

Chapter II

AGRICULTURAL DEVELOPMENT AND FARM CREDIT

AGRICULTURAL DEVELOPMENT STRATEGY

30. As pointed out in Paragraph 1 growth in many countries has come at the cost of greater income inequality. Those who have benefitted are those who owned scarce resources, namely capital, land and marketable skills. The sick, the aged and the unemployed in most countries have gained little or nothing from the recent improvements in total output. But even those who are employed, but as unskilled labourers, have benefitted but little from growth; in relative terms if not in absolute terms they are worse off than before.

31. The growing inequities in income distribution, which developed during the post-war period, were in large part the result of the particular policies adopted to foster expansion. Most developing countries pursued a policy of growth through industrial expansion and import substitution. This meant industry was favoured over agriculture. Coupled with this was the then prevalent view that the poor were unable to save; thus if a country were to generate the resources needed for development, it had to accept a skewed distribution of income.

32. To channel resources into manufacturing, domestic industry was protected from foreign competition through exchange rates which did not reflect real values, by controls and by protective tariffs. For agriculture, which in most developing countries supplied the bulk of traditional exports, this meant lower prices for what was sold and higher prices for what was purchased. A second policy which favoured industry over agriculture was the pattern of government expenditures.

In most countries government outlays on programmes for the rural areas were less than proportional to agriculture's share of the population or the fraction of GNP originating in the countryside. A third policy which hurt agriculture in many developing countries was the effort at keeping down food prices. While this may have helped those poor living in the urban areas, it meant less income for farmers.

33. As a result of the policies pursued by government prices have failed to reflect the real economic scarcity of both inputs and outputs. Imports, exports, capital, agricultural produce, and to a lesser extent skilled labour were in many developing countries underpriced, while domestically manufactured goods tended to be overpriced. Unions, minimum wage laws, and restrictions on dismissal caused relatively unskilled labour to be overpriced when employed in the modern sector of the economy. Decisions on usage of inputs and production of output were made on the basis of market prices, not economic scarcity; distorted prices resulted in a misallocation of resources. From the viewpoint of economic efficiency, in many developing countries too many industrial goods were produced and the techniques employed were too intensive in capital and imported raw materials. For the manufacturer (often a large, multi-national firm) the resource combination was generally highly profitable, but from a social viewpoint it would have been more efficient to use more labour and more domestic raw materials. For the few who found jobs in industry the underpricing of capital and the overpricing of unskilled labour was beneficial, but through reducing the numbers hired, the policy followed reduced the wages of other unskilled workers, both in the rural and urban areas.

34. The resources that were allocated by governments to agriculture went to help primarily the larger farmers, both because of political pressures and because it was widely believed that it was difficult to persuade small farmers to give up traditional practices. The infrastructure investments that were made were of major benefit to those with substantial land holdings; also detailed information shows that the bulk of credit in value terms was loaned to the larger farmers. Similar evidence is available on the distribution of extension services, input subsidies, etc.; the benefits of government programmes tended

to flow to those in the countryside who were politically well-connected, namely the larger farmers. But even overall tax policy favoured those who were better off; developing countries have relied primarily on indirect taxes based on consumption, particularly consumption of imported goods; such taxes are largely regressive, tending to take a greater proportion of a poor man's income than that of one who is rich. The result of the policies followed and outlined above has meant that in most developing countries terms of trade are biased in favour of industry and against agriculture. Within the agricultural sector the problems of landless labourers and small farmers were further compounded by a pattern of government expenditure which favoured the large and politically strong against those who were small and in a poorer position to demand services from the government.

35. Many countries are beginning to reconsider the route to development they have been pursuing. On the one hand investing in industry and import substitution no longer appear quite so attractive. Those countries which during the 1960's accepted the discipline of international prices and sought to grow through export expansion have by and large done better both in terms of growth and equity than comparable countries which sought to grow through import substitution. Even countries that have done well with import substitution have reached and in some cases have exceeded the limits to which such a policy can reasonably be pursued. In fact many of the protected industries have proved inefficient and not internationally competitive, even after years of favoured treatment.

36. On the other hand agriculture seems to offer greater promise for growth than in the past. In some areas new and more productive technology has become available, and efforts are continuing to formulate high production varieties and technologies which are reliable and less yield-erratic than some developments have proved to be. Furthermore, the world market for agricultural products, and particularly that for foodstuffs, has dramatically changed in recent years. Developing countries cannot always count on buying food at concessional prices. Rather those countries which are not self-sufficient may be forced to

import food and other agricultural products at international prices, which in recent years have spiralled upwards. Thus, purely in terms of efficiency, many countries are reconsidering the advisability of policies which have in the past channelled resources from agriculture to industry. In country after country the poor have proved willing to save, when offered a reasonable financial return on their savings. Where direct investment opportunities were available, farmers, both large and small, have made substantial investments. In other countries in which high rates of return were offered on financial assets, small farmers and others have acquired substantial holdings, usually of savings deposits.

37. It is now clear that growth does not depend upon policies which encourage the rich to save and to invest in industry. Developing agriculture is in many countries an attractive strategy. Nor are savings and a more equal distribution of income antithetical. Furthermore, development is no longer considered synonymous with output expansion. Greater importance is being placed on income distribution as an end in itself, even if it should come at the expense of output expansion, which is itself a subject of debate. In the future more countries can be expected to restructure their policies to reduce the flow of resources out of agriculture and to increase the flow of resources going to the rural poor.

THE AGRICULTURAL SECTOR AND FLOWS OF RESOURCES

38. Over-draining the agricultural sector of resources does not pay. The increase in agricultural productivity in the less-developed countries of Africa during the latter half of the 1960's was only sufficient to maintain the overall food production per caput in the face of increasing population, and this average hides the fact that for half the countries involved the food production per caput fell. Indeed, a crucial point was reached in 1972 when a 25-year trend was reversed and food production actually declined.

39. A considerable rise in agricultural productivity is needed in most developing countries if food production is to be significantly increased.

This rise is not going to be achieved if the agricultural sector is starved of new resources, or its present resources exploited for the benefit of other sectors. But what are the resources used by agriculture or provided by it? They may be classified as being: *land, labour, capital* and *institutional services*. These resources can be characterized as "abundant" or "scarce".

40. The classic example of an abundant resource in low-income agriculture is *labour*. The total supply of rural labour is determined by population growth. This in turn bears little relation to the level of factor returns until the population becomes so large that the *average* product of labour comes close to the subsistence level. Lack of nonfarm employment opportunities keeps this labour on farms.

41. Whilst it is true that a major determination of rural labour is population growth, a longer-term planner must take into account a possible drain of skilled labour away from agriculture as the industrial sector of the economy develops. It has been argued that one of the means of increasing production from the labour resource is by its utilization in better systems of production. The highest yields are only obtained from such systems if the managerial efficiency of the farmers concerned is high. But the better managers are all too frequently those who are attracted to seek employment in the industrial sector.

42. *Land* is normally thought of as a scarce resource and this is true of most situations. However, in some developing countries, land tends to be abundant in the usual sense, but much of the land has a poor agricultural potential. In some countries the area of land suitable for cultivation is severely limited. In this situation the potential for increased production through the use of improved technology on existing cultivated land *must* be realised, and the likelihood of loss of land from agriculture to other purposes carefully considered.

43. *Capital* is also normally thought of as a scarce resource. But in developing countries, with a surplus of labour, this is not always the case. Take, for example, agricultural capital in its traditional forms,

created by production processes in which labour is the primary, and, in some cases, the only resource. A cattle kraal constructed by hand of local, bush-collected materials, is one example.

44. Such forms of capital can be expected to have qualities of abundance similar to those for labour. It is now recognised that the forms of capital described above can be important, since their promotion will reduce the need for investment from sources outside the agricultural industry.

45. Along with the primary factors of production, namely land labour and capital, further resources of a secondary nature are critical for agricultural development. Among the more important of these are policies and structures to provide:

- (i) research to develop improved production possibilities
- (ii) production and distribution of new inputs, plus advice with new technology
- (iii) servicing to farmers.

46. These scarce resources cannot be provided by farmers for themselves; neither do they compete for scarce resources needed in industrial development. But some of them will compete for the money available for national investment. But there is no point in raising the productivity of land if the infrastructure necessary to turn that productivity into consumption is lacking.

47. Although the resources of agriculture should not be exploited for the benefit of other sectors, agriculture clearly has an important part to play in the development of other sectors of the economy by releasing, or finding, resources for their use. It does not seem possible to provide a theoretical framework through which decisions may be taken as to the level of resources which may be released. The need for land for agricultural purposes must depend on the amount of land available for cultivation and the needs of agricultural production. If agricultural land is a scarce resource then the ability to increase productivity per unit of land area may be a crucial factor in further national economic development.

CONTAINING OUTFLOWS OF RESOURCES FROM AGRICULTURE WITHIN DESIRABLE LIMITS

48. Apart from reasons of a political, religious or other social nature, the acquisition of capital for agriculture in many developing countries is made difficult by the high marginal capital/output ratios, compared to those existing in the manufacturing industrial sectors. Unfortunately, simply comparing capital/output ratios for agriculture and industry will often not afford a fair reflection of the real situation which exists concerning the relative returns to investment. Low estimates of the ratio for agriculture may reflect, for example, a very limited use of capital in production which may be expanding through unpaid or poorly paid family labour; a more intensive use of inputs such as improved seeds, fertilizers and other chemicals requiring a comparatively small use of capital, or a land tenure system which does not encourage private investment while public investment is limited. What is needed is a separate capital/output ratio for capital intensive production in order to bring into relief the true picture of returns to investment in agriculture. Before private investment can be expected, from within or outside the agricultural industry, the capital/output ratio usually must be improved, but this can rarely be accomplished without an initial influx of capital, appropriately used, to increase production and the efficiency with which this production is obtained. For this reason the brunt of meeting the demand for capital in agriculture usually falls on the government. Governments can directly inject fresh capital into agriculture from foreign aid revenues from major exports (where these exist) or from domestic capital (or savings).

49. The extent to which foreign capital (particularly foreign *government* capital) can be made available is of course limited, while the demands of the developing world are enormous. As an example, it has been estimated that the Arab Republic of Egypt requires about £E 5,000 million (US\$ 11,000 million) of investment (in infrastructure, health services, education, direct production, etc.) between 1970 and 2000 AD simply to raise the average real wages of the workers from £E 125 (\$ 275) in 1970 to £E 198 (\$ 436) by 2000 AD, and this, effectively would double the wages of those in the lowest quartile of income, most

of whom work in the agricultural sector. Not all areas are rich in natural resources, such as oil, copper, etc., from which massive earnings in foreign exchange can be obtained. Therefore, in many developing countries, the role of domestic capital in development is decisive. Since their industrial sectors are comparatively small, contributing less than half the gross national product, the burden of domestic saving is likely to fall on the agricultural sector.

50. It may be argued that national income accounts understate rural incomes, and that a portion of what is counted as urban income is part of the added cost of maintenance which does not entirely provide added utility as compared with rural life; that there are considerable income disparities in the rural sector, with landless peasants and farmers with small holdings living on the margin of subsistence, and a substantial portion of income in the hands of a few whose standard of living is well above the national average. The implication is that there is scope for a large contribution from within agriculture towards the capital needs of the sector. In some developing countries this is not true, but even in those countries where such conditions do exist, incentives are still required to turn this capital into investment within the agricultural sector. Whether or not the capital is in the hands of a few, or in small amounts in the hands of many, it is a necessity of government policy to formulate policies, and foster the conditions necessary, to contain the outflow of all forms of capital from the sector.

51. Thus an important contribution to meet capital needs can be made by farmers if they can be induced to invest their savings in the industry. Unfortunately, in some developing countries, particularly in Africa, the decisions to save and to invest are independent of each other. Thus although subsistent and emergent farmers in Zambia nearly all have capital in the form of cash they have tended to be reluctant to invest this in farming for the following reasons: first, farmers use their cash savings as a form of contingency insurance, second, farmers are, in the main, uncertain concerning the costs and returns associated with, for example the use of improved seeds or fertilizers, and third, farmers, because of this uncertainty regard investment in farming as risky.

52. Clearly, a primary objective of government policy and action must be to turn these savings into investment, and investment in agriculture, preferably by the farmers concerned in the development of their own farming. For this objective to be achieved the risk of failure must be minimized. One way of doing this is to identify those farmers who are most likely to succeed in a given farming development, and then to ensure that sufficient knowledge is imparted to these farmers to, more or less, guarantee their success in a normal year.

53. But it is not sufficient to be concerned, through the extension services, with farm education. Much more is involved in encouraging farmers to save and invest. Thus governments must:

- (i) ensure that an incentive price structure exists, so that farming is seen as a viable, income-generating enterprise;
- (ii) strengthen the bargaining power of the agricultural sector;
- (iii) create a taxation policy which leaves sufficient income within the agricultural sector to assist growth;
- (iv) direct sufficient public investment into agriculture;
- (v) allocate sufficient resources to agricultural credit;
- (vi) control the drainage of small agricultural savings by urban banks;
- (vii) establish land tenure policies which will give farmers confidence in their future;

and generally ensure that all the other necessary conditions to extend agricultural growth do exist.

THE DRAINAGE OF RURAL SAVINGS TO URBAN AREAS

54. This section describes the ways through which monetary savings formed in rural areas may be drained by financial intermediaries. These intermediaries carry out their principal activities in urban areas and therefore are concerned especially with financing the industrial and tertiary sectors. The intermediaries involved include not only commercial banks, but also post office savings banks, co-operatives and non-institutional intermediaries such as moneylenders.

55. Two types of rural-to-urban flow mechanisms can be identified. *First*, mechanisms involving rural savings already accumulated, and *second*, mechanisms which, before the saving accumulation process, tend to transfer resources and incomes from the rural world to other productive sectors. Drainage of the already accumulated rural savings relates chiefly to the following types of credit institution:

56. *Commercial Banks*: in some developing countries, especially former colonies, these banks tended to favour the outflow of financial resources to dominating trading partners. Since the end of the colonial period various controls on this have been introduced. However, although these controls take care of international financial movements, national governments have not succeeded in significantly influencing commercial banks in reorienting their investment policies towards equitable development. Thus commercial banks have concentrated their operations in sectors characterised by high short-term profitability, have strictly selected their customers on the basis of so-called "sound banking principles" and have therefore concentrated on urban business and have bank branches generally located in urban areas. Because of this, commercial banks do little direct collection of rural savings. But this is quite understandable, given the high cost that the commercial banks would sustain in such collection and, in any case, rural savings tend to reach the banks themselves through other channels, a process which is discussed later in this section.

57. *Post Office Savings Banks*. These institutions traditionally collect savings accumulated by small savers, in both urban and rural areas. Post office savings banks can easily reach a large proportion of the population because of their comprehensive branch networks. On the other hand, investment by P.O. savings banks in the rural sector has usually been very limited, since these institutions usually invest in public securities and the flow-back from these to agriculture is generally quite small. Consequently the activities of P.O. savings banks generally result in an important outflow of funds from the rural to other sectors.

58. *Other Channels* for the drainage of rural savings exist. For example, some institutions, which should by statutory obligation finance

agriculture, invest to a greater or lesser extent in other productive sectors. This is often the case with co-operative societies. They are often not able to invest in their own rural areas all the funds collected, and therefore deposit the surplus in commercial banks or in other investments such as Treasury bills. This is clearly not in accord with the constitutional aims of local co-operative societies, which aim generally at local investment of rural savings. But the cause can usually be traced to the nature of the credit policy that most societies follow. This policy tends to be rather conservative, favouring consumption loans to wage earning members, with production credit generally being confined to a small proportion of the loan portfolio.

59. *Moneylenders* who work at the village level can also cause an important outflow of funds from the rural sector. These moneylenders are usually customers of urban banks, and therefore a part of their funds is likely to be deposited, at least for a time, in these institutions. A similar situation applies to tradesmen and merchants, who are responsible for a large share of the non-institutionalized credit in developing countries. Apart from their cash-saving practices, moneylenders have a tendency to invest their savings in urban rather than rural sectors, for example in urban housing. Having said this it is recognised that in some cases moneylenders borrow from urban banks for lending in rural areas.

60. Attention is now directed to those factors which tend to limit saving at source by restricting the level of agricultural income. The following can be identified:

- the system of the property ownership
- the dynamics of price formation and, in particular, the extent to which private traders control farm-gate price levels
- taxation, and fiscal policy generally.

61. Economic development involves the transfer of human and monetary resources from rural to urban areas. But a situation appears to exist in many developing countries where this general pattern has begun both prematurely and at a pace which is so fast that it is squeezing the rural sector to the point where the viability of the latter is

threatened. Unfortunately, the income groups to which monetary resources are transferred are frequently those with the highest propensity to consume. Amongst the reasons for this are: a widespread prestige motivation, the wish to imitate the typical consumption patterns of the developed countries, the wish to demonstrate social standing, and so on.

62. How can this situation be changed? First, one must recognize that up to now very little has been done. This is because the current situation suits the interests of classes that nowadays have the political and economic power. The broad answer, then, is to foster the emergence of farmer's groupings which can assist in redressing the balance of power, both political and economic. Governmental action here is threefold. First, to make a commitment to this type of development. Second, to ensure that suitable legislation exists. Third, to assist materially in the establishment and growth of farmers' co-operatives or associations.

AGRICULTURAL TAXATION POLICY

63. Monetary flows between the agricultural sector and the rest of the economy may well involve taxation. But a fairly fundamental distinction must be made between those countries which need to tax agriculture as a large and important source of revenue, and those countries which have very large alternative sources of revenue, such as oil, copper, iron ore, tourism, etc. All tax policies must consider the amount of revenue raised as well as the cost of collection and the incentive effects, but the mineral exporting countries are in the luxurious position of being able to ignore to a greater or lesser extent the amount of revenue collected and to concentrate on using taxation as an additional weapon for inducing agricultural change, or indeed of not having to tax agriculture directly at all. In the extreme case of Zambia, government spending on agriculture has at times exceeded the value of the entire marketed output of agriculture: in such circumstances it is absurd to tax the farmer in order to raise revenue, although it may have to be done on grounds of perceived equity and it may be desirable to use taxation for its incentive effects. Nigeria, on the other hand, relied very heavily

on agriculture in order to finance industrialization until the oil industry began to recover from the civil war. Between 1963 and 1973, oil revenue was expected to rise from £N 5 million to £N 240 million, which would be from 3 per cent to over 50 per cent of total government revenue.

64. In practice, taxation of farmers in anglophone Africa has developed in two quite separate ways. On the one hand, agricultural exports have been taxed, in line with the common tendency for foreign trade to provide the bulk of tax revenue in newly developing economies. On the other hand, farmers themselves have been taxed as individuals, initially by crude poll or hut taxes, which have later developed into simple "personal" taxes, with graduated rates.

65. Export taxes were usually imposed in order to raise revenue, and exports were chosen for the classic reasons of ease and cheapness of collection. A second source of revenue under this heading is marketing board surpluses; as described in a later section these were originally intended for the smoothing of commodity price fluctuations, but were used as a source of development finance and in due course were deliberately accumulated for this purpose. The tax is inequitable insofar as it contains no element of progression, and discriminates against the export producer unless there is an equivalent tax on products sold on the home market. In some cases export taxes also stimulate smuggling. Despite this catalogue of disadvantages, the extreme simplicity of collection combined with very severe shortages of administrators in many countries must mean that governments are extremely reluctant to drop taxes on agricultural exports. Yet it is surely possible to utilise the single collection point offered by export marketing systems whilst at the same time reducing the bad effects of existing taxes or quasi-taxes.

66. Thus equity amongst growers of the same export crop could be improved by introducing a progressive schedule of rates according to the quantities supplied by each grower. Secondly, some part of world price increases should be passed on to farmers. If marketing boards retain the whole of price increases, farmers lose the incentive to increase

production provided by higher prices. In due course farmers in other countries, some of which may be developed, will respond unless they are similarly insulated from price changes, and export growth opportunities will have been lost. Thirdly, where home-consumed crops are also marketed through government marketing boards with a monopoly, some measure of equity, as between export and other crops, can be introduced by taxing the latter. This is bound to stimulate some avoidance of official marketing channels, but may be an effective second best solution.

67. The opportunity to tax agriculture principally by means of taxes on export crops clearly only arises where exports are a substantial proportion of agricultural production, or at least of marketed production, as in many African countries. This is in direct contrast to a country such as India where the bulk of agricultural produce is sold internally. An additional factor in favour of export taxes in Africa is the shortage of administrative personnel, as already suggested; and even when adequate numbers of educated people are available, as will be the case quite soon in Africa (it may be the case already in some countries and for some skills), for a long time salaries will continue to reflect present scarcities and historical colonial patterns, so that systems which are expensive now administratively in real terms will remain expensive in money terms when the real supply shortage has been overcome.

68. Despite the administrative constraint, many African countries have, at least in embryo, a tax on small farmers which uses one of the essential underlying principles of the Agricultural Holding Tax (AHT) proposed by the Committee on the taxation of agricultural wealth and income (known as the Raj Committee) in India. The AHT would be a tax on the "rateable value" of land, and the rateable value would be based on the average value of crops grown in the last ten years. The incentive effect of such a tax is to stimulate production unambiguously. It is payable regardless of the actual level of production so that the farmer must earn income in order to pay the tax; at the same time, because the tax payable is the same for all levels of actual production, there is no penalty on the successful farmer.

69. "Personal" taxes in Africa, when based on potential rather than actual income, have substantially the same incentive effects on production. Usually personal taxes began as uniform poll or hut taxes, designed to place some tax burden on the inhabitants of the country as a whole, whilst avoiding complete reliance on custom duties. It was also, in white settler dominated countries, designed to induce Africans to work on farms and mines. These personal taxes have developed into very simple graduated income taxes. But if, as in Uganda for example, the tax is based on *potential* income, there is again an income effect but no substitution effect; that is, the farmer is encouraged to increase his gross income because of the need to pay tax, while actual increases in income do not increase the farmer's liability to tax. Furthermore, potential income is considerably easier to assess than actual income, and using potential income as a tax base means that there is no incentive to use unofficial marketing channels in order to avoid tax payment.

70. Personal tax of this type thus has much in common with the Agricultural Holding Tax proposed by the Raj Committee in India, but is better suited to conditions such as those in Africa. The Raj Committee's proposals depend on a considerable administrative effort, for which the resources are both available and cheap in India, and the proposals also depend on it being possible to establish land ownership. Like all land taxes, there is the additional effect, no doubt intended, of providing a strong incentive to make more intensive use of land. The tax is thus aimed partially at the large landowner, in the hope of making him use his land more intensively and thus employ more labour, or of inducing the break-up of large landholdings. Because of the relatively much greater abundance of land in Africa, the need is rather to increase output per man (the scarce factor) than to increase output per acre. There is also a great need in some areas to induce a more commercial attitude to cattle. In any case, the personal tax based on potential income is neutral between factors of production, being simply an incentive to increase income by whatever means; in the case of cattle, by specifically treating them as income earning assets, the tax is a particularly direct and clear encouragement to the farmer to treat his herd in a commercial way. In addition, the personal tax does not

require that land ownership be known, as it is based on acres planted, cattle and coffee bushes owned, and other sources of income which can be identified as belonging to one farmer, even when the land as such is not clearly owned.

71. On the administrative issue, personal tax can be assessed by local committees, of officials and others, with the relevant local knowledge. If tax is levied at a fixed rate on each slice of income then the degree of accuracy required in assessing potential income is not very great, and well within the ability and skills available.

72. It is most important that personal taxes of the type described be levied and spent by local government authorities, as they usually are at present. This becomes even more important in the case of increases in rates or the introduction of a tax for the first time. The growth of "taxpayer education" is probably an important contribution to development in the wide sense of the word. Payment of a tax assessed directly on the farmer and spent visibly and locally for the benefit of the community is a real contribution to development in a way that receipt of revenues from the central government, derived from taxing the mining sector, or from marketing board surpluses, is not. For this policy directly contributes to education of the type so necessary to facilitate the development of financial markets.

73. The question remains as to whether the administrative effort involved in personal taxes on agriculture is worth it, in terms of revenue raised and the incentive effects. In the case of agricultural export economies, it is very unlikely that a personal tax would be able to raise sufficient revenue in the short run to replace the revenue from export taxes and marketing board surpluses, even though, in principle, the tax base would be wider since it would include production of crops marketed locally as well as export production. Thus even in Uganda, where the personal tax has been very successfully applied, so that it produced (in 1964/65) about 80 per cent of local government revenue, and slightly more than the Western-type income tax, its yield was nevertheless only about 40 per cent of the yield of export taxes. This means that the personal tax would have to more than triple in yield to give the same revenue if it replaced export taxes.

74. A fundamental reason why personal taxes cannot be expected to replace taxation of exports is that the *rates* of personal tax must be decided on the ability of the least successful farmer to pay. But in a situation where farmers are emerging from subsistence into commercial production enormous differences in productivity may exist in the same district. In Central Africa, for example, maize yields can range from three to forty bags per acre, and the gap is similarly vast in beef production. In such circumstances, it is impossible to tax the successful farmer very much using rates that will not put an impossible burden on the less successful, even if the least successful are excluded by a basic exemption.

75. The other major advantage of export taxes and marketing board surpluses is that they can be, and frequently have been very successful in creaming off for the government the "windfall" gains of price rises in export commodity markets. Precisely because of their windfall nature, it is arguable that these gains can reasonably be shared with government by means of graduated export taxes, or partially expropriated by means of marketing boards. An additional advantage from the national point of view is that the inflationary effects of export price rises can be prevented, by diverting the income created to government. This assumes, probably correctly, that spending by government in such circumstances is likely to rise less in the short term than spending by farmers. At the very least it gives government greater control, even if that control is not exercised.

76. On the other hand it is equally arguable that export taxes and marketing board surpluses have been greatly overutilized by governments, and that the money would have been used much better by the farmers.

77. In short, it appears that the theoretically less satisfactory export taxes and marketing board surpluses may have to be continued for the time being, but that personal taxes should be used *in addition*, as they are in many countries, perhaps with a gradual shift in emphasis in their favour. In their incentive effects personal taxes seem to have some of the main advantages of the AHT proposed by the Raj Committee,

while being well adapted to African conditions of land tenure and factor scarcity. Personal taxes are also a good way of enabling agricultural taxation to be brought into line with the taxation of urban incomes — as agricultural development proceeds this is going to become increasingly necessary in order to maintain equity. Even where the majority of agricultural incomes are below the majority of urban ones, it is vital for taxpayer morale for horizontal equity to be maintained.

78. Finally it should be stressed that whilst there are many advantages associated with broadening the tax base in a country, it is foolish to expect agricultural development to proceed satisfactorily when substantial taxation is added to other monetary outflows from this sector.

INVESTMENT IN AGRICULTURE

79. *Public:* Government investment in agriculture can either be direct through production, or indirect through the provision of infrastructure or services. Direct production investment, that is, the state farm approach, is a typical reaction of governments in developing countries faced with an urgent need to increase agricultural production. It accords well with the political idealism of many ruling parties. Government participation may be as sole proprietor or may be undertaken with partners such as large companies, banks or other parties.

80. However, investment in direct production is usually far less important than investment in infrastructural items. The latter include roads, railways, land reclamation, irrigation and drainage works, storage for inputs and produce. A further type of investment is that involved in building up human capital, that is education through schools, education through agricultural extension services and the provision of health services. Yet again, the promotion of farmers' service organizations, such as co-operatives, is increasingly regarded as a highly desirable infrastructural item. Government investment in agricultural research is again of an infrastructural type. The basic aim of this is to provide the means whereby farmers can be enabled to increase their land and labour productivities through the development of higher

yielding crop varieties and higher producing animal breeds, together with associated technologies in the provision of plant and animal food, disease and pest control and better methods of crop handling and processing.

81. Credit provision is a further farmer service calling for government investment. This may be by budgetary allocation or, as is becoming increasingly common, by central bank financing. Again the government investment may be, for example, by way of establishing credit programmes linked to the production of a given crop or livestock product, by providing lines of credit through private or co-operative banking institutions, or by setting up fully fledged, government credit institutions. The importance of direct government responsibility in this field is indicated elsewhere in this report.

82. *Private:* Agricultural investments in *developed countries* are usually less attractive to private individuals than other types of investment, at least when judged by purely financial criteria. This is because prevailing price structures for agricultural products tend to lag behind, resulting in a relatively poor return to money invested in this sector of the economy. But, in developed countries, there are non-monetary incentives for agricultural investment, for example, there is something attractive to many investors in owning farming land; and there are non-monetary benefits associated with this. However, investment in farming can also be attractive to urban-based financiers for tax reasons. Thus, in the United States investment in livestock may qualify for a certain amount of tax relief. However, generally speaking, agricultural investment is less attractive than investment in other sectors.

83. In *developing countries*, investment in agriculture is usually even less attractive. The non-monetary benefits and tax advantages do not usually apply and when a government has decided to embark upon a development plan, then there is almost certainly ample scope for private investment in urban areas, in construction, trade, in manufacturing and in transport. Investments in agriculture are usually longer term and unless extremely favourable price conditions apply, then the return will be very much less than that to investment in the sectors already noted. Also the great dichotomy between urban and rural sectors,

coupled with the poorly developed nature of capital markets, means that communication between the urban financier and the rural area or rural borrower is very difficult. For this reason one cannot expect private investment from outside the agricultural sector in developing countries to play a very significant role in developing the agriculture of LDC's.

84. Investment from within the agricultural sector is a different story. Thus although the capacity for capital formation in rural areas is likely to be limited for some time, there is plenty of evidence to indicate that farmers, when they have sufficient cash resources, are prepared to plough these back in their farming operations and build up even further their capital formation capacity. This process would, of course, be assisted greatly by incentives such as favourable terms of trade. In addition, and as pointed out in paragraph 48 above, self-investment can be greatly assisted by the government's own investment.

ENSURING AN INCENTIVE PRICE STRUCTURE FOR AGRICULTURE

85. Recognition of the need to provide incentives to farmers to produce more of needed products is by no means general among governments of developing countries. Indeed some governments have tried to use legislation and compulsion. For example in the Eagian and Kunduz provinces of Afghanistan farmers have been required to devote a certain percentage of their land to growing sugar beet and cotton respectively. These regulations were enforced through the extension service. In India farmers have been required to deliver a certain quantity of grain to government agents. In Egypt there have been minimum acreages for wheat and cotton, and farmers were obliged to sell their cotton and half of their wheat and rice to the government.

86. In normal times, however, compulsion has seldom proved very effective. Farm production and the farm population are scattered over a wide area, usually in small units, and this makes compulsory measures practically impossible to enforce. More and more, therefore, where the *laissez-faire* market forces have proved inadequate, governments have developed a variety of incentive measures designed to encourage farmers

to move voluntarily towards the pattern and level of output of key commodities considered to be in the national interest. Thus in the case of Afghanistan quoted above insufficient deliveries have led more recently to a substantial increase in the prices paid to farmers for cotton and sugar beet, i.e., to an incentive approach. In Egypt also it has been found necessary to raise prices for beans, rice and cotton in order to stimulate production and sales.

87. Even in countries where the land has been consolidated into large collective and state farms, largely to enable the government to exert more direct control over production, it has been found necessary to reinforce direct controls by incentive measures. Prices have been raised for staple foods, and still more for commodities such as livestock products, where output was lagging far behind demand, and where a large part of the supply still came from the small individual plots of the members of collective farms. In China too the neglect of labour incentives under the earlier system of commune management was widely discussed after the crop failures of 1959 and 1960. A number of measures were taken to provide greater incentives, including: new techniques of wage calculation, more frequent payment of wages in cash, the introduction of private plots and of an allowance of time for working on them, the reorganization of free markets to make possible the sale of the products of private plots.

88. Whatever the political system it seems clear that there must be a material incentive if the farmer is to expand production beyond his immediate needs. Such incentive must be particularly evident if he is to take the risk of putting money and effort into applying additional inputs. Generally it is the price paid to him for the product when it is ready for sale that constitutes the most direct incentive.

89. On free markets prices can be very high when crops are poor and fall sharply when they are abundant. The uncertainty as to the price he will receive for his product helps to make it risky for a farmer to adopt new methods. A first essential therefore in maintaining a steady pace of agricultural development is some form of government intervention to stabilise farm prices at a level remunerative to efficient producers in

relation to the prices of the inputs required for increased production, and to their living expenses at the levels to which they have been accustomed. There are other incentive measures which are almost as important. •Establishment of favourable terms of tenure and of taxation is discussed elsewhere. Relief from import duties on agricultural machinery and other production requisites is widespread, and many countries subsidize fertilizers, etc., or stabilize their prices in order to encourage their use.

90. The ready availability of a good range of consumer goods is also important in sharpening incentives to farmers to raise their cash incomes by increased production and sales. In new settlement areas in Sri Lanka, in the Sudan and in other parts of Africa there is direct evidence that making available textiles, household goods and toilet articles have stimulated farmers to grow more in order to have more income to buy more.

91. PRODUCERS' RESPONSE TO PRICES. In other sectors of market economies it is taken for granted that a producer will not increase his output unless he expects it to be profitable; that is to say that he expects to find a market outlet for the additional production at a price which he considers profitable, allowing for any economies which may result from a larger scale of operations. A positive response to price is also accepted as normal in the agriculture of more developed countries. The sometimes embarrassing surpluses of farm products, which in certain cases have resulted from relatively high support prices, provide in themselves a convincing demonstration. But this principle has not found easy acceptance regarding the agriculture of developing countries, especially for staple foods. It is often argued in these countries that a fall in price may lead to increased marketing as farmers will try to compensate for the lower price by larger sales, at the expense of their own consumption ("hunger sales"). Conversely it is maintained that an increased price will lead to smaller sales as farmers need to sell less in order to obtain the cash needed for essential expenditures.

92. It is clear, however, that the farmers who react in this way, even if they are numerous, contribute very little of the marketed surplus.

This stands out from an analysis of sales of jowar by size of farm in certain areas of India. It was found that farmers with over 30 acres (who would respond normally to price changes as they would not be forced to make hunger sales), though less than 25 per cent of the number of farms, accounted for about 60 per cent of the area under food-grains and some 80 per cent of total sales of jowar. In one review of studies of production response to price only one case was found of a significant negative price elasticity, and this was for an inferior feed crop. All the other case studies suggest that crops can be ranged along a subsistence-commercial continuum with their responsiveness to price movements increasing with the degree of commercialization. The magnitudes of response depend on the positions of individual products in the total economy of different regions and on the availability of resources and alternatives rather than on differences in the intrinsic propensities of farmers to respond to price changes.

93. DETERMINING PRICE LEVELS. In many developed countries prices of the main farm products are maintained in domestic markets at an appreciably higher level than those ruling in international markets as a means of raising farm incomes nearer to those in other occupations. This implies transfer payments to agriculture from other sectors of the economy through higher prices to consumers or through some form of government subsidy, or by both methods. Such transfer payments are generally not feasible in developing countries where the agricultural sector is large and the other sectors too weak. In developing countries agriculture as a whole cannot be subsidized either directly or indirectly from other sectors except where there are large extraneous sources of revenue, e.g., from petroleum exports.

94. In most developing countries, foodgrains make up so large a part of the diets of low income families (that is to say of the vast majority of families in those countries), that rising prices can cause serious hardship and quickly lead to social and political unrest. Moreover, expenditure, on foodgrains, or other staple foods, is much the largest item of consumer expenditure in most developing countries, and hence in the cost structure of wages. Rising prices of these commodities

therefore have a serious inflationary effect which the governments of developing countries must combat at all costs. This is particularly true where substantial parts of the population live in urban areas and no longer have direct access to land on which to grow some food for their own use. A study conducted in Malawi, with families in the peri-urban area of Blantyre-Limbe in 1957, and a similar study carried out in the urban areas of Sierra Leone in 1966-68, indicated that expenditure on all food was between 50 and 60 per cent of total expenditure. Of this food expenditure less than one third was for starchy foods. These figures include items obtained by barter as well as those purchased for cash. Rather similar conditions may prevail in many other cities in Africa, perhaps even in Ibadan where the population may exceed one million but still retains close links with the land. In the Near East and Asia, however, cities like Cairo, Teheran, Karachi, Calcutta, Delhi and Djakarta are so large, and so dependent on food supplies purchased through the market, that the governments of the countries concerned become extremely sensitive politically to urban discontent. For this reason many such governments have been more concerned to stabilize prices to consumers than to stabilize farm prices. Stable consumer prices are certainly essential for avoiding hardship to consumers and combatting inflation and its attendant ills. But there is a real danger that concentration on keeping down consumer prices, without parallel action to maintain reasonable profitability to producers, will perpetuate the very conditions of scarcity which make the control of consumer prices seem politically essential.

95. For the farmer it is the relationship between agricultural and other prices rather than their absolute level which is important. The stabilization of grain prices at a relatively low level may be a valuable incentive to production if the prices of fertilizers and other farm requisites are low, and if the cost of living is relatively stable. Without these safeguards even a high level of price support may be ineffective.

96. If current consumer prices are taken as a starting point, as something which should not be increased but if possible decreased, the issue then becomes how to organise distribution so that the farmer receives the highest possible percentage of this price. The easiest way

to achieve this seems to be to eliminate the sharp post-harvest fall in prices, which in practice is reflected to only a limited extent in consumer and even in wholesale market prices. In other words, it becomes necessary to guarantee a minimum price to the producer, one which he can be assured of receiving, which would correspond to the highest feasible share of the consumer price compatible with the essential costs of transport, marketing and distribution.

97. **IMPLEMENTING PRICE STABILIZATION PROGRAMMES.** The salient issue now regarding the stabilization of prices to farmers is not so much whether it is necessary, as how to do it — in the face of various other claims on development resources. By 1960 grain offices, supply institutes, marketing boards or branches of government ministries had been given responsibility for operating stabilization programmes in the majority of Asian, Near East and Latin American countries. Since then other countries have set up grain marketing boards and are now attempting to initiate stabilization programmes. Examples are Botswana, Chad, Dahomey, Ethiopia, Ghana, Somalia, and Togo.

98. But there are still a substantial number of countries in Africa, a few in Latin America and in the Caribbean, where stabilization mechanisms have not as yet been established.

99. The implementation of effective marketing improvement and price stabilization for basic grains imposes heavy demands on the resources of countries at an early stage of development. The problems include lack of information on existing marketing channels and movements, lack of skilled and reliable personnel, and inadequate capital. Because of these difficulties the marketing of domestic food crops in many parts of Africa remains to a large extent in the hands of small-scale traders. These often lack capital, equipment and technical know-how and thus find it difficult or impossible to apply the most efficient techniques. Indeed the structure of their operations is such that they see most to gain by pricing and stockholding policies designed to widen seasonal price fluctuations, by withholding a price premium for quality at the farm level and grading after purchase, and by charging wider margins to cover losses due to inefficient storage. Such marketing

systems do not assume direct responsibility for ensuring the availability of larger food supplies to match population growth and an ever greater pace of urbanization. Shortfalls are normally offset by a contraction of demand as a result of sharp price increases. Imports may alleviate such shortages. However, in addition to requiring disbursement of foreign exchange, they may further discourage domestic producer output. Continuance of uncertainty regarding sales outlets and returns has also impeded farmer access to credit for production inputs.

100. The typical marketing improvement and price stabilization programme to meet such conditions hinges upon the establishment of a specialized autonomous public agency equipped to buy, sell and hold stocks on its own account. It maintains a seasonal buffer stock which is replenished by purchases at a pre-announced price, thereby supporting the market during harvest time, and after, when many farmers are under pressure to sell to meet cash commitments. Releases are made from this stock through wholesale or retail outlets, or both, during the off-season, thereby limiting increases in prices in consuming centres. Existing private traders and co-operatives, where available, can be employed as agents to buy and sell in the name of the board or agency and according to its instructions, but direct buying stations may also be needed to ensure that the stabilized price is available to the farmer. Much depends on the determination of a government to carry such a project into effect along realistic lines.

101. **EXPORT CROPS.** In contrast to agricultural products for domestic consumption, the marketing of crops such as tea, cocoa, coffee, rubber, all in active demand on export markets has received continuing government attention. This is not surprising for these commodities not only bring cash income to the producers, but also foreign exchange for the country. Channels from producing area to port and to commercial centres of export sales were developed originally by foreign enterprise. These channels still continue to operate, either under the supervision of a national government or as incorporated into a national marketing board or export corporation. The main issue regarding credit management is again sharp variations in market prices, mainly in reflection of output changes due to disease, weather or other production

conditions. International prices of these products are also very susceptible to political disturbances and breaks in trading relations.

102. Two approaches to stabilization are being pursued. Individually governments of producing countries rarely have the means to influence the price of products on world markets. Various attempts to stabilize these by international agreement have had only limited success. But one outstanding example is that for coffee, which Brazil, with its large share of the total supply, has been able to police fairly effectively. Similarly the world price for cotton was for some time kept steady by the policies adopted by USA when it was the largest exporter. Groups of countries with relatively small shares of the market find it much more difficult to establish and maintain such agreements. Evidence for this is provided by protracted negotiations regarding cocoa, groundnuts and rice. Individual countries can, however, control the internal price of an export product. This has been done for many years for meat in Argentina, for example, and for cocoa, groundnuts and other products in West Africa.

103. Argentina and other Latin American countries have used differential exchange rates to keep the producer price steady (and low) in face of variations in export markets. Export taxes based on a sliding scale according to the external price level can be used in the same way. Burma and Thailand have levied substantial export taxes on rice as a source of government revenue. In Burma rice prices have been held at a low level for many years in spite of rising prices in the economy as a whole.

104. Low internal living costs have been maintained in Thailand for many years by the application of a rice premium or tax on all exported rice. This premium has often amounted to one-third of its value and was in fact borne by the farmer in the form of reduced monetary returns for his crop. In a very real sense this tax represented a form of subsidy from the rice-farming sector to the rest of the economy, for the price of this staple grain on the domestic market has been governed by the after-tax returns from exports. The domestic price was therefore lower than the world price and this had the effect of lowering the cost of living relative to that of other countries.

105. The rice premium represented an inducement to farmers to switch from rice to other crops or even to other occupations. A major disadvantage of the tax stemmed from its reduction of the marginal productivity of rice growing to the farmer below the true marginal productivity to the nation. The low marginal productivity to the farmer resulted in the application of fewer inputs like fertilizers and pesticides, thus reducing the total rice yield from what it would have been, had the crop been sold at its "true" value.

106. In West Africa marketing boards have been a key instrument in the establishment of producer prices for export products. By making payments into stabilization funds when world prices were high and withdrawing from these funds to make up farm gate prices when export prices were low, marketing boards were well adapted to provide a continuing incentive to producers. Generally they were successful in stabilizing prices to farmers for substantial periods at a time, though sometimes abrupt changes were announced between planting and harvesting dates. Their adverse aspect has been the temptation their reserve funds have been to governments seeking funds for politically appealing development programmes. In practice this stabilization mechanism proved a convenient base from which to siphon off money from agriculture for general development uses. For example in Nigeria between 1948 and 1967 it has been estimated that producers received 44 to 62 per cent of the export price of palm oil, 35 to 68 per cent for groundnuts and 48 to 70 per cent for cocoa. To such reductions in incentive to expand production is attributed in part the declining share of developing countries *vis-à-vis* soybean oil from the US in the expanding world oils and fats markets of the 1950s and 60s. (The connection between stabilization funds and capital formation is examined in Chapter IV in the section on forced saving.)

107. The conclusion to be drawn is that fairly easily managed techniques for stabilizing prices of export products to farmers are available to governments of developing countries; except, however, where ample public funds are available from a non-agricultural source, they open the way to an excessive drawing on this sector for general expenditure.

108. INPUT PRICES. While prices for the output of agricultural production tend to be lower in developing than in developed countries, costs of inputs, other than labour, tend to be higher. In the period 1964/65 to 1967/68 the price of ammonium sulphate to farmers in most Western European countries, Japan and the United States was quoted in the range of \$ 25 to \$ 30 per 100 Kg. of nitrogen. Whereas the price in many developing countries was also within this range during the period, in others it was much higher. For example, in 1964/65 in Algeria, India and Syria it was over US\$ 35, in Ghana and Togo nearly \$ 45 and in Argentina over \$ 55. Other developing areas where high prices were charged for this fertilizer in 1967/68 include: Dahomey, Burma and Uganda (all between \$ 35 and \$ 40), Tunisia (\$ 42.3) and Mauritania (\$ 57.9).

109. Such price data are of course only indicative; they may for example be biased by official exchange rates. Moreover they give no clue to the relation fertilizer prices bear to those of farm products.

TABLE 4

WEIGHT OF CROP REQUIRED TO PAY FOR 1 KILO N FERTILIZER,
FARM GATE PRICES 1967/68

Country	Maize kg.	Rice kg.
Ivory Coast	14.1	—
El Salvador	3.3	3.0
Guatemala	4.9	3.6
Panama	4.9	3.5
Turkey	3.3	1.6
Costa Rica	4.4	2.7
Nigeria (West)	4.3	1.3
Morocco	5.3	—
Ecuador	4.1	—
Ghana	1.8	1.1
Cameroon	4.2	—
Ethiopia	8.6	—

Source: FAO Fertilizer Programme.

Selected data on such price relationships are given in Table 4, which compares the prices of nitrogen fertilizers with those of maize and rice.

110. Thus the use of nitrogen might have been nearly four times as profitable to farmers in Ghana than in Ethiopia for maize, and twice as profitable as in Nigeria or Cameroon given a comparable response in crop yields. Regarding its use on rice, Ghana, West Nigeria and Turkey appear to have been broadly on a par at a level twice as profitable as in the Latin American countries listed.

111. Reducing the prices of fertilizers to farmers, particularly those who are smaller and more distant, is likely to remain an intractable problem in many developing countries. Costs of domestic manufacture tend to be high because of small-scale operations and lack of the most economical combinations of raw materials. Continued imports on an expanding scale entails a corresponding draw on scarce foreign exchange. Internal distribution is expensive both because of transport costs, and in many countries because of difficulties in establishing an effective distribution system. Though some developing countries have subsidized fertilizer distribution to promote its use by farmers who were not aware of its potential productivity, few would be in a position to maintain the same rate of subsidy as the quantities involved increase.

112. Thus we see that stabilization of prices to farmers for domestic food crops is a relatively new responsibility for many governments of developing countries. Those with large urban populations have been more concerned to keep consumer prices low. Mechanisms for stabilizing prices at farm levels are being established now in many cases but often do not reach all farmers. Prices of export crops can be stabilized at the farm level by national action but there is a temptation to use the marketing board or other machinery established for this purpose primarily as a means of taxation. The balance between product and input prices is strategic. Generally it is disadvantageous to developing countries because they lack low cost domestic sources of fertilizers, pesticides, etc. It is swung further against the farmer in many cases by high costs of distribution, and, sometimes, by the fact that inputs bear a substantial indirect tax component.

THE LAND TENURE ISSUE IN AGRICULTURAL BANKING

113. Land tenure has been frequently quoted as an important issue for those concerned with the provision of agricultural credit. The issue is, in fact, twofold. *First*, an agricultural banker is concerned with land tenure because land, as the basic factor in agricultural production, is both the purpose for and means of repayment of the loan. The banker must therefore be certain about the borrower's access to the land in question. *Second*, it has been a very common practice to use land as security for agricultural lending. There are considerable problems in doing this, not the least being the difficulty of foreclosing on a land mortgage in a situation where a buyer for the land may not be found, not to mention the possible political difficulties and the social repugnance of such a course of action. Also it is increasingly believed that collateral in the normal sense is inappropriate in the small farmer situation. Nevertheless land mortgages continue to be taken, although the pressure exerted by this type of collateral to repay is more psychological than commercial.

114. Thus, of the banker's two concerns over land tenure, the question of access by the borrower is vital and is not at dispute. The issue of land as collateral illustrates wide variations in policy. Thus the situation varies from that in India where land mortgages are the rule, even for short-term loans, to that in many parts of Africa and elsewhere, where the communal form of land tenure precludes the use of land as security for loans, and where the principle of "repayment capacity" is commonly used. But the communal type of tenure, especially common in Africa, does pose special problems for banks, and attention is now given to these issues.

115. Land tenure in Africa is closely linked with the concerned human groups' social and cultural institutions, far more than in the commercialized and individualistic world of some other continents. Basically it has developed as a customary body of accepted rules and understanding within kinship groups and with neighbouring groups. This understanding has pragmatically developed over the years in

conditions of closed economies sustaining subsistence levels of living. It is closely associated with traditional modes of agricultural and livestock production, and simple technology.

116. The systems evolved slowly until they were radically affected by alien, colonial administrations, when these took over the territories. There has been, since then, quite an interplay between the customary tenures practised and understood by the groups involved on the one hand and the statutory rules of tenure introduced by the colonial administrations. The "colonial rules" were often not fully grasped by the rural people — at least in their majority. Moreover rules were not really implemented to the extent presumed or expected by the alien rulers. Thus throughout Africa there is quite a variety of situations, often complex and at times unclear, because of conflicts between customary and statutory land tenure rules and practices.

117. In the customary land tenure systems widely practised in traditional agricultural areas some basic features have prevailed. Three of these are relevant to credit and development.

- (1) The ultimate ownership of the kinship group land belongs to all born to the group as a whole. Each member has a birthright to sufficient of the group land to maintain himself and his family. There is no landlessness and no landlordship as found in individualistic societies.
- (2) So long as the family (nuclear mainly) uses the land they remain in undisputed control of that land; they acquire *ownership* of trees planted and buildings erected. Thus security of tenure exists in fact.
- (3) If land is abandoned (i.e., not used for a long time) it reverts to the group and it is re-distributed to members of the group. A member of the group returning may require reversion of his land to him.

118. It is believed by people from other cultures, especially those of European origin, that ownership with a secure (registered) title is essential in that it:

- (a) Gives a sense of security;

- (b) Provides incentive to invest in and develop the holding;
- (c) Enables the owner to use land as collateral for loans for development of working capital.

119. This is the ethic and practice of other cultures, but when the principle of individual title is introduced into African land tenure systems it has not worked well, especially among groups which have not developed individualistic, acquisitive or commercially dominant traits. It has to be admitted that credit institutions have been designed to meet the requirements of other cultures and land tenure systems other than those of Africa, at least as practised by the majority of its rural people.

120. But systems have not evolved uniformly. Many land tenure systems have been changed in the image of colonial administrations and one of the supposed potent arguments for change was to give a title to land to an individual so that he can mortgage it and get a loan which hopefully would be invested in improving his agricultural productivity and start a benign circle of improvement and development.

121. Not surprisingly the validity of this argument was seen to be proved in situations where the colonial influences penetrated more and sparked off latent individualistic and entrepreneurial (in the European-oriented sense) qualities in the rural people. The prime example is that of the Kikuyu of Kenya who felt the impact most because of the presence of so many European farmers and entrepreneurs in the "White Highlands". It has not worked so well in other contexts, and competent observers will confirm time and again that the issue of a title to land to a farmer has not worked miracles — it has changed very little in fact. Apart from the individualization of tenure, which is becoming slowly more widespread in Africa, there have been other experiments worth examining.

122. ADAPTATION OF CREDIT PROVISION TO CUSTOMARY LAND TENURE SITUATIONS. In some countries, notably Sierra Leone, the provision of credit was arranged so that it could operate effectively in conditions of customary land tenure and in a largely non-monetized economy. Thus

security for the loan for development under this scheme was ensured by arranging for all the members of the extended family (who were in possession of the land) to give a formal undertaking of shared responsibility; this was done in the presence of the agricultural extension officer who already had gone into the problems of feasibility of the project and could thus support the grant of the loan. What is more, the officer himself received the money on behalf of the group and spent it on inputs according to the agreed plan in close co-operation with the borrowing group.

123. The chief implications of the land tenure issue for banks are, that they should concentrate on ensuring that the borrower does have the use of the land in question and also that the borrower does not give preference to another lender when repaying loans. Obtaining such assurances would be greatly facilitated by a system of land identification, as practised in India. This type of identification would enable a bank to check that the same plot of land is not being claimed by two or more borrowers. It would also simplify lending procedures since the area of the plot would be known and recorded.

LEGAL BASIS FOR THE ASSURED PROVISION OF IRRIGATION WATER

124. The need for an assured provision of those inputs and services essential for farm production and hence to loan productivity is well known to planners and agricultural bankers. In certain circumstances this assured provision is facilitated by suitable legislation — the prime example being that concerning the supply of water for irrigation, to which attention is now given.

125. In many areas of the world improved agricultural technologies (seed varieties, fertilizers, etc.) require irrigation in order to be profitable. To be steady and adequate, a supply of irrigation water requires *inter alia* that water use rights are adequately qualified and administered. This may only be achieved if efficient water legislation and administration exists at the national basin and (local) user levels. In many countries, unfortunately, this indispensable legal/institutional framework either does not exist or is insufficient to ensure rational

water resources management. In addition, at the farm level in particular, customary rights and practices relating to water ownership, distribution, conservation and management often constitute a basic constraint to the development of irrigated agriculture. Furthermore, customary water rights are difficult to change and are a cause of delay in the organization and operation of much needed credit facilities at the farm level.

126. Likewise, large scale financing requested from international lending institutions for water resources development cannot be obtained in cases where the country concerned lacks adequate water legislation, the enactment of which is often imposed as a precondition for loan agreement. At the user level as well, credit facilities cannot easily be made available to farmers or irrigators in the absence of adequate water-use regulations and control which constitute an essential element of the securities required by agricultural credit institutions.

127. An irrigator requiring a loan, whether for irrigation improvement works or in order to bring new areas under cultivation, is often bound to provide evidence that he holds title to a water-use right and that no upstream or neighbouring irrigator, or other water user, is entitled to cut off or diminish the flow of water to which he is entitled.

128. Similarly water regulations and administration, either customary or statutory, are equally necessary to ensure an effective and efficient water distribution. Often irrigation districts or water users' associations have to be created for this purpose, either within a particular irrigation area or at the district, sub-basin or basin level. The establishment of such areas or groupings usually requires, in turn, a basic water law or code which empowers the central water administration at the basin or national level to set up and control irrigation districts, and water users' associations.

129. Finally, one of the essential purposes of water legislation is to establish the principle that, in one form or another, water used for irrigation purposes must generate revenue and thus to introduce a water or service charge scheme which will, directly or indirectly, contribute to operation and maintenance costs.

130. In many arid areas, land ownership is separate from a "water right" (either as an ownership right of a well-defined right to use water). In such areas, any land without water rights has little or no economic value and, as a consequence, it may hardly be used as a security for obtaining a loan. A well-defined water right, both in quantity and quality of water may, on the contrary, serve as a good basis for serving as a credit security.

MARKETING AND AGRICULTURAL CREDIT

131. Marketing is of course closely linked to credit as an essential ingredient in the set of services a farmer needs in order to develop his production potential. But the link between credit and marketing has many facets, and because of the importance to banking operations of the nature of these links, they are now examined in detail.

132. First, a major role of marketing in agricultural development is to expand domestic and export outlets, thus ensuring that the farmer has an *incentive for greater production*. Until a farmer has such an incentive, he will not expand his scale of production.

133. Second, marketing also involves the *supply of inputs*. Shortcomings here have been responsible for greater production losses in developing countries than is generally realized or acknowledged.

134. Third, the body responsible for buying farmers' crops can be a very suitable agent for both handling *loan repayments* and *encouraging farmers to save*. Thus, in the case of the Kenya coffee farmer co-operatives, with, typically, 1000 members each, proceeds from the sale of coffee have been paid to farmers in three instalments. But the farmer is not physically paid, rather his account with the co-operative is credited with the crop return, net of his loan repayment and co-operative charges. He is then able to withdraw, from his account, cash required for his immediate needs. The system ensures both high repayment rates and a high rate of saving. For the purposes of collecting loan repayments in this manner it is not necessary for both the credit and marketing operations to be carried out by the same institution, the bank can simply arrange for a "stop order" to be placed

on any given borrower's account with the marketing agency. Thus the borrower's crop is hypothecated to the lending institution by an irrevocable letter of authority to the crop buyer to deduct loan repayments. Problems of third-party marketing (where the borrower arranges for another to sell his crop) can be overcome, at least partially, by a close contact with farmers. To ensure full co-operation in operating such a system there should be some financial incentive for the marketing agency. The marketing board in Zambia, for example, has received a fee of about \$ 2.00 per farmer for collecting payments for fertilizer provided on credit.

135. Fourth, a special type of link between credit and marketing is found in *warehousing credit systems for major food crops*. This arrangement is discussed in some detail in Chapter III.

136. We have outlined the purpose of credit/marketing links; what then are the relevant linkage mechanisms? These can range through the following:

- The lending agency operates in the same local centre where most market outlets are also located; farmers bringing produce for sale can be observed fairly easily and brought under social pressure to repay loans.
- Independent marketing enterprises accept commitments to recover a loan on behalf of a credit agency; these can be co-operatives, a marketing board, or its licensed buying agents, for example.
- Technical services, seed and fertilizers are provided by a marketing/processing enterprise with a favourable bank credit line to farmers who contract to deliver their crop according to an agreed timetable. The cost of the inputs and services provided on credit is deducted when the farmer is paid for his produce.

137. **LOCAL MARKET CENTRES** where various agencies providing services to agriculture — input supply, extension, credit, marketing — operate almost within sight of each other are growing up in some countries. Because farmers come there fairly frequently traditional rural assembly markets provide a convenient base for the sale of inputs and the provision of extension and financial services. Where there are several

potential buyers the farmer has more chance to bargain over the price paid for his produce, but it is still feasible for the lending agency to contact him if necessary while he is in the process of selling it. Under the Comilla system (Bangladesh) a representative of the credit co-operative went along with group consignments of members' produce in order to be present when they were sold. It may seem a difficult task for a lending agency to watch individual farmers in a typical African market. However, the number of important buyers of a particular crop in any one centre may not be large and often they are located quite close together.

138. COMMITMENT OF INDEPENDENT MARKETING ENTERPRISE TO COLLECT LOANS for credit agencies by deduction from their payments for produce purchased is being used in several countries, particularly with licensed agents of monopoly marketing boards. On receiving credit the farmer signs a "stop-order" in favour of a designated wholesale buyer who must deduct the repayment and transmit it to the credit agency.

139. Usually stop-order arrangements relate to credit advanced for a particular crop. They are easiest to administer in a one-channel market controlled by a marketing board or state corporation, and for crops such as tea, cotton, and cane sugar which must pass through one of a limited number of processing plants. The chances of a grower by-passing the marketing agency with which he has a stop-order arrangement are then greatly reduced. They are not eliminated altogether, however, since a grower may arrange to sell all or part of his crop under the name of a relative or friend, thus avoiding his repayment commitment for that particular year. This "third party" marketing is more likely to occur when the marketing and credit bodies have little local knowledge.

140. Credit/identity cards are being tried out as a means of facilitating marketing agency credit repayment links. Barclays Bank has operated one in conjunction with the National Agricultural Marketing Board of Zambia. Farmers could only sell their produce to the Board's buyers if they showed their credit card, on which outstanding loans

were noted. Deduction from the price paid was made by arrangement with the lending bank, and the money transmitted to it. Cocoa farmers obtaining loans from the Agricultural Credit Corporation of Western Nigeria were asked to designate a buying agent of the marketing board through whom they would sell. This agent is then held responsible for repayment of the loan from the farmer's cocoa sale proceeds.

141. Repayments of loans for various purposes can all be brought together under the "stop-order" on a monopoly buyer crop, provided the farmer's returns from its sale will be enough to cover them. Under the FAO Fertilizer Pilot Scheme in Kenya 1,000 growers obtained fertilizer on credit in 1971/72; half of it was intended for coffee production and half to grow maize. Repayment of all loans was by stop-order on the receipts for coffee sales. A similar scheme involving cotton and maize has operated in Swaziland.

142. A limitation of such arrangements that may show up after a time is that the stop-order crop loses favour with producers. Because cotton acquired an adverse reputation with farmers on this account in Egypt, credit repayment deductions had to be extended to wheat and rice.

143. CREDIT IS PROVIDED DIRECTLY BY THE MARKETING ENTERPRISE. This is the traditional merchant moneylender structure. It has found a new form in the more advanced economies as the production and marketing contract system. Typically, a wholesaler/processing enterprise provides seed, fertilizers, pesticides and technical advice to farmers on credit in return for commitments to deliver to it the ensuing crop. The terms, including the price payable according to quality are set out in a contract. The credit advanced is deducted from the price paid to the farmer. This system is widely used in Africa for crops such as tobacco, oil seeds, fruit and vegetables for processing. While such a marketing enterprise is building up a production base for supplies observing a specified quality and timing, its terms to farmers can be quite favourable. When, however, suitable supplies begin to exceed its needs the balance tends to swing the other way. Mediation of the terms by some kind of bargaining agency or a government department may then be needed to protect the farmers' interests.

144. Direct provision of inputs on credit and repayment through deduction from the proceeds of sales can also be organized through a co-operative system, as has been done in Egypt. Overall financing was by the General Organization for Agricultural and Co-operative Credit. A structure of village-level co-operatives offers advantages both in convenience of access for the farmer and supervision of his marketing activities by the co-operative. Various African countries are working towards the establishment of similar co-operative systems. A difficulty that has shown up in some places is that, if the co-operative has to absorb many bad debts, this can prejudice its role as a marketing mechanism. Increasing its marketing levy to cover credit losses will bear directly on members' returns and cause some to seek other outlets.

ALLOCATION OF PUBLIC RESOURCES FOR AGRICULTURAL CREDIT

145. As indicated earlier in this chapter, government investment in agriculture is likely to be of very great importance in the provision of financial resources for agricultural credit operations. There are very good reasons why governments should find it necessary and desirable to provide the necessary funds. First, and as pointed out above, private investors are unlikely to do so, because, on the one hand, urban investment is usually more profitable, and, on the other, rural people themselves generally have insufficient capital formation capacity to be able to provide all the necessary financial resources. Second, economic as opposed to financial considerations are of overriding importance in planning something as important as a rural credit programme. In other words, it is frequently of more value to the total economy of the country to produce an increased agricultural output than would be indicated by the cost and return figures, judged purely by financial criteria.

146. But various factors act to limit the extent to which government funds are made available for agricultural credit. *First*, poor countries, largely based on agriculture, have severe limits as to the extent to which funds can be made available. *Second*, the lack of suitable institutions and trained manpower to channel credit can be a very real constraint. *Third*, there can be a lack of political will to assist the rural sector,

especially when this assistance has to be done at the expense of delays to other projects such as airports, industrial plants, etc. These three types of constraint are now considered.

147. Shortages of funds can be of two types: foreign (hard) currency and local currency. A central bank can overcome the latter shortage by extending credit to agricultural banks, by the process of money creation. However, when this is done (as for example in India) great care must be taken to ensure that the money invested results in increased production. Otherwise inflationary pressures will be created. Shortages of foreign exchange can be overcome by external borrowing, but borrowing should be on a project by project basis so that foreign exchange savings, through import substitution, or earnings from increased exports, can be identified. External borrowing may also be used to help finance local costs.

148. Frequently agricultural banks have to suffer a junior status when compared with other banking institutions. This has affected their ability to attract public resources. Thus it is highly important to build up the agricultural credit institution as a responsible and effective body. But it should be noted that it is not only the head office that is important. The district offices, with their close contact with farmers, are the ones which really count in ensuring the effectiveness of agricultural credit programmes.

149. If a satisfactory branch network is not in existence, the Treasury officials may well advise government ministries to restrict allocation of funds for on-lending to farmers, and it is right that this advice be tendered. Largely connected with institution building is the formation of suitably motivated and trained staff, in sufficient numbers.

150. Little can be done directly to change the will of those currently in power to assist the rural sector. Of course, in many situations, politicians feel that they are doing a great deal for farmers, but continue to allow the terms of trade between rural and urban sectors to exist in a manner which does not favour rural development. The next section addresses this problem by examining the potential role of groups such as farmers' co-operatives or associations.

POLICY TOWARDS ENCOURAGEMENT OF FARMER'S GROUPINGS

151. How can farmers have a voice in government decisions involving rural development? In particular, how can they influence policies relating to their terms of trade? One way is for farmers associations and national federations of local associations to be encouraged.

152. Alternatively co-operative structures might argue the farmers' case. Whichever type of organization is used, however, it is now widely recognized that it is both wise and necessary to give the large rural population an effective voice in matters which concern it directly and very substantially.

153. But this is looking at just one fact of co-operative development, that is, the political side. This is of course important, since it is concerned with the price relationships and the provision of resources to create the infrastructure necessary to ensure rural development. However, the other, less controversial benefits of co-operative formation must be examined. These can be grouped and referred to as the provision of services at the farm level. In this context co-operatives frequently provide a very suitable institutional form for: supply of inputs, disbursement of (and perhaps even decisions on) loans, buying and, where necessary, preliminary processing of farmers' crops, loan collection.

154. The details of co-operative organization with respect to credit operations are given in Chapter III. Suffice it to point out here that a policy to foster co-operative development is a convenient means by which essential services can be provided to farmers in a manner which provides the farm sector with the possibility of influencing terms of trade and other issues of vital importance. But dangers remain. First it is possible to have a co-operative network which functions satisfactorily from a service-to-farmers point of view, but which is so dominated by government departments that it has no influence on major decisions. The only sound remedy for this situation is member education. This, like most educational processes, is a long-term matter, and therefore co-operatives are likely to be forced through a period when they can

do much in the way of providing services to farmers, but little direct action in improving terms of trade between the urban and rural sectors of the economy. Second it must be recognized that co-operatives can all too easily become dominated by a few, who then arrange matters so that they benefit greatly from this domination.

NEED FOR CONSISTENCY IN PLANNING CREDIT PROGRAMMES

155. The need for consistency in development measures has been well recognized and accepted — resulting, first in the package programme policy, then in the concept of integrated rural development. But, with respect to agricultural credit there are some special features of the need for consistency in planning — coupled with the closely associated subject of identifying those situations where credit has been used to attempt to remedy a situation for which other measures would have been much more appropriate.

156. Credit gives to the borrower more resources than he would otherwise have at a given time. It is a powerful economic tool and it is therefore important that it be channelled in such a way that one sector of the community is not detrimentally affected when another sector obtains financial resources through credit provision. In addition, there is of course the danger of one group within a sector being penalized when another group within that same sector obtains credit. Examples of both situations are many. Thus a processor with ample access to funds may well be in a position to force down the prices paid to farmer producers for their crops, simply because, with access to ample funds, he is better able to control marketing outlets for the particular crop or livestock product in question. Similarly, one group of farmers obtaining credit may thereby be enabled to take over smaller farmers' land and employ the smaller farmers as labourers on their own properties. It is not always realistic to believe that small men can resist pressures to sell their land. There are many examples of forced sales to more powerful farmers. Such forced sales may for example come about through money-lending commitments to the larger man.

157. There are other issues of importance here. For example, credit for mechanization may result in labour being displaced in certain production processes. On the other hand, under different conditions, mechanization might result in more jobs being made available and the increased production through mechanization may also result in increased employment.

158. Thus considerable attention must be given to the overall effect of introducing a credit programme. Is it going to further general development aims? If these aims are to create more jobs and also to help the smaller sector of the farming population, then very great care must be taken. The examples above indicate how easy it is to operate a credit programme which merely results in more power being given to those who already have it within the economy, whether these are inside or outside the farm sector.

159. A common inconsistency concerns the policy of cheap food (through low farm gate prices), when this is coupled with a policy to subsidize interest rates on loans to producers. At the farm budget level one measure tends to negate the other. When the disadvantages of very low interest rates are examined (as in Chapter III below) it will be clear that a more satisfactory way of improving farmers' terms of trade would be to increase farm gate prices. Such a measure would not only directly encourage farm production, but would also go a long way both towards ensuring that the farmers for whom credit is intended actually receive it, and towards assisting the sound establishment and financial viability of the credit institution.

160. Credit cannot be expected to constitute a remedy for all problem situations in rural development. For example, credit is not an appropriate tool for rehabilitating sub-marginal farmers. This is because such farmers are not able to operate a system which can pay for itself and develop. Other remedial measures are necessary. Thus it has been suggested that governmental assistance to farmers at this stage can best be expressed through the implementation of public works schemes which will provide non-farm income to such people. Under the

influence of the consequent inflow of money into a given area, the local market for agricultural produce might be expected to improve. In these circumstances certain farmers will be enabled to increase their farm production and farm income. They will then have improved to the extent that they qualify, under certain circumstances, for credit in order that they may further develop.

161. Again, credit availability cannot alone ensure the happy introduction and the increased use of modern inputs and techniques. There is ample evidence to show that credit is an inappropriate tool for encouraging people to use modern inputs and techniques for the first time. That is, credit alone is not a suitable bait to persuade farmers to introduce improvements into their farming programme. On the contrary, such new inputs and techniques must in themselves be sufficiently productive and profitable on the man's own farm for him to be convinced that he can introduce them using his own financial resources. Credit is more appropriate as a means by which a farmer can increase the use of these inputs in his farming programme, once he has become convinced of their productivity and profitability.