CASH CROPS CASE STUDIES
Does the World Bank inhibit Smallholder Cash Cropping? The Case of Malawi

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1. Introduction

In contrast to the work of Kydd [see for example, Kydd 1985] this article is a case study of the consequences for equity and growth in the Malawian economy of the concentration of official policy initiatives within the smallholder sub-sector on 'Integrated Rural Development Projects'. It examines the value of an alternative strategy which would continue to rely on the estate sector as a 'leading sector' in export crop development, but which would incorporate the smallholder production of high value export crops. It shows that the prerequisites for smallholder development of these crops are different from those for the traditionally produced smallholder crops serviced through the National Rural Development Programme. Except for those farming within the Commonwealth Development Corporation (CDC) 'Crop Authority' projects, smallholders are presently precluded from the production of these crops. This is a result of the World Bank's particular model of rural development, in combination with the prerequisites for smallholder production of the crops. The development of the alternative strategy would require a rationalisation of the Bank's rural development programme, as well as of the present model of CDC's 'smallholder authority'. The article therefore has implications both for Malawi's rural development strategy, which has recently been the subject of much discussion; and for aid to the export sector, which, particularly through CDC, has been the most important element in British aid to agriculture in sub-Saharan Africa.

2. The Structure of the Agricultural Sector

The detail of Malawi's bimodal agricultural sector and the growth record of the two subsectors have been set out by Kydd elsewhere in this *Bulletin*. Certain aspects of this bimodality are central to this article and will be reiterated in a summarised form. It is estimated by the World Bank that real growth in the Malawian agricultural sector reached an average annual rate of 3.5 per cent during the 1970s. This was, however, the aggregate result of markedly different levels of growth in production in the two subsectors. Whilst the smallholder subsector presents a picture of near stagnation during the 1970s, the estate subsector grew rapidly. The two subsectors are officially delineated in terms of farm size, but a distinction between the two subsectors on the basis of crops produced can also be made. The estate subsector accounts for over 70 per cent of Malawi's agricultural exports, mainly in the form of tobacco (burley and flue cured), tea, sugar and coffee. The main crops grown in the smallholder subsector are maize, sorghum, cassava, pulses, rice, cotton, groundnuts, and fire cured and sun aired tobaccos. Thus the growth of the estate sector was based on exploitation of export market demand, together with the government's own supply side efforts to promote estate production, which have been well documented [Kydd 1984]. During the 1970s the marketings of flue cured and burley tobaccos increased at an average annual rate of 10 per cent and 17 per cent respectively. The production of tea and sugar showed a similar growth pattern, averaging 6 per cent and 18 per cent per annum respectively. Smallholder participation in the production of these crops has been negligible.

3. Reasons for the Crop Dichotomy

The strategy pursued by the World Bank, together with the particular economic and agricultural characteristics of high value export crops have been the major determinants of the limited involvement of smallholders in the production of these crops in Malawi. The World Bank has conceptualised and encouraged a functiional dichotomy for the two subsectors. The Bank's work in the late 1960s and throughout the 1970s gave a specific but complementary role in the growth process to each subsector:

> As regards the future role of estates and smallholders, agricultural production in Malawi will continue to derive from two subsectors coexisting and essentially playing complementary roles. The smallholder subsector will continue to assume the task of feeding the country's growing population, in addition it should be expanding export production of cash crops because it would be feasible to maintain self sufficiency with less resources as farmers adopt improved technology under the NRDP. The estate subsector will have the prime responsibility for generating agricultural exports [World Bank 1981].

Agricultural policy towards the two subsectors has developed in line with this conceptualisation. The Bank has perceived the two subsectors as requiring different degrees of intervention, and saw the estates as an efficient subsector that should be left in private hands. The orientation of the Bank towards the free market and towards a 'basic needs' focus for its own investments at a time of rapid growth of the estate subsector led it virtually to ignore the estates for investment purposes as well as in its analysis. Indeed, the Malawi Government's request for the Bank to fund an agricultural credit bank for both subsectors was turned down because the Bank suspected that it would be used primarily as a vehicle for financing estate agriculture. A review of Bank literature on Malawi during the 1970s reveals very little analysis of estate/smallholder interactions.

The donors and official central government institutions concentrated their resources on the development of the smallholder subsector. The World Bank's initial investment in smallholder agriculture in Malawi was in Integrated Rural Development Projects (IRDP), which dominated World Bank lending to Malawi from 1968-80. Given the size of these investments in relation to the government's total agricultural development spending (about ⅔ of the total in the mid-1970s) they necessarily had a heavy influence on the nature of government intervention to promote smallholder development and the allocation of the government's own financial and manpower resources. Three major projects fall into the IRDP category: Lilongwe Land Development and Shire Valley projects, approved by the Bank in 1967 and 1968 respectively; and the Karonga Rural Development project approved in 1972. The projects were largely focused on food crops (although they contained traditional smallholder cash crop components such as groundnuts, rice and cotton). The technical basis of the projects was directed towards increased production of traditional smallholder crops. Early project documents continually argued that the services required to transform the smallholder subsector were:

i) the provision of basic infrastructure, such as rural roads, input stores and produce markets, health facilities, boreholes and housing and office accommodation;

ii) land improvements: land consolidation, irrigation development and conservation works;

iii) strengthening of extension, marketing, research and public health staffing;

iv) establishment of credit facilities for agricultural inputs such as fertiliser, seeds, insecticides, work oxen and farm implements.

The level and nature of infrastructure, the organisation and intensity of credit and extension facilities, marketing arrangements and the type of inputs procured were directed towards traditional smallholder crops, i.e. crops already being grown within the smallholder subsector, in line with the World Bank's thinking. In practice the IRDP failed to meet their productivity goals and were replaced by the National Rural Development Programme in 1978. The NRDP had as its basic goal the rapid increase in smallholder production via nationwide application of the same set of measures that were central to the IRDP, albeit with a theoretically less infrastructural base. Thus to the extent that there were changes between the IRDP and the NRDP, these were related to the balance between components, and were not a rationalisation of the technical basis of smallholder development. The NRDP remained directed towards traditional smallholder crops.

A distinction can be drawn between the characteristics of the traditional smallholder crops serviced by the NRDP and specialised high value export crops such as sugar, coffee, tea and flue cured tobacco. Specialised high value export crops have the following characteristics which distinguish them from the more traditional crops:

i) they are subject to economies of scale from a national viewpoint (although perhaps not from the point of view of the individual producer). These economies occur because of the decentralised and duplicated services that must be provided to smallholders;

ii) most have a long lead time to maturity, although they are not necessarily perennial;

iii) they have a large processing and general capital outlay requirement;

iv) often processing must be carried out quickly after harvest, with the harvest itself being required to coincide with available processing or marketing capacity;

v) large levels of working capital are required for their production;

vi) many are agriculturally complex, requiring the timely operation of a wide range of technical husbandry activities. Flue cured tobacco provides a good example, particularly in nursery development and curing activities;

vii) they are marketed internationally;

viii) as a result of i-vii above, these crops are managerially complex.

Given the above characteristics of specialised high value export crops it is clear that the services provided under the national smallholder development programme precluded the participation of smallholders in the production of these crops. It is not possible for smallholders to produce high value export crops independently within the NRDP in Malawi as it is presently structured. The processing, transport and marketing infrastructure does not exist, leaving smallholders without the necessary inputs and markets. Specialised and intensive extension advice and credit in the correct forms are not available, and smallholders do not have the management capacity required for the efficient production of these crops. The nature of donor interventions has 'fixed' smallholders into the production of traditional low value smallholder crops. The only smallholders producing coffee, tea, sugar and flue cured tobacco commercially in Malawi are doing so under the auspices of Commonwealth Development Corporation Smallholder Authorities. I return to look at these schemes in a later section, after discussing the effects on growth and equity of the 'crop fixing' nature of current donor initiated agricultural projects in Malawi.

4. The Consequences of the Crop Dichotomy for Equity and Growth

I would argue that the pusuit of equitable agricultural development in Malawi by the World Bank via the concentration of investment and analysis on the smallholder sector has been misplaced. First, such a strategy led the Bank to pay too little attention to interactions between the estate sector and the smallholder sector, as set out by Kydd, which resulted in the transfer of resources from the smallholder sector to the estate sector. Secondly, by conceptualising and promoting a bimodal agrarian structure Malawian smallholders have been prevented from participating in the production of high value export crops which offered relatively high net profits. A strategy which promoted smallholder participation in the rapid increases in production of these crops over the last 15 years would have been more equitable.

In terms of growth, the Malawian government's promotion of rapid estate development was, I believe, not misplaced. Since independence Malawi's growth record has been impressive by African standards. Real income per capita grew at an average rate of 3.6 per cent over the period 1973-79. Between 1967 and 1979 gross investment grew at an average rate of 22 per cent per annum, with savings rising even faster than investment over the same period. Export volumes grew at an average rate of 6.4 per cent over the period 1964-79. It is unlikely that Malawi would have achieved these growth rates, had it relied on the expansion of the smallholder subsector. The policy error was not introducing smallholders to these crops once the estate subsector had established production.

Smallholder participation in the production of high value export crops could have made a further contribution to long run growth. This is a direct result of the fact that estate expansion has been limited by land availability. Further growth in production can only come from estate intensification and the development of smallholder production. In addition, specialised high value export crops have characteristics which make them important from the point of view of growth linkages. These crops have strong growth linkages. Much of the processing equipment and buildings could be produced locally, for example pruning knives, pulpery equipment, curing barns, flues etc. Estates have tended to rely on over-sophisticated and mechanised processing and harvesting equipment which has to be imported. On the consumption side, the generation of income to many smallholders creates a demand for local goods and services, in contrast to the import intensive demand patterns of estate producers. Further growth linkages occur from these crops because their resource requirements are not matched with smallholder resource endowments. Growth linkages are less likely to occur where these are matched. A degree of mismatching forces, for example, the development of management skills by smallholders and the adoption of more sophisticated technologies. These linkages are generally not taken into account in assessing a project's economic worth, and in some senses the idea of an economic rate of return becomes a static concept. Economic rates of return say little about the achievement of structural transformation goals. Cash crops can promote economic transformation if their production is planned in order to achieve this. They do not necessarily fix economies into a certain 'mould' — such fixing being more likely to occur if cash crops are not promoted.

5. Promoting Smallholder Production of Specialised High Value Export Crops

Attempts to promote the smallholder production of these crops in Malawi are confined to schemes established by CDC. Under these schemes, smallholders produce the crops either as outgrowers on nucleus estates or through the extension of the crops to existing smallholder communities. Other than the connection to an estate development, both types of scheme bear similarities in terms of operational and financial structure. CDC have specialised in extending these crops to smallholders and have developed their own 'crop authority' model to provide the necessary inputs in order to allow the smallholder to overcome the constraints presented by their particular agricultural and economic characteristics. This has generally involved the provision of capital for the development of scheme infrastructure, processing capacity and working capital, along with technical and managerial support to provide the timely supply of inputs and production services (such as field preparation) extension and crop marketing.

CDC have four schemes in Malawi. These are the Smallholder Sugar, Tea, Coffee and Flue Cured

Tobacco Authorities. Whilst these schemes have made some contribution to development in Malawi — they have extended the remunerative income generating opportunities accruing from the production of these crops to a larger proportion of the community, they have created employment and generated foreign exchange, the government has received a flow of tax and levy revenues, social infrastructure has been developed and senior field staff and managers have been trained — the projects have been largely unsuccessful in achieving their basic goals of generating a reasonable income for smallholders and being financially self supporting at maturity.

The major problems of the CDC model arise as a result of the following factors:

i) the operational and financial structure of the projects in combination with world market price instability. In poor price years farmers are unable to repay the scheme for services carried out on their behalf. In the absence of other income generating activities the scheme develops financial difficulties and farmers build up debts;

ii) the autonomous nature of the projects, which increases overhead costs through duplication of services. All operate outside of the NRDP;

iii) inappropriate technology which again increases overhead costs;

iv) a non-farming systems approach to the development of the special crop. This has led to low yields which are insufficient to generate a net income, especially because of high overhead costs. Services are provided for the special crop only, and because the schemes are independent of the NRDP this causes problems of access to resources for other crops within the farming system;

v) too little attention to food crop requirements related to iv) above.

These factors are relevant to both nucleus estates and to projects extending crops to farmers on their own land, and can be illustrated with reference to the four Malawi projects. The structure of the projects is similar. All provide crop husbandry and management services to the smallholder. In the case of KFCTA and SSA the costs of these services are deducted from the smallholder's gross returns, to arrive at a net income for smallholders. In the case of SCA and STA the authorities pay the smallholder a guaranteed price and rely on the margin between his producer price and the world market price to cover their costs. All projects have failed to generate adequate incomes for smallholders both in terms of consistency and magnitude. Where smallholders' net incomes are the residual i.e. at KFCTA and SSA, in poor price years the average smallholder has often made a loss. At KFCTA in the crop years 1978/79, 1979/80 and 1980/81 the average farmer made a loss on his tobacco operations. Although the situation returned to average profitability later, this still disguised the fact that large numbers of farmers remained loss makers (25 per cent in 1981/82). At SSA the average farmer made net losses in the 1983/84 and 1984/85 seasons. Where the authority relies on a margin between the producer price and the world price to cover costs, producer prices are held at low levels. At STA poor world prices led to the cessation of further tea plantings in 1980/81 and the stagnation of producer prices in real terms. All the projects except for SCA have suffered from either stagnation or contraction in terms of the numbers of farmers participating in the projects.

The projects are centred on one cash crop. When the world price is low farmers either make losses and are unable to repay the authority for services it has provided, or the margin between the producer price and world price is squeezed. The projects develop financial problems. In this way all the projects in Malawi have required deficit financing. This problem is exacerbated because the reduced incentives through stagnating prices or farmer losses lead to further yield reductions, increased farmer losses and further financial problems for the project. At KFCTA in 1977/78 the fall in the price of tobacco was associated with the formation of farmer debts and consequently a downward spiral of yields began despite good crop seasons in 1978/79 and 1979/80. The model has proved problematic for small farmers in the face of price instability, being based on a single cash crop and fixed debt repayment terms.

The possibility of poor price years becomes more important when accompanied by high production costs. CDC scheme costs are high. The schemes are characterised by costly central administration and management systems. The autonomous nature of the schemes means that they often duplicate services being provided by other public or private institutions. Many have their own extension services, transport and building departments. STA has its own tea factory to which green leaf is transported over large distances despite spare capacity in nearby private factories. Scheme technology is often inappropriate. Too little use is made of low technology inputs and smallholder labour. Tractors have replaced bullock carts at KFCTA and expensive leaf trailers are in use at STA for example.

Within the projects, smallholder special crop requirements take priority. A good example of this is inputs, which are provided for the special crop alone. Little attention is given to farmer priorities, the allocation of farmer resources and the integration of the special crops into the farming system. The result is the diversion of fertilisers to food crops and competing demands on farmer labour, thereby reducing crop yields. A bias towards the finances of the authority over the economics of the smallholder leads to poor pricing policy, which increases rather than solves authority financial problems. Examples of the 'financial approach' are many, and range from the dearth of economic data available at CDC and project offices in comparison to financial data, to the recommedations of an STA reappraisal mission where lack of throughput had caused financial problems, and freezing of smallholder prices was put forward to overcome this. Financial problems often arise because throughput is low (a result of the factors set out above) although each unit of production does contribute to project overheads. The accountants approach leads to frozen producer prices as these are seen as the major 'cost', but frozen prices only reduce throughput further. Financial considerations become particularly important with nucleus estates, where the goal of profitability of the estate is in conflict with the goal of smallholder income maximisation.

A model which passes the effects of price instability on to small farmers and which emcompasses single cash cropping and results in low yields and high overhead costs is not satisfactory for the successful production of specialised high value export crops by smallholders. Inappropriate technology and low incomes further prevent smallholder participation from contributing the potential equity and growth benefits set out earlier. Fixed debt repayment terms on CDC loans mean that it is smallholder incomes that must 'give' in poor price years. Further thought must be given to automatic rescheduling of loans by CDC when the world price falls more than a given percentage from its five year moving average. Loan terms are at present in conflict with the nature of the production which they aim to support.

6. Conclusion

Crops may be categorised in relation to their economic and financial production characteristics. The characteristics of high value export crops are in conflict with the resource endowments of smallholders. The National Rural Development Programme has not been directed towards proving the resources necessary if smallholders are to produce such crops. This has had implications for equity and growth in the Malawian economy, since the different crop categories have different equity and growth potentials. Whilst CDC has been instrumental in attempting to extend high value export crops to smallholders, its particular project model is fraught with problems which lead to high production overheads and low yields, a combination which generates neither adequate incomes now financially self supporting projects.

References

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