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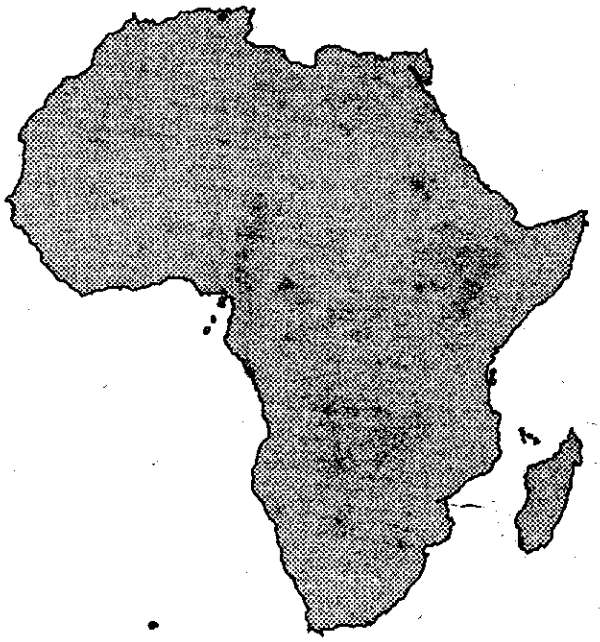
PLANNING FOR STRUCTURAL ADJUSTMENT IN AFRICAN AGRICULTURE



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PLANNING FOR STRUCTURAL ADJUSTMENT IN AFRICAN AGRICULTURE

Addis Ababa
January 1992

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PREFACE

African Agriculture is in crisis. Serious deterioration in the terms of trade, frequent droughts, growing expenditure on food imports, and rapid population growth on an ecologically fragile agricultural resource base have, all combined to prevent African agriculture from playing its vital role as the engine of economic development of the continent. The result has been stagnation and even decline in food and agricultural production, scarcity of raw materials for industry, rising unemployment, rapid urbanization, falling savings and government revenues and sluggish demand for goods and services produced in the non-agricultural sector.

Confronted by these problems many African countries have embarked on structural adjustment programmes (SAP) usually with the backing and support of the World Bank and the International Monetary Fund. Because African agriculture plays a vital role in African economic development in terms of, employment, Gross Domestic product, exports, imports, inputs for industry and as an important source of revenue for government budget, it has featured prominently in these SAP's. Yet policy planning for the adjustment and transformation of African agriculture is hampered by a pervasive lack of capacity in the area of design, implementation, and management of policies, projects, and programmes.

The purpose of this monograph is to assist agricultural administrators in Africa to sharpen their skills at realistic planning of SAP's and at effective management of the adjustment process. It is, however, hoped that agricultural policy makers, planners, and all those involved in the implementation of SAP's in the continent would also find the monograph useful.

The emphasis is on the linkages and interdependencies between the agricultural sector and the other productive sectors of the economy. The objective of the monograph is to contribute to the process of translating the felt needs and aspirations of people in the rural areas of Africa, who produce the bulk of the agricultural production and constitute the majority of the population, into well defined and appropriately implemented policies and projects that, are not only consistent with the requirements of SAP's but also, and more importantly, in line with the overall development goals of the country. This represents one of the biggest challenges in agricultural planning in Africa today.

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I. INTRODUCTION

The Role of Agriculture in African Economic Recovery

Africa, a continent that was once self-sufficient in most of the basic requirements of life is now plunged into the greatest economic calamity that has ever confronted mankind. Even the great world economic depression of the 1930s pales into insignificance when compared to the current crisis facing the continent. Of the 42 nations in the world that are considered to be the least developed countries (LDCs), that is, the poorest of the poor, 29 are found in Africa. This compares with 12 LDCs in Asia and the Pacific and only one LDC in Latin America. Given the current trends in per capita incomes, the number of African countries which fall into the LDC group is expected to continue to increase in the future unless the countries of the continent can find ways of overcoming the economic calamity facing them and recovering from the economic morass into which many of them have now sunk.

During the 1980s per capita GDP declined consistently. Between 1980 and 1988 it fell from US$752 to US$614 in constant terms (ECA, 1990). Indicators of economic and social development show that since the second generalized world oil price rise in 1979-1980 most African economies suffered serious dislocations culminating in a bitter and persistent social and economic crisis, which have since subjected the majority of the 650 million people of the continent to a life of falling standards, poverty, misery and despair.

Some of the most conspicuous symptoms of the crisis have included a serious deterioration of Africa's terms of trade, a rapid decline in the limited range of goods produced by African countries, high rates of urbanization, rapid increases in price levels, and rapid population growth on an ecologically fragile agricultural resource base. Despite the fact that the agricultural sector serves as the life line of most the their economies, many African governments have, over the years, neglected or, at best, only paid lip service to the development of their agricultural sectors. Furthermore, most of them have either ended up exploiting or ignoring the vast majority of the people who reside in the rural areas, through bad planning and bad policies. All these developments in the face of technical, economic, and organizational inefficiencies in the urban sectors as well as in government, have resulted in rapidly declining agricultural production what are supposed to be predominantly agricultural economies.

The predominance of agriculture in employment and in national output makes most African economies predominantly agricultural ones. In these economies, economic activities are concentrated in farm households located in relatively isolated rural communities which, although are largely self-sufficient, are, nonetheless,

characterized by low productivity. Because agricultural productivities and incomes are low in the countries of the continent, overall economic welfare in terms of nutrition, clothing, housing, education and health is also of a low standard not only for those who live and work in the rural areas but also for most urban dwellers.

The rapid decline in agricultural production has resulted in serious shortages in food availability, debilitating stagnation in export performance and rising imports of consumer goods with pride of place being given to food imports. As a result, the foreign exchange revenues of most of the countries have declined and debts and debt burdens have increased significantly.

The Challenges of African Agricultural Development

For economic progress to take place in Africa, the meagre self-sufficiency that obtains in the rural areas has to be transformed into viable sectoral interdependence as agricultural producers are integrated into a national and regional network of markets, information flows, economic infrastructures and social institutions. The Agricultural sector has an important role to play in this transformation in that:

(1) Domestic agriculture must provide not only a sustained increase in the supply of food but also adequate supplies of raw materials for the non-agricultural sector.

(2) During the early strategies of economic growth, the agricultural population inevitably forms a substantial proportion of the home market for the products of domestic industry, including the markets for producer and consumer goods.

(3) As economic growth and incomes rise, there is a proportionate decline in the agricultural sector both in its contribution to national output and total employment and an increase in the non-agricultural sector (industry and manufacturing) as the demand for non-agricultural goods increases and economic functions are transferred from generalist producers in the rural areas to specialist firms in the non-rural areas. Thus, the development process involves the transfer of surplus capital and labour from the agricultural to the non-agricultural sectors.

(4) The agricultural sector contributes to the balance of trade either by augmenting the country's export earnings or by expanding the production of agricultural import substitutes.

There is, therefore, no doubt that the agricultural sector has played and will continue to play an important role in the economies of most African countries in terms of employment, contribution to Gross Domestic Product (GDP), exports, imports, inputs for industry and as an important source of revenue for government budgets. Agriculture is, therefore, the "prime mover" of the development process in most African countries. During this process of development, the agriculture sector, by way of productive forward and backward linkages with other productive sectors of the economy, provides the momentum for overall economic progress in all sectors of the economy. Backward linkages refer to the contributions of intermediate inputs from other sectors into the agricultural sector's total value of production. Forward linkages refer to the contribution of intermediate outputs from the agricultural sector to other sectors' total value of production. The total linkage is the sum of the backward and forward linkages. When these inter-sectoral linkages are properly planned and managed, any progress in the agricultural sector leads not only to improvements in the incomes and well being of farmers in the agricultural sector itself and in the incomes and well-being of the economic agents of the non-agricultural sectors serving the agricultural sector but also in the incomes and well-being of the economic agents in other non-agricultural sectors who service the sectors that service the agricultural sector. Each round of transactions emanating from these linkages results in further rounds of transactions in an infinite round of direct and indirect effects involving production, employment, and income generating activities.

Thus, the planning and implementation of an effective process by which the rudimentary level of self-sufficiency that hitherto obtained at the village community level is transformed into a viable and prosperous interdependence of producers in all sectors of the economy in the form of a national network of markets, information flows, social institutions and economic infrastructures represents one of the most formidable economic development challenge facing the African continent today.

This process of transforming the self-sufficiency that had hitherto existed in African rural communities into viable self-sustaining system of economic activities appear to have seriously faltered following the acquisition of independence by many African countries. The oil crisis of the 1970s and the beginning of the on-going international economic crisis have only served to aggravate the situation. Before then, the situation had been balanced at a low level of equilibrium, with most rural communities being self-sufficient in food and some of the basic necessities. Since then, however, most African villages have lost their ability to adequately feed themselves with stagnating agricultural production resulting in deteriorating standards of living for most Africans. The essential economic development requirement to provide labour and capital for the non-agricultural sectors has

also remained largely unfulfilled. Consequently, most African rural communities are no longer able to ensure their own survival or to act as a social security system and a source of resources for the society and the national economy at large as was the case in the past.

The economic, social and ecological processes of change that have been taking place in the continent have led to impoverishment in the rural and urban communities which, in turn, have destabilized the rural production and social systems. Of course, there have been considerable variation in the general pattern of these changes depending on differences in natural resource endowments, size of the country, and the relative success of the economic planning process being pursued. In most cases, however, restrictions in the control and access to the old resources (land and water), the absence of new resources (improved technologies and inputs) and lack of other sources of income have all combined to form a cumulative process of structural distortions which has upset the initial economic and social equilibrium and balances which guided the original subsistence economies in Africa.

This has resulted in a situation whereby the need for monetary incomes has increased rapidly in the face of deteriorating terms of trade among food surpluses, other agricultural raw materials, and consumer goods. The net results have been changes in patterns of consumption in both the rural and urban areas as the rural population is forced not only to look to the urban centres for food, which it no longer can produce in sufficient quantities, but also to physically migrate there, resulting in labour shortages during peak agricultural periods and in a rural-urban exodus.

As a result, there is little incentive to improve agricultural production conditions through the introduction of improved technologies and cultivation practices. Instead, new sources of monetary incomes are sought outside the agricultural and other productive sectors in the form of petit trading and migration. This process has triggered off a self-perpetuating process of economic degeneration leading to widespread impoverishment and an ever worsening socio-economic crisis.

The real forces driving Africa's ever worsening socio-economic crisis are quite complex. Colonialism laid the foundations for the distortions of African economies. In need for raw materials, markets, and outlets for capital, Africa's former colonial masters fragmented the continent into several unviable entities in order to form empires to ensure adequate supplies of labour, minerals and other resources needed for their economies to grow. However, 30 years after independence, the colonial excuse is no longer a valid history for the failure of African governments to plan and manage their economies efficiently.

The tragedy, however, is that African economic planners are still using the same old colonial economic structures to plan their economic development processes today. Following independence, African leaders were expected by their people to provide social services and utilities to complement the meagre self-sufficiency that was already obtaining in the rural communities as a way of improving their material standard of living. The nationalist politicians were obliged to use the existing bureaucratic machinery to provide services such as health, water, electricity, education, roads, etc. because failure to do so would have threatened their inherited fragile political stability. Consequently, substantial resources were allocated to the provision of social services and, with time, this strategy came to be associated with development. As Abubakar (1989) points out, while African leaders were using the same colonial structures to pursue industrialization and provide social services to their people, health services were improving resulting in falling death rates and a rapid population growth rate. This, in turn, resulted in the inadequacy of the social services being provided as there were now much more people and the same or fewer resources to meet their needs. Meanwhile, agricultural production had began to stagnate or even to decline and agricultural exports began to decline both as a result of competition between African and other third world countries and because of the development and increasing preference of substitutes for Africa's raw materials by her traditional customers. The net result has been a progressively worsening terms-of-trade for Africa, less foreign exchange, and few imports of capital and consumer goods in the face of severe shortages in food supply.

What the on-going socio-economic crisis in Africa has done is to expose the inadequacy with which most African governments have planned and managed their national economies since independence. Seidman (1989), reports that most African Governments have failed to stimulate the creative potential of their wider population to employ their own skills and resources in order to alter the structures of production and consumption inherited on independence.

The fact, however, is that for most of the agriculture dominated African economies, successful economic development and adequate provision of social services are only possible if agricultural production and incomes are appropriately increased and if the required links are installed between and among the various productive sectors of the economy. In this regard, agriculture must grow food and raw materials for new industries and urban centres; create exports that will earn the foreign exchange needed to purchase essential machinery and equipment; and as productivity increases release labour and capital for the other sectors. Industry, on the other hand, must manufacture consumer necessities designed to help raise urban and rural living standards; produce tools and machines which, in light of the relative availability of labour and skills, embody technologies appropriate for increasing productivity throughout the economy;

process agricultural and mineral output to facilitate domestic use and increase foreign exchange earnings; and absorb labour released from agriculture. Herein lies the challenge for African economic agricultural development in the 1990s. How should African agricultural administrators plan and restructure their agricultural economies and how should they design and implement agricultural policies within a framework of planned linkages with other productive sectors that would facilitate improved productivity throughout the economy? How should they plan in order to exploit the multiplier effect that is necessary for Africa's agricultural and industrial workers to use tools that they understand and control to process local resources that would result in an expanding variety of goods and services which would, in turn, raise their standards of living in a step by step manner ?

This report is intended to provide guidelines that would assist agricultural administrators in African countries in their efforts to restructure their agricultural economies with special emphasis on how to coordinate agricultural policies and programmes as a way of strengthening the internal links that are essential for building more integrated national and regional economies. Because many African countries are currently attempting to implement World Bank supported Structural Adjustment Programmes (SAPs) and International Monetary Fund (IMF) backed stabilization programmes, the guidelines are largely based on the need to coordinate agricultural policies within the framework of these programmes.

Following this introductory chapter, Chapter II examines the theoretical and practical aspects of planning agricultural development in Africa while Chapter III examines the application of Structural Adjustment Programmes in Africa. Problems associated with the management of Structural Adjustment Programmes in Africa are presented in Chapter IV. The final chapter provides guidelines for coordinating agricultural development policies under these programmes.

II. PLANNING AGRICULTURAL DEVELOPMENT

Development planning can be said to involve looking ahead, co-ordination and the attainment of deliberate economic goals (Timbergen, 1967). It was commonly argued in the past and it is now becoming increasingly fashionable to argue that the most effective way of achieving the development objectives of a nation is through the operation of a free enterprise economy guided and directed by the profit motive with only an occasional intervention from the government in the form of an investment, policy directive or economic control. The central theme of this argument was that each individual seeking his own self-interest as labourer, capitalist, or entrepreneur would progressively and invincibly forge a productive society that was best for all.

During the 1960s when the struggle by many nationalist movements in Africa began to pay-off in the form of political independence from European colonial rule, the whole continent was gripped by an all pervasive expectation that the political liberation of African countries would lead, in no time, to the continent's social, economic, and culture transformation. The new political leadership was expected to evolve a new political order around a strong nationalist party and a symbolic national hero and to successfully guide their economies through a process of sustained economic development.

It is interesting to note that most African Governments followed a strategy of development that could be labelled capitalist in the years following independence (Stryker, 1977). This strategy was an inevitable continuity with colonial policies and it gave top priority to international cooperation, investment and trade ties with the Western capitalist world. The aim was to "release" the stimulating effects of foreign capital, technology, manpower, and consumer goods on rapid economic growth and modernization.

Countries that chose to, a least, pursue the spirit of this strategy were guided and supported by international financial institutions such as the International Monetary Fund and the World Bank. However, many African countries did not pursue the strategies prescribed by these western international financial networks as faithfully as recommended. Many post-independent African Governments intervened actively in the economic and social affairs of their countries while several others only gave the impression of being capitalist by allowing private enterprise to operate out of weakness or corruption. A few others attempted to follow socialist strategies based on revolutionary liberation from western domination and in favour of the soviet or chinese model of development. In other words, since independence, most African governments have more or less directed the mobilization and allocation of their national resources in achieving the social and

economic goals of their countries, however, established. That is, they have consciously planned their economies by formulating policies and laying out the direction for mobilising and allocating resources to achieve the specific and general development aims of their countries.

Because of the deepening economic crisis that is gripping the continent, many African countries are now increasingly being coerced by the IMF and World Bank to overcome the crisis by reverting to the original neo-classical models of laissez-faire. The problem, however, is that the exhortations from these institutions for African Governments to allow the markets to perform some of the economic activities hitherto performed by the governments, usually fail to discuss the conditions under which such a strategy might be feasible. Failure to address this issue sometimes leads to outright contradiction (Berry, 1984). It is usually not very clear how the various component parts of this strategy are supposed to fit and operate together.

The fact is that past attempts in Africa to apply the neo-classical model of laissez-faire in a doctrinaire manner, has often ended up undermining growth, negating the socio-economic transformation of the economy and jeopardizing social welfare and human conditions. It is insufficient to simply assume that in a free market system, private enterprises competing to maximize profits will automatically lead to optimal resource allocation for the country. There is now enough evidence to show that most private enterprises operating under the structurally distorted and imperfect market situations in Africa, often seek to maximize short-term profits and, in the process, invest in ways that reproduce existing distorted resource-allocation patterns. Transnational corporations and financial institutions have a record in Africa of typically ignoring local and regional development needs by investing in the export of cheap raw materials and the assembly of a limited array of capital intensive manufactures, thus aggravating external dependence and undermining employment of local resources (Seidman, 1989). It is for these reasons that the private sector in African economies has traditionally been viewed as representing unpopular and exploitative minority interests and many governments have tended to avoid the political and economic implications of policy changes which favour such interests.

There is no guarantee that the free market, by itself, will solve the institutional problems of many African countries. Experience will suggest that there have been in the past, and there will continue to be in the future, areas of both free market and government successes and failures. The record in Africa will show that some of the most successful institutional services in Africa have been provided by governments who knew precisely in which areas to intervene and how to intervene efficiently. On the other hand, the provision of inadequate institutional support services for

agriculture has also often resulted from circumstances of excessive government intervention, and unwise or inefficient intervention.

There is, therefore, no doubt that African States will continue to take an active and decisive role, in their national economies by their own acts of investment and by the control measures at their disposal - inducement and restrictions - over the markets, in initiating and steering the economic development of their countries. The challenge is how best to assist them in planning and carrying out this responsibility.

The Linkage Between Agricultural Planning and Overall Economic Development

As indicated earlier, a dynamic agricultural sector must exhibit productive forward and backward linkages. A dynamic agricultural sector produces surpluses which are sold to buyers in the non-farm sector, both domestic and foreign, and, in the long run, at levels much in excess of the cost of production. A dynamic agricultural sector will also employ new and improved inputs that are produced in the other non-farm sectors. During this process, the labour and capital that are released from the dynamized agricultural sector are transferred into more productive non-farm uses and jobs. However, this transfer will only be successful if the non-farm sector also develops and creates new jobs exhibiting greater productivity, job training and the learning of new skills, new housing and towns, and a vast array of social institutions and economic infrastructures.

Unfortunately, this process has neither been successfully planned nor consciously implemented in many African countries. Abubakar (1989) reports that the African development strategy after independence was based on a weak agricultural base and operated within the colonial economic structures which had been designed to facilitate the production and export of raw materials to the metropolitan countries. Very little effort was made by African governments to build a self-sustaining and self-generating base. Instead, they relied on import substitution industrialization which failed because it depended on imported raw materials and capital goods, expensive products that the general public could not afford and orientation to the production of luxury goods which enjoy only a tiny market.

Agricultural development is, therefore, closely linked with national development. This, of course, means that agricultural and national planning are also closely linked and planned interactions between the two become very critical as fiscal, monetary, institutional and other economic policies are designed and implemented. It is for this reason that national plans almost invariably include a plan for agriculture and, in a number of cases, some effort is usually made in the national plan to integrate agricultural and other sector plans. The primary

motivation for this formality is the general recognition that development in agriculture and in other sectors are strongly interdependent and mutually supporting. This is particularly true in African countries whose economies are dominated by agriculture in such a way that the success or otherwise in achieving agricultural targets often determines the success of the national plan.

The structural transformation of the agricultural sector must, therefore, be carefully engineered and planned otherwise the overall economy will fail to develop according to plan. In other words, a stagnant and non-dynamic agriculture would act as a drag on the national economy. Many African governments are still experiencing considerable difficulties in their efforts to plan their agricultural economies within the framework of the recognized interdependencies between the agricultural sector and the overall economy.

The problem, however, of associating agricultural plans with national economic planning, is that many African countries are notorious for the half-hearted way in which they implement their national plans and, in many cases, these plans are ignored to a greater or lesser extent by budgetary authorities, technical ministries, departments and autonomous agencies. These problems, notwithstanding, it should be emphasized that, because activities in the agricultural sector and those of the other sectors are so interdependent, planning in the agricultural sector must be based, at least implicity, on assumptions regarding the performance of the whole economy, with specific considerations being given to the expected parameters for growth of population, national production, employment, consumption, foreign trade, industry, environmental impact, etc.

Preparing an Agricultural Plan

The experience in preparing agricultural plans varies from one African country to another. One thing, however, is very clear. Most African countries have operated or are currently operating some kind of an agricultural plan, whether or not it is part of a national development plan.

In this section, we present a working definition of an agricultural plan, examine the more common problems faced by agricultural planners in Africa, and then discuss some of the important agricultural planning issues facing agricultural planners in the continent.

What is Agricultural Planning?

Development planning has to do with the mobilization and allocation of resources to increase production, incomes, and the well being of the people of a country. It involves the

mobilization and conscious allocation of resources to achieve the social and economic goals of the society, however, these goals are established.

However, where existing national plans are not functional or when it is not feasible to construct workable national plans, the planning can be confined to the agricultural sector. Since the agricultural sector is often the leading sector in most African countries, a well prepared and properly implemented agricultural plan is bound to generate a wide impact and serve as a prime mover of the other sectors.

Agricultural planning, therefore, involves the formulation of a plan, which lays out the directions for mobilizing and allocating resources to achieve the general and specific development objectives of the agricultural sector while taking into account the implication of this allocation on other sectors of the economy and vice-versa. An ideal agricultural planning process specifies a number of attainable objectives for the agricultural sector, indicates the resources available to achieve these objectives, explains how the resources are to be distributed among specific projects, and states the strategies, policies, and institutional arrangements that would be used to accomplish the task (Mollett, 1990). A useful agricultural planning process should also recognize the forward and backward linkages between the agricultural sector and the other productive sectors and anticipate the policy requirements for promoting them.

Agricultural plans should have clearly defined objectives and the means for achieving these objectives should also be clearly stated. These objectives should also be cast in the appropriate time frames. In this regard, agricultural plans are commonly classified in three categories: long-term or perspective plans; medium-term plans; and short-term plans. Perspective plans which commonly cover a period of 10 to 20 years define the general direction in which long run development should take place in accordance with government's objectives and serve as a background against which medium-term and short-term plans may be formulated and appraised. Medium-term plans range from three to seven years and are usually tied to government agricultural programmes and capital projects which are aimed at achieving development objectives for agriculture consistent with national development goals. Short-term plans are usually one year plans which are typically integrated into the annual budgets although quite often these plans also involve policies, controls and directives which extend beyond the annual budget.

Comprehensive agricultural planning involves the preparation and use of all these types of plans. The perspective plan permits a look far enough ahead to identify in broad outline the main directions of agricultural development. The medium-term plan spells out in greater detail than the perspective plan interim

goals which must be achieved in the medium term to attain the longer-term objective. The annual plans make the medium term plans operational by: reducing medium term targets (which are usually stated in terms of the end of the medium-term plan period) to annual targets, so as to allow allocations required for their achievement to be made in annual budgets; and enumerating in sufficient detail, the measures which will be adopted to achieve the plan's objectives (Mollett, 1990).

Comprehensive agricultural planning also involves the coverage of all the important sub-sectors of the agricultural sector - crop, livestock, forestry and fisheries. However, incomplete data, lack of trained manpower and the location of responsibility for some of these sub-sectors in different ministries, often limits the coverage of the planning process to a few key sub-sectors. In any case, the scope of the agricultural planning in this regard should be dictated by the relative dominance of the sub-sectors in the economy and the need or otherwise to diversify agriculture in the country.

Problems of Agricultural Planning

One of the biggest challenges in agricultural planning in Africa centres around how to translate the felt needs and aspirations of people in the rural areas, who produce the bulk of the agricultural production and constitute the majority of the population, into well defined and logical projects, programmes and policies that are consistent with the overall development goals of the country. In other words, how does one formulate the pressing problems in the food and agricultural sector in a correct and logical form that also lends itself to corrective action, not only in the sector but also in the overall economy?

In order to realistically plan for the development requirements of the agricultural sector of a country, there is need to properly diagnose the critical agricultural problems in order to have them well understood and appreciated by the generality of the society including agricultural administrators, government planning officials, and the farmers and rural dwellers themselves. As soon as the problems and challenges facing the agricultural sector are correctly diagnosed, then the goals and strategies of the country in overcoming them can be presented in a clear and unambiguous manner.

It should, however, be pointed out that it is not just enough to formulate provisional goals and the plan for their accomplishment. One of the biggest problem that faces agricultural planners in African countries is how to define in specific details the way in which what has been provided for in the plan would actually be accomplished. In other words, how would the directive prescribed in the plan be carried out, by whom, and when in the plan period should particular actions be initiated and

accomplished. A good plan should, therefore involve not only the formulation of objectives, strategies, and policies but also the implementation of the directives of the plan.

The following are some of the essential components of an agricultural plan (Mollett, 1990):

Formulation of the Plan

1. Development objective for the sector
2. A stock-taking and diagnostic survey
3. A set of targets
4. Selection of a strategy from among available alternatives.

Implementation of the Plan

(1) Policies for achieving programme objectives and targets.

(2) Projects and programmes to be carried out in agriculture, as well as in related sectors, to achieve the plan's objectives and targets.

(3) Research and studies to obtain the technical information needed for the development of the agricultural sector.

(4) A programme of public expenditure for financing each year of the plan period, including the source of finance.

(5) A programme of manpower training.

(6) Improvements needed in organizations, institutions and administration.

(7) A system for plan monitoring, control and reporting.

The above component parts of an agricultural plan are highly interrelated as illustrated in Figure 1 below. It is obvious from the figure that coordinating all of these component parts could be quite complex particularly if the scope of the plan is quite broad. Obviously, an agricultural plan that seeks to deal with all aspects of the agricultural economy - production at the farm level, marketing and distribution, the supply of credit, land reform, the supply of non-farm inputs, foreign trade agricultural research and extension, etc. - would require a considerable amount of coordination and cooperation both on the part of farmers and agricultural administrators which may be beyond their ability. For many African countries, therefore, the realistic approach might be to limit the planning process to a relatively few critical problem areas.

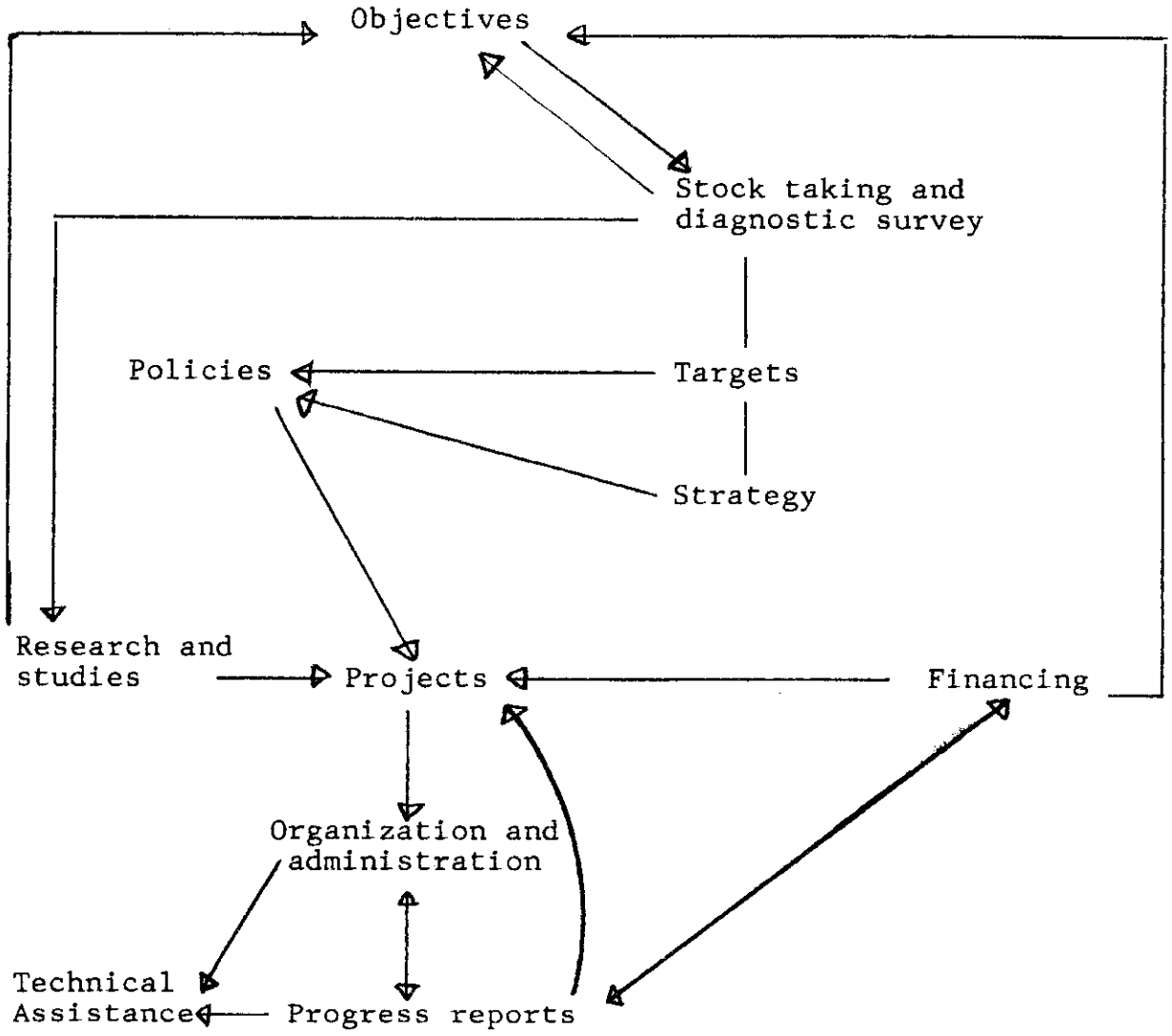


Figure 1: Schematic representation of the inter-relationships between the principal components of an agricultural plan

Source: Mollett, J. A. (1990), Planningfor agricultural development. Aldershot, England, Gower Publishing Company.

Agricultural Objectives, Strategies, Policies and Policy Instruments

In the context of agricultural plans, agricultural policies specify courses of action pursued by government to achieve some agricultural development plan objectives. Policy instruments, on the other hand, specify the means for achieving stated agricultural policy objectives.

The following list of agricultural policy objectives are suggestive of the kinds of objectives often specified to be tackled by agricultural policies:

(1) To ensure adequate food and agricultural supplies for the country's rapidly growing population and infant industries

(2) To ensure reliable food supplies even in situations of national emergencies or contingencies;

(3) To ensure that the country's marketed surplus is efficiently stored, processed and distributed;

(4) To ensure a fair and reasonable income (economic return) for farmers and other operatives engaged in the production, storage, processing, and distribution of agricultural products;

(5) To encourage the adoption of appropriate technologies for the production and distribution of agricultural products;

(6) To ensure stability in commodity and input markets in the agricultural sector and thus prevent major disequilibria in the national economy;

(7) To stabilize agricultural prices;

(8) To ensure an equitable distribution of income for farmers and others engaged in food and agricultural production, storage, processing and distribution;

(9) To develop and expand the country's agricultural export capability.

From the above list of agricultural policy objectives, it can be seen that policies in agricultural plans would generally be used to induce various agricultural and other operators to do certain desirable things or to discourage them from doing certain undesirable things. Because policy instruments provide the means for achieving stated policy objectives, by either inducing or discouraging action on the part of private parties - farmers, marketers, consumers - they provide guidance for the implementation

of programmes and projects geared towards the achievement of stated objectives. The following list provides an indication of policy instruments that are often used to induce or discourage certain actions on the part of agricultural operators:

(1) Output pricing and price support policies;

(2) Input pricing and subsidies;

(3) Taxes;

(4) International trade instruments;
- export subsidies
- export controls
- exchange rates
- import duties
- quantitative import restrictions

(5) Monetary policy instruments;

(6) Import-substitution industrialisation;
- domestic manufacturing of agricultural inputs;
- domestic assembly/packaging of imported components.

(7) Basic and applied agricultural research resource allocations;

(8) Agricultural extension resource allocations;

(9) Rural institutions development;

(10) Rural infrastructures development.

There is need to distinguish between agricultural policy objectives which provide broad lines of desirable agricultural development, strategies which define the means for achieving the objective, policy which defines the means for accomplishing the strategy, and policy instruments which prescribe the means by which the policy would be implemented. Confusion between objectives strategy, policy and policy instruments can often lead to confusion and uncertainty as one does not necessarily lead directly to the other - as illustrated in Figure 2 below where: self-sufficiency in food supplies is the objective; the introduction of improved packages of agricultural technologies is the strategy; the provision of subsidies for fertilizers, increased prices for targeted crops and easy credit terms, the policies; and the sale of fertilizers by cooperatives, the sale of crops by the private sector, and the establishment of rural banking, the policy instruments.

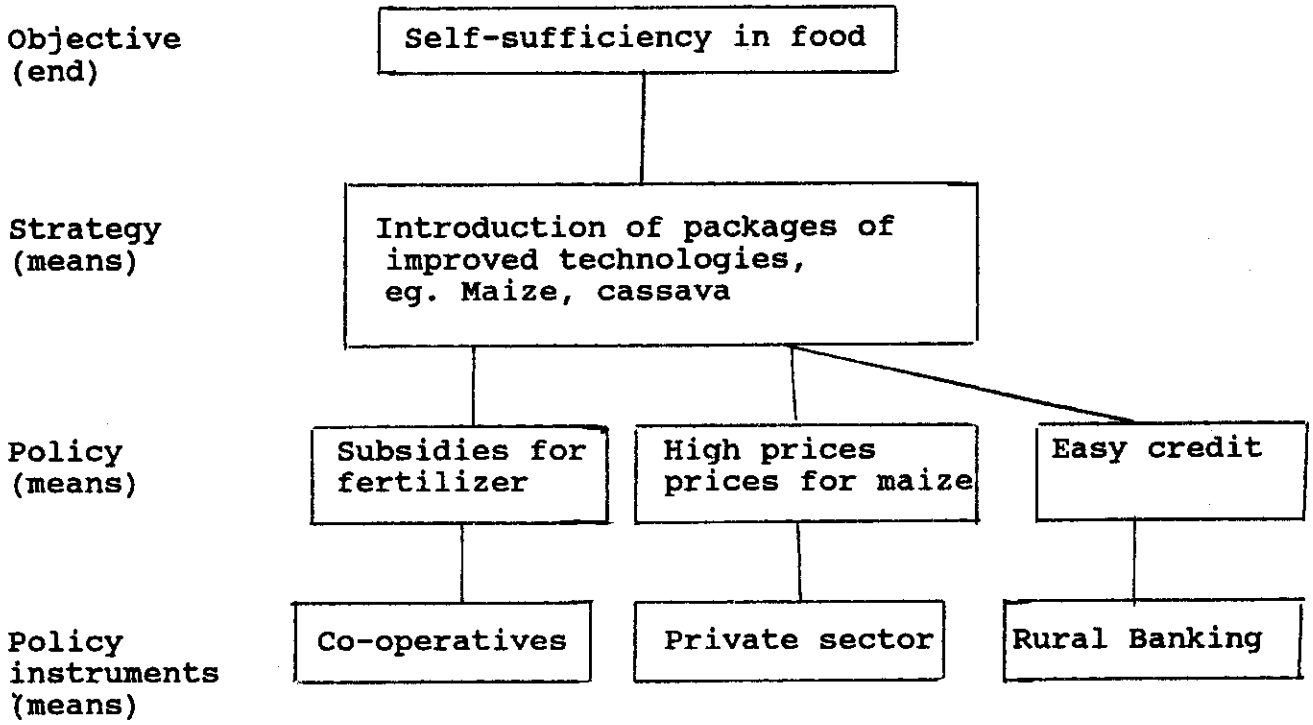


Figure 2: **An illustration of the difference between objective, strategy, policy, and policy instruments**

Source: Môllett, A. J. Planning for agricultural development. Aldershot, England, Gower Publishing Company.

III. STRUCTURAL ADJUSTMENT PROGRAMMES AND AFRICAN AGRICULTURAL PLANNING

The Economic Environment of Agricultural Development

Although all African governments have intervened actively in their economies, most of them could be said to have followed a strategy that was essentially capitalist in nature, following independence. As a result, a number of international institutions established to promote the economies of developing countries which choose to develop along capitalist lines have attempted to assist these countries in their development efforts. The most important and influential of these institutions are the IMF and the World Bank.

However, when in the early 1980, an economic and financial crisis engulfed the African continent those countries who had chosen, since independence, to adopt an essentially capitalist strategy were not spared. This created considerable concern among the officials of both the IMF and the World Bank, which in turn prompted a special study on the economic development problems of countries in Africa and an appropriate programme for helping them. The report (World Bank, 1981) concluded that the crisis arose basically from domestic policy deficiencies in the post-independence period and recommended that these policies must be changed if African countries are to lift themselves out of the crisis.

This prognosis is in line with the Fund and Bank's traditional position concerning the need to maintain internal and external imbalances through the adoption of stabilization and adjustment programmes. The aims of the Fund's support for adjustment programmes are prescribed by its Articles of Agreement. These call for the expansion and balanced growth of world trade as a means toward the promotion and maintenance of high employment and real income levels as well as toward the development of the productive resources of member countries. The Fund seeks to fulfil this aim by fostering economic and financial cooperation among member countries in a setting of exchange stability and orderly exchange arrangements, and in the context of a liberal system of multilateral payments. To this end, it makes resources available to its members in support of their efforts to correct maladjustments in their balance of payments. This leverage is applied to African economies mostly through conditionalities. These conditionalities define the rules and regulations, generally, relating to macro-economic policies, which countries have to abide by in order to qualify for financial assistance from these institutions.

Conditionality was formally incorporated into the Articles of Agreement of the IMF in 1969. Today, conditionality has become the important dominant factor in the adjustment and stabilization programmes of about two-thirds of countries in sub-Saharan Africa. It has been suggested that the growth in the importance of conditionality is due to three factors. Firstly, an acute foreign exchange crisis developed in many countries, leading to rapid increases in the number of countries having fund problems. Secondly, there had been a marked rise in the proportion of "high conditionality" facilities which formed about one-quarter to one-third of lending in the 1970s but which rose to over three-quarters in the 1980s during which period the Bank's Structural Adjustment Loans were initiated. Thirdly, "cross conditionality" was developed with lending from the World Bank and other financial groupings such as the Paris and London clubs being made conditional on countries reaching an agreement with the IMF (Stewart, 1987).

The advent and growing importance of cross conditionalities demonstrates the strength of the international financial network to exert overt pressures on African economies. The dependence of the economies of African countries to these conditionalities did not come about as an accident. Rather is was part of the inevitable outcome of the 1944 Bretton Woods meeting during which John Meynard Keynes, in order to establish a link between the IMF and the World Blank, argued that "the Board of the Fund should be composed of cautious bankers and that of the Bank of imaginative expansionists (Killick, 1987). Today, IMF and World Bank programmes in Africa are still guided by these philosophies.

This philosophy of a marriage between cautions banking and imaginative expansionism was given momentum in 1974 with the introduction of the Extended Fund Facilities (promoted by an African member of the Executive Board) and again in 1979 when Structural Adjustment Loans (SAL) and other forms of policy related lending were introduced. Killick (1984), reports that this move was intended to establish conversion between the two institutions in order to fill the gap between short-term balance of payment support by the Fund and medium-and long-term project lending by the bank. The effect of the trend towards convergence of the two institutions has been a movement by the Bank into policy related lending through the SALs and sectoral loans which carry similar conditions while the Fund has increasingly added supply side to the conventional demand side conditionality. As a result, macro-economic policies in African countries have come to be strongly influenced by both the IMF and World Bank policies.

This influence started as far back as the 1970's when an increasing number of African countries began to put in place stabilization programmes and, from 1980, structural adjustment programmes (SAPs). Between 1980 and 1988, thirty three African countries had standby arrangement facilities and twelve had

extended fund facilities from the IMF, and fifteen had structural adjustment loans from the World Bank (ECA, 1989).

The IMF has been instrumental in the design and financing of these stabilization and adjustment programmes in Africa. The objectives of the programmes have included:

(1) Reduction in the current accounts of balance of payments; and

(2) Achievement of a balance between government expenditure and revenue.

The World Bank, on the other hand, has specialized in Structural Adjustment Leading (SAL) in support of Structural Adjustment Programmes. The principal policy objectives of these programmes include:

(1) Reduction in the size of the public sector and improvements in its management;

(2) Elimination of price distortions in various sectors of the economy;

(3) Increasing trade liberalization; and

(4) Promotion of domestic savings in the public and private sectors.

The principal policy instruments that both the Fund and the Bank have used in their stabilization and adjustment programmes have included:

(1) Exchange rate adjustment, mainly through devaluation;

(2) Interest rate policy designed to promote domestic savings and more efficient allocation of resources;

(3) Control of money supply and credit;

(4) Fiscal Policy aimed at reducing government expenditure and deficit financing;

(5) Trade and payments liberalization; and

(6) Deregulation of prices of goods, services, and factor inputs.

The model of Structural Adjustment in the Agricultural Sector

Because the agricultural sector usually plays the most important role in most African economies in terms of employment, Gross domestic Product (GDP), exports, imports, inputs for industry and as an important source of revenue for the government budget, it has usually featured prominently in both Fund-supported and Bank-funded Structural Adjustment Programmes. These programmes are usually supported by the Fund's stand-by arrangements and the Bank's sector-based loan programmes (SECAL). Both arrangements have the common objective of encouraging the implementation of policy reforms which rely mainly on the policy instruments listed above.

The analytical framework within which the agricultural sector is considered in these programmes has been outlined by Johnson (1989). The framework lays emphasis on the internal terms of trade of agriculture and the supply response of producers in the agricultural sector. The basic model that articulates this relationship makes the following assumptions:

(1) That the agricultural sector can be viewed as comprising a group of households that may consume part of their agricultural goods and allocate their time between leisure, agricultural work, and non-agricultural pursuits thus emphasizing the point that it is marketed surplus and not simply total output that is the focus of the typical adjustment programme.

(2) That the agricultural sector uses bank credit either directly for marketing operations involving outputs and inputs such as fertilizers, or indirectly, by farmers through marketing agents and other middlemen.

(3) That a number of factors such as weather, technical assistance, and extension services, which are not usually captured through the producer price variable, are nonetheless important in the adjustment process.

(4) That domestic marketing (including transportation) cost are important in the adjustment process.

The model considers the agricultural sector as a set of producing and consuming households with a balance sheet represented by the following equation:

$$Q = \frac{P_n}{P_a} X_n + \frac{W_a}{P_a} L_P + \frac{P_V}{P_a} V - \frac{Y_{na}}{P_a} + X_a \frac{S_a}{P_a} L_{na} + \frac{R_a}{P_a} A \qquad (1)$$

such that, $L_p = L - N + X_l + L_{na}$

where Q = real agricultural output

P_n = price of non-agricultural commodity

P_a = price of agricultural commodity

V = non-labour variable inputs, such as fertilizer

W_a = nominal wage rate in agriculture

P_v = price of other variable input - e.g., fertilizer

S_a = savings of agricultural households in financial intermediaries

Y_{na}= non-farm, non-labour income of farmers (e.g. interest earnings on bank savings)

W_n = non-agricultural wage rate (relevant for agricultural households)

L_{na} = labour supplied to non-agricultural sector by farmers

L = total labour used in production of Q

N = total agricultural household time available

X_l = leisure taken by agricultural households

X_n = agricultural households' consumption of the non-agricultural commodity

X_a = agricultural households' consumption of Q

A = physical assets (land, capital)

R_a = rental on physical assets

L_p = non-family labour

The equation states that the total produce of agricultural households plus income obtained by working in the non-agricultural sector plus non-labour, non-agricultural income received, are used up in the purchases of non-agricultural commodities (X_n), non-family labour (L_p), physical variable inputs (V), and physical assets (A), plus consumption of their own output (X_a) and accumulation of bank assets through savings (S_a).

Defining total output (Q) as the sum of marketed surplus (Q_m) and subsistence or own consumption (X_a) as follows:

$$Q = Q_m + X_A \tag{2}$$

and also defining the value added in agriculture VA_a as the difference between total output (Q) and the real cost of purchased inputs as follows:

$$\frac{VA_a}{P_a} = Q - \frac{P_v}{P_a} V \frac{W_a}{P_a} L_p \tag{3}$$

The model presents the real value added as a function of output and factor prices as follows:

$$\frac{VA_a}{P_a} = P\left(\frac{P_v}{P_a}\frac{W_a}{P_a} Q\right) \tag{4}$$

Appropriate manipulations of Equations (1) to (4) results in (seen Johnson, 1989, for details) the following fundamental equation which specifies the marketed output as a function of variables that are often incorporated in the adjustment programmes:

$$Q_m = Q_m\left(\frac{P_v}{P_a}\frac{W_a}{P_a}\frac{R_a}{P_a}\frac{P_n}{P_a} rs, \frac{Y_{na}}{P_a}, \frac{W_n}{P_a}, \frac{DC_a}{P_a}, Ia\, M_a\right) \tag{5}$$

where

r_s = real interest earned on savings in financial institutions

Dc_a = stock of domestic credit extended to agriculture

i_a = interest rate charged on agricultural loans

m_t = transport and other marketing costs per unit of Q_m

It should, however, be pointed out that not all the variable included in the above equation are considered in all the Fund's or Bank's adjustment programmes. The particular choice of variable usually depends on the institutional, political, and social conditions obtaining in the country (Johnson, 1989).

A number of criticisms have been levelled against the above model including the following:

(1) That model is not well suited or adaptable to African economic conditions;

(2) The global economic system in which the model would operate best is structured to benefit the rich, the financially strong, the creditors, and the producers of complex goods and services and damage the poor, the financially weak, the debtors and the producers of primary products;

(3) That external imbalance is normally a consequence of internal imbalance and/or exogenous shocks and, as such, can be a misleading starting point for analysis as opposed to the problem which must be solved;

(4) That although, the macro-economic significance of agriculture in Africa today and the impact of macro-economic policy and performance on agriculture are indisputable, the model attempts to move primarily from macro-economic to sectoral to micro, and to concentrate on monetary indicators and tools without an equally strong micro to sectoral to macro aggregative build-up focusing on real magnitudes, variables, and policy instruments.

(5) The emphasis on performance by the model tends to downgrade other targets and the tools/resources devoted to attaining progress towards them.

Components of Structural Adjustment Programmes

Structural Adjustment Programmes are usually operationalized through Structural Adjustment Lending (SAL) or Sector Adjustment Lending (SECAL). The distinction between the two types of lending is nor always clear in Africa. Both seek major reform in policies and institutions and since agriculture dominates most African economics, the main distinction between the two relates mostly to scope and complexity.

In general, these lending programmes usually have four major component parts as follows (Bishay, 1991):

1. A statement of structural objectives to be achieved in five to ten years (e.g. , increasing non-traditional exports by a given percentage; reducing the rate of growth of total energy use and of imported energy by given amounts; increasing agricultural output by a given amount; reducing food imports by a given amount, etc.).

2. A statement of the measures that will be taken over approximately five years to achieve these objective, e.g., reducing the level of trade protection and reforming its pattern on the basis of comparative advantage; increasing the real price of energy; altering the terms of trade between agricultural and non-agricultural sectors; undertaking major changes in the organization of agricultural marketing, including the respective roles of the public and private sectors. etc.

3. A specific and monitorable set of actions to be taken by the government either before the SAL operation is approved or during the disbursement period, e.g., one or more cuts in tariffs on imports, introduction of specified export-promotion schemes; elimination of certain or all quantitative restrictions on trade; removal of all or part of price subsidies, specified increase in agricultural producer prices, etc.

(4) An agreed-upon, quickly disbursable, amount of foreign exchange to finance imports, not linked in advance to specific investment programmes with the purpose of providing balance of payments support to the borrower during programme implementation. The disbursement of each operation under SAL is typically tranched in order to ensure both that the adjustment programme in general is on track and that specific measures included in the programme of action are actually carried out.

The policy measures that drive these various components of SAL do vary from country to country but usually include the following (Bishay, 1991):

(1) **Price Policy**

- Agriculture prices
- producer prices to be increased
- input prices to be increased (i.e., decreased input subsidies)

- Industrial good's prices to raised
- Energy prices to be raised
- State enterprise prices to be raised
- Decontrol of consumer prices to be introduced (i.e., reduced consumer subsidies).

(2) **Trade Policies**

Export Promotion

(a) Financial incentives

- Adjust exchange rate (devaluation)
- Reduce export duties or taxes
- Relax export quotas or regulations
- Introduce export subsidies
- Introduce other financial incentives
- Improve domestic or foreign exchanges working capital and credit arrangements for exporters
- Allow duty-free imports for exporters

(b) Institutional

- Establish/enhance export development fund
- Establish/enhance export promotion agency
- Establish export processing/free-trade zones

Import Liberalization

- Remove quotas or licensing restrictions
- Rationalize tariffs and protection
- Change import regulations/procedures

(3) **Fiscal and Monetary Policies**

Government Revenues

- Improve collection, compliance
- Increase general tax and set revenue targets
- Shift to ad-valorem from specific taxes
- Index certain tax rates
- Introduce tax reforms

- Provide tax incentives to business

Government Expenditures

- Set specific expenditure targets
- Rationalize public investment
- Cut current expenditure (reduction of subsidies), wage/hiring reduction
- Set limits on transfers to state enterprises
- Improve monitoring and control of public expenditures

Deficit

- Set specific targets

Public Investment

- Establish payback rule for project choice
- Carry out thorough preparation of investment plans
- Introduce/enhance privatization

Monetary and Credit Policies

- Set limits to public sector credit
- Decontrol or establish higher ceilings on interest rates

External Debt Management

- Set limits on new foreign borrowing
- Improve monitoring and control

(4) **Public Enterprises/Institutional Reform**

- Increase efficiency of public sector enterprises
- Reduce rules and regulations (i.e., minimize bureaucracy)
- Introduce major reforms to agricultural institutions, e.g.,
  - marketing boards
  - extension services
- Undertake comprehensive agriculture sector analyses
- Carry out energy and other sector studies.

Lessons from the Application of SAP's in Africa

One thing that is very clear is that the existence of macro-economic imbalance in an economy is a necessary condition for the promotion of agricultural growth and development. Whenever macro-economic disequilibria occurs in an economy, it makes logical economic sense to embark on economic adjustment processes to restore the economy to equilibrium. In this regard, appropriate macro-economic policies are needed to restore the economy to a sustained and sustainable state of macro-economic equilibrium. However, for the structural adjustment process to be beneficial to any African economy, stabilization and adjustment processes must be designed in a generalized framework of structural economic transformation. This is because the Structural characteristics identifiable with the pattern of production, consumption and exchange of the African economy constitute the most fundamental causes of its underdevelopment and retrogression (ECA, 1989).

Every African economy, therefore, needs to be transformed rather than simply stabilized and adjusted if the on-going crisis is to be alleviated. The most crucial macro-economic and human questions here of direct relevance to the agricultural sector include (Green 1989): How can the trend rate of food production be raised ? How can dependable, rising levels of inputs into domestic manufacturing be achieved ? How can earned input capacity (the counterpart and basic purpose of exports) be sustained ? How can increases in net farm household incomes be best obtained ? How can malnutrition be reduced ? How can these goals be attained in a sustainable way which neither pauperizes the rest of society thereby rending the social fabric and sowing the seeds of its own destruction, nor destroys the ecological context of its own survival ?

A number of lessons can be learnt from past experiences in the implementation of SAP's in Africa that would be useful in ensuring that the questions raised above are successfully addressed in future planning efforts aimed at establishing and maintaining macro-economic equilibria and stability in African economies.

The key macro-economic policy areas in orthodox SAP's for achieving the objectives of agricultural development in African countries described above can be broadly grouped under: exchange rate policies, pricing policies, credit policies, fiscal policies, and institutional policies. Some useful lessons concerning the implementation of these policies are discussed briefly in the rest of this section.

Exchange rate policy

One of the most important instruments of Fund and Bank supported SAP's is the real exchange rate. Policies are generally

designed to lower the real exchange rate by attempting to reduce the prices of non-traded (domestic) goods relative to the prices of traded goods (Johnson, 1989). This is because Balance of Payments deficits in most African countries have traditionally been associated with over-valued exchange rates.

Economic theory informs us that, under the right conditions, devaluation could help strengthen the Balance of Payments. To the extent that agriculture is a principal producer of tradeable goods, devaluation can also help change the structure of prices in favour of improved production incentives for farmers thus influencing the productive structure of the agricultural economy. The so called "Dutch" disease provides us with an additional example of the influence of the exchange rate on the agricultural sector. The "Dutch" disease is said to occur when a dominant booming export sector lures the government into setting and maintaining an exchange rate at a level much higher than would otherwise be the case. The net result is a reduction in the international competitiveness of other export products as well as of products competing with imports in the local market. When the dominant sector finally crumbles, the rest of the economy crashes with it. Zambia provides a good example of this.

The fact is that both Balance of Payment and the agricultural sector are capable of benefiting from an exchange rate policy that, at least, avoids large over-valuation of the local currency, if the prevailing conditions are right. The impact of an active exchange rate policy on the agricultural sector, under African conditions, will depend on whether the increases in local currency made possible by devaluations are passed on to the farmers. Experience would, however, suggest that while devaluation is likely to raise the volume of agricultural export, its effect on agricultural products produced for local consumption is, at best, doubtful. Even in the case of export products, the declining real world prices and shrinking market shares faced by them would likely result in continued sharp falls in their prices engineered by continuing conditions of oversupply in the face of low global demand growth trend and low price elasticities of demand.

Other economic conditions peculiar to African situations also prevent the anticipated benefits from an active exchange rate policy from being achieved. In Malawi, for example, the expenditure switching effects of currency devaluations have been minimized by the fact that production in both industry and agriculture has been import-dependent. The marketing structure was also so imperfect that any gains, except in the case of tea, sugar and a few non-traditional exports, did not trickle down to the producer. Industry too was monopolistic and produced mainly non-luxury goods. It is therefore apparent that these are hardly conditions under which the supply side effects arising from an exchange rate action would be maximized.

Under such conditions, a generalized currency devaluation could lead to socially unsupportable increases in the prices of critical goods and services, increases in the domestic cost of imported inputs which will undermine capacity utilization, the unleashing of general inflation, the diversion of scarce foreign exchange to speculative activities resulting in increased capital flight, worsening income distribution patterns, and the undermining of growth resulting in the structural entrenchment of traditional export through price incentives for such commodities or "tradeables" (ECA, 1989).

The liberalization of imports could also lead to greater and more entrenched external dependence and to more binding foreign exchange constraints which would end up in a vicious circle being created with increased Balance of Payments deficits preventing agricultural growth, which in turn further weakness the Balance of Payments position of the country.

The lesson to be learnt from the above analysis is that the most effective exchange rate action is likely to be the one that is supportive and not in itself the major tool of adjustment. Consequently, the appropriate foreign exchange rate action must be accompanied by corrective measures to remove the bottlenecks which would prevent such action from having its maximum beneficial impact on the economy in general and the agricultural sector in particular. Furthermore, African experience with devaluation would suggest that there is need for a policy of managed flexibility in national currency devaluation rather than the more popular but more problematic and less effective operation of an excessively large devaluation in one swoop.

Pricing Policy

Inappropriate pricing of agricultural products has traditionally been considered by orthodox SAP's as one of the important domestic policy deficiency responsible for the economic crisis facing Africa. Hence the need for pricing policy reforms. It is argued that agricultural prices have been held down in the past deliberately by African governments so as to provide cheap food for their urban dwellers who are more politically vocal and active. The prices of the principal export crops are also said to have been deliberately depressed by state intervention by way of export duties and compulsory procurement at low set prices which have resulted in reduced incentive for farmers to produce more.

The conclusion, therefore, has been that state administered real prices for the agricultural sector have been kept lower than the equilibrium level under free market conditions and that the way to significantly increase the value added in the agricultural sector would be to allow all prices to be freely determined in a free market situation.

The main objective of the pricing policy reform measures is to try to get agricultural prices "right" by depending more on market forces. There are several implications for this reform measure. First, available statistics on supply response in sub-Saharan African agriculture, suggest that the deviation between so called administered prices and so called market prices only accounts for 10 per cent of agricultural growth (Green, 1989). In other words, 90 per cent of changes in agricultural output in sub-Saharan Africa is often explained by other non-price causal factors. Second, the general evidence from Africa and from elsewhere is that farmers mostly respond to changes in relative prices especially when the commodity involved is a small part of their total holdings and any attempt to increase the output of agricultural products by raising all agricultural prices are unlikely to succeed in soliciting aggregative increases in marketed-supply. Thirdly, although African farmers are known to be price-responsive, at least with respect to their individual annual crops which are planted for sale and based on expected prices, aggregate agricultural output price elasticities are usually quite low. In any case, a good amount of the food crops, livestock and to some extent, export crops produced in most African countries are known to be marketed outside the official channels' administered prices which deviate from the market clearing prices significantly.

However, regardless of their price-elasticities African farmers are unlikely to raise agricultural output much if the other important causal factors other than official prices which affect agricultural growth are not attended to. Inadequate supplies of inputs, poor rural road networks and lack of other rural infrastructures, ineffective rural institutions such as extension, applied research and credit, and lack of incentive goods in rural areas have played a larger role in past inadequate performance of the agricultural sectors in Africa than the domestic agricultural price trends.

In this regards, the experiences of African countries with SAP would suggest that price adjustments alone and by themselves will not lead to a higher equilibrium level of output. On the contrary excessive dependence on market forces for getting the prices "right" in structurally distorted and imperfect market situations is likely to lead to a worsening of the inflation situation through sharp rises in production costs and mark-ups, cause deviation from desirable production and consumption patterns and priorities, and derail the entire adjustment process. Furthermore, simple-minded price reform measures are likely to do very little to help the majority of small-scale farmers who usually need help the most since almost all the benefits from higher prices depend or marketed and not total output. The policy instruments to articulate pricing policy reform measures must therefore be deliberately designed and administered to ensure that small scale farmers fully participate and benefit from any positive impact from increased agricultural prices.

Institutional Policies

Several forms of institutional arrangements in support of the agricultural sector are in operation in African countries. Several of these institutions are run by the government, others by the private sector, and the rest by quasi private organizations, such as cooperatives. The main objectives of policy reform measures here are to make these institutions more responsive to market forces, more accountable, and more cost effective. The main policies are directed at reforming existing public procurement and marketing bodies and improving the provision of public and private enterprise services. The policy instruments include measures to enhance privatization within agriculture, measures to increase farmers' access to agricultural credit including obtaining foreign funds to support trade by farmers, and measures to revitalize other institutional services such as the provision of extension services, the distribution and delivery of agricultural inputs, and the provision of storage and milling capacities.

With regards privatization, the lesson to be learnt from past efforts in Africa is that attempts to apply it in a doctrinaire manner is likely to undermine growth and the transformation of the economy and jeopardize social welfare and human conditions. It is insufficient to simply assume that private enterprise competing to maximize profits will automatically lead to optimal resource allocation for the country. The fact is that most private enterprises operating under the structurally distorted and imperfect market situations in Africa, often seek to maximize short-term profits and, in the process, invest in ways that reproduce existing distorted resource-allocation patterns. Transnational corporations and financial institutions have a record in Africa of typically ignoring local and regional development needs by investing in the export of cheap raw materials or the assembly of a limited array of capital-intensive manufactures, thus aggravating external dependence and undermining employment of local resources (Seidman, 1988).

It is for these reasons that the private sector in African economies has traditionally been viewed as representing unpopular and exploitative minority interests and many governments have tended to avoid the political and economic implications of policy changes which favour such interests.

The fact is that there is no guarantee that unplanned free-market operations will solve the institutional problems of many African countries. Experience will suggest that there have been in the past and there will continue to be in the future, areas of free-market and government successes and failures. The record in Africa show that some of the most successful institutional services have been provided by governments who knew precisely in which areas to intervene and how to intervene efficiently. On the other hand, the provision of inadequate institutional support services for

agriculture have also often resulted from circumstances of excessive government intervention, and unwise or inefficient intervention.

There is no doubt that, for a genuine structural transformation of the economy to take place, the society as a whole has to be mobilized and their creative potential to employ their own skills and resources stimulated. The role played by effective community action in the liberation struggles in Zimbabwe are well known and provide useful insights as to how the people's private or semi-private efforts can be harnessed in service to themselves and to their countries (Seidman, 1988).

Fiscal Policies

The main objective of fiscal reform measures in SAP's in Africa is to attain stability in the fiscal accounts of the governments concerned. The usual policy instruments used include expenditure cuts and a rationalization of government investment with a view to promoting private investment. In the agricultural sector, the policies have usually involved the removal of production and food subsidies and government investments aimed at increasing the share of agriculture in GDP.

The effect of these policy reform measures on the agricultural sector have depended on how the reduction in government expenditures were carried out and the balance that emerged among fixed capital, working capital, and recurrent spending in the agricultural sector. In many African situations, the needed government fixed capital formation in agriculture is usually in the construction of rural infrastructures and the provision of services such as marketing, storage and processing rather than in explicit direct investments in agriculture.

The budgetary cuts involved in most of the SAP's in Africa have usually been very drastic especially with respect to expenditures and subsidies on social services and essential goods. These cuts have, therefore, often ended up undermining the human conditions, the enabling environment, and the future potential for the development of the sector. For example, expenditures on health, education and rural amenities are important requirements for sustained and sustainable increases in agricultural production and productivity, yet these are the first areas that have suffered most from across-the-board cuts in expenditures called for by the fiscal reform measures in most SAP's.

Some of the fiscal reform measures have also limited the effectiveness of other agricultural policies contained in the SAP policy package. In Zambia, for example, the removal of subsidies on smallholder fertilizer procurement resulted in increasing prices of a critical input in the face of sticky prices for the crops needing fertilizer. The passing on of these incremental costs to

the farmers, at a time when major productivity gains especially for maize were not being achieved, only succeeded in raising production costs and discouraging the farmers from increasing production.

What all these point to is the need for budgetary reductions called for in fiscal reform measures to always endeavour to strike the right balance between public expenditures on directly productive agricultural activities in the economy and on expenditures on social services that enhance the human capital of rural people as well as those involving public transfers which are vital to the well-being of rural people either directly as in the case of food subsidies or indirectly with cash transfers that supplement their incomes.

With regards agricultural investments, it has been suggested that, the emerging balance among fixed capital, working capital (credit, input supplies) and recurrent expenditure (extension, statistics, agricultural research) in any adjustment exercise, should be informed by the fact that in previous SAP's, non-wage recurrent expenditures (statistics, extension, research) and working capital (credit, input supplies, etc.) were relatively underfunded compared to fixed capital formation in the agricultural sector (Green, 1989).

Adapting SAP's to African Agricultural Development Needs

Economic theory informs us that economic stabilization and adjustment are necessary processes particularly in agriculture when macro-economic disequilibria occur. Such disequilibria usually originate from the following (Killick, 1985):

(1) The impact of international forces, such as a non-temporary worsening in the terms of trade;

(2) Other "exogenous shocks' of more domestic origin, such as droughts resulting in harvest failures;

(3) Fundamental structural weaknesses in the domestic economy, which may result in a chromic tendency for the demand for imports to grow more rapidly than the capacity to earn foreign exchange;

(4) Policy mistakes such as the neglect of exports or the excessive expansion of domestic demand.

The analysis in the preceding sections, however, cautions us that stabilization is meaningless without adjustment and that adjustment, in turn, is likely to be ineffective in the African context without economic transformation. There is now enough evidence to suggest that orthodox stabilization and adjustment programmes in Africa have not been successful in attaining recovery

from the economic crisis confronting the continent because they have failed to bring about the needed socio-economic transformation.

The fact is that most SAP's in Africa have essentially been ill-adapted to the African situation which is characterized by weak production structures, imperfect markets and weak linkages among the productive sectors. These orthodox SAP's have concentrated on achieving internal and external financial balances at the expense of basic structural factors that are important for both economic growth and socio-economic transformation and have benignly ignored or marginalized the important macro-economic linkages between the various productive sectors. For example, in the income generating process, these programmes have traditionally ignored the important forces of domestic demand as they mainly focus on the production of primary export commodities. Furthermore, the model of conventional stabilization and adjustment programmes ignores aspects of income distribution thereby marginalising the impact of the institutional set-up especially with respect to the different socio-economic groups. Finally, by focusing mainly on the internal and external balances and changes in relative prices, the orthodox programmes leave the important aspects of the critical needs and services, including productive employment, on the periphery of the process of adjustment (ECA, 1989).

The Economic Commission for Africa believes that for the desired economic transformation to take place in African countries, there is need to identify the principal positive and negative factors impinging on development, the human and material resources whose constructive interactions provide the dynamism for development, and the network of institutions that should be fashioned to provide a suitable environment for the forces of change and development. Furthermore, the possible interactions among the different elements during the processes of adjustment with transformation would also need to be properly assessed so that appropriate strategies and policies can be formulated and implemented. In this regard, the appropriate adjustment planning must be transformation-oriented, must be more human-centered, must give a more prominent role to internal productive forces and must involve a resource use pattern that can transform the economy from a primarily exchange one to a production economy. The appropriate planning for adjustment and transformation must also encourage an income distribution process that ensures a greater and more effective involvement of all socio-economic and institutional groups in the adjustment and transformation process. Finally, the planning must also strive to meet the critical needs of the population by ensuring the production of essential commodities and services, the production of essential factor inputs and the maintenance of increased investment levels.

Following the example of Green (1989) an attempt is made below to sketch a modified planning framework for adjustment with

transformation that roughly parallels the Fund programme areas analyzed above. The policy measures presented are grouped into those applicable in the short, (12 months), medium (12 to 36 months) and long term (over 36 months). Because policy measures often do not manifest themselves clearly before 36 months, the longer term measures are of special importance in guarding against the more debilitating longer term misallocation of resources which are bound to arise when policy measures are used to force agricultural results in the short and medium term.

Exchange Rate Policy

1. Short-term

- Should exchange rate policy reform measures become inevitable, putting into effect a system of de facto multiple exchange rates in a rationalized manner for purposes of resource transfers, resource mobilization, and reversing of capital flight and ensuring availability of essential imports.

2. Medium-term

- When the system begins to pay-off in terms of more efficient resource transfers, increased resource mobilization, and reversal of capital flight, the availability of essential imports, and increased export volume, gradually move towards a system of unitary exchange rate/determined by the prevailing economic realities of the country.

3. Long-term

- Completion of move to a viable unitary rate of exchange and maintain the viability of this rate by the installation of an effective crawling peg or other such system/appropriate to the requirements of the economy.

Pricing Policies

1. Short-term

- Removal of major illogicalities working against production of food for both local consumption and export.

- The installation of an effective system of guaranteed minimum price for food and agricultural products managed through strategic food reserves involving the principal products produced in the country.

2. Medium-term

- Continue with short-term policies
- Differential export subsidies; removal of trade barriers; and encouraging barter arrangements to boost intra-African trade.
- Specific export incentives for processed export agricultural products and carefully selected food crops.
- Bilateral and multilateral agreements on export and food products.

3. Long term

- Complete medium term measures.
- Mass education towards consumption of locally produced food items.

Institutional Policies

1. Short term

- Strengthening of agricultural research focused on production; emergency restoration and strengthening of the national extension system, the national system for input delivery, and the systems for the diffusion, application, and operationalization of agricultural research results.
- Creation of adequately funded "supervised food production credit systems" in rural areas with easy access to farmers in terms of limited collaterals, etc.
- Ensure adequate agricultural credit allocations especially to procurement, marketing, processing and manufacturing.
- Emergency restoration and strengthening of existing rural roads, transport, storage, etc.
- Emergency restoration of the provision of basic rural services involving health, education and water supply; plan workable strategy for moving to universal coverage.
- Institute emergency cost control measures for government parastatals; introduce effective accounting and accountability structures.

2. Medium-term

- Creation and strengthening of rural financial institutions.

- restructure agricultural credit with special reference to women and to poor farmers; create a special fund for loans at a subsidized rate for these groups of agricultural operators.

- Removal of subventions to parastatals other than those providing social services to rural areas.

- Continue and complete short term policies.

3. Long-term

- Land reforms for better access and entitlement to land for productive use; enhancement of the role of women as agents of change and the modernization of the food production sector.

- Greater mass participation in decision making and implementation of agricultural projects.

Fiscal Policies

1. Short-term

- Devote at least 20-25 percent of the total of public investment in agriculture.

- Allocation of an increasing share of foreign exchange for imports of vital inputs for agriculture; expansion of agricultural employment and promotion of increased linkages between agriculture and industry.

- Restoration of working capital (credit, operating inputs for ministry programmes, etc.) and recurrent expenditures for rebuilding statistical, analytical, planning, and monitoring capacity.

- Sectoral allocation of credit using guidelines that would favour the food sub-sector and agro-industry.

- Use of selective nominal interest rates in such a way that interest rates on loans for speculative activities would be greater than the rates on loans for productive activities, and resulting in positive weighted real interest rates for savings.

- Expenditure - switching (without necessarily increasing total government spending) to raise government outlays on the social sector, particularly those aspects of education, health and the integration of women in the development process that are likely to increase productivity such that an average of 30 per cent of total annual government outlays is devoted to the social sectors; and thereafter maintain a growth rate in pubic outlays on these sectors at above the population growth rate.

- Enlarge the tax base, improving the efficiency and fairness of the tax system and improving the probity of the tax collection machinery.

2. Medium-term

- Complete short-term policies.

- Reduction of government expenditure on non-productive activities as much as possible.

3. Long-term

Build on policies of medium-term.

IV. MANAGING STRUCTURAL ADJUSTMENT PROGRAMMES

The implementation of structural adjustment programmes involve management at two levels - the macro and the micro. The macro level management involves those aspects of the programme that can be conceptualized and implemented at the purely aggregative level. Micro-level management, on the other hand, involves those aspects of the programme that require sectoral detail in their design before they can be implemented. The implementation of SAP's in the agricultural sector usually involves more micro-level management although macro-level management may also be required in the application of some strategies. For example, the implementation of SAP strategies involving export subsidies for agricultural products, or liberalizing quotas on imports would involve micro-level management although they would also have some macro-expression.

This section reviews some of the management problems that are likely to be encountered in managing SAP strategies at the micro-level although the management problems associated with the macro expressions of the strategies are also discussed.

Setting Targets and Allocating Resources

The objectives of SAP are usually very clearly stated and agreed upon in advance before a SAL or SECAL is made available to the government. It can therefore be argued that while many government officials may not be happy with the objectives that have been offered, most governments are powerless to do much about it. It is therefore reasonable to assume here that once a SAL or SECAL has been negotiated and signed by a government the stipulated objectives become binding on the government and should be used by planners in their planning exercise.

The planners would, therefore, be required to assist the government in quantifying the objectives of SAP in the form of targets. Just as the process of negotiating and agreeing on a set of SAP objectives is essentially a political one so is the process of setting targets to quantify these objectives as it involves political, social, as well as economic choices. The role of the planner therefore is to provide the political authorities with the needed information to enable them set targets at a politically comfortable, economically feasible, and socially acceptable level. This is a difficult task which, if not properly handled, may result in a structural adjustment plan with contradictory features. In providing advise to the politicians, planners should be guided by the following:

(1) They should ensure that the political authorities accept responsibility for setting the targets so that they can see the need to also accept responsibility for adopting the strategies policies, and policy instruments required to attain the plan objectives.

(2) Different targets usually require different policies, investment and other actions, and planners should ensure that they present the political authorities with a series of alternatives, based on projections or other estimates of current and future political, economic, and social situations so as to allow the government to carefully weigh the advantages and disadvantages of each alternative before deciding on which targets to choose and at which levels to set them.

(3) Efforts should be made to set targets at an appropriate level as setting targets too high is likely to result in a discouraging and meaningless planning situation while setting them too low would result in a waste of resources and output.

(4) Adequate means should always be identified for the attainment of whatever targets are chosen. Failure to do this would reduce the chances that the targets would be met. In other words politicians should be encouraged to limit the number of targets to the minimum for whose achievement adequate means can be provided. Furthermore, only targets which farmers and producers can identify with should be selected and efforts should be made to avoid setting targets for activities which the government cannot influence or control.

(5) In making recommendations for the choice of targets, it should always be emphasized that the imperative is to attempt to harmonize demand, supply and available resources in a framework which recognizes the backward and forward linkages necessary for a meaningful development process. In other words in calculating the demand that should be met by the supply generated from the available resources, care should be taken to include not only food supplies (with provision for nutritional improvement) but also reserve stocks, requirements of raw materials for domestic industry and expected exports.

Once a level of demand that is in harmony with supply and resources has been identified for particular sets of targets, the next task would be to select, from among feasible alternatives, a pattern of resource use that would meet this demand within the limits of the stated objectives. Economic analysis informs us that optimal allocation of resources would occur when resources are allocated in such a way that their marginal productivity are equal

in each use. Because agricultural development involves the creation and building of institutions as well as projects and programmes involving such things as research, extension, credit and marketing, it becomes very difficult to obtain reliable data on social costs and returns associated with alternative patterns of resource allocation in the agricultural sector. However, because many African countries are facing very serious resource constraints, the need for rigorous economic analysis in the allocation of the available scarce resources becomes even more pressing. Consequently a way must be found, even if it only involves collective but informed value judgements, to ensure that the scarce resources available to a country are not wasted by being allocated to uses of low productivity by the planning process. In other words, irrespective of the difficulties encountered, there should be impartiality in decisions involving the distribution of scarce resources among the various uses on offer.

Mollett (1990) suggest that while different methods - simple and/or complex may be used to determine the resource allocation pattern for agriculture, they should have in common the capacity to allow comparison of the gains obtainable from one use of a given quantity of resources with those from alternative use of the same resources. Furthermore, planners should always endeavour to identify existing production possibilities and then try to allocate resources known to be available rather than, as is often the case, merely estimate the quantity of resources which would be required for achieving a stated target.

Organizing the Agricultural Sector

Most African economies currently operate along dualistic lines. On the one hand we have a traditional sector which occupies the vast majority of the population, is highly labour intensive and employs rudimentary technology. On the other han,d we have a small modern sector which is highly capital intensive and which uses modern technology, usually as good as those found anywhere else in the world. African agriculture is also characterized by a traditional sector (which is part of the larger traditional economic sector) as well as a modern sub-sector. The traditional agricultural sub-sector is usually large in terms of employment but small in terms of production for the market while the modern sub-sector is relatively small in terms of employment, but much larger in terms of its contribution to the country's marketed output of agricultural products.

Because traditional agriculture predominates in most African economies one of the biggest problem facing agricultural planners is how to best organize it to meet the challenges of overall agricultural and economic development.

Traditional agriculture is typically characterized by small and fragmented family farms, a high degree of self-sufficiency and fluctuating levels of marketed and marketable surpluses. In such a situation where most of the income of the community is represented by food, the only room for new and better production possibilities is in the agricultural sector and a stagnant agriculture would impose a heavy burden on the development of the rest of the economy.

An essential aspect of agricultural plans aimed at adjusting and transforming traditional agriculture is how to reorganize traditional peasant agriculture to enable it yield a large enough surplus, on a self-sustaining basis, to support the overall economic development process of the country. Whether the needed adjustments and transformation are carried out satisfactorily will depend in large measure on how well the economic activities which are called for by the process as well as the individuals who are involved in it are organized.

In planning for agricultural development involving structural adjustment, there is need to develop a strategy for reorganizing the procedures operating in the agricultural sector so as to permit it to adjust and effectively support the adjustment process. Such a strategy should have three major elements as follows:

(1) It should give major attention to strengthening farming localities and farming communities.

(2) It should vary the mix and intensity of public agricultural activities from place to place in such a way as to meet the stated targets while at the same time addressing the urgent needs of each part of the country. The organization involved here would include the following principles:

   (a) Organizing backward from a modern agriculture as well as forward from the present situation;

   (b) Recognizing and acting on the importance of farming localities;

   (c) Recognizing that farming communities should serve as the basic unit for expanding and developing progressive linkages between the agricultural sector and other sectors of the economy;

   (d) Recognizing the two way interdependence of agricultural growth and the overall development of the economy and include programmes to strengthen this interdependence;

(e) Varying the intensity of agricultural development programmes and projects to fit regional potentials for agricultural growth;

(f) Encouraging both local and national initiatives in developing and implementing the national agricultural plan;

(g) Developing a set of procedural steps for giving effect to these general principles.

(3) It should modernize the operating procedures and patterns of administration in all public agricultural agencies.

Organizing the Ministry of Agriculture and other Public Agricultural Agencies

To successfully carry out a structural adjustment programme would require the reorganization of the Ministry of Agriculture and other public agricultural agencies as well as their procedures.

Each African government already has a number of functions allocated to the Ministry of Agriculture and agricultural agencies which are expected to provide a wide range of services in support of farming throughout the country. Given the variety of agricultural activities undertaken in differential African countries brought about by differences in ecological climatic, social, cultural, and political conditions, it is unrealistic to define a universal set of functions for all Ministries of Agriculture in African countries. What is, however, clear is that the ways in which the Ministries are now organized, and the functions and responsibilities each now has were not set up with structural adjustment in mind. Instead, the organization of existing ministries have been influenced by: political considerations (e.g. to accommodate or to squeeze out a particular Minister); colonial legacy (when special export crops dominated governmental interest); and a tendency to copy the organizational arrangements in the industrialized countries where structural adjustment is not the dominant concern.

Presently, land and crops and animal production usually form the basis of activities of a typical Ministry of Agriculture although animal production is sometimes attached to a different Ministry. Forestry is also often handled by another Ministry although its influence on agriculture through soil conservation, watershed development and fuelwood supplies is usually great enough for it be included within the Ministry of agriculture. In most cases, inland fisheries, as opposed to marine fisheries, is also part of the Ministry of Agriculture.

No matter the scope covered by the Ministry of Agriculture, what is needed is a type of organization and a pattern of procedures designed particularly to stimulate the transformation of the agricultural sector. In this regard, while there would be need for some activities and functions to be entrusted to a separate and relatively independent agency, most other activities, because of their high interdependency and complementarity, would need to be combined in the same agency. In deciding how many and where the agricultural agencies should be located, care must be taken to ensure that it is clear which agency is responsible for what aspects of the adjustment programmes. The general tendency has been for several agencies to be responsible for activities that are related to a single plan or programme objective with none of them having sole or clear-cut responsibility to implement the means for achieving the objective.

While there is no universal list of activities which can be provided for inclusion in all Ministries of agriculture in Africa, the following represent six major activity areas which are required for the structural adjustment of the agricultural sector, each of which should be conducted by one major division of the Ministry of Agriculture:

(1) Giving appropriate attention to farmers' incentives, including agricultural prices;

(2) Assuring adequate wholesale supplies of farm inputs;

(3) Agricultural research;

(4) Developing rural infrastructures of agri - support services including the retail distribution of farm inputs, markets for farm products, extension services farm credit and farm to - market roads;

(5) Conserving and improving agricultural land; and

(6) Undertaking or strengthening arrangements for education and training agricultural manpower.

It should be emphasized that the activities listed above identify the major tasks which must be carried out by a Ministry of Agriculture in support of structural adjustment programmes. The Ministry would, however, not necessarily have all of these activities attached to it. It should, nonetheless, be in a position to monitor what is happening in each of the areas enumerated above, irrespective of where they are located, and propose ways of making improvements. In other words, the Ministry would need to develop a structure that would enable it pay attention to all of these areas, whether or not it is responsible for implementing each of them.

Furthermore, the Ministry of Agriculture would need three special offices to enable it provide complete services and support to the structural adjustment programme. These are:

(1) A planning office;

(2) A statistical services office; and

(3) A project coordination office.

The project coordination office would require intimate interaction and coordination among the several departments involved with different aspects of the structural adjustment programme with each department playing an active role in the coordination of the programme. The idea is to surround the Secretary or Minister of Agriculture with Heads responsible for each of the major public activities needed to successfully implement the structural adjustment programme in the agricultural sector.

Furthermore, just as existing patterns of organization in the Ministry of Agriculture and other agricultural agencies have been ineffective in attaining the goals of structural adjustment and transformation, so have existing operational procedures and patterns of administration which have been inherited from colonial regimes. In most cases, these procedures and patterns of administration are not suitable for the successful implementation of current programmes involving economic adjustment and structural transformation. While it may be difficult to change many of these procedures and patterns because of entrenched and vested interests, ways must be found to modernize them if these agricultural organization and agencies are to be effective in facilitating economic adjustment and structural transformation.

Some of the needed changes are as follows:

(1) Personnel policies must be changed so as to attract and retain competent staff and to ensure that competent younger people are able to move into positions of responsibility;

(2) Fiscal practices must be changed to give administrators and Heads of Departments and Units more authority to make budgetary adjustments to expedite purchases and delivery of needed materials and repair services;

(3) Communications must be improved and speeded up between and among all levels in the hierarchy of command;

(4) Transactions between the Ministry of Agriculture, the Ministry of Finance, and the Central Planning Agency must be streamlined.

(5) Accountability of the officials responsible for the operation of the public agricultural agencies must be maintained at the highest level to ensure that the level of corruption is kept at the bearest minimum and that the reorganization exercise does not open up new opportunities for corruption.

Finally, it should be pointed out that centralized control over African agriculture has generally been ineffective for a number of reasons. Agricultural planning should start at the village level and proceed to the district, the regional, and finally to the national level. The organization of agriculture and the public agricultural agencies must be done in such a way as to serve the interest of the nation while at the same time facilitating the implementation of the structural adjustment programmes. Such an organization should involve the active involvement of all sectors of the community, especially the millions of peasant farm families whose lives the structural adjustment programmes are designed to improve. The local authorities, village councils, chiefs and other village leaders should all be involved not only in the planning process but also in the organization and management of the process of economic adjustment and structural transformation.

Setting up a Monitoring and Evaluation System

When a government accepts to implement a structural adjustment programme its principal expectation is that the stated objectives of the programme would be attained as programmed. The assumption is that the benefits accruable from the attainment of the objectives of the programme would impact beneficially on the targeted members of the country. The impact could take the form of increased production and incomes, improved nutritional status, wider participation by the target groups in the activities and decision making process of the projects contained in the programmes, etc. The impact may be felt at the individual or household level or at the community and national levels. Furthermore, the impact may start to manifest itself during the implementation phase of the programme or may take longer to emerge, with its manifestations being felt only some years after the programme has been initiated. No matter the nature of the expected benefits of the programme, there would be need to monitor and evaluate its impact so as to ensure that its intended objectives were being achieved.

Most structural adjustment programmes for Africa are implicitly designed to assist African economies to attain macro-economic equilibrium and, through stated policies, to adjust to new patterns of production and trade that would lead to sustainable levels of economic development within 3 to 4 years. These new patterns of production, consumption, and trade are expected to result in increased levels of production and incomes and improved

standards of living for farmers in the agricultural sector as well as workers in the other sectors of the economy.

Since experience suggests that the impact of these programmes could either be positive or negative, the monitoring and evaluation system that is set up must be able to assess who or which group has benefitted (or has been adversely affected), by how much (compared to the situation before the programme was initiated), in what manner (directly or indirectly), and why (establishing causal relationships between the activities and the effects of the programme). The evaluation of the impact of the programme would, therefore need to be carried out at the following levels:

(1) During programme implementation to determine whether the assumption or hypotheses made during the programme formulation stage are still valid and the extent to which adjustments are required to ensure that the overall programme goals will be attained;

(2) After a reasonable length of programme implementation, to assess the overall impact of the programme and to learn lessons for the future design, appraisal, implementation, and monitoring and evaluation of future programmes.

A distinction must, however, be made between the monitoring and the evaluation of the impact of a programme. Monitoring involves the continuous or periodic review at all levels to ensure that programme activities, required programme actions, and programme goals are proceeding according to plan. Evaluation, on the other hand, involves a systematic and objective determination of how well the objectives of the programme are being achieved.

It should, also be emphasized that the organizational system for implementing a structural adjustment programme is closely related to the performance of the programme. The monitoring and evaluation system for the programme must therefore be closely related to the organizational system whose principal decision makers need vital information about the performance of the programme. The monitoring and evaluation system must, therefore, start by providing answers to the following information:

(1) Who needs the information?

(2) On what is the information needed?

(3) For what type of decision would the information be used?

However, from the answers to these questions will arise further questions such as:

(1) What type of information is needed?

(2) From what sources should the information be obtained?

(3) How precise should the information be and how often should it be collected?

(4) How should the information be collected and by whom?

(5) How will the information be processed and analyzed?

(6) How will the information be reported and to whom?

(7) How long will the data collection, processing, and reporting take?

(8) What staff and equipment be required?

(9) How much will it cost?

V. COORDINATING POLICIES OF STRUCTURAL ADJUSTMENT PROGRAMMES

Effective planning for agriculture wether for the implementation of structural adjustment programmes or any other type of agricultural development programme involves a lot more than just planning for the Ministry of Agriculture alone. A planning process aimed at attaining economic adjustment and transformation must involve a lot more than just planning for the attainment of the targets identified in the plan or programme because the activities of the Ministry influence and are, in turn, influenced by the prevailing production, consumption, and exchange systems whose component parts are inter-dependent and must interact in a carefully coordinated manner, if the overall objectives of the programme are to be attained.

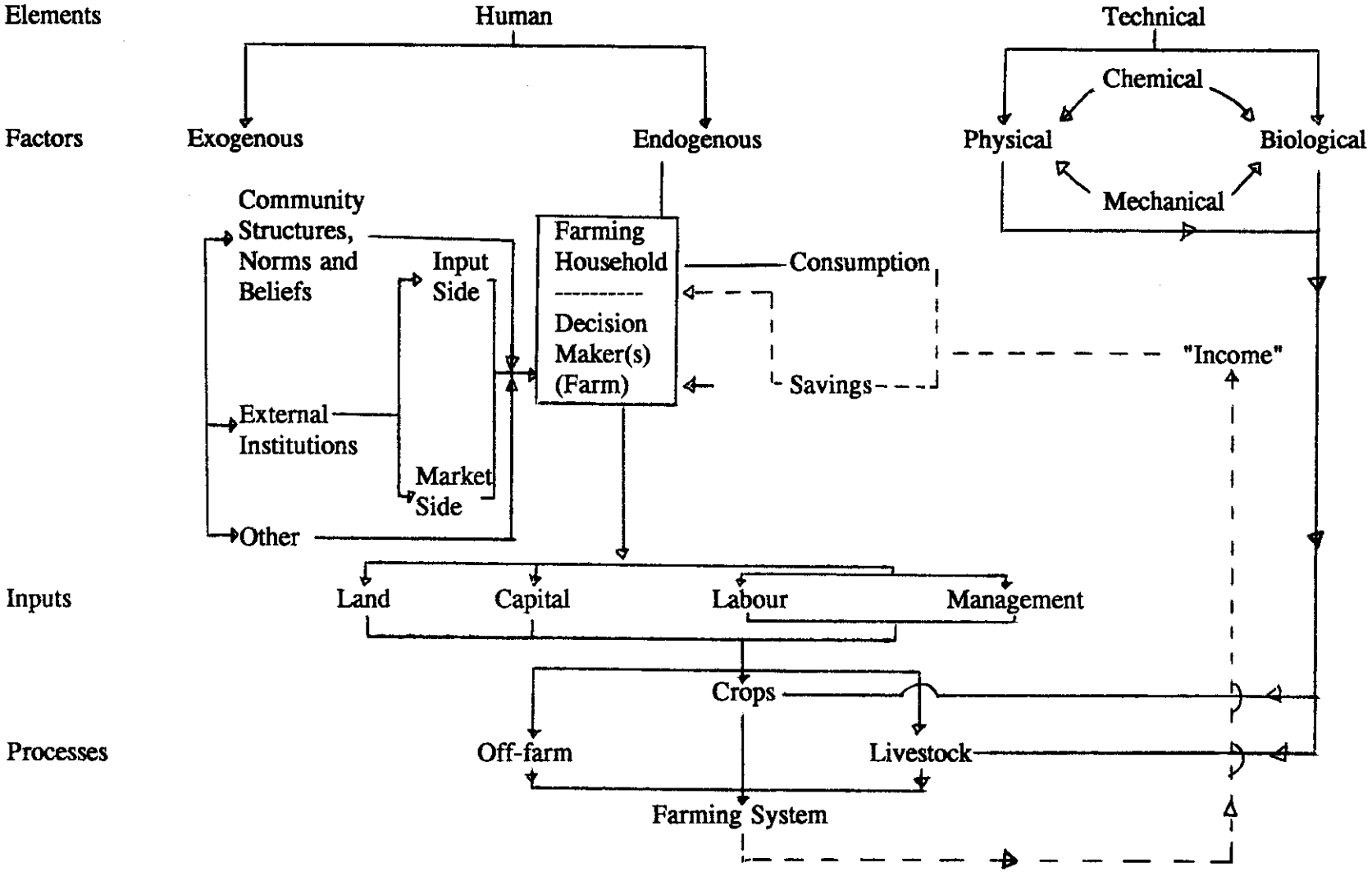
Effective coordination is therefore vital in ensuring that the physical and structural links between and among the various productive sectors, which are essential for promoting the mutual interdependence so vital for structural transformation in Africa, are installed. In this regard, there would be need to coordinate agricultural policies within the agricultural sector itself, between the agricultural sector and the other sectors of the economy and among countries in the region. The nature of these coordination is discussed in the rest of this section.

Coordinating Policies in the Agricultural Sector

Although one of the major objectives of structural adjustment programmes is to increase agricultural production and incomes, the scope of the Ministry of Agriculture's involvement in agriculture goes beyond simply planning for agricultural growth. It should involve the total environment in which the farmer operates.

This environment can be divided into two elements: technical and human. The technical element determines the types and physical potential of livestock, crop, and non-farm enterprises, and includes physical and biological factors that can be modified to some extent by the farmer himself or through the intervention of the government.

The human element is characterised by two types of factors: exogenous and endogenous. Exogenous factors (i.e. the social environment) which are largely outside the control of the individual farmer influence what he will and/or is able to do. They can be divided into three broad groups:



Broken lines represent results of the farming system.

Figure 3 Schematic Representation of Some Determinants of the Farming System

(a) Community structures, norms and beliefs.

(b) External institutions. These can be subdivided into two main groups: inputs and outputs. On the input side, extension, credit and input distribution systems are often financed and managed by government agencies. On the output side, the government may directly (e.g. marketing boards) or indirectly (e.g. improved evacuation routes, transportation systems, etc.) influence the prices farmers receive.

(c) Miscellaneous influences, such as population density and location.

The schematic diagramme depicted in Figure 3 shows the farming system as comprising a set of production and consumption units composed of crop, livestock and off-farm sub-systems, each with a complex interaction of interdependent component parts.

A farm within the context of the description above could be viewed as an enterprise or activity of one or more individuals, usually a family unit with only some or all members participating for part or most of the time in farm work or non-farm work. Thus, a farming system could consist of one or more sub-systems each of which is differentiated from others in terms of the following elements:

(a) Physio-chemical, i.e. soils, water, climate, nutrients, etc.

(b) Biological, i.e. crop plant, animals, pests, etc.

(c) Socio-economic, i.e. labour, markets, preferences, religion, etc.

(d) Technological, i.e. tools, machines, practices, etc.

(e) Managerial, i.e. knowledge, decision making, etc.

These elements in interaction, determine the prevailing production, and exchange process. There is therefore need to coordinate all the policies that impinge on the inter-relations of all the interacting components which make up the farming system of each country: the land itself and the structure of farms and fields imposed on it; the climatic and soil fertility influence which operate; the labour resources that are available and how they are used; the capital available for farm investment and how it is used; and the relationships with input delivery, marketing services, credit, extension, etc.

Coordinating Policies Between the Agricultural Sector and Other Sectors

The interdependence between agriculture and the other productive sectors of the economy is so pervasive that neither the agricultural sector alone nor the other sectors by themselves can be successfully developed without the effective growth of each sector. For example, industrial expansion is a function of an increasing and more equitable structure of rural income distribution since rural prosperity improves the effective demand for industrial goods locally and extends the internal market for these goods. On the other side, industry contributes to agricultural development by supplying inputs, such as fertilizers and appropriate equipments and machinery as well as a market for agricultural raw materials and food, to the agricultural sector. Furthermore, surplus agricultural population is absorbed into the industrial sector as agricultural productivity increases and the agricultural sector becomes more efficient.

As adjustment and structural transformation takes place in the agricultural sector, activities relating to adjustments in the other sectors would also be taking place. Some of the important consequences of adjustments and structural transformation of agriculture include: increase in the non-agricultural population; changes in the distribution of the population which, in turn, requires adjustments in the distribution of economic and social services; and increases in farm productivity if living standards are to be maintained.

All these changes will bid for the share of available resources and this is why a National Structural Adjustment Programme must be more than just an aggregation of distinct sectoral programmes. The agricultural programme must be coordinated with development in other sectors so that the overall economy can be developed along the intended lines without breakdowns, interruptions, and discontinuities. There is, therefore, need to coordinate agricultural policy formulations and changes and project and programme developments with comparable developments in other sectors of the economy. What this means is that procedures must be established to enable planned policies, projects, and institutions to be reformulated, modified, eliminated and refitted as viable and productive links are established between the agricultural sectors and the various productive sectors of the economy.

Coordination of the policies of the agricultural sector with those of the other sectors is therefore vital for ensuring that agricultural workers and those working in the other sectors will increasingly use and process local resources and raw materials, to produce an expanding variety of goods, that would step-by-step raise their standards of living while, at the same time, attaining the objectives of the National Structural Adjustment Programmes.

Procedures for Coordinating Agricultural Development Policies

The importance of vertical and horizontal coordination of agricultural policies in National Structural Adjustment Programmes derives first from the dominant role that the agricultural sector plays in African agriculture, and secondly from the interdependent nature of the relationship between the agricultural sector and other sectors in the process of agricultural and overall economic development.

The fact that many structural adjustment programmes in African countries have experienced considerable difficulties in achieving their intended objectives and most have either failed completely to achieve their prescribed targets or have ended up attaining unintended impact could be largely ascribed to insufficient coordination (Abalu, 1990). Much of these difficulties can be ascribed to incompatibilities within planning in the agricultural sector and between planning in the agricultural sector and planning in the other sectors of the economy. Insufficient coordination in these areas has often resulted in serious repercussions with respect to production, marketing, consumption, trade, research, etc. while the production and service aspects of the farming system, long under-recognized in the economic and rural development process, has also suffered serious consequences of incompatibilities of policies. For example, as compared to their urban large scale counterparts, small scale firms (under 50 workers) require less capital, utilize apprenticeship programmes which have community-wide benefits in terms of skill formation and realistic training, and offer broad opportunities for employment. While most structural adjustment programmes give recognition to the importance of the rural non-farm, small-scale sector, due to insufficient coordination, the benefits of the programmes usually accrue mostly to the large capital-intensive, usually urban firms at the expense of these small firms. This bias usually rise as a result of lack of coordination among tariff structures, foreign exchange rates, credit policies, and wage policies which, in turn, result in serious implications for capital formation in the agricultural and rural sectors, income generation and equity in economic opportunities.

Suggested procedures for improving the coordination of agricultural policies are presented below. As the coordination required differs somewhat between planning and implementation of plans, they are considered separately.

Coordination in Planning

(1) Interactions between planners and government officials on the one hand, and the politicians as well as the community leaders of the millions of farmers and rural dwellers whose lives the structural adjustment programmes

are designed to improve, on the other hand, regarding the general direction of the country's development and the role of the agricultural and rural component of the process.

(2) Coordination between the national planning agencies (or Ministries) and planning units of specialized ministries on departments, preferably with the involvement of appropriate academic leaders of universities and research institutes, to promote understanding of premises and philosophy of intended direction of the reform programme.

(3) Coordination between the Ministry of Agriculture and the Planning units of other specialized departments and national leadership of relevant associations/groups on the content and intention of the programme which, through communication to their membership will help build local support for the programme at all levels.

(4) Coordination between the Ministry of Agriculture and the Central Planning Agency and its field offices so as to maximize the use of local insights of both government and private individuals, regarding the balance of measures/investments among different functional areas and among immediately productive, deferred productive, and welfare measures.

(5) Coordination between the headquarters of the Ministry of Agriculture with its field offices to monitor resource flows and the progress with infrastructural support.

(6) Coordination between the Ministry of Agriculture and the Central Planning Agency and its field offices to assure close monitoring and on-going and final evaluations of programme and project activities with timely feedback for altering plans, policies, and programme structure.

(7) Coordination between planners at the Ministry of Agriculture and those at the regional, district, and community levels to assure the workability of the component parts of the programme and to assure administrative commitments at all levels for the implementation of the various aspects of the programme.

(8) Coordination between the planning authorities in the Ministry of Agriculture and the Central Planning Agency and counterpart budgetary personnel at all levels to assure adequate and timely resource support.

Coordination in Administration

(1) Coordination of administrative procedures at all levels consistent with the objectives of the programme.

(2) Coordination between the Ministry of Agriculture and field offices in reviewing the effects of programme activities and policies on individual and groups and taking action to correct anomalies.

(3) Coordination between the Ministry of Agriculture and national education and training institutes to help assure availability of adequate skills for all individuals involved with the programme.

(4) Coordination between the field offices of the Ministry of Agriculture with regional, district, and village offices in shaping programme implementation and stimulate the capacity of the farmers and rural dwellers in building economic, social, political, and cultural infrastructures and institutions in support of the objectives of the programme.

(5) Coordination between the Ministry of Agriculture and other government agencies to ensure that each employee in the Ministry of Agriculture and in the agencies is offered a perspective on his or her role and the expectations from him or her in the total effort at implementing the programme. Coordination would also be required here in developing a personnel system which provides individual rewards as well as penalties which will help generate an efficient, sensitive, and responsible bureaucracy.

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