state gained control of the land in perpetuity. It also controls the water, from the dams down to the point of application to the crop, and in addition provides credit advances to the tenants (Barnett, 1977: 73–6) and distributes the proceeds of cotton sales. The proceeds of the cotton crop are divided between the state, the SGB and the tenants in the proportions 38 per cent (including 2 per cent paid to the Gezira Local Government Councils), 52 per cent (including 2 per cent paid to the SGB Social Development Department for social development in the Scheme villages and 2 per cent paid to an equalisation fund administered by the SGB), 10 per cent taken by the SGB to cover its administrative costs.

Such an arrangement is complex, and reflects the forces at work in the establishment of the Gezira Scheme, and the development of the balance between these forces over its history. The paramount force in the early planning period prior to 1925 was the colonial government of the Anglo-Egyptian Sudan. Because of its geographical position, and its recent reconquest (it was still under military government), the Sudan occupied an important position in imperial grand strategy. It safeguarded the southern borders of Egypt and also the waters of the Nile, as well as the western coast of the Red Sea. In the extreme south and west it constituted a claim in opposition to French ambitions in the region. The colonial government faced the problem of administering such a vast territory. In 1902, Lord Cromer, Consul-General of Egypt, stated the position as seen from Cairo:

> What the Soudan mainly requires is the outlay of capital on a large scale, notably to improve the very defective means of communication which at present exist. It is quite hopeless to expect that unpaid private enterprise will supply this want. In view of the certainty that a considerable period will have to elapse before any outlay will be remunerative, it is impossible to arrive at any other conclusion than that recourse must be had to Government action. To obtain the necessary funds at the expense of the British taxpayer, even were such a course desirable, would not, in my opinion, be either just or desirable. It is

equally clear that the Government of the Soudan cannot, on its own unaided credit, raise money, for its expenditure is already largely in excess of its income. To impose additional taxation in Egypt, in order to meet Soudanese requirements, is a proposal which cannot for one moment be entertained. Under these circumstances, the problem might at first sight appear insoluble (quoted in Gaitskell, 1959: 35).

Initially, however, funds were raised from Egypt, despite Cromer's scruples about this course of action. And, between 1899 and 1912, millions of Egyptian pounds were directed towards infrastructural development in the Sudan. Even with this considerable subvention from the Egyptian economy, the financing of the Sudan remained a pressing problem, as it still lacked an established economic base which could be assured in the longer term.

Given these incentives, the government defined its policy as follows, in the words of the Governor-General, Sir Reginald Wingate:

> The task which the Sudan Government has set itself to perform is primarily to confer the benefits of civilisation on the inhabitants by rendering secure, as far as is possible, their persons and their property – by improving communications across those wide stretches of desert or wilderness which intervene between the main centres of population and productivity – by adding to the fertility of the naturally rich soil by means of artificial irrigation suitable to the varying conditions prevailing over so large an area of country – and finally by providing – in addition to the great Nile waterway and railway which bind the Sudan and Egypt – a good port and harbour on the Red Sea within easy access of the interior, whereby the inhabitants may be more economically furnished with their requirements from abroad, and may find outside markets for their natural products (quoted in Gaitskell, 1959: 34).

Two sets of opinions worked themselves out in the implementation of a colonial policy of development. On the one side there was the British government's concern with colonial self-finance, on the other was the influence of some members of the Sudan Political Service, an élite body of administrators, some of whom had seen in India the terrible effects of land shortage created by speculation. Thus in 1904, Wingate in the face of speculative appropriation of land by Levantines and non-Sudanese Arabs, declared that:

> I do not see how under present circumstances the Government can be other than paternal . . . There can, however, be very little doubt that, unless some restrictions are imposed, almost the whole of the

land will pass out of the hands of the natives into those of speculators (quoted in Gaitskell, 1959: 44).

As a result, from 1912 permission was refused for any dispositions or sales of land in the Gezira 'except of such sales to other natives of the same locality as had hitherto been customary and were deemed by the Government to be proper' (quoted in Gaitskell, 1959: 44). The effect of this policy was undoubtedly to protect the Gezira landowners from appropriation by Levantine and Arab capitalists. It also left the field clear for British capital, with the intention that, after the land had been developed by these means, it would ultimately be transferred to 'small native landowners, with a view to creating a peasant proprietary class' (Gaitskell, 1959: 43). Thus, one influential adviser saw the future of the Gezira in the following way:

> I think it is as well to emphasize one general proposition, that an essential difference in our land policy should be maintained with regard to what may be termed the pioneer stage of land development as distinct from the permanent land settlement of the country. The Sudan is not, and never will be, a country suitable for permanent European habitation, and it is therefore the interest of the Government to encourage as far as possible native landowners . . . But in order to bring under cultivation the vast tracts of land which only need water to make them fertile, it is necessary to provide a considerable capital . . . Under these circumstances I am strongly of opinion that land companies and syndicates will be of greater use to the country generally during its pioneer stage of development, than any attempt to develop the country through purely native agents. There is a certain danger, however, that people will regard the large purchases of land made by such syndicates or companies as being in opposition to the native landholder. Such is not the case, the business of the land companies and syndicates is merely to acquire land, place it under cultivation, and when its value is increased to a certain point, to dispose of the land which they have obtained. Provided sufficient encouragement is then given to the native land-owners to buy the land, the Government will succeed in settling a good class of native owners in the Sudan, and this I opine is their main object. The pioneer policy of Government should, therefore, be to encourage sound land companies by giving them fair terms under which they can make reasonable and fair profit, at the same time jealously guarding the native rights over any portion of such land, compensating adequately and fully any native owners whom it may be necessary to dispossess in order to carry out efficiently the larger schemes. The future land policy of the Government should be to facilitate the transfer of such

land from the hands of the land company to smaller native owners (Stone, quoted in Gaitskell, 1959: 46).

For the colonial government, then, the policy which developed envisaged: (i) restrictions on the market in land to 'local' people, (ii) exclusion of non-British capital, (iii) the use of commercial companies for the process of agricultural development and (iv) the eventual return of the land to a local peasant proprietary class.

This obviously brings in the next major interest, the commercial interest. The British cotton industry was beginning to decline in the early years of the century. It was becoming uncompetitive, and unable to obtain adequate supplies of long-staple cotton for manufacture in those sections of the market where it still retained a competitive edge over German, Indian and Chinese manufacturers. Thus the British Cotton Growers Association came into the picture and, using its influence in parliament, was able to persuade the British government to underwrite the loans for the construction of the irrigation works (Gaitskell, 1959: Chap. 4; Barnett, 1977: 3–6).

Various small-scale and not entirely successful attempts at commercial cotton cultivation had been made in the very early years of the century. Among these was a company called the Sudan Plantations Syndicate, which was in fact the only company remaining in the Sudan by 1910. The discussions as to whether the Gezira Scheme should be run by the Department of Agriculture or by a commercial company were complex, but 'the chief argument in favour of the Syndicate and one of which the (colonial) government was very conscious, was that a successful experiment carried out by a commercial body would carry more weight in Britain when it came to raising a capital loan for the main Scheme' (Gaitskell, 1959: 63).

Thus, although there were reservations on the part of some members of the government about 'gentlemen who are very well up in the company-mongering details, and would not fail to take advantage of the Sudan Government which has not much experience in such matters' (quoted in Gaitskell, 1959: 64), on balance the situation demanded that if the Gezira was to be developed it would have to be through the medium of British commercial capital. The company's role would be to provide the management of the Scheme, and its interest was in profit. It certainly made profit: in the crisis period 1929–39, when both government and tenants were either making losses or very small incomes, the company only made a loss in one year, 1931 (Barnett, 1977: 120). Its position as a commercial manager also had very serious effects on government policy aimed at devolving management to the Gezira tenants. The company effectively blocked the policy throughout the 1930s and 1940s as this threatened its profits (Barnett, 1977: chap. 8).

The post-colonial state in the Sudan, through the SGB, has also effectively prevented any participative reforms to the extremely authoritarian and hierarchical administration of the Scheme.

The interests of the people of the Gezira, who became tenants and labourers, are difficult to identify, as they have not been documented. It is probably true to say, though, that for those people who owned land, the offer of an annual unimproved rental payment of 10 piastres per feddan was attractive, for it (i) assured them of a cash income from rent, and (ii) allowed them continued access to some of their land – up to 80 feddans (20 hectares) on which they would be able to grow cotton as well as the subsidiary subsistence crop, millet. There is evidence that there had been a landowning class in the Gezira for some centuries: title deeds can be found which go back 200 years (Boulton in Tothill, 1948: 191).

This group of landowners had appropriated surplus through the use of their families and also through slaves. During the period of the Mahdiyya, some threw in their lot with the Mahdi, others saw their best interests as being served by remaining sympathetic to the British. There is little documentary evidence of this, and the issue is complicated by the overlapping of material and religious interests. The case of 'Abd al Gadir wad Haboba is illustrative (Cudsi, 1969). 'Abd al Gadir had been a prominent Mahdist from the Halawin group in the Gezira. He went with the Mahdist army to Toski in 1889 and was captured by the British, but he was later released and was present at the final defence of Omdurman in 1896. In contrast, 'Abd al Gadir's brother, Mohammed, was in effect a British agent, charged with the task of winning the Halawin over to the British. At about the same time, just before the battle of Omdurman, 'Abd al Gadir was sent by the Khallifa (the successor of the Mahdi) to Gezira, to mobilise the people and obtain food supplies for the Mahdist army. This series of events deepened the breach between the two brothers, and this was increased when, on his release after the battle at Omdurman, 'Abd al Gadir returned to his home to discover that his brother had taken over title to the family lands, which should by right have been his. 'Abd al Gadir attempted a revolt, was captured and finally executed by the British, leaving his brother in control of the family lands.

It seems unlikely that this incident was entirely isolated. If this is the case, then many other title-holders in the Gezira may also have been from those sections of the population who had been sympathetic to the British. In this sense then, the Scheme was their reward: annual rental plus cash income from larger than average tenancies, because a large landowner could be allocated up to two tenancies.

As A. W. 'Abd al Rahim puts it:

The preservation of big landowners as the squires of the Scheme, receiving rent from the Government for the part of their land that was allotted to others for use and relying entirely on hired labour for the cultivation of their own tenancies . . . and seeking other outlets for the investment of their cash earnings – all were factors establishing this group of tenants at a great advantage in comparison to the vast majority of tenants holding one or half a tenancy each ('Abd al Rahim, 1968: 314).

The interests at work in the establishment of the Scheme were, then, broadly stated, those of the colonial government, the commercial company and the title-holders in the Gezira. Over the years since its establishment the original shares in the profit from the Scheme have altered to their present levels, largely reflecting changes in the political power of the Tenants' General Union, which is by and large controlled by the wealthier tenants. The tenants' present share of 52 per cent is an increase over their original share of 40 per cent, while the state's original 35 per cent has risen to 38 per cent.

The tenants pay no direct taxes except for a small and easily evaded animal tax. In fact they probably pay a fairly large amount of indirect tax, given that they depend very heavily on goods and some foodstuffs which are imported from abroad (Barnett, 1977: 176). They receive their water both for cotton and other crops free of charge. As we have seen, their prime responsibility, as outlined in the Standard Conditions of Tenancy, is to provide the labour input to the land. Thus 'the tenants shall cultivate the land in a proper manner and according to the scheme of crop rotation laid down by and to the satisfaction of the Syndicate' (Gaitskell, 1959: 340). In the main, with the exceptions of periods of peak labour demand, it has always been assumed that the labour supply will come from an entity referred to as the 'tenant's family'. The concept of the tenant's family is not without problems as a planning assumption, and this will be discussed below. These assumptions, a clear example of the black box paradigm, have been particularly destructive in their effects on tenant life. In addition, tenants may form an undifferentiated administrative category, but they are certainly not homogeneous. They can be differentiated in a number of ways. The majority of tenants have no resources other than their labour; a few are owners of rainland on the margins of the irrigated area; and another small but important group have other resources, usually in the realm of circulation, such as shops, lorries and provision of credit. People in these last two groups form the *nas tayyibin*.

The *nas tayyibin* are rich people, those with *akhlag*-manners, 'breeding'. In the present-day Gezira, the *nas tayyibin* are the descendants of those who were the original landowners. To a degree there has been intermarriage with other wealthy elements, but the preference for cross and parallel cousin marriage has served to maintain control over resources within a very small group in any particular village (Barnett, 1977: 59–72, for a detailed account of such a group over a number of generations). Some members of the *nas tayyibin* do still occupy tenancies but, on the whole, these are worked by hired labour and constitute one enterprise among several. In addition to the tenancy, a member of this class will perhaps own a small shop, a lorry, lend money, act as a grain merchant or as a tractor contractor to the SGB. Children, particularly males, will be educated, and often enter the service of the state. An appreciable section of the Gezira Board administrators come from such origins. Obviously then, the close link between the landowning class and the colonial state has, although transformed, been perpetuated in the post-colonial state.

As a condition of continued occupancy, the tenants are required to perform satisfactorily each year. They demonstrate this by cultivating their tenancies and producing cotton. It was initially believed by the British that the greater part of the labour could be supplied by tenants' families. However, what this 'family' was prior to the Scheme and what it became as a result of the Scheme are rather different. In essence, prior to the Scheme, cultivation was extensive. The landowners appear to have had various share-cropping arrangements with their relatives and clients, as well as some use of slave labour. The details of the system are unclear, but it would seem that this is what cultivation through use of the 'extended family' may have meant. The landowner would have been liable to some form of taxation payable to the government. This was certainly true from 1834 onwards during the Turco-Egyptian period. With the advent of irrigated cultivation, those who received tenancies entered into individual contractual relationships with the state through the Sudan Gezira Board. The effects of this have been ambiguous. While the tenants who are wealthy and can employ labour as a matter of course can operate their tenancies profitably, the poor tenants face difficulties which put them into debt, usually to the *nas tayyibin*.

The production target for a tenancy remains invariable, as the tenancy size also remains invariable from year to year, but the labour potential of a tenant using domestic labour changes over the developmental cycle of the domestic group (this point is discussed in more detail in Barnett, 1977: 33–43, 45–71, 85–88). A level of income where there is no need to go into debt in order to meet basic domestic consumption can be achieved only at that point in the domestic developmental cycle when unpaid domestic labour input is high and hired labour input is low. In practice this is a period of about 10 years. At other times, a tenant tends to be heavily dependent on paid labour. This labour has to be paid in cash, and cash is dependent on credit. Some credit is available from the SGB, but it is neither sufficient nor available at the right time. The other source of credit is borrowing from the *nas tayyibin*.

It is possible to identify two types of household economy in the village community. The majority of tenants live most of their lives in a situation of indebtedness. All of their income, and more, is spent on the current consumption needs of themselves and their families. In addition to this, of course, they have to cultivate the tenancy. By contrast, a smaller group enjoys a higher level of life. In this group there are those whose higher level of life is permanent and those for whom it is only temporary. The former are by and large members of the *nas tayyibin*. (There are, of course, members of the *nas tayyibin* who are not tenants, just as there are poor people in the villages who are not tenants. These latter form part of the labour force, but are not discussed in this article.) There are also those whose level of life is based on the fact that they are passing through that period of their domestic developmental cycle when the domestic group can provide an appreciable labour input. When this period has passed they revert to the same position as the majority of tenants.

As the tenants are compelled to act as labour contractors, the non-tenants in the community, both men and women, Arab and *fellatta* are in a strong position *vis-à-vis* the tenants. There is always a shortage of labour, and tenants compete with each other in order to obtain it. In order to pay these labourers, they obtain credit from the *nas tayyibin*, in the form of cash to be repaid with interest, or more frequently through advance sales of the grain crop. This process enables the *nas tayyibin*, some of whom trade as grain merchants, to accumulate and invest in non-agricultural activities. It also enables the *nas tayyibin* to educate their children. It is here that we can see the importance of grain production for the tenants. Planned as a provision for their subsistence and accepted into the rotation by the Sudan Plantations Syndicate only under protest, it has become a major mechanism for the procurement of credit to fuel the production of cotton. In this way, it provides a basis for accumulation by the *nas tayyibin*, while the portion of the proceeds of the cotton crop which accrues to the state officials in the form of salaries, enables them to consume imported goods and the state's portion provides the funds for investment, often in urban areas. It is worth noting in this respect that the SGB has been a net drain on public finances at least since 1970. Thus it is the case that the Sudan Gezira Board, instead of generating surpluses for financing development, showed heavy overall operational deficits. In a paper prepared in the Ministry of Planning evaluating the performance of the Sudanese economy for the period 1970–75, a table headed 'net financial position of public entities' gave the following figures for the Sudan Gezira Board:

Year	*£s millions*
1970–1	– 5.0
1971–2	– 5.5
1972–3	+ 1.2
1973–4	– 7.7
1974–5	–21.4
1975–6	–11.3
1976–7	– 4.1 (partially estimated).

The tenants are not unaware of these processes. They make a distinction between the cotton crop, which they see as belonging to the government, and the grain crop, which they see as their own. This is important. The grain produced is partly consumed, and partly used to finance cotton production. It is thus vital to the tenants, and at times of water scarcity they manipulate the irrigation system informally so as to deprive cotton of water, and ensure the success of *their* grain. This lowers the yield of cotton (Barnett, 1977: 101–15; Barnett, 1979).

The organisation through which the Scheme is managed also appears to operate so as to reduce output. It is authoritarian and hierarchical. Policy is formulated at the Gezira headquarters in Barakat and then implemented through a chain of command running down through 14 group inspectors, each responsible for the production by about 6000 tenants from more than 140,000 feddans. Working under the direct authority of each group inspector are some two to ten block inspectors and twenty to thirty field inspectors. All information and instructions to the tenants pass down this chain from the centre, and any upward flow of information follows the same path in reverse.

The effect of this complex chain of command is to separate the centre from the point of production, and make it likely that innovations which tenants have made, for example, in water economy (Barnett, 1979: 64), are not taken into account by management. In general, because it acts as a barrier to communication it means that tenants' responses can be interpreted by management as irrational, indicating how much tenants continue to require management tutelage. The administrative structure has been unable to adapt from an initial situation where tenants were totally inexperienced in irrigated agriculture, to a situation where in some respects, they are more expert than is the management (Barnett, 1979).

WITHIN THE GEZIRA BLACK BOX: A SUMMARY

The following points from the preceding description indicate the complex fettering processes which have developed within the project black box between inputs of labour, land and capital and outputs of cotton, millet and money, as the Gezira Scheme changed over time.

(i) An account of the history of the establishment of the Scheme shows how the original land owners, at least largely coterminous with the *nas tayyibin*, were able, through provision of credit and involvement in trade, to increase their participation in circulation and the state. At the same time they maintain their dominant position in the local communities.
(ii) There was a failure to recognise that the domestic development cycle of tenant families would make the tenants dependent on informal sources of credit, and thus on the *nas tayyibin*. This ensured that they were trapped as price takers in relation to the labour they had to employ in order to meet the terms of their contract.
(iii) Together, these two processes produce a situation where distribution of the benefits of the Scheme is unequal and the Scheme can promise no reversal of this state of affairs.
(iv) The tenants' consciousness of their situation effectively lowers the level of cotton production, as they decide that labour expended on millet has a higher return than labour expended on cotton.
(v) The form of the organisation makes it unresponsive to new information from the field level. This results in wasteful water use. The novel system of water economy which the tenants have developed is actually illegal in terms of the organisation's rules.
(vi) The organisation, operating on an assumption that tenants do not change, becomes inappropriate to the operation of the Scheme. The organisation is designed to cope with a stable situation, but in its very nature a rural development project is dynamic and changing.

These points demonstrate how by opening the black box to appraisal and evaluation, some lessons might be learned from Gezira experience, both at the specific level of irrigated agriculture and at the general level of agricultural projects. While standard evaluation and appraisal techniques depend heavily on social cost benefit analysis they collapse everything into the simple cash denominator and make simple judgements. In contrast, the present approach does not offer a technique, but rather directs us to what should be the central concerns for those appraising and evaluating projects, concerns which examine with sympathy the fate of the direct producer rather than some abstract notion of social benefit.

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13 The Senegal River Valley

ADRIAN ADAMS

WHAT KIND OF CHANGE?

Late in April 1975, in a village on the left bank of the Senegal River, a meeting took place. It was held in the courtyard of a private dwelling-house, not in the village forum; for it involved, not the village as a whole, but the members of the village association for collective agriculture, which had been in existence for just over a year. They numbered about 270 at the time: 200 men and 70 women, almost half the active population then present in the village, evenly distributed throughout its 70-odd households. Many of them were at the meeting. Their designated spokesmen were seated on mats at the front of the gathering: six *chefs d'équipe*, heads of work groups, and the association's chairman, vice-chairman and treasurer. Near them sat observers from neighbouring villages where similar associations had been formed. Seated at a table, facing the assembled people, were the visitors who had caused the meeting to be held. One was a familiar figure, a French agricultural technician who had been in the area for a year. The others were not. One was the organiser of an agricultural improvement scheme about 200 miles downstream; the other was a representative of the Société d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Sénégal (SAED), which had shortly before been placed in charge of agricultural development on the river. These two men were Senegalese, but from nearer the coast; they spoke in French, which was then translated into Soninke, the language locally spoken. The three men, accompanied by assistants who took no active part in the meeting, had arrived in the village together.

The man from downstream spoke first. He understood the people's worries, he said, because he had experienced the same problems himself. When the youth centre he ran started a farming scheme, they were anxious to preserve their freedom of action, because they had seen for themselves, in their own village, how peasant farmers working for

SAED could be drawn into a cycle of debt. But they had solved the problem now. By coming to terms with SAED, they had gained access to international aid; the Senegalese authorities had sent observers, and the scheme was now receiving substantial support, especially from USAID. 'You must cooperate with SAED', he urged. 'You need modern technology; if you say No to SAED, you are saying No to modern technology. You should say Yes to all organisations which can help you. It is to be hoped that God will help us to be like Europe or America. SAED is the government's agent; it is your agent. It belongs to all of us.'

The SAED representative spoke next. He announced that SAED had been placed in charge of development along the river, and that the area within which the village was located was one of the few which was suitable for extensive rice cultivation. His task, he said, was to explain how SAED was going to organise work in the area, so as to dispel any misunderstandings. As the son of a peasant, he understood their problems well. 'A technician, in Senegal, is a peasant. The son of a peasant is no other than a peasant.' Once they had talked things over, everything would be clear.

The chairman of the village association then spoke briefly. People in the village, he said, had heard about SAED; but they had heard nothing from SAED, until now. They had started working on their own, with the help of the French technician; then they had suddenly heard, through this technician, that they should work with SAED. 'One day we were told that SAED would send us a master.' If they were all fellow-countrymen, why could SAED not address them directly, instead of treating them like things? In reply, the SAED representative said that now that the government had given the Senegal River Valley to SAED, the technician referred to was the direct agent of SAED, in which capacity he would continue to do all he could to help the peasants. There was no need to worry about debts; debts were caused by foolish rivalry between neighbouring villages. The man from downstream added that they were lucky to have a technician to advise them; they would achieve take-off all the sooner, and then rich people would help them.

These initial exchanges set the pattern for the entire meeting, which lasted several hours. The line put forward by the SAED representative, and supported, with variations, by the man from downstream, denied that there could be any real difference of interests between the peasants and the authorities; the peasants' reasons for thinking otherwise were presented as trivial, arising from parochialism and fear of change. 'We are all peasants', they said, 'my father was a peasant.' Although the village's technician now worked for SAED, they should continue to trust him; there was only one way to modernise. The peasants could rest assured that SAED would not favour the nearby town at the villages' expense. 'You must work hard; then you will see what has been done for you.' The spokesmen of the village association, on the other hand, stressed their sense of separateness, their fear that cooperating with SAED might weaken their control over the future of the work they had begun on their own. Their technician had come to help them develop, they said; now they heard he had become a SAED agent. If SAED's interests were the same as their own, why not explain clearly what SAED wanted? The association's chairman recalled how he had been left waiting outside while the French technician conferred with SAED officials in Saint-Louis. Was that right?

Towards the end of the meeting, patience wore thin, and a revealing exchange took place. One of the *chefs d'equipe*, a man locally renowned as a Koranic scholar, asked whether they would be compelled to work with SAED. 'We live in a democratic country,' he was told. 'In that case,' he said, 'ever since the village was founded, we have lived by farming. God will give us a living. Let SAED make the sky fall; then we'll join SAED.' The SAED representative protested that he was 100 per cent Muslim. The man from downstream went further. His activities, he said, were based upon the Koran. Peasants were stubbornly opposed to the diffusion of new ideas and techniques (he used the words *consciencisation* and *vulgarisation*); God had said so. God helped those who helped themselves. 'It is God who created SAED. We must collaborate with SAED. I advise you to do so.' The French technician remained silent, except to say that he had no official connection with SAED, a statement directly contradicted by the SAED representative.

This meeting was inconclusive; it was not the first of its kind in the village, nor would it be the last. It seemed a particularly clear sign of a general predicament, with far-reaching implications: for the people of the area, for Senegal and her neighbours on the river, and for the prospects of agricultural change in Africa. To understand why, one has to understand what the meeting was really about.

SINCE THE WAR

After the War, which had starkly revealed the extent of Senegal's dependence on imported rice, the colonial administration focused renewed attention upon the Senegal River; more specifically, upon the Delta. At Richard-Toll, where the first attempt at a colonial plantation had been made 125 years before, the Mission d'Aménagement du Sénégal (MAS) determined to establish rice cultivation on a large scale. An experimental 120-hectare plot was established in 1946; by 1949, work had begun on a 6000-hectare scheme. This project did not involve the population of the valley. It was located in a thinly populated area: 1 to 5 inhabitants per square kilometre, as against an average density of 32 for the valley as a whole, according to 1951 estimates. Cultivation was highly mechanised, on the American model, and required very little manpower: 18 workers per 100 hectares at peak periods. A small area (330 hectares) of the project's land was made available, under pressure, to Senegalese settlers, who were to hire farm machinery and services from MAS; but this came to nothing. As an experiment in new methods of rice cultivation, the scheme was a mitigated success: the area under cultivation expanded fourfold, from 1335 to 5400 hectares between 1953 and 1960, although average yields receded; average yearly production was 15,000 tons, one-tenth of Senegal's consumption. Financially, it was an unmitigated failure: the scheme cost a total of 2700 million CFA francs, and a state subsidy was needed every year to cover deficits ranging from 8 to 50 million CFA francs.

After independence, Richard-Toll was entrusted between 1961 and 1965 to the government-run Société de Développement Rizicole du Sénégal, while the Organisation Autonome du Delta (OAD) was entrusted with the remainder of the Delta. In 1965, it was decided to renew the attempt at rice growing on a large scale: 30,000 hectares of the Delta were to be brought under cultivation within a period of ten years, through a combination of mechanisation and planned settlement. A new organisation was created, replacing both SDRS and OAD, to handle the manifold tasks involved: the Société d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Sénégal (SAED), described as a *Société d'Etat à caractère industriel et commercial.* Peasant farmers were to grow the rice, on land made over to SAED by the state and distributed through cooperatives, but SAED would exercise close supervision, providing seed and fertiliser, hiring out machinery and marketing the crop; SAED itself would be accountable to the Ministry of Rural Economy.

As the area of the project was peopled largely by nomadic Fulani herdsmen, with only one sedentary village, population was to be shifted to the area from outside. The plan was to have 9000 families settled in the area by the time the entire 30,000 hectares had been brought under cultivation. Six new villages were built between 1964 and 1967, and peopled by retired soldiers, immigrants from the Middle Valley, and a high proportion of people from villages on the bank of the lower Senegal. Plans proceeded at the intended pace until 1967; about 20,000 people moved to the project, and there were 29 cooperatives, with 4436 members. Difficulties had arisen, however, even before the disastrous season of 1968, when 8000 hectares yielded only 500 tons of rice. The terrain itself presented certain difficulties. 19,000 of the planned 30,000 hectares were found to be too salty to be used. A substantial part of the remaining land had been brought under cultivation, but crop losses were heavy, averaging 30 per cent, because of the technique of flooding unlevelled ground, which gave only limited control over the supply of water. After the 1968 crop failure, due to lack of water, SAED began to install pumping stations and improve the irrigation network; but it also called a halt to further settlement of the Delta. The settlement scheme had also presented certain difficulties.

The decision to aim for rapid extension of large-scale rice cultivation meant intensive mechanisation and heavy investment in the hydro-agricultural infrastructure; in other words, SAED intervention on a massive scale. The work which could be done by untrained peasants amounted to very little: sowing and threshing, only 40 days or so a year. SAED did the rest. SAED built and maintained houses, roads and irrigation works; this was not charged to the peasants. Fertiliser, seed and hired machinery were provided on credit to the individual peasant farmer, whose work was closely supervised by SAED personnel: an engineer for every 1500 hectares, a technician for every 400 hectares, and for every 100 hectares, an *encadreur de base* to supervise the day-to-day organisation of work. Obtaining credit, purchasing supplies, marketing produce, reimbursing debts – all these activities were channelled through SAED.

The high cost of SAED services, the peasant farmers' low productivity, and their tendency, in the absence of subsistence crops, to consume much of their harvest themselves, combined with technical difficulties to draw the peasants ever deeper into debt. The year's debts often exceeded the cash value of the year's produce, and debts accumulated from one year to the next; at the end of the 1969–70 season, unpaid debts averaged 20,000 CFA francs per hectare. A French company which specialised in advising on the diffusion of agricultural techniques, the Société d'Aide Technique et de Coopération (SATEC) was called in as early as 1967; in the circumstances, it proved difficult to improve peasant productivity.

The role imparted to the cooperatives was negligible. Like their counterparts in the groundnut-growing areas of Senegal, they were essentially administrative devices for marketing and credit allocation; unlike the groundnut cooperatives, which might be based in established peasant communities, the Delta cooperatives were based in new or displaced villages, with no communal land-holdings, and had no contractual rights on the land parcelled out among their members. Accounts were kept by SAED. The members of the cooperatives had little in common. A SATEC report remarks that 'positive factors exist only where village organisation provides some basis for solidarity: when the shift to the Delta involved an entire village, or when a new village is populated by retired soldiers'. After 1968, peasants left the Delta in increasing numbers, either returning to their former homes, or seeking work in towns. SAED suspended plans for bringing further surfaces under cultivation.

A report on SAED (Rodts, 1971) comes to this conclusion:

> SAED's main object in the Delta was to reduce Senegal's food deficit. The aim, therefore, was increased production. But this aim was to be achieved under satisfactory economic and social conditions, among which one may cite the following:
>
> – financial equilibrium at SAED level;
> – financial equilibrium at cooperative level;
> – self-management of SAED and cooperatives;
> – regionalisation of the development process.
>
> At the present time, it may be said that none of these goals have been achieved.
>
> As long as all efforts are concentrated upon rice cultivation, which affords peasants only two or three months' employment a year, rather than agricultural activity as a whole, it will be impossible to integrate peasants into a progressive monetary economy. They will remain SAED sharecroppers; but temporary sharecroppers.

From 1972, while attempting to consolidate activities in the Delta by improving irrigation systems and dividing large cooperatives into small *groupements producteurs* of 15 to 20 members, SAED has sought to extend its operation to the more densely populated areas upstream, where heavy mechanisation and settlement schemes would not be appropriate. Here, a larger proportion of the work would be done by the peasants already living in the area, trained through small-scale experimental plots, *petits périmètres*, which would rapidly be expanded into *grands périmètres*. SAED control would cover the same range as in the Delta: allocating credit; providing seed, fertiliser, fuel and machinery, technical supervision; crop marketing. There would be some diversification of crops.

At Dagana and Nianga, in the Lower Valley, work began in 1973–74. At Dagana, 200 hectares were being farmed in 1975: 160 hectares of tomatoes, 30 of wheat. The Nianga project was expected to have 810 hectares under cultivation by October 1975, involving five villages, over 4000 people; this was later to be extended to a *grand périmètre* involving 32 villages and over 8000 people. In 1975, SAED activities moved even further upstream: to Matam, in the Middle Valley, where there had been no previous attempt to introduce new crops or techniques. Since independence, the valley upstream from the Delta had been under the nominal control of the Organisation Autonome de la Vallée, which had undertaken a few small pilot projects, notably at Guédé; at Matam, there was only the recently established FAO research station.

Rice-growing at Matam began on a very small scale. An expatriate SATEC agent, whose original brief had been to improve sorghum production, set up three *petits périmètres*, 25 hectares in all. People were recruited locally, in Matam and neighbouring villages – Diamel, Tigueré, Nabadji – where farmers were in distress because of drought: about 150 in all. They were given food, and lent picks and spades; they cleared land for the project, built irrigation canals, then were each allocated a small individual plot of land within the *périmètre*. After the rice, peasants were encouraged to grow wheat; as they could not process this for consumption themselves, they would have to sell it, thus obtaining cash which could be used to cover the costs of irrigating the rice-fields. It was planned to extend operations in the Matam area; both by multiplying *petits périmètres*, and by undertaking larger schemes, 200 hectares or so. This would presumably mean a reinforcement of SAED organisational control, hitherto more notional than real; all the more so, as SAED was since December 1974 officially in charge of all agricultural development projects along Senegal's stretch of the left bank of the river, from Saint-Louis, where SAED headquarters are, to the Mali border. By then, SAED was already moving further upstream: to the Bakel area, where they met with some unexpected difficulties.

Peasant initiative in the Bakel area

The shift of interest towards the groundnut trade affected the Senegal River Valley as a whole. It might be said, however, that Soninke country, the historic state of Gajaaga, which had been at the centre of the river-borne trade in the 18th and early 19th century, has become the most marginal area of all. The Tukulor of Futa Toro remain a presence on the Senegalese scene, whether as local notables, religious leaders or, increasingly, city-dwellers; Futa Toro stagnates, land remains untilled, but there is a road from Matam to Dakar, and by now roughly 100,000 Tukulor, one in three, live in Dakar or other urban centres of Senegal. The Soninke refer to Senegal as to a foreign country. Divided between three colonial territories – now 30,000 or so in Senegal, the same in Mauritania, 300,000 in Mali – and peripheral to the main interests of all three administrations, left stranded by the ebb of the European trade to which they had so thoroughly and successfully adapted, they too took to temporary migration in search of cash earnings. Typical Soninke labour migration has been long-distance, international migration. Soninke have worked as stokers and stewards in the French navy and merchant marine, as petty traders in all the countries of West Africa, but this recourse to temporary migration has always been superimposed upon a relatively stable system of subsistence agriculture. Migrants supported their families at home; and they always returned home in the end. Since the early 1960s the loss of earlier employment opportunities, as shipping declined and newly independent nation states sought to reserve the petty trading sector for their own nationals, combined with French demand for a new source of cheap labour to replace Algeria, redirected Soninke labour migration towards France. More and more men travelled to France, living in communal hostels, working as sweepers, as dustmen or in factories, sending money home and returning home every three years or so, often to leave once more. In most of the riverside villages near Bakel, almost half the men of working age, and almost all the young men, are away. These massive departures, combined with the severe drought of recent years, have weakened the fabric of subsistence farming. In recent years, money sent home has been used to buy millet and even, now that the rains have returned, to hire agricultural labourers from outside the area. Older men had derived pride from the feeling that whatever happened, they could feed their families as they had always done: tilling their fields with the *daba* or short-handled hoe, sowing millet, waiting for rain; and growing sorghum, maize, sweet potatoes and beans as a second crop, as the river receded from flooded ground. They express some confidence that things could return to normal but sometimes recognise the possibility that labour migration, which in the past acted to compensate imbalance and preserve a kind of equilibrium at home, has now become increasingly difficult and is doing harm to the society it was intended to preserve. One old man said:

> The young people should stay here to work, but there's no way of paying the tax; we have to let them go so that they can send money for taxes and food. Now they're having trouble . . . We old men are here in the village, powerless; we let the young men go, to get something to live on, but they can't manage now. We have nothing. The village will die. The country will die.

In recent years, some people in the Bakel area began to think of a possible way out of this cycle: not permanent emigration, which for most Soninke is unthinkable, but returning to the land, making it more productive, growing new things.

It all started in the early 1960s when a man from Jamaane, a large village on the river-bank upstream from Bakel, returned there after 25 years as a cook in the French navy and merchant marine, to find that things had not changed; there was still no way of obtaining locally the cash needed to supplement subsistence farming. Yet the soil was good; would it not be possible to develop its resources, to grow new crops as well as the old, to use oxen for ploughing? He had seen what was done in other countries. The thought remained with him, until finally, in the late 1960s, he went to Paris to find work, as many others were doing, but with a central aim in view: to acquire some means of improving farming at home. When he returned home, in early 1973, he brought with him a cultivator and a small pump; but he also brought the promise of an agricultural technician for the area. He had discussed his ideas with people he had met in Paris, in particular with an engineer who had worked in Africa and elsewhere, and who knew of an organisation called the Compagnie Internationale de Développement Rural (CIDR), which trained personnel for work on small-scale agricultural projects in Third World countries, funded by international relief agencies. CIDR was contacted, and set things in motion by writing to the député of Bakel. Back in Jamaane, people were non-committal. They said, 'Would we be working for ourselves, or for Europeans?' And the man who had taken the initiative said, 'For ourselves; it's called development.' Then they said, 'We'll see when he gets here.'

In March 1974, the technician arrived; a Frenchman, who had worked in South America before. His salary was to be paid by two British charities; he was to help the villages along the river, in the vicinity of Bakel, to improve the productivity of traditional crops and try out market gardening. He stressed that this was to be a collective undertaking, for the people themselves; that he had come to the area as a result of their fellow-villager's initiative, to help people work for themselves, not for him. At the first village meeting, only 40 people came forward. A plot of land near the river was chosen for the *champ collectif*. The group fenced the one-hectare plot and dug a well; this was done by May 1974. Another meeting was held, to urge village people to give more support to the undertaking. 'Old people,' said the man who had organised the group, 'you have travelled a great deal, you have lived a long time. Travel makes people clever. I wish you would help with this development, since you know what it is. If you don't help, that means you want the country to remain undeveloped forever.' The old people said, 'Yes, you're right, we'll help you; in three years, we'll think again.'

By the time the well had been dug, the rains were near; so the first crops grown on the Jamaane *champ collectif* were millet and maize. These were sold locally, to provide the group's first working funds; and tomatoes, lettuces and onions were grown, for the first time in the village, with some measure of success.

It seems that the hardest task, in that first year, was to convince the people of the river-bank villages that it was both possible and desirable for them to undertake agricultural improvements on a collective basis. More people in Jamaane joined the initial group; by early 1975, it had 270 members, 200 men and 70 women, and had organised as an association, designating as chairman the man who had started the group. Soon after the French technician's arrival, he and the Jamaane chairman had visited neighbouring villages, to explain what was planned and encourage them to take part. The villages of Gabou, Gougnian and Aroundou grew vegetables the first year, as did people in Bakel, the near-by administrative centre. Other villages came to agree in principle, although they did not become active until 1975, when most of them grew collective fields of millet. By mid-1975, groups had been formed in all the villages along the river, from Balou, near the Mali border, to Moudéri. The villagers had been somewhat wary of the plan at the outset, but it was presented to them by someone they knew and trusted, and came to seem something they themselves could control. Wariness turned to hope, in some cases to enthusiasm.

Was it local civil servants, the *fonctionnaires* of Bakel, who first drew official attention to these new developments? Was it the French technician, eager to acquire new means for 'his' development project, who sought to consolidate his position in order to be able to obtain aid more readily? Did the authorities then bring pressure to bear upon him, to integrate his project with their plans? Probably a combination of all three. At all events, the technician went to Saint-Louis to consult SAED. Shortly thereafter, on 13 December 1974, the Minister of Rural Development visited the Bakel area, accompanied by the Director of SAED. The French technician made a speech on that occasion in which he stated that the purpose of his work in the region was 'the technical and moral preparation of the population for the great task of *aménagement* of the Senegal Valley'; that 'CIDR was working in close collaboration with national agencies like SAED'; and that in the near future, the area's basic crop would be rice. He soon left Jamaane and went to live in Bakel. In January 1975, a team from USAID came to visit the area and inspect work already done by the villagers. As a result, USAID made a grant of 14 million CFA francs (US$60,000) for the purchase of equipment requested by the technician: essentially motor-pumps and other material for motorised irrigation. The question then arose: how was this aid to be channelled? The technician and the chairman of the Jamaane association travelled together to Saint-Louis; the peasant leader was left waiting outside, while the technician met with SAED officials and *fonctionnaires* from Bakel.

In mid-March 1975, the technician came to Jamaane to explain that it would be necessary to place the village associations under the aegis of SAED, in order to take delivery of the machines promised by USAID. There would be no harm in doing so, he said. He did not bring up the points he had made in his speech to the Minister of Rural Development. When he left, the *responsables* of the Jamaane association – the chairman and other officers, the heads of the six men's work teams – discussed what he had said. It was clear that they regarded this new step as contrary to the basis upon which collective agriculture had been set up in the villages; the peasant associations were to be free and independent, geared to the needs of local communities. They said that if outside aid were conditional upon subordination to outside control of any kind, they would do without outside aid, and continue with collective fields of millet and maize, until they had saved enough to acquire by themselves whatever equipment they might need. A few days later, the technician returned for another meeting, to explain that the peasants could make use of SAED, without risk to their autonomy. The connection with SAED, the nature of which he did not specify, would be a mere formality, to comply with Senegalese legislation prohibiting a non-citizen like himself from receiving foreign aid funds. The *responsables* once more stated their unwillingness to accept the idea of administrative subordination to SAED; they refused to be coopted on the pretext of aid transfers. They had been working hard for a year now, on their own. SAED had never been heard of before in the region. Let SAED make contact with them directly; weren't they Senegalese citizens?

The result was a series of meetings involving peasant associations and personnel from SAED, which took place in Jamaane and in other villages; the Jamaane meetings can stand for all. The first was the meeting which has already been described; it took place at the end of April. That meeting's failure to achieve any agreement, was attributed by the authorities to a 'misunderstanding'. On 2 May, the Préfet of the *département de Bakel* visited Jamaane to express strong displeasure at the peasants' mistrust of the authorities' plans. He was listened to politely; then the same arguments as before were stated.

On 15 May 1975, another SAED delegation, higher-ranking than the previous one, arrived in Jamaane to hold another meeting. The tone was less urbane, more explicit than at the previous meeting. In Senegal, the visitors announced, all official decisions were to be shared by *la base*. The programme for Bakel had been decided by the government; however, *le Sénégal, c'est le dialogue*. Just as no Muslim could be a good Muslim without knowing God's law, no peasant could be expected to accept SAED without first knowing about it. At the base, knowledge must start with elementary things. We will tell you about cooperatives and how they function; solidarity, of course, is an African tradition. Their cooperatives would be provided with *personnel d'encadrement*. In the Delta, the population had made an effort to learn, with the help of their SAED supervisors; they had one for every 30 or 40 peasants. People were even learning to read in their own language. Peasants in the Bakel area could learn to read in Soninke; the textbooks were ready. 'We are all one family. Our development is one and the same. I have spoken to you as a Muslim. May God help you to understand what I have said.'

The peasants answered this in terms they had already used at previous meetings. A speaker told once again how their *développement* had started, stressing the part played by their chairman. They had begun work before ever hearing of SAED interest in the area, and from what they had heard of SAED's activities in the Delta, it seemed that SAED-run cooperatives were not free to choose what crops they wanted to grow, and had to organise their work according to SAED specifications, which meant contracting debts for equipment, and having to grow more and more cash-crops; this was also the plight of peasants in the cooperatives of the groundnut areas. The chairman of the village association repeated that they did not reject mechanisation and technical advice as such; they merely wanted to control its use themselves, not commit themselves to wholesale acceptance of plans dictated from outside. A local government official suggested that this amounted to being against the government; the village chairman became angry at this, and spoke in anger, denying the accusation. He was rebuked by another member of the official delegation, a man half his age, who stated that without government control, there could be no development. If the chairman of the village association had been to France, it was because the government had enabled him to do so. 'I advise you to work hand in hand with the administration.' Once more, the French technician remained silent.

A few days later, the CIDR team (the initial technician having been joined by two assistants) were informed that they were henceforth to consider themselves SAED agents, and implement SAED directives; the village agricultural associations were to become cooperatives on the SAED model, so that their activities could be more closely supervised by SAED. The peasants, they were told, were not *mûrs pour le dialogue*. It was suggested that they had fomented opposition to government plans among the peasants. Surfaces had been mapped out, and norms established, for expanded rice production in the vicinity of Bakel; the technicians accepted this as a *fait accompli*.

The Jamaane association received yet another visit from SAED: the Director himself came, to assure them that they would not be forced to do anything against their will. The matter rested there as far as the peasants were concerned; the rains were near, and in addition to their own millet-fields, they were preparing to grow rice for the first time, on a 4-hectare field where they had dug irrigation canals. They would be using a motor-pump they had received as part of USAID's initial grant. Balou, and of course Bakel, would also be growing rice.

The confrontation between the peasants and SAED was revived a few months later in muted form, as a confrontation between village associations and Bakel. The Bakel association had always differed from the others, in that while members of the village associations were peasants who did the work that needed to be done with their own hands, many of the members of the Bakel association, 25 out of 70 at one stage, were local civil servants who hired others to do the work for them. Village members felt that this was not right, and suspected that the Bakel civil servants might have been partly responsible for SAED's attempts to impose its own methods on the area; would it not have meant new jobs, and a chance to exercise new influence, in an area where government presence had previously been tenuous and restricted to Bakel? This latent opposition flared into open conflict, as a result of events associated with the visit to Bakel of civic representatives of the town of Apt, in the south of France. This visit took place towards the end of July, and was intended to explore the possibility of twinning the two towns. Some local civil servants, members of the Bakel agricultural association, made contact with the Apt delegation on their own account; and two of them accepted the offer of a round-trip ticket to France. They also composed a circular letter dated 28 July 1975, addressed to migrant workers from the *département* of Bakel residing in France. This letter, written in a somewhat high-flown style, praised the migrant workers for their efforts to keep their village alive, but suggested these efforts were misdirected. Rather than continue to remit money to their villages, where it would at best keep things as they were, and at worst, who knows, be embezzled, they should invest their earnings in a series of projects hazily outlined in the letter – hotels to develop tourism in the Bakel area, local industries . . . The present development which made such hopes possible was, of course, the emergence of agricultural development plans in the area; this was ascribed to government interest. The three motor-pumps newly installed in the area were cited as 'a gracious gift from the Senegalese government, whose constant solicitude towards our peasants no longer needs proof'. To this document were appended the names of the heads of the village associations. When they became aware of the contents of the letter, the village associations took exception to what they regarded as a breach of trust, compounding their grievances against Bakel. The villages upstream from Bakel threatened to cut themselves off from Bakel; whereupon peasant women in the Bakel association announced that in that case, they would no longer work in the Bakel field, but would walk to Jamaane and work with the association there. The matter was smoothed over somehow; but there remained a feeling that the position of the Bakel group, at least that of some of its members, was not straightforward.

In September 1975, representatives of one of the funding agencies which had from the beginning provided financial support for the French technician's activities, visited the Bakel area. They had become increasingly uneasy about the prospect of SAED assuming control of the village agricultural associations, and more specifically about the role imparted to the CIDR team in this move. They learned that USAID was to grant the Senegalese government US$3.1 million to be used to finance the extension of rice cultivation in the Bakel area. In the first instance 15 *petits périmètres*, totalling 1320 hectares, were to be brought under cultivation in the river-bank villages, by cooperatives working under SAED supervision and control. USAID would provide, through this grant, the equipment needed to install and maintain surface irrigation systems: pumps, bulldozers, tractors, trucks. This project was seen as the nucleus for later larger-scale *périmètres*, totalling 2000 hectares, to be implemented as soon as possible. The CIDR team would be useful, in this perspective, in grafting the SAED type of structure on to existing collective work groups. (The CIDR team had known about the USAID plan for some time; bemused by its scale, they tended to regard it as probably destructive, but inevitable. Peasant association leaders knew scarcely anything about it.)

These matters were discussed at length with the technicians and with representatives of the village associations, in particular the chairman of the Jamaane association. The funding agency representatives expressed their disquiet, and suggested that the CIDR team revert to the objectives of the original project. Peasant leaders hoped that this would be possible, as the technicians, however discredited, still constituted their only source of information and advice. Shortly thereafter however, it appeared to the funding agency that the CIDR team would not be able to do this, and they terminated their financial support for the technicians, considering it inappropriate to finance SAED's agents. Subsequently, USAID agreed to make funds available for the salary of the first-arrived French technician, now officially designated as head of the 'Bakel project', and his assistants.

On 15 January 1976, representatives of all the village associations met in Bakel. Several matters were discussed, including the letter circulated in France by the Bakel civil servants, and the recent distribution of relief grain supplies, which the peasants felt had been inequitably handled by the CIDR technicians. The main subject, however, was the need to create a formally instituted federation of village associations, to ensure solidarity between villages and the coordination of work. The matter had arisen the previous summer, when the matter of the circular letter had caused dissent between groups; the January meeting decided that statutes of the Fédération des Paysans Organisés en Zone Soninké de Bakel should be drawn up on the basis of drafts submitted by the Jamaane and Bakel associations. This document was later drawn up; it laid down detailed regulations governing the operations of the Fédération, designed to ensure regular consultation and exchange of information, joint planning of work, and open discussion of any conflicts which might arise, while maintaining the discipline needed for the association to present a common front. The document sought to define clearly the form of future relations between the Fédération and

SAED; crucial sections in this respect are Chapters III, IV and V. Chapter III states that the Fédération and its constituent associations intend to manage their own administrative and financial affairs, 'in accordance with the spirit of the reform of local government in Senegal'. While accepting the principle of technical assistance from SAED when needed, they reserve the right to obtain supplies from another source if it proved advantageous to do so, and to market their produce likewise. SAED cannot require the associations to contract debts. Chapter IV asserts the Fédération's right to accept help from development agencies other than SAED. Chapter V declares the non-political nature of the Fédération. It was intended to submit the statutes of the Fédération's existence. The peasants continued work. Jamaane, and the other villages which had grown rice, harvested their first crop. The French technician came to collect the money owed SAED for fuel and fertiliser. These villages, and several others, planned to grow more rice in the coming season; but they worried about costs. It seemed unlikely that they would receive any outside technical assistance or material aid; USAID's equipment was for SAED, not for them. The Fédération was determined to continue as before; but the future seemed uncertain. In April 1976, the chairman of the Jamaane association summed up the position:

> We, the peasants of the Senegal River, have formed an association to try and develop our country, which has never been developed. We all agreed to begin working together, with our *daba* and our hands. The first year, our technician came to live in my house, and we all agreed on the work to be done. Our brothers, our children, have all vanished to work elsewhere. If the country were developed, we could work for ourselves.
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> Our technician came from Paris to live here. Nine months later, SAED came to him and said, 'Now we're going to organise you'. I said, 'What do you mean, organise (*encadrer*)? Four hundred people in one town all working together, that's organisation for you. That's what I call development: free, independent, peasants working together. Since SAED is available, if we want something on credit, we'll ask you for it; if we want to buy something, we'll ask you for it. Apart from that, just let us work independently.' We discussed that a great deal, last year. This year, too, the SAED technicians are in Bakel, saying they'll help us; but the peasants still have the same way of thinking.
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> Last year, two towns grew rice; one grew four hectares, the other ten. This year, several of them are growing five, six, seven hectares. The season before, after the rice we in Jamaane grew maize, and it did well; we grew tomatoes, and they did well too. Up to now, all of us,

men and women, are determined to work independently. I think we have the heart for it. If this peasant development continues, it will be good for the people of the River. If there's too much SAED development, it will be bad for us; we'll have to give up. But if the peasants themselves benefit from their own work, we'll continue. That's certain. That's what we want.

We're not against SAED. But we've seen how SAED tells peasants nothing, and gets them into debt. Early in the season, they tell you 'Look, you need so much fertilizer, so much this, so much that'. At the end of the season, they say, 'Now you owe me 400,000, 500,000 francs.' Even if the peasant sells all his crop, he can't earn that amount; he's left with debts. The following year, a determined man thinks, 'I'll pay off those debts'. He takes the same fertilizer, hires machinery, and so on: that year too, he has 400,000 francs worth of debts. So the peasant is always in debt. A man like that is not free. In the end, all he wants is to be released from debt and forget about development. That's what we're against.

SAED doesn't make anyone any presents. SAED makes profit out of peasants, and makes them incur debts. So if people farm 20 or 30 hectares, they'll be 500,000 francs in debt. On 20 hectares there'll be 400 people working. SAED gets 500,000 francs; and what of the man who does the work, and all the people in his household, 10 or 20 people? Will he be able to make ends meet? No. He can't possibly manage. So people give up. If SAED takes over development on the Senegal River, people who understand things will stop taking part. Then development will have failed. This first year, we grew four hectares, and we owed 174,000 francs for fertilizer and fuel; at that rate, if we have 20 hectares, we'll owe 500,000 francs. That's what we have against SAED. We don't reject SAED; we want to be free to say what we want to buy, and to keep our own accounts. We don't need much fertilizer, because the soil is good. It's not old soil. SAED would say, take 20 sacks, 30 sacks – then we're in debt. We don't want that.

SAED works for SAED, not for the peasants. All the Senegal River peasants know that. We've seen what goes on in Matam. So we want to work as free independent peasants; even if we earn only a little, it will be our own. If peasants can't profit by their own work, then they can just continue with their own farming, as before. Our grandfathers made a living out of farming; so long as we have our *daba,* no one need be in want. Now we hoped to have something more; by working together, for ourselves. What little we get is for ourselves. This year we had 10 tons of rice; we sold it in the town, at 50 francs a kilo, and everyone was pleased. If we had sent it off to SAED, we would have had nothing.

So, we know about SAED. SAED is the government; and we are the peasants. We are here. SAED exists; but the peasants have to exist as well. We have to live, like the rest of the world. Our development is based on that idea. If that is set aside, development will be worthless.

FUTURE PROSPECTS

'Développement de fonctionnaires' or 'développement paysan'

At the meeting with which this paper opens, peasants and SAED officials were unable to come to terms, because each group held different and incompatible views about what constituted 'development'. For the SAED delegation, there was only one kind of development, defined in terms of technological innovation. Modernisation therefore imposed its own objective constraints; once the peasants had chosen progress, there could be no sound reason for them to reject the production techniques and styles of organisation which progress required. For the leaders of the peasant association, on the other hand, there were two kinds of development, two ways of bringing agricultural change to the area: the choice was not between innovation and stagnation, but between change evolved from within, and change imposed from without. They had organised on their own, and had shown themselves capable of adapting to new crops and new techniques; that was *développement paysan*. The SAED takeover, they felt, could not be justified in objective terms; its purpose was to deprive them of the freedom to control their own productive activity and its fruits, and make them work for outside interests rather than for the good of their own community. That was *développement de fonctionnaires*. The SAED officials often spoke in terms of national interest, one and undivided; but the peasants saw no necessary fit between their interests and those of officialdom. The evidence available suggests that the peasants' view of the situation is nearer the truth.

The type of development which SAED has sought to promote in the Senegal River Valley is directly related to the earlier initiatives described above. It shares their reliance on capital-intensive techniques and large-scale irrigation schemes for cash-crop production; it also shares their indifference to the people of the area, their wishes and needs. The only difference is one of scope, not of perspective. Whereas previous ventures confined plans for systematic direct exploitation to the Delta, leaving the Middle and Upper Valley to be exploited directly as an intermittent source of surplus millet and constant source of labour, SAED's most recent ventures are designed to extend direct exploitation of labour to the more populous areas of the valley. Baron Roger was in no position to compel the people of the valley to work on his plantations. Direct colonial exploitation, after a period of vacillation, bypassed the Senegal River in favour of the Niger, where a vast irrigated cotton scheme was worked by Mossi forced labour. In the colonial powers' post-World War II rush to be seen to develop their territories, such techniques were out of the question, MAS's efforts to turn the Delta into a major rice-producing area treated it as virgin land, using intensive mechanisation. When SAED inherited the Delta, it had recourse to the formula of *colonat paysan*, in the hope that it would prove more economical as well as politically more acceptable. This was not the case; given the initial decision to grow rice on a large scale, bringing 3000 additional hectares under cultivation every year, very little of the work could be done by inexperienced peasant farmers, who therefore incurred large debts for services rendered by SAED, and could not hope to pay off these debts because there was insufficient work available to them. They fell back upon subsistence farming in their home areas, or wage earning in towns. In the words of the report quoted above, they became part-time share-croppers for SAED.

It is sometimes suggested that SAED has altered its priorities as a result of this experience, and that its current activities are based on new principles. It seems more accurate to say that SAED's priorities and aims remain unchanged, but that its short-term tactics have changed to suit conditions up-river. Reliance on immediate introduction of large-scale rice cultivation has given way to the *petit périmètre* strategy, where peasants are gradually drawn into cash-crop production, initially presented as a way of earning locally the indispensable cash supplement to subsistence farming. In areas where subsistence farming is still a major component of the peasant economy, part-time share-cropping becomes a viable transitional stage; local food production, and income from labour migration, can act as safety nets, enabling peasants better to bear the costs and risks of the new scheme. The essential aim, however, remains large-scale production of rice, to be marketed through SAED; ultimately, therefore, full-time share-cropping, with some diversification of crops in order to employ peasants over a longer period of the year. Claims that SAED's new strategy is intended to improve local food production and provide an alternative to labour migration seem in fact more suitable for export than for local consumption. They improve the tone of foreign aid negotiations, but the facts of the matter rather contradict them.

A three-part article which appeared in Senegal's daily newspaper, *Le Soleil*, for 4, 5 and 6 February 1975, may serve to illustrate the version of SAED's priorities approved for presentation. Part 1 is headlined: 'Avec la SAED, c'est maintenant LE DELTA DE L'ESPOIR'; and announces, 'All the tomatoes we need, from 77'. The article reports the forecast by SAED's Director that SAED will be able to supply all of Senegal's rice by the year 2000 and that, if the dam at Diama is built, it will also be supplying the country's wheat requirements by 1985. It then suggests that this forecast is excessively cautious; with research, unheard-of new agronomic wonders may become possible. Part 2 discusses the different types of project implemented by SAED: their technical specifications, the hydro-agricultural works required, their production, the number of people employed. It is sometimes difficult to tell whether the article is referring to present achievements or plans for the future. Part 3, title 'Développement du milieu humain', in fact describes the machinery hired out by SAED, and the processing and marketing of rice and tomatoes. This article addresses the urban consumer, who is quizzed for his addiction to the national dish of rice-and-fish, and told that 'we' must make sacrifices to help achieve SAED's goals; 'we' must force ourselves to eat Senegalese rice, instead of the Indochina rice for which we have acquired a taste. 'Let us become conscious of what is required of us, that these hopes may be fulfilled.'

If you and I are the consumers, who are the producers? The answer: SAED, its machines, its technicians, the dams which will be built. There is an Eisenstein film called *Spring*, which presents the collectivisation of Russian agriculture as a lyrical crescendo of plenty: beaming peasants are surrounded by heaving seas of corn, floods of pigs, and their rural bliss is contrasted with the sterility of the town's bureaucracy, which the heroine successfully beards in its den. The *Soleil* article enthusiastically portrays the reverse process: the bureaucracy miraculously conjures up bulldozers, irrigation canals, tons of tomatoes. The sky's the limit; SAED will have its own 'planes. And those who are remote and passive are the peasants.

The peasants, we are told, are grateful. 'Many times we observed their commitment, which borders upon fervour. [A peasant woman] told us how SAED's action among the peasants was appreciated. A young schoolboy also expressed his gratitude.' But peasants as producers are invisible; they don't exist. Machinery is progress; peasants can only become worthy of machinery, hence progressive, by long training. It is the 400 permanent SAED technicians, not the 30,000 peasants involved in SAED schemes, who do the work: 'Not only have they spared neither time nor trouble, nor yet their knowledge; they have also carried out admirable training efforts in the vicinity of their *périmètres*'. The idea that agricultural development is something which is imposed from without upon a passive peasantry is linked in the article with the assumption that the only suitable crops for development are those for which urban consumers in Senegal acquired a taste during the colonial era – rice, tomatoes, wheat; not the crops grown by Senegalese peasants for their own use. The only such crop mentioned is sorghum; and it is mentioned only because a new experimental variety is being tested in SAED's laboratories. The negation of peasants as consumers matches their negation as producers.

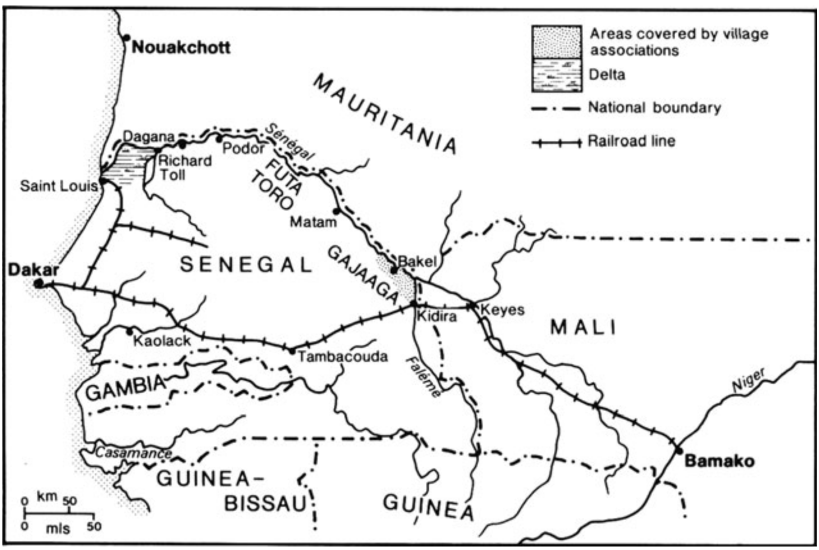
Part 3 of the article is headed by two photographs. One, captioned 'The peasant can already do this', shows ten men riding in an ox-cart laden with agricultural machinery. The second shows a single man driving a tractor; it is captioned, 'The peasant must achieve this'. Where will the others go to find work? Is that new?

When SAED representatives met peasants in Jamaane, they did not claim that SAED intended to bolster local food production and provide an alternative to labour migration. These were the aims of the peasant association which SAED wished to supplant. Yet when the peasants stated these aims, the SAED delegation did not assent, but attempted to demonstrate the convergence of SAED interests and peasant interests in abstract terms – shifting uneasily from modernity to Islam, from Islam to government authority. It would have been useful to be able to claim that SAED's concrete aims were identical with the peasants', but that was not possible for the peasants knew that SAED had never acted in support of local agriculture, and that the authorities' main concern about labour migration from the area was to find some way of channelling the money remitted home into more productive forms of investment. The SAED representatives had no choice but to be evasive; not because they were dishonest men, but because claims that SAED was promoting a new, peasant-based form of development, which can be heard in Dakar and read in reports, could not survive confrontation with a genuine attempt at peasant-based development. SAED's strategy would have been shown up for what it was: *développement de fonctionnaires*, not the objective embodiment of modernity, but the expression of the interests of a particular sector of Senegalese society.

There are grounds for considering that peasants and bureaucrats are the key groups in Senegalese society today. The question is too complex to discuss here (see O'Brien, 1971; Dumont, 1972), and there would be no reason for confining it to the present context, which is not unique. That peasant resistance to innovation is not to be ascribed to a supposed 'peasant conservatism', but to a perception that such innovation is often not in the interests of peasants, has been demonstrated in other settings (e.g. Raynaut, 1975). The peasants of the Bakel area would generally be considered more 'conservative' than others in Senegal, not less; 'Saracolés bavards, criards, nonchalants, les plus conservateurs aussi', as Sembene Ousmane, cumulating the more common stereotypes, described them in an early (1956) novel. What makes their case particularly clear is that resistance to alienating innovation is expressed in terms of a positive alternative, resulting from peasant initiative. That may be due in part to that very 'conservatism': the sense of self-reliance induced by a century of marginality, during which the continuity of life at home was sustained by resourceful temporary migration. If peasant initiative in the Bakel area were to be defeated, they would probably become bitter opponents of 'development'. It must be acknowledged that their present position is vulnerable.

This vulnerability is due to outside factors, not internal dissent. The present associations are not seen as a direct challenge to village order, although they cut across the hierarchy of 'royal' families, clerical families, artisans and 'slaves', and their internal organisation by no means invariably reflects that hierarchy. Opposition to the associations cannot be ascribed to any particular stratum within village society. Latent opposition seems rather confined to those persons in village society who might be seen as new notables, signs of a tentative reproduction, within the villages, of the class structure of Senegalese society as a whole: persons who have accumulated wealth, often parlayed out of migrant workers' earnings, and have sought to establish links with officialdom on their own account. In time, these latent conflicts of interest would no doubt give rise to internal divisions. At present, however, the main threat to the peasant associations lies outside the villages: in Bakel, for a start, where signs of SAED presence multiply daily, where teams of experts come and go; where there is equipment and technical knowledge to which the peasants cannot have access on their own terms; where plans for the future of the area are laid down, in meetings and reports which the peasants do not know about. It is this growing isolation, this encirclement, which makes the future uncertain.

Lack of equipment is not at the moment felt as keenly as might have been expected, because of peasant leaders' awareness that technology is not neutral, and 'presents' always have to be paid for in the end. As the associations seek to develop their activities further, the lack of mechanical aids, and the lack of transport, is bound to prove crippling, and will severely strain their members' resolve. The lack of impartial technical advice inhibits planning; common sense and extrapolation from previous experience cannot compensate in the long run. But these are secondary issues at present; that which makes the associations most vulnerable is their lack of information about what is planned for the area. Most peasants in the area are unable to read or write French, although some are literate in Arabic. This means that while their mastery of the spoken word, through memory and oratorical skill, is often considerable, they are vulnerable to mystification through written words. A man's 'papers' – household tax rolls, identity cards, birth certificates, seaman's papers, social security forms, addresses of former employers – are both instruments of survival and signs of bondage, as ambivalent as labour migration itself. That which circulates in writing is quite beyond the peasants' control. The meetings at which they have spoken have left no trace; the opposition they voiced there cannot compete with the reports being circulated which make no mention of the existence of autonomous peasant associations, and subsume all past and present organised agricultural developments in the Bakel area under the heading 'SAED projects'. The drafting of the statutes of the Fédération des Paysans Organisés en Zone Soninké de Bakel is an attempt to break through this barrier, by requesting official recognition of the Fédération's existence. Under present circumstances it is difficult to see how it can succeed.



Map 8 The Senegal River Valley

The very existence of the draft statutes points to the fact that the peasant associations do have some contacts with the literate; but these relations are themselves ambiguous. This is not the place to discuss the role of the petty-bourgeoisie intelligentsia, if indeed that is the correct term, in Senegalese society. (But see Cabral's 1964 analysis of Guinea-Bissau.) The account given of recent events in the Bakel area indicates the diverse and fluctuating positions adopted by representatives of that group: the Bakel *fonctionnaires*, the 'man from downstream', even

SAED technicians. The local *fonctionnaires* first courted SAED, then sought to establish a dominant position within the Bakel association. The ensuing conflict with peasant members has subsided, but has not been forgotten. The 'man from downstream' who spoke at the April 1975 meeting is the organiser of an agricultural development project which resisted SAED attempts to take it over, and managed to retain some degree of autonomy. He suggested that this created a hopeful precedent for the peasant associations in the Bakel area, but it might equally well stand for the exception which proves the rule: his relative success might be attributed to the fact that his project was based on a nucleus of literate young people, he himself being an ex-schoolmaster, and managed to bypass SAED control by becoming directly dependent on outside aid. As for the SAED representatives, their repeated appeals to the bonds of filial respect and shared belief which linked them with the peasantry would seem to indicate some uncertainty about the part they were playing. It seems possible that these various positions might shift and become clearer with the passage of time; but there may not be time. SAED's haste to be seen to operate effectively along the full length of Senegal's territory on the left bank is certainly not unconnected with the recent rush of plans for the development of the Senegal River Valley as a whole: plans which now seem likely, having received international financial backing, to be implemented within the next few decades. A full discussion of their implications is beyond the scope of this paper. It is clear, however, that their aims and methods resemble those of SAED.

The OMVS plans: a case for the silent technicians

The *Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS), the member-states of which are Senegal, Mali and Mauritania, was formed in 1972. It succeeded the Organisation des Etats Riverains du Sénégal (OERS), founded in 1968, which broke up when its fourth member, Guinea, withdrew after conflict with Senegal. Before OERS, there had been an inter-state committee, founded in 1963, which met to discuss river development plans. The constituent members of OMVS, having declared the Senegal and its affluents international, pledged themselves to close cooperation in developing the river's resources, continuing the work begun by OERS, while stressing the purely economic nature of the relationship. In late 1973 the OMVS programme was announced centred, as OERS plans had been, on dam-building (one at Manantali, in Mali, and another at the mouth of the river), improving the navigability of the river and providing both Saint-Louis and Keyes with modern harbour installations. Intensive, double-crop irrigated agriculture would become possible along the river, and industries would be created to process agricultural produce and make use of the power generated at Manantali. It has been estimated that over the next forty years a total of 800,000 million CFA francs (about £160 million) will be invested in agriculture and industry; the initial stage of construction work alone will cost 40,000 million CFA, with Manantali dam, to be built by China, accounting for some 16,000 million. By 1974, 30,000 million francs had been pledged from various sources, and studies were financed; the key study being perhaps the twelve-volume *Programme intégré de développement du bassin du Sénégal*, prepared for UNDP (United Nations Development Programme) and OMVS by a French consultancy firm. This document, a computer-written extrapolation based on an uncritical collection of all available written sources on the area, is rather difficult to link with reality. In its outline of agricultural developments which are to take place concurrently with the construction of the Manantali and Diama dams, certain familiar traits may nevertheless be recognised.

The *Programme intégré de développement du bassin du Sénégal* states at the outset that its chief purpose is 'to provide the people of the Senegal River Valley with an adequate basic diet and increased cash income, enabling them to progress beyond the hazardous subsistence economy in which they live, into a modern consumer economy'. (I; 150). These are odd terms to apply to the River societies; odder still is the notion that the OMVS states should be undertaking such a vast project on behalf of the million or so people of the Senegal River Valley, a marginal one-tenth of their combined populations. Things become rather clearer when it is added that 'however, in order to ensure an appropriate rate of self-financing for the programme, the system instituted must promote reinvestment of a substantial part of the balance'. This is restated in a later volume: 'The crops chosen must, while meeting as quickly as possible the food requirements of the people of the Valley, generate high cash flows leading to rapid progress towards the stage of economic "take-off".' (V: 25). As the SAED precedent might lead one to expect, the latent contradiction between the two stated goals becomes manifest as soon as the intended style of agricultural development is outlined.

The ultimate aim is to have three to four hundred thousand hectares of irrigated farmland under double-crop cultivation. From 1975 to 1983, total surfaces cultivated are to increase from 3250 dry-season hectares and 6536 rainy-season hectares, to 58,776 and 72,841 hectares respectively; in other words, they are to increase 14-fold in nine years, with an average yearly increase of 13,500 hectares (I: 103). Emphasis is to be on rice and wheat, with a combination of manual and mechanised techniques; sorghum and maize surfaces are to diminish gradually. For a period of 20 years, the river's yearly spate will be artificially maintained, although at decreasing levels, so that the population may continue to engage in some traditional farming of the alluvial floodlands; at the end of this 20-year period, it is anticipated that the entire population of the valley will be employed on the *périmètres irrigués*. This will require resettlement:

> The veritable agricultural revolution which will take place through this agricultural development, will gradually change the habitat structure, as it implies a transfer of population from the floodland farming zones, or others, to the irrigated land.
>
> We would recommend a semi-dispersed type of habitat. Every *périmètre* would have a series of villages, each village grouping the people working the land in the vicinity, say 500 hectares or 1,000 people or so. There would be about 160 family plots to each village (VIII: 103).

The *Programme intégré* refers only in passing to other factors likely to affect the peasants' lives, such as increased incidence of malaria, river-blindness and other water-associated diseases as a result of irrigation, or the loss of half the yearly catch of fish, the main source of protein at present, in the stretch of river downstream from Manantali dam (V: 335). It says little about the actual organisation of work on the *périmètres irrigués*, assuming that the land will usually be worked by family labour, while acknowledging industrial plantations as an additional possibility. What is made clear is that agriculture is expected to become self-financing as soon as possible, so that it may bear the full burden of generating the cash-flows needed for reinvestment and repayment of the loans which provided the initial capital. The full cost of the planned development is therefore to be borne by the peasants.

An OMVS report calculated that on the basis of the crops and ultimate total area of irrigated farming specified in the *Programme intégré*, an average of 1 or 1.5 hectares would have to be allotted each family, if one were to avoid the extremes of crippling indebtedness (with 0.5 hectares per family) and unspecified social tensions (3 hectares per family). This would provide employment for 300,000 families, enough to employ the whole of the population of the area; charges levied for water, services, etc. would amount to 70 per cent of gross production, and the average income derived from 1 hectare would be 84,000 CFA francs. (This will not seem much unless one notes that the average *per capita* income in the Middle Valley was quoted 15 years ago as 10,200 CFA – with the comment that it was one of the lowest in the world; Diop, 1965: 41). The report adds that the logical outcome of this approach is a state farm system, which yields the widest margins for covering costs and repaying loans, since labour need be paid only by the working day.

Until some further official evaluation of its implications is made public, the *Programme intégré* needs to be taken seriously; all the more so, as its priorities in many respects reinforce those of SAED, with which they will have to mesh in Senegal. Neither organisation has as a priority the needs and wishes of the people of the Senegal River Valley. It seems, to put it baldly, that OMVS is to borrow large sums from international sources, in order to establish irrigation schemes which will make it possible for peasants to be put to work producing cash crops for processing and national consumption. The surplus generated by the profit margin on these transactions, and on the charges paid by peasants for the use of the services provided, will soon make it possible to finance further cultivation from the proceeds of existing cultivation, and to begin repaying the international loans. In other words, international loans will make it possible for fresh surplus to be extracted from the peasants of the River Valley, now that the potential of former cash-crop areas is largely exhausted.

The notion seems to have gained currency of late that 'rural development' is unequivocally a good thing: modest, realistic, a new beginning. This notion stems from a profound, one might think a wilful misinterpretation of the fact that there is a difference, for rural communities, between 'developing' and 'being developed'. It is difficult to interpret the slogan of 'self-sufficiency', as proclaimed by Dr Kissinger in Dakar (*Sunday Times*, 2 May, 1976; cf. Comité Information Sahel, 1974), as anything other than a decisive step back from the hopes of the previous decade. In the case of Senegal, a decision to stabilise the country by establishing a *de facto* two-tier system, whereby production for national consumption – the role being assigned the people of the Senegal River Valley – serves to create a sufficient level of economic and political stability to allow present trends towards export-oriented agri-business and concessions to labour-hungry or polluting industries to develop in the rest of the country. It is difficult to see, at the moment, how the planned mining industries based on Manantali and the upper river can provide a nucleus for regional development, as they are to be massively financed by international loans (well over half the estimated 800,000 million CFA). It seems difficult to term this version of 'rural development' 'rural', when it involves the proletarisation of an independent peasantry; it is also difficult to see how it can be termed 'development'.

The OMVS programme is to be financed, in the first instance, by an impressive array of nation-states and international organisations: Saudi Arabia, Canada, the United States of America, France, Great Britain, Sweden, the Soviet Union, and others; World Bank, UNDP, OECD, WHO, UNESCO, the European Development Fund, and so on. Without imputing anything but good intentions, there is something to be learnt here from the case of the silent technician.

At that April meeting in a village near Bakel, the French technician remained silent because there was nothing he could say. He had come to the area under the best possible auspices: his presence had been actively sought, there was a good response to the modest programme of collective farming he was able to introduce, and the relief agencies which paid him were explicitly committed to that style of project – small in scale, alert to the needs of the local community. He himself had good intentions, and worked hard. Yet the help he brought may prove to have been worse than none; because he did not see that development is not one and undivided, available for all in motor-pumps and tractors, and that between change courted from within, and change inflicted from without, there is all the difference in the world.

Postcript (January 1978)

The village associations and the Fédération remain in existence. The Jamaane association in particular has extended its activities, heightened active solidarity between its members and achieved a clear sense that what distinguishes their approach to 'development' from SAED's is their determination to use diversified, collective irrigated farming as a complement to rainy-season family-based subsistence farming: as a safeguard in years of poor rainfall, with increased production of irrigated maize and group purchases of grain, and as a source of revenue in good years, for reinvestment in production and also, it is hoped, in community projects. The difference between *développement de fonctionnaires* and *développement paysan*, first perceived in terms of long-term priorities and organisational control, is seen to extend to concrete choices to be made here and now.

Until late 1977, Jamaane saw relatively little of SAED. Technical assistance was nominal: 'we have become our own technicians'. The French SAED agents (who have now left the area) suggested repeatedly that collectively farmed land be divided into individual family plots; this was rejected. During this period of surface tranquillity, there was a build-up of SAED presence in Bakel; and since December 1977 there has been renewed SAED activity. The Director of SAED toured the area to announce the start of the new USAID-financed project; this meant, he said in Jamaane, that villagers must grow much more rice and sign a contract with SAED. He also announced that SAED policy required, in the interest of the peasants themselves, that irrigated land be divided among individual families. This was followed by a visit from local government representatives, urging the same message. Village spokesmen forthrightly stated their own priorities, as outlined above. 'What will you pay us for rice? Forty francs a kilo? That's four thousand francs for a hundred-kilo sack. The cheapest millet costs six thousand francs a hundred-kilo sack. And we live on millet here; not rice.' They once more rejected the idea of a shift to irrigated farming on an individual family basis, and suggested that the proposed contract was not relevant to their needs.

SAED remains free to pay lip-service to the Fédération in speeches, while denying its existence in reports and projects; the Fédération has still not applied for official recognition. This is now due to the delaying tactics of 'educated' members of the Bakel group, who have also been playing on peasants' fear of the authorities with suggestions that the Fédération leadership is anti-government, and that it would be wise to accept SAED's conditions.

The situation has not yet changed fundamentally; it has developed further, as latent tendencies have become more explicit. The village associations represent the only visible form of agricultural development in the area so far; and a solid core of peasants, Jamaane foremost, are determined to continue work in their own way. But SAED plans for the area, massively financed by USAID, leave no room for *développement paysan*. The future remains uncertain. Given the odds, that in itself seems an achievement.

NOTES

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This paper has drawn on several years' study of labour migration to France from the Senegal River Valley utilising documents from Archives Nationales du Sénégal (ANS), Dakar, and interviews, taped and untaped, with Senegalese civil servants, expatriate technical advisers, Senegalese and expatriate academics and research workers, and peasants, during two periods of research in Senegal (January–June 1975, March–April 1976). Tapes recorded in Soninke were translated by Demba Diabira. Translations from French are all my own.

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