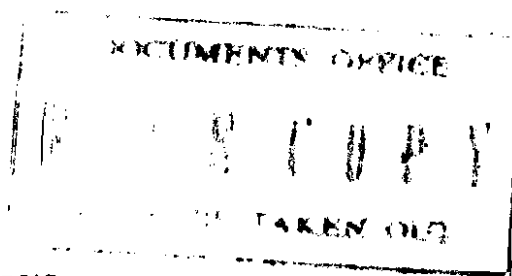
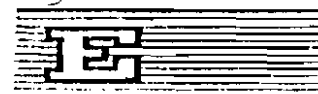




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REVIEW ON FOOD AND AGRICULTURAL POLICIES IN
SELECTED AFRICAN COUNTRIES:
A Basis for Improving Government Policy Planning Capacities

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REVIEW OF FOOD AND AGRICULTURAL POLICIES
IN SELECTED COUNTRIES OF AFRICA:

A BASIS FOR IMPROVING GOVERNMENT POLICY PLANNING CAPACITIES

I : INTRODUCTION

1. The food and agricultural situation in Africa has been worsening over the last two decades, reaching crisis proportions unprecedented in the history of the Continent. Although rapid population growth and drought have without doubt aggravated the crisis, these factors are neither new nor universally severe in effect and so cannot be held entirely responsible for the crisis. Other evidence suggests that government action is a contributory or even major cause of the problem. The ECA Conference of Ministers held in April 1985, therefore, requested in its Resolution 548 (XX) on the Agricultural Crisis that the ECA Secretariat undertake jointly with FAO and other international institutions a review of government policies which have major impact on food and agricultural development. They should also propose measures for improvement in policy planning, with the initial focus on the analysis, formulation and implementation of policies.

2. This study, therefore, surveys and assesses policies affecting the food and agricultural sector in selected African countries with a view to contributing to improved policy planning. The study covers sectoral performance policies - efficiency-oriented and equity-oriented policies and the special area of food policy; incentive policies - prices and subsidies, taxation, exchange rates, international trade, aid and finance and agrarian structure policies; and support services policies - marketing, credit, extension, research, irrigation, high-level manpower, rural transport and natural resource conservation. Finally, the implications for planning and follow-up action are discussed.

3. As an initial contribution, it was decided that the study should focus on Eastern and Southern Africa ^{1/}. It is based partly on the documentary holdings of the UNECA, and ILO (JASPA) in Addis Ababa and of FAO in Rome. It also draws on the information, verbal and documentary, collected during visits to selected countries, namely Kenya, Malawi, Tanzania, Zambia and Zimbabwe. These allowed valuable discussions to be held in the relevant ministries and with other government and non-governmental organizations. Food and agricultural policy has been defined fairly broadly, but to keep the study within manageable limits several issues which impinge on food and agricultural policies have been excluded. These include such aspects of rural development as rural industries, health, education, water supply, housing and rural energy, and several natural resource-based activities such as forests, fisheries, wildlife and tourism.

4. All governments can be viewed as having policies on all aspects of food and agriculture, whether these have been derived explicitly from an analysis of the situation or in any other way, including decisions not to intervene in or to neglect an issue. Intervention in one form or another, however, is a widespread

^{1/} This refers to the ECA Lusaka MULPOC sub-region and comprises 18 countries, i.e. Angola, Botswana, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, Somalia, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

practice in the agricultural sector. This situation occurs not only in Eastern and Southern Africa and in other developing countries but also in developed countries. Government policies can exert a profound influence upon production and investment decisions and upon the welfare of agricultural producers and consumers within the country, the effects extending at times far beyond the borders of country responsibility. These effects can be particularly severe, and sometimes have unintended consequences, in the low-income countries of the sub-region. This is because of the fragility and sensitivity of the land-use systems and rural economies to rapid changes in their relations both with the natural environment and with their external world via the system of product markets, rural transport, retail trade and social infrastructure. In these poor communities there are few reserves of food, money or physical capital.

5. A particular challenge faces governments, therefore, to ensure that policy interventions in the agricultural and rural sectors are accurately designed and soundly implemented, so that the intended benefits are actually secured on the ground. A marked feature of this policy area, however, is the presence of conflicts between various policies, each with different goals or different beneficiaries, and of different means of effecting the same policy. Should large-scale or smallholder agriculture be favoured? Food crops or cash crops; farmers or pastoralists; producers or consumers; capital city or regions; government institutions or market mechanisms - the conflicts of interest, means and goals are numerous. A natural tendency in the face of conflict is to leave the issue until a crisis point has been reached which can no longer be ignored. This course, however, is often unnecessarily destabilising and damaging. It is the role of policy analysis and formulation to anticipate and clarify for the policy makers the implications of the choices involved. By assisting in the resolution of policy conflicts, the probability is increased of achieving a harmonious balance of socio-economic forces which is the foundation for attaining steady economic growth and improvement in social equity.

II. : SECTORAL PERFORMANCE POLICIES

A. The Development Strategy Context of Agricultural Policy

6. The task of systematically identifying and formulating an appropriate set of agricultural policies can hardly be attempted in the absence of an explicit set of national developmental objectives. Most countries in the sub-region use the mechanism of successive medium-term development plans to reassess the adequacy of objectives and means in the context of changing international and domestic situations. Development objectives are customarily classified into two broad groups : efficiency or growth objectives on the one hand and the variously called equity ^{1/}, welfare or distributional objectives on the other.

^{1/} Equity implies "fairness" or "social justice", however defined, but not necessarily equality. The achievement of a reduction in socio-economic inequality, however, is a general characteristic of equity-oriented policies.

7. Annex Tables 1 and 2 set out the stated agricultural and rural development objectives for fourteen countries in the sub-region for which recent development plans or agricultural policy statements were available in UNECA 1/. In some countries equity objectives are fully incorporated into the agricultural sub-strategy; in others a separate quasi-sectoral strategy is instituted termed variously land reform, rural development, regional development or social development.

8. Three points should be borne in mind in interpreting the tables. Firstly, the priority given to a particular objective is not indicated in the tables and only very rarely in the plans themselves. Secondly, the scale of government intervention to secure a given objective will vary from one country to another, particularly in relation to the perceived role of the state in economic development. In one country directly productive activity may be required, in another price signals or some infrastructure provision may be enough. Thirdly, the question of private response to public sector desires and initiatives remains a sizeable issue in agricultural policy. This embraces not only the question of particular incentives or penalties but the wider one of the quality of the relationship - of trust on the one side and understanding and sensitivity on the other. The quality of this relationship may profoundly affect the success of even well-designed and implemented policies.

9. In principle, the set of development objectives guides the planners in formulating a set of appropriate agricultural sector strategies. Logically, this process should involve the matching of policies to policy instruments and the identification of policy conflicts and trade-offs. It should be noted that this holistic or integrated planning process is rarely found in practice. In the first place, conflicts between the multiple objectives which governments wish to pursue are rarely identified. Secondly, the information and planning system needed for the systematic monitoring and evaluation of the agricultural strategy components - the policies, investment projects and on-going institution based programmes - has yet to be installed in the sub-region. This is mainly because no country so far has brought its major ongoing programmes - agricultural extension, research, veterinary disease control, cooperative development, community development, etc. - into the projectised format required for effective ongoing evaluation. But progress is being made in this area, e.g. new structures for research and extension in Zambia and Malawi, the introduction of the 'Training and Visit' system of agricultural extension into several countries, and current design work on evaluation procedures for extension in Kenya and Zimbabwe.

1/ Unfortunately, the following recent national development plans or policy statements for the Eastern and Southern Africa sub-region have not been accessed to the stock of the UNECA library:

1. Comoros : National Development Plan 1983-86.
2. Djibouti : National Development Plan 1982-84.
3. Djibouti : National Development Plan 1984-89.
4. Lesotho : Third Five-year Plan 1980/81-1984/85.
5. Madagascar : National Development Plan 1982-87.
6. Malawi : Malawi Development Programme 1981/82-1985/86
(UNCTAD Conference on Least Developed Countries).
7. Mauritius: Development Policy 1983-85 (1983 White Paper)
8. Seychelles : National Development Plan 1984-88 (Revised Rolling Plan).
9. Somalia : Five-year Development Programme 1982-86.
10. Swaziland : Third National Development Plan 1978-82.

10. Another point is that in respect of certain aspects progress can best be evaluated within a 15-25 year perspective framework. This reflects population and labour force growth and allows for the longer time required for infrastructural and regional developments. But very few countries in the sub-region have yet created such a framework. Lastly, the accurate evaluation even of component areas faces the obstacle of deficiencies in the data base, the quantity of trained manpower and the availability of tested, cost-effective analytical procedures.

11. Nevertheless, although formal evaluation is generally absent, government policies and other plan components are periodically assessed and changed or replaced. This usually occurs when the persistence of the problem or its increasingly distorting effects can be ignored no longer. The major reforms and policy reversals which are described in sections II and III below reflect governments' own perceptions of weaknesses in practice of previous policies and plans which were not detected at the time they were being identified, designed and introduced.

B. Growth Objectives and Related Policies

The Priority given to Agriculture

12. The degree of support to be given to agriculture by public sector policy and other interventions will depend on the role envisaged for the agricultural sector in the overall development strategy. Also, of course, the potential scale of this support will vary from one country to another depending on the importance of the state's role in development, and its value in practice will depend on the quality of intervention design and implementation. In the great majority of the 18 countries in the sub-region, the agricultural sector is recognized as having the leading role in the achievement of economic growth. The exceptions are Djibouti, where entrepot trade is the leading activity, the Seychelles (tourism), Angola (petroleum and diamonds) and Botswana (diamonds). Agriculture has been contributing a relatively minor share to GDP in Lesotho, Zimbabwe and Zambia but current strategies require the crucial contribution to future growth that agriculture can make. On the other hand, the latest medium-term and perspective plans prepared by Madagascar and Tanzania, and Kenya's 1984-88 plan gave priority to industrial development at the expense of agriculture. The governments of the first two countries, however, have now reversed this emphasis, while Kenya's plan is currently undergoing a radical mid-term review.

13. A country's agriculture can be helped or hindered by its industrial sector. This works mainly through changes in the domestic terms of trade i.e. the relationship of the prices received for goods sold by the agricultural sector to the prices which it pays for consumer goods, farm inputs, rural transport services, etc. Inefficient domestic industry will raise the costs and reduce the quality and supply stability of manufactured goods on the domestic market, reducing the net incentive to agricultural producers. International studies have demonstrated the superior performance of both industrial sectors and overall national economies where an export-led rather than an import-substituting industrialisation policy has been followed. This lends some indirect support for the recent introduction of export subsidy policies in Kenya (20 percent subsidy) and Zimbabwe (9 percent subsidy) primarily for industrial exports to hard currency markets. The criticism can be made that economic growth would be optimised if short-term subsidies to encourage diversification were available for any sector, including agriculture. It is suggested that applied research should be initiated which would enable the early evaluation of these policies.

Inter-country Variations in Growth Policies

14. An examination of stated growth objectives for the agricultural sector shown in Annex Table 1 reveals some significant variations or anomalies. In most countries a balanced growth strategy is being pursued, with agricultural growth generating forward (agri-business and processing) and backward linkages (farm inputs and consumer goods) to the domestic industrial sector. But the stated objectives for agriculture do not recognize the importance for industry of both overall agricultural growth and the associated pattern of income distribution. Inter-sectoral policy analysis could be repaid by increased efficiency in both the agricultural and industrial sectors.

15. Another neglected area is the contribution of the agricultural sector to domestic savings and investment. The extraction of surplus value from agriculture in order to finance the diversification of the economy is a well-recognised feature of the long-term process of economic growth. But in the shorter-term, major choices must be made about the timing and rate of extraction relative to the stage of development and the openness of the economy, on the one hand, and about the relative emphasis on forced savings (through increased taxation and/or declines in the domestic terms of trade) versus voluntary savings on the other. Until recently, in most countries real interest rates have been negative (the nominal interest rate has been less than the rate of inflation), so that there was no incentive for savers to use the formal financial institutions.

16. Consequently, in the belief that there were no potential private savings, most governments have followed a policy of forced extraction of surplus from the rural sector through one or more mechanisms:

a) Heavy export taxes (Tanzania until 1980, Mauritius and Uganda joined recently by Kenya)

b) Underpricing by monopoly marketing boards, the surplus accruing for investment in the large farm sector (Malawi and Ethiopia) or in the form of low prices for consumers (Kenya and Zambia) or in inflated margins financing marketing authority over-employment and managerial inefficiencies (Tanzania and Zambia);

c) The effect of an overvalued domestic currency (Tanzania, Zambia, Somalia, Malagasy and Uganda). These policy instruments are discussed further in the section on incentive policies below.

17. A general feature of the growth objectives as stated in the development plans is an absence of concern about the implications for government revenue and expenditure. In almost all countries in the sub-region, recurrent expenditure is a scarce and constraining resource.^{1/} In some cases cuts on other items has left personnel costs taking up around 80 percent of the agricultural budget. This means field staff are idle for lack of fuel, spare parts, office consumables, etc. In Kenya, an extensive exercise of "budget rationalisation" is addressing this problem, focusing (a) on the recurrent budget implications of new development projects, and (b) the possibilities of generating revenue by levying "user charges" on project beneficiaries. Some capital aid has been deferred or rejected because of the

^{1/} For a wide-ranging discussion of the problem, see J. Howell (ed) (1985), Recurrent Costs and Agricultural Development. London: Overseas Development Institute.

recurrent budget constraints. The implications are that agricultural policy analysis must address more closely the extent to which local investment costs and ongoing recurrent costs of both projects and programmes can continue to be an automatic charge on public funds. What scope is there for transferring costs of services onto the better-off members of the farming community?

The Parallel Economy and Policy Reversal

18. The effect of an overvalued exchange rate, probably caused initially by external shocks via the international terms of trade (rising oil prices, falling agricultural export prices) is to under-reward exports and underprice imports. Resulting foreign exchange and consumer goods scarcities fuel domestic inflation and deficit financing, and via the domestic terms of trade, further reduce the real prices of agricultural products. In a significant number of countries in the sub-region this has stimulated large-scale smuggling of exports to neighbouring countries or overseas, while scarce consumer goods and even staple foodstuffs are sold increasingly in the parallel economy. The command of the formal sector over the economy becomes increasingly tenuous if drastic policy changes are not rapidly initiated.

19. The dynamic forces of the parallel economy are reinforced in two ways. Firstly, rising illegal profit margins from trans-border smuggling (as the exchange rate becomes increasingly distorted) provide both rising incentives for entrepreneurs to engage in the activity and increasing funds to bribe security forces and administrators who are charged with preventing it. 1/ Secondly, rising inflation rates reduce the purchasing power of the salaries and wages of public sector employees, so that they are forced to take a second (legal) job in the informal urban or rural sector, to accept bribes or begin to organise illegal activity themselves. The virtual takeover of the economy by the parallel sector in this manner occurred sequentially in Uganda in the 1970s and Tanzania in the 1980s, taking about 5-6 years to complete in both cases. Angola, Mozambique, the Malagasy Republic and Somalia were in similar positions by the late 1970s and Zambia was demonstrating similar and increasingly severe symptoms in the first half of the 1980s. Kenya and Mauritius were also affected between 1979 and 1982. 2/

20. The dynamic growth of the parallel economy and the downward spiral of the formal sector are features more clearly visible in the rural sector and in border regions than in the metropolitan city. This fact probably accounts in part for a lack of realism in the analysis of the macro-economic situation in several countries which have resisted the implementation of corrective measures over a long period but, lacking an accurate diagnosis have been unable to propose an alternative strategy. The essential necessity for these medium-term adjustment, stabilization, rehabilitation or recovery programmes account for most of the striking cases of macro-economic and agricultural policy reversals which have occurred in the sub-region over the past six or seven years. Countries which have avoided the emergence of a strong parallel economy, such as Kenya, Malawi, Zimbabwe, Botswana, Lesotho and Swaziland, have been able to evolve their development policies under less pressure and in a more gradualistic fashion, sharp discontinuities in policy direction being largely absent.

1/ Profit margins of at least several hundred percent can be gained from the rampant parallel economy described here.

2/ For a detailed analysis of one country in the grips of the parallel economy see Commonwealth Secretariat (1979) The Rehabilitation of the Economy of Uganda: The Report of a Commonwealth Team of Experts. 2 vols. London.

C. Equity Objectives and Related Policies

The Priority given to Rural Equity

21. The equity objectives as stated in the available sub-regional development plans are set out in Annex Table 2. All governments, with the exception of Uganda's in 1983 placed at least some emphasis upon equity in their agricultural strategies. All governments aimed to achieve the equity goals through raising the productivity and incomes of the beneficiaries rather than through social welfare programmes alone - although the provision of subsidised social services also had an important role in some countries within a wider rural development or basic needs approach.

22. A basic policy choice is whether priority is to be given to the alleviation of absolute poverty or to a reduction in relative poverty. The first goal concerns raising "the poorest" to or above some defined level of basic subsistence or basic need. Where there is an open frontier of land settlement and the poorest can gain access to it, a strong emphasis on assisting smallholder agriculture in all areas can combine an attack on poverty alleviation with growth in agricultural output. In this situation, the rural poorest are actually or potentially members of farm families. But where population growth has led to the virtual closure of this frontier, closer attention is required to the identification of specific "target groups", to the diagnosis of the causation of specific forms of poverty, to the specification of income or other poverty thresholds above which the beneficiaries are to be raised and to the monitoring and evaluation of the effectiveness of the overall policy and its components, i.e. a more complex and ambitious programme.

23. An emphasis on the relative poverty problem entails knowledge about the overall distributional pattern. A completely egalitarian objective would require that all families would be equally (or badly) off, but in practice this has to be modified to introduce differentials for effort, skill, acquisition and taking responsibility. The attainment of equality, even in this sense, is extremely difficult to achieve in agrarian societies because of differences in the distribution of the natural resource base, previous levels of investment in land and livestock, and for several other reasons. In practice, certain institutional arrangements have been adopted such as ujamaa villages or producer cooperatives which are intended to create a reasonable degree of equality within them - although they do not guarantee equality between them.

24. Two other approaches to relative poverty reduction can be found in the subregion. The first aims to reduce the difference between rural and urban levels of income and access to social infrastructure. The second, requiring more detailed information, aims to achieve a better balance of development between regions within a country.

25. In the discussion of equity policy, the potential role of the private sector in agriculture, especially the indirect effects of growth in middle and upper income small-holdings, should not be overlooked. There is plenty of evidence from within the sub-region that after a certain income level is reached, additional gains in real income are taken in the form of substituting hired labour for family labour, which then has increased time for other activities, both productive and leisure. The resulting increases in employment, often part-time and seasonal, can raise above the subsistence floor the incomes of families with smaller farms. Also, the farm productivity gains on the higher income small-holdings are more likely to boost market surplus than subsistence consumption, so that the probability of a growth-equity trade-off is smaller than with the direct approach to the poorest.

Inter-Country Variations in Equity Policies

26. In the sphere of absolute poverty alleviation, only Botswana and Zimbabwe have operationally geared activities to clearly specified target groups. Botswana had invested in a comprehensive rural income survey in the mid-1970s and has identified "marginal households" who are cattle-less, female-headed or living in remote areas, as priority beneficiaries of crop-production settlement and other assistance. In Zimbabwe, priority settlers in the distributivist land reform programmes are the landless, disabled and war veterans.

27. In Malawi an extensive data base has been built up by the Ministry of Health identifying poorest families on the basis of the nutritional status of their children. This information again suggests that some female-headed households (especially where the mother has been divorced or deserted) are particularly at risk. This concept of target groups, however, has yet to be accepted by the Government. A rather similar situation applies in Kenya, where a comprehensive data base on rural income distribution and nutritional status is being assembled by the Central Bureau of Statistics and the Planning Department in the Treasury. The implications of this information have not yet been taken on board, however, in the design of agricultural development projects and programmes.

28. Tanzania, Ethiopia and Mozambique have stressed rural equality as their primary equity objective, the first country approaching this through the Ujamaa 'village' and villagisation programmes, the second through land reform, villagisation and the promotion of producer cooperatives and the third through state farms and producer cooperatives. However, with disappointing performance in the agricultural sector generally, the Tanzanian government has made major policy modifications since 1983, permitting individual land tenure and decentralised village settlement (see sub-section III E below). Mozambique is also reported to have shifted its emphasis onto small-scale individual and private agricultural enterprises at the Fourth Party Congress in 1984. This leaves Ethiopia as the proponent of rural equality in the sub-region. The overall experience in this area suggests that the "best" can be the enemy of the "good". Equity goals can be stressed too far at the expense of a minimally necessary rate of economic growth and of the viability of the formal sector, while the pursuit of relative poverty alleviation with inadequate resources and incentives, and therefore stagnant or falling marketed surpluses, can frustrate the alleviation of absolute poverty.

29. Malawi and Tanzania have been the most consistent countries in pursuing a policy of rural-urban balance, holding down real urban wages more effectively than other countries which have adopted similar objectives such as Ethiopia and Kenya. In Tanzania's case, however, as in Uganda, urban real incomes have fallen so low that additional sources of income are necessary to maintain subsistence levels of consumption. Consequently, public sector productivity has fallen significantly.

30. In the Comoros and Botswana, the need for population limitation has been discussed in the context of the agricultural sector plans, while increasing emphasis is being placed on this issue in Kenya also. No country, however, has moved beyond a voluntary approach to child spacing, not even a "socially responsible maximum family size" having been selected. Population limitation may be viewed as an equity objective in at least two ways: firstly as improving the life chances of present children and all future generations at the expense of the welfare of subjective utility of the present generation of parents and, secondly, as a necessary prerequisite for the achievement of the quantified equity goals such as nutritional status, unemployment reduction or access to social services for the present as well as future generations.

The Parallel Economy and Equity

31. In those countries which have been unfortunate enough to see the rise of a dominant parallel economy, the question arises as to what are its effects on rural equity. As the formal sector is the primary victim, it may be argued that members of the informal urban and rural sectors gain and overall equity is improved. Certainly, official statistics understate the incomes earned in the rural areas from sales on the illegal and "grey" markets and from trans-border smuggling.

32. Reliable information is scanty, although attempts are made to collect unofficial price data in Tanzania. Data on smuggled quantities, however, can only be inferred uncertainly from changes in the trade figures of neighbouring countries. Where black markets and smuggling are rife, they usually become highly organised reflecting various economies of scale. The risks and the profit margins tend to be both positively correlated and large. Paradoxically, therefore, while the general rural populace is better off with these illegal activities than their operative alternative - a crippled and distorted formal sector, the deficiencies of which had driven them to the informal sector - nevertheless income becomes increasingly unequally distributed as the main risk-takers take large margins on an increasing volume of trade. This feature is exemplified by the term used in Uganda - "mafuta mingi", lit. "plenty of oil" - to describe the dealers and merchants who grow rich on the profits of illegal trade. A return to normal economic conditions is imperative to provide the preconditions for both growth and equity.

D. Development Objectives and Food Policy

33. Food policy embraces a large number of separate aspects, but together they cover some of the most important and sensitive issues which concern agricultural development in low-income countries. The area is briefly surveyed here under four headings: food consumption trends, nutrition policy, reducing food losses and establishing food security systems.

Food Consumption Trends

34. Food consumption patterns, reflecting in particular preferences for wheat and rice over traditional cereals such as millets and sorghum, have been changing in most countries of the sub-region. The new pattern of demand is particularly associated with higher income urban groups. It can only partially be met by internal production so that increased food imports are required for foreign exchange.

35. Even where domestic production of the preferred food is feasible, the farming techniques adopted (typically involving large mechanised farms) cause a significant increase in the use of the scarce factors-capital foreign exchange and high-level management. Urban bias in some countries, by raising urban incomes and encouraging rural-urban migration, makes the situation worse. So too does an over-valued exchange rate, since the imported foods become underpriced relative to domestically produced ones. Corrective policy measures include restrictions on imported food through import duties, quotas and foreign exchange rationing encouraging the domestic substitution of imported foodstuffs (especially using land and labour-intensive production methods), requiring a proportion of local cereal flour to be incorporated in cereal products and, above all, bringing the exchange rate to a realistic level.

Nutrition Policy

36. Very few countries in the sub-region have clearly defined policies for nutrition. The main causes of endemic malnutrition, which especially affects infants and children, are poverty resulting from inadequate production resources and/or low-incomes relative to the cost of food. Also, in areas where bulky staples are consumed, such as bananas or cassava, there is often a lack of understanding of infants' dietary requirements.

37. Evidence from the sub-region shows that clinical treatment of malnourished infants is ineffective, whilst medical-based programmes generally are too expensive. Nutritional goals must be built into the general development programmes aiming at raising the incomes of the poorest groups. In addition, training in nutrition in the context of the general education of girls is a worthwhile approach.

Reducing Food Losses

38. Improved storage methods would contribute to reduction of post-harvest losses. Traditional storage losses vary especially with the climate and crop type. They can be as low as 3-4 percent in respect of millet and sorghum in dry savannah climates. The worst problems and biggest gains from improved practices seem to arise in bulk storage in the modern sector, because of (a) poor infestation control and stock management; (b) scarcity of imports (chemicals and bags) due to foreign exchange difficulties; and (c) inappropriate technology (e.g. metal bins in high humidity climates).

Establishing Food Security Systems

39. Food security requires universal access to and availability of staple food supplies at all times. Access to food is dependent in part on growth in real income and reduction of poverty, aspects which have been discussed under equity policies in the preceding sub-section.

40. The cheapest source of food is normally from a country's own agricultural sector, unless (a) the exchange rate is overvalued or (b) the opportunity cost of agricultural resources in alternative uses exceeds the value of food production. This is unlikely to arise in land surplus countries, but in certain countries, such as Kenya and the island economies of the Comoros, the Seychelles and Mauritius, increasingly difficult policy choices will have to be made within agriculture, especially between food and cash crops, and between agriculture and other forms of land use. In a wider range of countries, careful policy analysis is needed of the costs the country is prepared to incur to maintain staple output at levels which, whilst successfully avoiding the need for food imports, generate excess stocks and financial losses on export sales. How far would some level of imports from regional partner states in the worst harvest years reduce the net burden incurred by maintaining production and stocks at levels to meet any eventuality?

41. At the preliminary stage of development, where population and incomes are increasing, food production should grow more rapidly than population if real food prices are not to rise, with adverse effects in terms of reduced consumption levels of the poor and further increases in food imports. Policies affecting production are discussed under incentives and support services policies.

42. Ten countries of the sub-region have clearly defined food reserve policies. The policy objectives of these countries (Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Somalia, Tanzania, Zambia and Zimbabwe) include meeting emergencies; stabilizing prices; maintenance of supplies to domestic and export

markets; meeting distribution programmes; meeting international commitments such as long-term contracts; and strategic considerations. The objectives do vary, however, from country to country.

43. The food reserves in most countries of the sub-region remain at levels that leave little or no margin for food security. This often reflects inadequate surpluses entering the official market channels. Other limiting factors include lack of storage facilities; transportation difficulties; technical problems of stock management and financial and organizational problems.

44. Twelve countries of the sub-region (Angola, Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Somalia, Swaziland, Tanzania, Zambia and Zimbabwe) have decided to generate systematic information concerning the expected state of staple food supplies. In addition, the SADCC countries ^{1/} have decided to set up an information system for their region as a whole. Advance information on impending food shortages or surpluses is generated with a view to making timely decisions on imports or exports of basic foods, the release or accumulation of reserves, and requests for food aid. The information is generated through a variety of measures, usually including crop condition monitoring based on field reports and agro-metereological observations; pre-harvest crop forecasting; early quantitative assessment of zonal basic food deficits and surpluses; and monitoring of market arrivals, stocks, procurement, offtake, food prices and other indicators of impending food shortages. In nine out of ten cases of requests for food aid made to FAO and WFP, an early warning had been issued at least two months in advance. Moreover, initial forecasts of production were acceptably close to the final post harvest estimates.

III : INCENTIVE POLICIES

A. Prices and Subsidies

45. Government policy intervention usually affects prices to producers, both for output and inputs, and consumer prices of staple foods, at least. It is practised in almost all the countries of the sub-region. However, the objectives, the criteria used and the institutional arrangements vary. The most common objectives include stabilizing short-term prices to agricultural producers; encouraging food production to achieve self-sufficiency; encouraging export commodity production to generate foreign exchange; providing raw materials to domestic industries; raising rural incomes; stabilizing or subsidizing food prices to urban consumers and minimizing the inflationary wage pressure in the economy; generating government revenue by taxing the surpluses of the agricultural sector; and encouraging specific forms of production and social transformation (e.g. curbing the role of private traders).

46. The criteria used for setting the producer price include an estimated average cost of production; the desirable consumer price; and anticipated international prices where the producer price reflects the estimated import or export parity level. It has frequently happened, however, that because producers' prices are not

^{1/} Angola, Botswana, Lesotho, Swaziland, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe.

raised by as much as the increases in prices paid for farm inputs and consumer goods (reflecting the general rate of inflation) that the incentive to produce a surplus is not maintained i.e. the domestic terms of trade deteriorate against the rural producers.

47. A spatially uniform system of producer prices was practised by almost all countries in the 1970s. A uniform unit price for each grade or type of agricultural output was maintained at regional or district buying or delivery centre. Such prices do not take into consideration seasonal and location specific supply and demand conditions. Uniform pricing, however, has considerable appeal in terms of administrative simplicity and the inter-personal equity aspects. The real costs of transport and storage, which must still be met by the marketing system, are borne within the marketing margin and any government subsidy to marketing agencies. This entails either cross-subsidisation between different groups of producers and consumers or between taxpayers on the one hand and producers and/or consumers on the other. If the size of the margin and subsidies together cannot cover these costs, the products will not move through formal channels; informal or parallel markets will emerge resulting in de facto seasonal and zonal differences in prices. Further, such uniform prices do not send the appropriate signals to either producers or consumers to economise on relatively expensive inputs or foodstuffs, and to increase market supply of higher value products at the time and location where they are most in demand. For this reason production has been distorted away from growth-optimum outcomes, in the sense that output of certain products in relatively high demand is reduced while output of others in relatively low demand is increased.

48. Prices of purchased farm inputs have often been fixed below "border equivalent" prices (export or import parity). The subsidy rarely exceeds one-third of the full cost of the input. However, the input price is set pan-territorially, i.e., uniform throughout the country. The experience in the sub-region is that generally input subsidies have neither offset the low producer prices, nor have they had an equity effect on incomes of smaller farmers, as large farmers tend to take the major share.

49. In setting consumer prices, the factors stated as being taken into account are usually equity and consumer welfare. It appears, however, that in practice an equally important fact is the interest of high income urban consumers. The burden of this is passed on to the producer or at least shared by the taxpayer, which reflects neither equity nor rational use of scarce fiscal and other resources. Also, administered prices cause distortions which result in relatively expensive food being consumed while cheaper food is not harvested, accumulates as excess stocks or is exported at a financial loss.

50. Liberalization of price controls has been receiving increasing attention in some countries, especially Uganda, Tanzania and Zambia, and is under discussion in Kenya. This has usually followed low levels of production, decreasing size of the marketed surplus, the increasing burden of parastatal subsidies on the budget (discussed further in the sub-section on marketing and rural trade) accelerating inflation or the emergence of the parallel economy.

B. Taxation

51. Throughout the post-independence period the governments of the sub-region, like other countries in the developing world, have viewed the expansion of the non-agricultural sector as principally depending on savings and cheap inputs supplied by the agricultural sector. Given the perceived role of the state, taxation has been considered an important instrument for directing the agricultural surplus to this end. This rationale is borne out by the fact that, except for

mining countries like Botswana and Zambia, less than the total revenue from the agricultural sector is ploughed back into the sector as public expenditure. It should be noted that over-valued exchange rates or using administered prices to lower the domestic terms of trade is an additional way to direct forced savings from the agricultural sector to the non-agricultural sector. The voluntary transfer of savings to non-agricultural investment is yet another (relatively neglected) route to the same diversification objective.

52. In principle, the tax instruments used could include income and personal taxes, export duties and excise cesses, land and land-related taxes, marketing cesses, sales taxes, a variety of local government taxes and special development levies and other (sometimes termed 'voluntary') dues raised for specific causes.

53. Only a small proportion of small-scale farmers and herders have incomes in excess of the standard family allowances for income tax purposes. In view of the difficulties of direct taxation in this sector, personal taxes have replaced the traditional tribal payments. The smallholder sector is also taxed through import duties, excise cesses and sales taxes levied on consumers purchased by the sector (e.g. on salt, sugar, kerosene and basic clothing).

54. But these forms of tax result in a regressive burden, i.e. tax as a proportion of income is highest for the poorest groups. There is a need for a transformation of the personal taxes into modern income tax as the ultimate goal. Taxes on basic goods purchased in the smallholder sector should be reduced to the minimum on general equity grounds.

55. Taxes are also levied on marketed produce with the primary objective of taxing the incomes of farmers and middle-men serving the rural areas and transporting produce to the urban centres. These taxes are levied normally only when transactions take place within controlled markets.

56. Export taxes, which have been a source of substantial revenue to many governments in the sub-region, have taken two main forms: the explicit export tax levied on an ad valorem or specific basis; and an implicit tax on export products through the abnormal marketing costs and retained profits of parastatal marketing boards or authorities which have a statutory export monopoly.

57. However, since no country is a monopolistic supplier to the world market, the taxes are passed on to the producer and discourage production in proportion to the relevant supply elasticities in the short run and, to the extent that they discourage technological investment and innovation to an even greater degree in the longer term. Besides their adverse effect on growth, they do not have the advantage of an income tax levied on the entire income of a person at progressive rates in conformity with his ability to pay. Some governments of the sub-region believe that they cannot afford to abolish export taxes because of their need for revenue. They should review the growth and equity effects of other taxes with a view to obtaining adequate revenue at lower social cost.

58. There may be a better case for sliding scale export duties designed to cream off 'windfall' gains resulting from high price peaks on volatile international commodity markets. Even here, however, there may be a high social cost in terms of the increased investment which could have occurred (the expansion of Kenya coffee plantings in relation to the 1977 coffee boom is a good illustration of this point).

59. Land-related taxes have been contributing very little as a result of the predominance of tribal land tenure systems and the political influence of large landowners and farmers. Apart from urban areas, only low rates of tax have been levied on land owned and leased by government. As land becomes progressively

dearer in the sub-region, there are important allocative efficiency arguments for giving a more important role to land taxation. Relevant policy analysis should be carried out to examine the balance of advantage in specific country situations.

60. In some countries, generous tax allowances are given to large farmers and estate companies for writing off capital investment in agriculture. Where labour-intensive methods or animal-power could perform the same tasks, the investment allowances have the effect of replacing cheaper factors with more expensive ones. The equity effect is perverse also.

C. Exchange Rates

61. Exchange rates affect both the internal distribution of total income and the net incentives to produce and consume. Overvalued exchange rates can make it impossible for agriculture (or industry) to produce profitably for export (unless goods are smuggled to countries with a more realistic exchange rate). They also result in making foreign food relatively cheap and domestic agricultural products relatively expensive, thereby doubly distorting the resource allocation pattern. The decisions to produce (for the domestic and/or export market) and to consume (domestic or imported products) as well as decisions to save and invest, are influenced by the real exchange rate - that is the import-weighted exchange rate adjusted for the ratio of the domestic rate of inflation to the average rate of inflation in the major trading partners (weighted by share of imports).

62. Policies in most of the countries of the sub-region may be divided into three periods - inactive exchange rate management policy with^{1/} pegged exchange rates during the post-independence Bretton Woods period (1965-73); active exchange rate management policy with pegged exchange rates during a period of accelerating inflation after the breakdown of the Bretton Woods system (1974-79); and active exchange rate management policy with adjustable exchange rates in the period since 1980. 1/

63. During the first two periods the objective was to maintain exchange rate parity with the currency of the former colonial powers or to the US dollar or the SDR. During the third period the objective has been to have an active exchange rate policy for effective macro-economic management.

64. The second period, 1974-79, was characterised by a high global rate of inflation. This reflected the two oil price increases of 1973/74 and 1978/79, together with imported inflation via increases in prices of manufactured and other imports relative to the prices of export commodities from the sub-region (the international terms of trade effect). The rate of inflation, however, was much greater in the sub-region than in the trading partner countries. This reflected domestic budgetary and monetary policies which gave added impetus to imported inflation. This, together with increasing difficulties in maintaining levels of production and exports, leading to deepening balance of payments crises, commonly resulted in the over-valuation of the exchange rates of the sub-region countries.

1/ These periods do not apply accurately to countries in the CFA zone where currency values are related to the French franc (but only one country in the sub-region, the Comoros, falls into this category) nor to countries belonging to the South African Monetary Agreement (Lesotho and Swaziland) whose currencies follow the idiosyncratic movements of the rand.

65. Positive and active attempts were made to overcome the scarcity of foreign exchange by increasing resort to import licensing and restrictions on exchange availability, as well as to foreign borrowing, (but this ran the risk of reaching insupportable debt service ratios). In addition, in those countries which allowed the level of over-valuation to become very marked, the parallel economy began to affect the level of economic performance (see section II above).

66. These price movements also encouraged the use of capital equipment instead of labour in the countries, imported intermediate goods instead of local materials and imported consumer goods instead of indigenous substitutes, including growing preference for imported cereals - wheat and rice - as against locally produced maize, cassava, sorghum and millet.

67. These problems in macro-economic management led to the widespread devaluation of domestic currencies during the first half of the 80s. Ten countries in the sub-region have devalued their currencies. In the period 1980-83 five had been able to lower the real exchange rate. These countries were Malawi, Mauritius, Botswana, Kenya, and Uganda.

68. A current feature in some countries, e.g. Tanzania and Zambia, is the foreign exchange retention facility. This enables exporting firms and parastatal corporations to use a proportion of foreign exchange receipts to finance the import of spare parts, raw materials and consumer goods. Its effective operation requires heavy supervision while, to the extent that it leads to the importation of expensive consumer goods, it has adverse equity effects. The scheme appears to be an inferior and partial solution to problems which essentially require currency devaluation.

69. An adjustable exchange rate policy can only be successful if it is accompanied by appropriate monetary, wage and price policies within consistent overall fiscal policy and budgetary management, as well as appropriate micro-policies for agricultural and industry.

D. International Trade, Aid and Finance

70. The primary policy issue concerns the degree of "openness" to the regional and international economies and the choice between an export-led or internally-oriented strategy. The larger is the economy and the wider its resource base the more the room for manoeuvre between these options. But smaller countries, especially in the early stages of development, if they desire a reasonable rate of economic growth have little option but to exploit their international comparative advantage. This usually lies in agriculture or other natural resource-based products.

71. The second major issue concerns the view taken of the contribution which a primary product export-led strategy can make to economic growth and equity objectives. For various reasons, much of the recent thinking on this matter in the sub-region has been what can be characterised as "export pessimism". A central factor in the debate is the movement of the international (net barter) terms of trade i.e. the relationship of the prices received for exports onto the international market and the prices paid for imports from it. Certainly, under the impact of the two oil-price shocks of 1974/75 and 1979/80 the international terms of trade have moved adversely for most countries in the sub-region over the past decade.

72. Nevertheless, neither theory nor evidence clearly support the view that the terms of trade tend to decline continuously, i.e. have a long term downward trend. Furthermore, even if it was true it is only one aspect of the matter; it can be outweighed by other factors working in the opposite direction. Consideration of six

other factors ^{1/} suggests that the international income terms of trade (i.e. the price times quantity index of exports relative to the price index of imports) is potentially highly favourable for countries in the sub-region.

73. Many governments in the sub-region have not recognised that (a) the self-employed small-holder mode of production, if well-supported, is extremely competitive in international commodity markets and (b) that small-holder agriculture provides the most effective "engine of growth" for the economy as a whole because of the strong final demand linkages with the industrial and transport sectors of the economy. At the same time, it needs to be said that achieving the full potential of such strategies requires additional efforts at the international negotiating tables to secure a fairer share of international trade for Africa's rural producers.

74. Another requirement is for a carefully considered policy concerning international private finance and investment. Multi-national manufacturing companies have been in competition for an exclusive or preferential place in the domestic market with the apparent attraction of industrial diversification for a low domestic capital cost. In practice, however, the longer term advantages have often proved illusory, with a high cost plant (due to low utilisation of capacity, managerial inefficiencies etc.) which cuts off domestic consumers' access to cheaper and more diversified supplies available on the international market. Fertilizer, farm equipment and vehicle assembly plant decisions have had adverse effects on agriculture in several countries in the sub-region. A better policy would be to defer domestic production until domestic market size justifies the location of several competing firms with an ability to move rapidly to the stage of exporting regionally or internationally.

75. An important question in international private investment policy for agriculture concerns the advantages of trans-national corporations (TNCs). A necessary starting point is a clear understanding of the capacity and level of expertise available to the state and the private sector in international commodity markets. TNCs possess well-recognized possible disadvantages, but, on the other hand, for several countries of the sub-region they have provided access to more lucrative, and often risky, product markets. Also, joint state-private ventures and contract or commission arrangements have removed most or all of the potential disadvantages of TNCs. Clearly, a consistent policy based on an analysis of the advantages and disadvantages of different arrangements is preferable to a series of ad hoc deals where personal interests can distort the situation.

76. The nature and scope of international commodity agreements, including partial bilateral and multi-lateral arrangements, have been and are important agricultural policy issues in the sub-region. Such agreements currently affect coffee and sugar exporting countries, while agreements which were mooted in the 1960s and early 1970s for hard fibres and tea failed to materialise. In the case of sugar, Mauritius, Malawi and Swaziland have benefited to different degrees from import quotas into (a) the EEC (under the former Commonwealth Sugar Agreement) and (b) the United States. This has clearly been advantageous compared to prevailing levels on prices on the residual "free" world market, but on the other hand it has been a "second-best" solution compared with increased access to EEC and other high income markets via the progressive reduction of protected beet production.

^{1/} The prospects for the expansion of current farming systems, cost of production, the activity mix, market demand, technological innovation and the relative price of energy.

77. The question of the net benefits which have accrued for the International Coffee Agreement (ICA) is problematical. The ICA has had the merit of transferring incomes from consumers in high-income countries to third world producers in years of excess coffee supply by shifting supply to consumers in lower-income countries. However, it has also frozen the structure of international production and therefore has transferred incomes from low-income potential coffee producers in several countries of the sub-region to high-income estate producers in more developed parts of the third world. Some countries of the sub-region were able to increase their high-income market share by expanding products rapidly during periods of scarce supply. But the granting of increased quotas by the ICA was and is by no means automatic. Careful analysis of the net balance of advantage of the continuation of the ICA would seem worthwhile. On a similar issue, the East African countries decided that the international tea agreement proposed in the early 1970s would not be in their best interests, thereby preventing its establishment. Only Kenya, however, has seized the potential advantage of this by substantially increasing the area of small-holder tea.

78. International aid and technical assistance for agriculture raise a complex set of policy issues. These include the overall level of aid to the agricultural sector; the issue of sectoral or programme aid versus project aid; how far "tied aid" can be made compatible with desirable objectives such as reducing the proliferation of types of equipment; how to minimize possible adverse effects of food aid; improving the scale and quality of foreign technical assistance; and the transfer of overseas training activities as far as possible to in-country or in-region locations.

79. International trade negotiations are often required over an important range of issues. These may include arrangements for improved access to industrialised country markets for processed and "made-up" primary products (GATT, UNCTAD and Lomé Conference progress or lack of it); and negotiating compensation for or restriction of the practice where "dumping" of protected agricultural products (especially sugar and beef) has reduced the profitability of African country exports to third-country markets e.g. in the Gulf States or even in Africa itself (as in the case of EEC beef exports to Angola, traditionally one of Botswana's markets).

80. Many aspects of international trade and financial arrangements would benefit from careful study and comparison of individual country experience, preferably on a regional or multi-country basis. Sub-studies should include:

- (a) the effects of and need for market diversification and export promotion (compared, for example, with Malaysia's successful expansion of palm oil markets in the Gulf and South Asia);
- (b) the experience with state-trading, bilateral trade, countertrade and barter trading arrangements for agricultural products vis-à-vis the more usual international trading arrangements;
- (c) the experience with international and national schemes for stabilising agricultural commodity prices or foreign exchange earnings e.g. the IMF compensation financing facility and the STABEX scheme negotiated under successive Lomé agreements.

81. Important new initiatives are being taken in the sub-region, affecting arrangements for preferential trade, transport, economic assistance and cost-sharing, under the Preferential Trade Area and the Southern African Development Coordinating Committee. The contribution to development objectives will depend in large measure on the quality of the policy analysis applied to specific problems and potentials.

82. Finally, the increasing fluidity of the political situation in South Africa suggests the need for studies of the effects and case for modification, retention or expansion of the South African Monetary Agreement (currently affecting monetary and taxation policies in Lesotho and Swaziland) and the Common Customs Area (CCA) which currently affects taxation policy in Botswana as well as Lesotho and Swaziland.

E. Agrarian Structure

83. A policy area which fundamentally affects agriculture in all countries is the land tenure system. The essential features of African customary land tenure are well-known. In a minority of cases some form of landlord-tenant system prevailed, as in parts of Uganda and Ethiopia. Superimposed upon or interposed between these systems, in ten of the 18 countries of the sub-region, have been relatively large areas given over to settler farms, plantations and ranches holding land under European-derived concepts of freehold or leasehold tenure. Amongst other things, these concepts imply that the ultimate ownership of land is vested in the state.

84. The customary systems have been subject to modification under the twin pressures of population growth and the penetration of the market economy. A minimum level of government intervention has consisted of the codification of changes in the legal framework, often with the result that de facto individual ownership has been accorded de jure status on a localised basis.

85. More gradual change, in the form of freehold or leasehold titles for African landholders, has been introduced in several countries in the sub-region. This policy raises two key questions: (a) Is greater agricultural productivity achieved at the expense of increased polarisation between rural rich and poor groups? (b) Alternatively, can an approach building on customary ownership, married to "modern" agricultural technology, achieve similar productivity gains and distribute them in an egalitarian manner. Critics of policy (a) above assert that private ownership of land leads to the concentration of ownership through the operation of the market in land, and to the emergence of a landless labouring class.

86. The most studied examples of each approach in the sub-region have been in Kenya and Tanzania, but a longer-running test of the alternative policies can be found in Uganda. While the Uganda Agreement of 1900 conferred de jure land title on some 4000 chiefs and other "notables", the processes of traditional sub-division between heirs, in particular, and market sales had resulted by the late 1970s in an estimated 250,000 freehold plots. Average holding size had fallen from around 500 ha to 8 ha per family, and no land holdings were expanded in area.

87. In Kenya, the process of land adjudication, consolidation and registration of individual title of smallholder plots, which began in 1955, has been extended to virtually all the cultivated smallholder areas and to most of the higher rainfall pastoral areas as well. It has been estimated that around 10,000 individuals are becoming landless each year in Kenya 1/.

88. Important experience with land tenure reform has been gained also in Tanzania, with the twin policies of Ujamaa (in essence, the objective is that rural families are working together in modern communal agriculture) and villagisation (i.e. "living together" as a prerequisite for "working together"). The two facets were put

1/ M.R. El Ghonemy (ed.) (1984) Development Strategies for the Rural Poor: Analysis of Country Experiences in the Implementation of the WCARRD Programme of Action. Economic and Social Development Paper No. 44.

together from the villagisation exercise of 1973/74 for a period of ten years. Land was held collectively by the village, but annual rights of use were granted to families mainly in contiguous plots within larger "blocks".

89. Originally, it was expected that the village's communal enterprises would expand at the expense of the family plots. This did not happen (except in the case of a handful of show-case villages). Rather, the policy suffered from villagers' lack of interest in communal farming, lack of investment in uncertainly-held individual plots and widespread villagisation-induced problems with soil fertility, fuelwood, water, dry season grazing and environmental degradation. Finally, in 1983 the government accepted the policy of allowing villages to confer individual leasehold titles of between 33 and 99 years duration. ^{1/} District Registries of Agricultural Land Occupancy are being set up. After a period of divergence, land tenure policies in Kenya and Tanzania appear to be on converging courses.

90. Villagisation, the regrouping of scattered rural settlements into large compact villages, has been undertaken as a major rural development policy first in Tanzania and now, currently, in Ethiopia. Some villages in Tanzania in areas of high population density were formed merely by demarcating the village boundaries. In the areas of more extensive agriculture hundreds of thousands of families moved the contents of their homes, in some instances over distances of 10-25 kilometres, and built new homesteads.

91. The great majority of the people affected moved in a period of four to five months in 1974, so that it was not possible to learn from mistakes made in the first phase. Some attempts were made in the next four years to deal with the worst problems of poor site choice and mismatch between the population and the resource base. In 1976 the Prime Minister's Office issued a circular permitting a temporary second homestead to allow more distant areas to be cultivated or grazed.

92. Recently, further changes have been recognised as desirable if the disadvantages of poor location, etc. are to be overcome or reduced.

"Some villages are still not permanently established on good sites, or have not yet been properly planned, or are too large to be a basis for efficient agricultural production. The Regional and District Authorities will, therefore, as a matter of urgency and in full consultation with each village, survey and assess the location and planning of all villages in their area. After this survey and assessment, a Regional and District Programme - in the preparation of which the members of each affected village will participate - will be drawn up for the settlement or re-settlement of all villages on a permanent basis. Particular attention will be paid to the need for villagers to be within reach of a school, the dispensary, and a domestic water supply but also for them to have easy walking access to their Block Farm Shamba and the Village Communal Farm on which they work. Where the existing village plan is unsatisfactory to residents, or is inefficient agriculturally, or is temporary, there should be a full exploration of the concept of a Central Service Village (in which the main school, dispensary, and other village services like stores, administration, etc., will be located) with satellite residential sub-villages which are near to the farming areas."

93. The Tanzanian experience suggests that the current large-scale villagisation programme in Ethiopia should be designed and phased in ways which allow the hard lessons learned by the one country to be applied to the benefit of the rural population of the other.

^{1/} United Republic of Tanzania (1983) Agricultural Policy of Tanzania, pp 10-11.

94. Three major land reform programmes have been initiated in the sub-region. In chronological order they are in Kenya, Ethiopia and Zimbabwe; the last two are still proceeding. The Kenya and Zimbabwe programmes are distributed in nature i.e. the objective is to subdivide large land holdings and transfer them to small holders. The Ethiopian programme was initially distributivist, but the stated policy aim is to establish collective farming.

95. A possible option to achieve economics of scale while maintaining the present land tenure arrangements is to group and re-organize such activities as processing, transport, etc. while maintaining field production activities in the lands of well-motivated peasant families that can out-perform a hired labour force and, if the large farm was mechanised, can substitute labour at low social cost for scarce capital and foreign exchange. This is the principle of the out-growers scheme or nucleus estate. This particular agrarian structure originated in the sub-region and forms the basis of the outstandingly successful small-holder tea programme in Kenya. It has also been applied to sugar production in Uganda, Kenya, Malawi and Swaziland. Similar structures would enable the replacement of large-scale mixed-farms, plantations and state farms in other countries in the sub-region by more efficient and more equitable family farming.

96. Another aspect of the choice of scale in agricultural production concerns the use of capital-intensive machinery in the large farm sector. Economic studies have clearly shown that where capital is underpriced, equipment will tend to be used to substitute for labour, reducing employment opportunities for the poor (reducing equity). Economic growth will probably be reduced too through the use of excessive quantities of scarce capital and foreign exchange in the form of equipment, fuel and spare parts. If capital and labour are realistically priced, the financial attraction of field mechanisation in agriculture would disappear in very many cases and both growth and equity objectives would be furthered.

97. Other aspects of agrarian structural reform policies with which there is some experience in the sub-region are:

a) Resettlement programmes, involving a complete relocation of rural population to newly reclaimed or developed lands. In most cases such programmes have been extremely costly and have favoured a limited number of people to the detriment of the majority.

b) The settlement and sedentarisation of nomadic and transhumant populations. These programmes include the re-organization of their customary production systems. Ranching associations had been created with various degrees of success. Certain critics of these associations believe that the system has displaced many of the nomads and transhumers from their traditional activities and has led to the concentration of resources with the leaders.

c) The location of socio-economic services in rural service centres. This too was a very costly proposal and suffered from the shortage of trained personnel to man these centres. These programmes had only a very limited impact on the rural conditions.

IV : SUPPORT SERVICES POLICIES

A. Marketing and Internal Trade

98. This policy area covers the marketing of agricultural produce and the delivery of farm production inputs and consumer goods to the rural population. The major policy issue centres on the structural reform of markets and its effects on market behaviour, economic performance and equity. The primary mechanism of intervention

in the sub-region has been the conferring of trading monopolies on state or para-statal agencies and/or upon marketing cooperatives, thereby expanding state control at the expense of the private sector. Another objective has sometimes been the replacement of non-national by national enterprise. The mechanism of creating monopoly positions in the market has been used for this purpose, but in other cases advisory and credit programmes have been established to assist indigenous traders in the rural sector.

99. Current produce marketing policies and the related market controls and institutions stem in most countries of the sub-region from the pre-independence period. The dominant institution is the single-commodity parastatal or statutory marketing authority (or board). Marketing and multi-purpose service cooperative unions and societies are important in some countries at the local level mainly where small-holders produce export commodities.

100. A primary function is usually to execute government price policies; for the range of policy objectives see sub-section III A above. Three main functional types of statutory agency can be distinguished: (a) the 'board' is responsible for the conduct of auction sales, grading, advertising and the funding of research. It operates for the benefit of producers, is controlled by them and is commonly found where there is large-scale tea, coffee or tobacco production; (b) the 'board' is responsible for sales, the administration of statutory prices and export or excise taxation, price stabilisation funds, etc., the licensing and oversight of traders, processors, etc; it operates primarily for the benefit of government revenue and to execute government pricing policies; (c) the 'board' is primarily concerned with regulating sales and prices and often production, stocks and imports as well, for foodstuffs sold on the domestic market. In the case of major foodstuffs, government policy tends to weigh the interests of consumers more highly than those of producers, but with minor commodities or those sold to higher income consumers the 'board' may be operated in the interest of producers.

101. It is more the exception than the rule to find statutory bodies or cooperatives operating in free competition with traders, processing firms, etc. This does apply, however, to the primary buying of livestock in Botswana and in the domestic market for meat in Zimbabwe and de facto in Kenya also. The small local markets for foodstuffs in rural areas usually fall outside the jurisdiction of statutory monopolies. Where fixed statutory prices have failed to match prices reflecting scarcity values or the rate of inflation, widespread growth of parallel markets has occurred. In several countries e.g. Kenya, Tanzania and Zambia, this has become tolerated as a means of market liberalisation. Legal restrictions on inter-district movements of surpluses have been raised and/or official prices are treated as indicating floor rather than fixed price levels. In Zambia, for example, all food crops except maize have been decontrolled in this way. The private traders' increasing role in achieving efficiency in domestic agricultural markets has thus been permitted, although it is not as yet widely admitted and encouraged in official policy statements, legislation or assistance schemes.

102. The performance of monopoly marketing institutions has been widely criticised as a major factor accounting for poor agricultural performance, particularly when excessive marketing margins have depressed the incentives to producers. Certainly, there have been widespread problems of management inefficiency and over-manning, and absence of competitive pressure to reduce cost margins. In the case of the stronger economies, however, these problems can be tolerated up to a point. It is when the parallel economy brings competition and reduces the agency's control and market share that fixed overhead costs on a declining throughput mean rising unit costs and an even weaker competitive position. Mounting losses require subsidies out of government's recurrent budget, and can in aggregate be a significant cause of deficit financing and exchange-rate destabilising levels of domestic inflation.

These problems have led several countries to either remove agency monopolies or to abolish them altogether (e.g. Tanzania, Zambia). At times cooperatives have also been costly in their services. For example, in Kenya the Cotton Lint and Seed Marketing Board, which operates through cotton cooperatives, has given poor performance with high marketing costs and low or late payments to the producers.

103. Parastatal corporations have also been responsible for untimely and uncertain distribution of chemicals and seeds, which has not only led to a decline in output but also in quality. The neglect of rural wholesale and retail outlets as agents for farm inputs is a feature of several countries. In a few cases, as in Tanzania and Mozambique, attempts have been made to replace the private trader with cooperative or village shops and with statutory regional and national trading corporations. In most cases the effects of inefficiency on the cost and availability of rural incentive goods, and thus on the domestic terms of trade, has been so marked that the policy has been rapidly modified or abandoned under pressure from the rural population - the intended beneficiaries.

104. It appears that monopoly parastatals or monopoly cooperatives are not the best solution for the efficient and effective implementation of produce marketing or input delivery systems. Competition is essential, particularly for the marketing of produce by the small farmers. Market structure reform should aim to create multi-channel marketing. This would be composed of private, cooperative and parastatal marketing institutions.

B. Credit

105. The value of agricultural credit depends on the extent to which profitable increases in production are constrained by short-term cash flow problems or lack of investment funds when (a) worthwhile investment opportunities are available to and recognised by farmers, and (b) farmers' own savings and other resources are inadequate to take advantage of these opportunities. In the absence of these factors, credit can be taken up without significant impacts on overall output or income levels being achieved.

106. In order to implement their agricultural credit policies some governments have been persuading and even compelling the banking system to provide rural credit on a larger scale. The measures taken include: stipulation that a certain percentage of loanable resources should be set aside for rural credit; the creation of agricultural-cum-industrial development banks with a special window for agricultural credit; the promotion of cooperatives, especially credit cooperatives, at the village level under an apex cooperative bank; the creation of specialized agricultural development banks dealing exclusively with agricultural credit; and the establishment of credit for special purposes for the development of the agricultural sector. However the methods and mechanisms which have by now been established and the progress achieved so far vary from country to country.

107. The development of the credit mechanism and its performance has been uneven - among countries and within each country - and generally below governments' expectations. Credit arrangements have been generally limited and in many cases inaccessible to the smaller farmer. The reasons for this are various.

108. Cooperatives have been encouraged and established in some of the countries, both for the purpose of mobilising savings and utilising them for agricultural and rural development. They have at times, however, tended to be dominated by rural rich and minority groups and have failed to serve the majority of the rural poor. Also, lack of success in savings mobilisation and in meeting credit needs often has been due to low or negative real rates of interest. These result both in low deposits in the credit agencies and in the diversion of the limited available credit to the more influential borrowers.

109. In general, many special credit agencies have been adversely affected by poor loan recovery rates for various reasons, including corruption, inefficient management, inadequate supervision of cooperative credit institutions, and bureaucratic and political interference. These institutions have increasingly been depending on government and external funding by bilateral donors. Most commercial banks follow a strictly conventional banking approach and are less suitable for the credit needs of the farmers, particularly the small farmer who has no suitable collateral. Where crop loans can be provided through single channel marketing agencies, however, risk to the lender is reduced and more innovative approaches can be undertaken.

C. Agricultural Extension

110. The countries in the sub-region recognize the need of farmers for scientific knowledge, improved agricultural skills and more efficient techniques/technologies to improve farm productivity and income. Agricultural extension is the common policy instrument to achieve this. However, the countries' policies on agricultural extension are seldom sufficiently clear or strong enough to guarantee efficient and cost-effective extension service. As a reflection of existing policies, three systems of extension are found in the sub-region, namely:

- a) general agricultural extension system (Ministry of Agriculture run Extension Service);
- b) single crop authority (parastatal) based extension system; and
- c) project-based (or "enclave") extension systems.

There are countries which have two or three systems. In addition, some private input distribution firms perform certain extension activities.

111. Common to all extension systems in the sub-region are problems of organization and management, insufficiently trained manpower, inadequate transport, logistic, subject matter specialist and information support and limited or non-existent linkage between agricultural extension and research functions. Partly due to the above problems, agricultural extension services are faced with the issue of effectively reaching small farmers and women cultivators who are particularly important in Southern Africa because of the large number of men working away from the family farms.

112. A common issue with policy implications is the optimum workload of agricultural extension workers. Under varying agricultural and demographic situations and a given agricultural extension approach, how many farm families can a well trained agricultural extension worker effectively and economically serve? Considering the mixed farming systems in the sub-region, should the educational/advisory function of agricultural extension workers include both crop and animal production, including farm management? Policies seeking to improve the performance and cost-effectiveness of agricultural extension services need to consider these questions.

D. Veterinary Services

113. Livestock services can be divided into (a) disease control activities, in principle for all livestock and (b) animal husbandry advice which is usually concentrated on farmers keeping exotic high-yielding stock and employing intensive production methods - supplementary feeding, planted pastures, zero-grazing systems, etc. Private feed and pharmaceutical firms are increasingly important in the latter case too.

114. Due especially to scarcity of recurrent funds, animal disease control systems have virtually broken down in several countries in the sub-region, risking not only their own livestock but that of neighbouring countries also. A recent authoritative report ^{1/} discussed the relevant policy areas in the following terms:

"Livestock health services are supported by several sub-regional vaccine laboratories, and a few regional reference diagnostic laboratories. Today, training of veterinarians is quite widespread in Africa. But these research and training efforts are adversely affected by improvisation, lack of concerted action and coordination and a poor definition of real needs. The prevalence of animal diseases results in the reinforcement of the reconstitution objective of the producer who tends to build up his stock and maintain large numbers as security against disease. Owing to the lack of confidence in the adequacy and continuity of the public animal health services, the producer tends to have less incentive to protect animals through government animal health services as compared with traditional methods. Also, the prevalence of animal diseases leads to low productivity of stock and to substantial post-harvest losses, particularly at the slaughter stage. Furthermore, the presence of disease restricts access of African live animals and meat exports to foreign markets, particularly the European and Middle East markets.

There are indications that if the present stock of knowledge is efficiently applied and the animal health delivery systems are improved, significant progress would be made in reducing losses in both animal productivity and post-harvest losses. As the demand for animal health services is usually great, it is suggested that some fees be charged to producers. Private distributors of medicines and delivery of health care should also be encouraged to increase efficiency and reduce the burden on the government budget. Furthermore, to realize the full advantage of animal health services, they should be integrated with water and range development programmes. There is also a need for closer collaboration and cooperation at sub-regional and regional levels in animal disease control and eradication."

E. Research and Technology

115. Although most of countries in the sub-region have the objective of focusing research with small-scale farmers as the target group, in many cases their efforts have not been effectively geared to this purpose. Research has been carried out with much emphasis on the introduction and selection of crop varieties with high yield potential under the most favourable climatic and farm management conditions. While attention has been devoted to plant breeding, mechanized production, monocropping and increasing use of fertilizers, too little attention has been given to the design and management of farming systems under small-holder conditions i.e. taking into account realistic labour and cash flow constraints. Too little attention has been given to adaptative research which could be of rapid benefit to small farmers. Lack of direction in the allocation of resources to research programmes and the effect this has had on shaping the pattern and content of these programmes is one of the major concerns. The research systems are not generating technologies and information in the key areas necessary for future development: high-productivity smallholder farming systems incorporating both food and cash-generating activities, as well as cost-effective conservation measures (see sub-section IV H below).

^{1/} UNECA (1985) Comprehensive Policies and Programmes for Livestock Development in Africa : Problems, Constraints and Necessary Future Action. Addis Ababa: ILCA (Network Paper No. 5). pp.28-29.

116. Some of the countries, including Kenya, Malawi and Zambia, are planning to place increased emphasis on farming systems research, on production packages for small farmers for food and cash crops and livestock, and to take account of marginal areas as well, thereby reversing the tendency of research to concentrate on single crops and high potential areas. Neglected areas of research include (a) the integration of agro-forestry into the farming systems approach e.g. alley cropping as opposed to wood-lots; consideration of all types of trees and perennials (fruit, nut, oil, fodder, etc) as opposed to only timber trees; and agro-forestry systems for 'forest' areas as well as agricultural and pastoral areas; (b) intensified cropping under irrigation, (with the exception of the research in Mauritius on inter-planting food crops and sugar cane); (c) integrated poultry and aquaculture systems on East Asian lines; (d) low cash-outlay innovations for poor farmers e.g. agronomic and animal substitutes for artificial fertilisers; composite as opposed to hybrid seed, etc.

117. Budgetary allocations for research in some countries have been declining if allowance is made for inflation. Research systems must deal with two other fundamental problems common to all countries in the sub-region; (a) coordination and management, and (b) training and availability of qualified and experienced staff; this is discussed in section IV F below. Coordination and management problems include organizational aspects and lack of effective linkages between various branches of research in the ministries and other agencies and between research and extension.

F. Irrigation

118. The two major objectives of irrigation development are: (a) to increase the area under cultivation by making agriculture feasible in arid and semi-arid areas which were previously unused or only utilised extensively; and (b) to reduce the risks of crop failure in dry years; thus contributing to the objectives of food-self-sufficiency and import substitution or to stabilising the output of export commodities. The first objective is attractive in countries where population growth has virtually exhausted the possibilities of low-cost settlement on unutilised rain-fed land. This is the situation in Kenya, Malawi, Lesotho, the Comoros and Mauritius. Supplementary irrigation in high and reliable rainfall areas can, if applied to high value crops such as coffee, tea or horticultural crops, handsomely repay its high costs of investment by boosting yields in dry seasons and years and, with some horticultural products, enabling production to coincide with periods of high prices in high-income markets.

119. Large-scale irrigation schemes may form part of ambitious river basin development plans. These may include several projects designed as a multi-purpose package. Potential benefits may accrue through the media of hydro-electric power generation, freshwater fisheries, flood control, inland navigation and recreation and tourism, in addition to irrigation. Such schemes exist largely on paper in the sub-region; the development of the Tana River basin in Kenya, the only partially fulfilled Kariba and Cabora Bossa schemes, and the proposed Turkwel Gorge scheme in Kenya are examples of this type of approach. Large-scale irrigation projects typically incur heavy infrastructure costs in the form of the "pioneer costs" of opening up an undeveloped area. Also many of the development benefits accrue outside the project, e.g. to food producers and livestock raisers, traders and transport and processing enterprises. These backward and forward linkages are more likely to be identified, planned for and taken into account in social cost: benefit analysis within a regional development plan framework than as an agricultural project.

120. There has been widespread disappointment with the operation of large-scale irrigation schemes under state or parastatal management, especially with their financial and economic returns (e.g. cut-backs in large-scale irrigation in both Somalia and Tanzania at the end of the 1970s and more recent problems with the Bura irrigation project on the lower Tana River in Kenya). The large state projects compare badly both with small-scale indigenous or village-level schemes and with large-scale irrigation schemes under commercial management. The latter are almost invariably confined to irrigated sugar: successful projects can be found in Kenya, Malawi, Zimbabwe and, of course, Mauritius. In the 1980s the emphasis in Tanzania has shifted to medium-size projects in the 500-1000 ha range which would provide land for individual farmers from several villages.

121. A major policy issue, similar to that discussed in connection with economies of scale in land reform programmes, concerns whether to work the project as one large unit or to subdivide it into smaller farm units. An efficiency problem with the latter approach, when heavy front-end investment costs have already been incurred, are low initial yields due to the long learning curve of both farmers and management new to irrigated agriculture. An alternative approach is to adapt the nucleus estate to irrigation, as in the Swaziland sugar schemes operated by the Commonwealth Development Corporation. Discounted net benefits would be protected if the "nucleus" estate, operated by an experienced commercial company on contract, attained 100 percent operating capacity as rapidly as possible, then "sliding over" to make room for settlers selected from the estate labour force. The estate would then shrink to its ultimate fraction at a rate which enabled production to be maintained at full capacity. Ultimately, control would pass to the settlers organised in the form of a cooperative or farmers association.

122. Smaller projects at village level present less complex problems of technical and financial management, so that the need for permanent government administration can be avoided-as distinct from provision of technical and economic advice. This low cost self-determining organisation structure needs stressing in the face of the usual tendency for irrigation to be planned and managed in a high costs top-down style.

G. Technical, Scientific and Managerial Manpower

123. The main policy issues which arise under this head are: (a) the training of manpower in the numbers and quality required for field extension, veterinary services, agricultural research, and planning activities - and their management - of government and parastatal agencies on the one hand and to meet the rising demand for similar skills in the private and cooperative sectors on the other; (b) trends in costs and productivity of the employed cadres over time; (c) the management and deployment of high-level manpower.

124. The quality of training will tend to vary from one institution and country to another and over time in the same institution, but some specific criticisms are noted frequently:

- (a) Lack of technical skills: this usually follows from an undue emphasis on traditional class-room and exam-oriented learning. In Zimbabwe the agricultural certificate syllabus has recently been redesigned to centre on practical skill acquisition and testing;
- (b) Poor understanding of, or even lack of sympathy for, small-scale family farming: an undue emphasis on modern or scientific (capital-intensive) agriculture tends to instil attitudes of disdain towards small-scale agriculture. The complexity of small-scale farm management and the superior value of indigenous technical knowledge in many local environments

is not appreciated, while the risks and cash-flow problems with "modern" innovations on small farms are ignored or underestimated.

- (c) Ignorance of the latest scientific information and development experience: this point is usually made about the staff of the lowest-level training institutions, but where recurrent funds for library acquisitions, field travel, research, etc. are becoming scarce the same problem can occur higher in the system. Training posts within public sector institution are often regarded as backwaters, with reduced chances of promotion on the one hand and isolation from higher-level studies or research on the other. One potentially useful approach is that of grafting into the university, as the apex institution, an agricultural staff college.
- (d) Weakness in management and decision-making skills: even middle-level agricultural staff are frequently given major managerial responsibilities (including financial control, personnel management and implementation decision-making) while senior personnel are responsible for mobilizing policy advice and, in more technical areas, often for policy-making itself. The personnel recruitment or promotion criteria do not emphasize aptitude or demonstrated proficiency in managerial fields. Either ad hoc in-service training in management and decision-making skills could be given, or for a more systematic approach, the staff college concept again would seem useful.
- (e) Overspecialisation in technical or scientific sub-fields: examples are well known when the pursuit of a higher research degree, usually at an overseas university, leads to the acquisition of highly specialised knowledge (sometimes scarcely relevant to the myriad national natural development problems) which then dominates the individual's remaining career lifetime.

125. Concerning the numbers of qualified personnel produced, most countries in the sub-region are now meeting at least the requirements of the public sector on the assumption of normal wastage rates. However, retention of staff - especially in the fields for which major training outlays have been incurred - is often unsatisfactory. This reflects the greater relative material rewards and/or wider decision spans available in higher-level administrative and managerial posts, especially in parastatal or private sector organizations compared to civil service posts. The effect is particularly strong when the real value of public sector salaries has fallen markedly under the effects of hyper-inflation.

126. Securing additional income via the parallel economy, or transferring to private sector employment with additional untaxed fringe benefits, can become overwhelming concerns even to maintain a subsistence standard of living. The solution of these extreme problems rests on a macro-economic reconstruction strategy. Less severe problems of staff wastage may be tackled by wage policy on the one hand and restructuring civil service career grades and salaries on the other. In the first category, the examples of Botswana and Zimbabwe are germane: in the former country, civil service salaries represent the maximum levels which can be paid in the parastatal private and cooperative sectors. In both countries, care has been taken to avoid any marked decline in the real value of civil service incomes; this has been assisted by sound macro-economic management of their economies.

127. The productivity of government personnel has declined where inadequate recurrent funds are available for travel, research etc. Amongst counter-measures which should be considered are those which transfer part or all of the cost of research and advisory services onto the beneficiary groups, but which at the same time increase the degree of client control over the services provided. This

approach is well advanced in some countries: numerous tea, coffee and tobacco growers pay for the costs of research, marketing services and, in some cases, extension advice. There seems to be no intrinsic reason - only questions of organisation - why this principle should not be extended to other profitable farm activities, such as hybrid maize or grade cattle (Al, bull studs, etc.). Eventually, commercial firms, farmer associations and cooperatives could be made completely responsible for research and field services. The interests of poorer areas and farmers could be protected either by project grants for services provided by commercial or farm-controlled organisations, or by statutory per capita block grants to be spent as poor farmer organisations desire.

128. Two pressing questions arise in the sub-region concerning staff deployment:

- (a) How to keep experienced and effective staff working in close contact with farmers in the rural areas;
- (b) How to utilise the knowledge of local farming systems possessed by field staff in central planning and implementation decision making.

129. A major part of the first problem is the disparity between rural and urban areas in terms of social infrastructure; this bears especially on married staff. Rewards in terms of salary increments and allowances for "hard living" are in place to some extent, but they appear to be insufficient. Greater emphasis on the service of farming communities could be given in career trajectories, technical back-stopping and promotion criteria. Senior staff posts can be established in the field, as in the case of Tanzania's regional decentralisation policy.

130. These measures would be facilitated by answers to the second question, that is, by management procedures which give greater visibility and weight to the knowledge and work performance of field staff. At the same time, measures to lighten the paper work load so as to permit a larger proportion of time to be spent in the field, plus improving the concomitant travel resources, are urgently needed. The application to civil service procedures of management principles well-tested by commercial experience is well overdue in the majority of countries in the sub-region.

H. Rural Transport

131. The basic policy objective is that settled rural areas are linked by reliable and cheap transport modes to the wider national economy. The transport links enable flows of consumer goods, farm inputs and information to reach the rural population, and return flows of marketed surpluses to reach the external economy. Also important is the free and convenient movement of people themselves - to urban centres, for employment and, as an item of consumption, to visit relatives and friends. A breakdown in transport links - as occurs on many rural roads in the rainy season, for example - or a marked increase in its relative cost - acts to raise the price of consumer goods and depress the price of agricultural products. In other words, the domestic terms of trade can turn sharply against the rural producer even within one season, causing a fall in real incomes and providing a source of risk in addition to natural hazards and other causes of price variability. A further objective of rural transport policy may be to open up fertile areas for settlement and production through the construction of roads or improvement of river transport services.

132. Road construction and maintenance is the responsibility of the state in all countries in the sub-region but major issues arise in the areas of vehicle ownership and operation: state, private or mixed ownership; restricted or open licensing of vehicles and regular services; whether taxation of vehicles should cover road

construction and maintenance costs; separation of goods and passengers or multi-purpose vehicles; vehicles and spares importation policy, with respect to possible limitation of types; priority during foreign exchange scarcity; the granting of monopoly rights or a market share to vehicle assembly plants, tyre and spare parts firms; and questions of tariff fixing and supervision.

133. Rural transport typically falls under the oversight of several government agencies. Maintaining a consistent and efficient coordinated policy for rural transport is difficult in these circumstances, either because no supreme executive or coordinating agency has been made responsible or, even when there is such a body, the fine degree of detail affecting the efficiency of transport services at the local level cannot be effectively monitored from the centre.

134. Rural transport costs were already relatively high in the 1960s. Particularly in the remoter rural areas, they escalated sharply as a result of increases in international oil prices in the 1970s and indirectly from the effects of imported inflation on the prices of vehicles, parts and spares. In addition, associated foreign exchange scarcities resulted in reductions in vehicle imports and widespread scarcity of spare parts. As a result, many countries in the region demonstrated a rapid increase in the average age of the vehicle fleet and a high proportion of vehicles inoperative due to increased frequency of repairs and waiting for availability of spares, tyres, etc.

135. A further problem evident in some countries is that rural road transport operations have become less attractive to vehicle operators, raising its cost and reducing the frequency and reliability of rural services. This has resulted from the interaction of three factors: declining standards of rural road maintenance (due in large part to foreign exchange and recurrent budget scarcities); the fact that major road investment projects have increased the network of inter-city and international sealed trunk routes, lowering the vehicle operating costs on these routes; and the upward trend in vehicle and axle weights of imported or locally assembled vehicles, so that a smaller percentage of the national fleets can utilise the low-weight rural routes. The overall impact of these factors frequently has been to cause serious declines in the rural terms of trade, especially in remoter areas.

136. Improved policy and implementation coordination - both horizontally between agencies and vertically from regions or districts to the centre - is urgently needed in several countries. Possible improvements in other policy areas include liberalisation of vehicle ownership (or leasing from state and parastatal bodies) liberalising route and vehicle licensing, widening the range of vehicle sizes and lifting of restrictions on mixed carriage traffic. Greater use of rural private retail outlets for farm input delivery and as agents of marketing boards under competitive conditions or as free merchants in produce markets is likely to reduce transport costs through increased "backhaul traffic". Giving higher priority to maintenance of the road network and the vehicle fleet is also an important issue.

I. Natural Resource Conservation

137. The most important reason for the conservation of natural resources is the maintenance or improvement of the long-term productivity of soil, water and utilisable natural vegetation resources in the rural areas. Other aspects which fall outside the central concern of this study are the conservation of areas for wildlife, marine life and scenic beauty in association with tourism and/or recreational activity, and the prevention or amelioration of urban and industrial pollution.

138. The standard approach to reclamation or protection of the natural resource base enforces a reduction in intensity of land use - by destocking, afforestation,

closure to continued use - coupled usually with investment in physical erosion control measures or production infrastructure - terraces, bunds etc; fencing, water points etc. The relevant package may be enforced through fines, social labour penalties, short prison sentences, etc. for non-compliance. There is strong evidence from a number of countries in the sub-region that this policy mix is relatively costly for both rural communities and for society as a whole and, for these reasons, is becoming increasingly ineffective. Enthusiasm for voluntary conservation work is low, work is poorly executed and the protection is poor of installed bunds or government-owned afforested areas.

139. The few studies in depth that have been carried out indicate that cheaper on-farm agronomic, agro-forestry and other farming systems measures are neglected which could achieve the conservation goals and at the same time meet the need of farm families to raise the productivity of their land. Gazetted forest areas cannot be protected against encroachment, burning, etc. if the rural people have no tangible interest in its continued existence e.g. in the form of fuel collecting or inter-cropping (taungya system) access. Foresters typically have a single-minded focus on timber trees for fuel and other purposes. More effective is an interdisciplinary emphasis on multi-purpose and other non-timber trees, shrubs and perennial crops or well managed crop-mixes which both generate a higher discounted benefit per unit area and are equally, if not more, effective in conserving soil and water resources - fruit trees, nut trees, fodder trees, tea, coffee - banana (or enset) systems, coffee - pyrethrum systems, etc. In areas of current over-stocking the goals of voluntary destocking and increased emphasis on the quality and sale value of individual animals are more likely to be achieved if a secure alternative source (to maximum cattle numbers) of basic food requirements has been demonstrated over a cycle of years. In Kenya, the policy decision has been taken to erect small subsidiary strategic grain stores in each of the Arid and Semi-arid Lands (ASAL) districts in order to raise pastoralists' confidence in the national food security systems. This is being accompanied by improved cattle marketing and transport arrangements.

140. In summary, the prevalent conservation policy has emphasised standardised soil and water conservation engineering measures, timber-tree afforestation on closed areas and destocking. It has been implemented in a top-down or "commandeerist" manner which ignores the short-term costs, risks and basic needs facing the increasing number of people in the rural areas. The alternative policy utilises analyses of rural household needs and resources to design site - and zone - specific solutions utilising a wider array of components, including farming systems, agronomic, agro-forestry, animal husbandry, food security and marketing inputs while reserving the present standard components for the severest cases. An emphasis on participation in the formulation and evaluation of the conservation packages by the local population is central to the implementation of this "second-generation" policy package.

V. OVERVIEW AND RECOMMENDATIONS

A. Planning Levels

141. The development planning process can itself be viewed as a policy area for which policy analysis is required. The "core" of development planning is the multi-year medium-term development plan, comprising national and sectoral level strategies; resource allocations, policy frameworks, investment projects and ongoing programme activities. This is sometimes connected to the annual budget process through an annual plan (e.g. Zambia) or a bi-annual rolling plan (e.g. Tanzania). There may be a perspective plan which explores long-term scenarios. Agricultural sector planning has concentrated largely on investment projects. It will already be

clear, however, that there are areas which are analysed less systematically at present: in addition to the policy framework, ongoing programme activities and institutional issues also generally receive inadequate study by planners and therefore decision-makers are likely to receive inadequate or no advice in these areas.

142. A major policy decision which has been faced by several countries in the sub-region is the degree to which agricultural planning should be disaggregated from the centre and, further, how far some of the financial autonomy and independent decision-making should be decentralised towards the rural "grassroots". The arguments for the former arise on efficiency goals, for the latter on a mixture of efficiency and equity considerations. A degree of disaggregation has taken place variously to rural development areas, provinces, regions or zones in Malawi, Zambia, Zimbabwe and, most recently, Ethiopia. None of the systems, with the possible exception of Malawi's, has been working long enough to evaluate the effects and impact.

143. More radical approaches have been introduced in Tanzania, Botswana and Kenya. In Tanzania in 1974 regional and district planning offices were established. Twelve out of twenty mainland regions have had donor-assisted Regional Integrated Development Projects (RIDEPS), although only four or five are currently in operation. Donor negotiations and inter-regional balance, especially, are the responsibility of the Prime Ministers' Office. The agricultural sector responsibilities were recently transferred back to the central Ministry of Agriculture, which had been concentrating its attention on state-farm projects.

144. In Botswana, the nine districts of the country produce medium-term district plans which are revised annually. There is a strong emphasis on horizontal coordination between government agencies under the coordination of the Ministry of Rural Government, while there is a higher-level inter-ministerial coordinating committee for rural development under the chairmanship of the Vice-President. In Kenya the "District Focus" policy has been in operation since 1983. Planning capability is provided through the District Development Officers and District Planning Officers in each of the 39 districts and two cities of the country. In each case top-down planning is supplemented rather than replaced. The emphasis has been either on regional or rural development planning, with the leading role usually filled by the agricultural sector.

145. Two other areas which have important implications for agricultural planning, but which have received little systematic attention to date, are land-use planning and the issue of rural: urban balance. Both have national-level and micro-regional-level dimensions which need be incorporated into sector planning and decentralised are a planning respectively.

B. Implications for Policy Planning

146. This brief review of the experience with individual policies for food and agriculture clearly suggests a number of generally valid findings. Policy issues are pervasive in character, sometimes embracing aspects which lie outside the agricultural sector or beyond the national frontiers. The consequences of policy decision are sometimes unexpected and may perhaps have the reverse effect from what was intended. The arena is sometimes characterised by policy conflict where difficult choices must be made on the basis of the best available forecast of the probable consequences of single decisions and whole sets of decisions or scenarios.

147. The policy analyst is not there to impose his preferred solution on a government. The analytical procedure starts with the preferred development objectives of the government; these provide the evaluative criteria against which the degrees of success, achieved by past policies or to probabilities of "success" of future policies are assessed.

148. A particularly neglected feature of policy planning is the generation of rapid and accurate feedback on the actual impact of different policies on the sector and its constituent population. There is a particular challenge to devise information systems which will give a clearer warning to governments than in the past as to when individual or joint policy effects are deviating from the expected pattern. Also analytical models and procedures will need further testing and refinement in a number of policy areas.

C. Follow-up Actions

149. It is evident that the distortions generated in the behaviour of economic systems by agricultural policies are at least partly, and in some instances largely, responsible for the disappointing rates of growth and the food crisis in the sub-region. It appears that the same general conclusion could be true of the rest of Africa, although different trends of policies and impacts can be expected. It is desirable, therefore to extend the study to those parts of Africa not covered by the present study. The resulting findings for the whole of Africa could generate guidelines for the focus and conduct of policy planning and improvement in the policy planning capacities in Africa.

150. In addition, to a multi-country review of individual policy areas, the interaction of the policy mix is best understood in the context of each specific country. Country comparative studies of the impact of alternative sector strategies, therefore, may be of particular value to individual countries as they review their future policies in the light of past performance.

151. Finally, both the region-wide comparison of individual policies and the country case-studies of the alternative policy-mixes would provide training materials needed for creating the trained manpower for establishing an on-going agricultural policy analysis capability in each country.

152. Governments may wish to request ECA/FAO for assistance in these aspects of agricultural policy planning.

Annex TABLE 1

**DEVELOPMENTAL OBJECTIVES OF THE EFFICIENCY/GROWTH TYPE IN RECENT DEVELOPMENT STATEMENTS OF
COUNTRIES IN THE EASTERN AND SOUTHERN SUB-REGION**

Efficiency Objectives	Ethiopia ^a	Somalia ^b	Kenya ^c	Uganda ^d	Tanzania ^e	Comoros ^f	Malawi ^g	Zambia ^h	Zimbabwe ⁱ	Lesotho ^{j,k}	Botswana ^l	Swaziland ^m	Madagascar ⁿ	Seychelles ^c
1. Overall Production														
Increase output ^{1/}	*	*	-	*	*	*	*	-	*	*	*	*	*	*
Increase contrib. to GDP	-	-	*	-	-	-	-	*	-	-	-	*	-	*
Diversification	*	-	*	*	-	-	*	*	-	-	*	*	-	*
Conservation	*	-	*	-	-	*	*	-	*	*	*	*	-	*
2. Food Production														
Increase output	-	-	*	-	-	-	-	-	*	j	-	-	-	*
Self-sufficiency	*	*	-	*	*	*	*	*	-	k	*	-	*	-
3. Export production														
Increase exports ^{2/}	*	*	3/	*	*	*	*	*	*	*	*	*	*	-
Increase net foreign exchange earnings	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Implications for Govt. revenue and expenditure	-	-	*	*	-	-	-	-	-	-	*	-	-	-
5. Basis for agro-industries	*	*	-	-	*	-	-	*	*	*	*	-	*	-
6. Increase contribution to savings	-	-	3/	-	-	-	-	-	-	*	-	-	-	-
7. Increase market for domestic manufactures	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes : 1/ The majority of plans refer to the goal of increased commodity production rather than increased value added or net contribution to GDP.

2/ The majority of plans refer to the goals of increased export volume or revenue rather than to what really matters, net foreign exchange earned by commodity, factor or sector.

3/ These goals are not set out explicitly in the discussion of the role of Kenya's agriculture sector but occur in discussion at the macro-economic level.

The symbols:

* signifies that the country has the stated objective; and

- signifies that the country has not given any indication concerning the objective in question and therefore does not appear to have one.

Source: see next page.

- Sources :
- a. Republic of Ethiopia (1984) Agricultural Sector Ten-year Perspective Plan EC 1977-86 (1984/85 - 93/94). Addis-Ababa : Office of the National Committee for Central Planning. (Vols. 1,2+1, 4 and 5).
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 - c. Republic of Kenya (1983) Development Plan 1984-88. Nairobi : Government Printer. Pp. 49,55,59,76-77, 122,143,179,221.
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ANNEX TABLE 2 DEVELOPMENT OBJECTIVES OF THE EQUITY/WELFARE TYPE IN RECENT DEVELOPMENT STATEMENTS OF COUNTRIES IN THE EASTERN AND SOUTHERN AFRICAN SUB-REGION

Equity/Welfare Objectives	Ethiopia ^a	Somalia ^b	Kenya ^c	Uganda ^d	Tanzania ^e	Comoros ^f	Malawi ^g	Zambia ^h	Zimbabwe ⁱ	Lesotho ^{jk}	Botswana ^l	Swaziland ^m	Madagascar ⁿ	Seychelles ^o
1. Urgent relief ^{1/}	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Poverty alleviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marginal household focus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small-holder focus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land reform	- 2/	-	- 2/	-	-	-	-	-	-	-	-	-	-	-
3. Improved nutrition	*	-	-	-	*	-	-	*	-	*	-	*	-	-
4. Employment creation	-	-	*	-	-	*	-	*	*	*	*	*	-	*
5. Rural equality	*	-	-	-	*	-	-	-	-	-	-	-	-	-
6. Reduced urban-rural gap	*	-	*	-	- 3/	-	*	*	*	-	*	*	*	*
7. Improved regional balance/decentralisation	-	*	*	-	- 3/	-	*	*	*	-	*	*	-	*
8. Popular participation at the "grass-roots"	*	*	*	-	- 3/	-	-	-	*	-	*	*	-	*
9. Population ^{4/} limitation	-	-	- 5/	-	-	*	-	-	-	-	*	-	-	-

Notes : 1/ Other countries, of course, give high priority to emergency relief work but do not refer to it in development plans. The inclusion of this equity dimension alone within Uganda's Recovery Programme indicates the extreme priority given there to efficiency goals.

2/ Distributivist land reforms had played a major role in the rural and agricultural development of Ethiopia and Kenya in earlier periods.

3/ These aspects are not cited as objectives of agricultural policy but have been prominent features of Tanzania's overall development strategy.

4/ Population limitation may be viewed as an equity objective in two alternative ways : either as improving the life chances of present children and all future generations at the expense of the welfare or subjective utility of the present generation of parents, or as a necessary prerequisite for the achievement of the quantified equity goals such as nutritional status, unemployment reduction or access to social services.

5/ Population limitation as a goal in Kenya is discussed at the macro-level rather than in the context of agricultural development, which is the case in the Comoros document.

The symbols:

* signifies that the country has the stated objective; and

- signifies that the country has not given any indication concerning the objective in question and therefore does not appear to have one.

Source: see Table 1.