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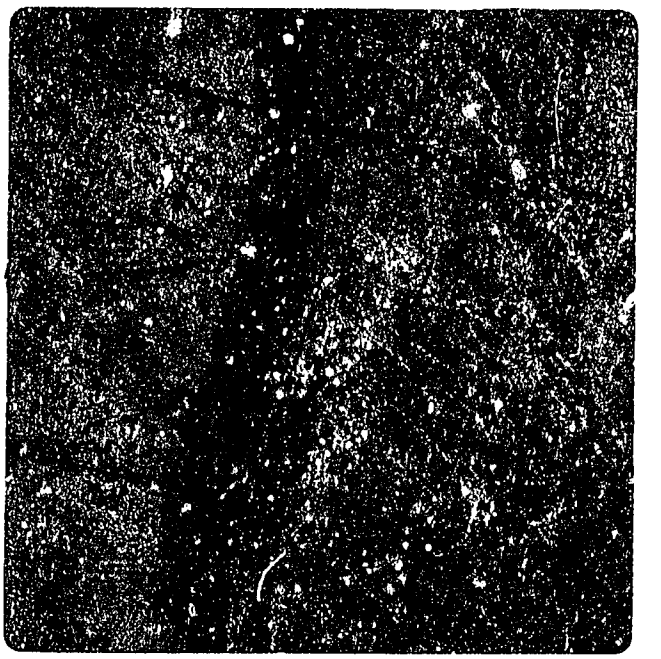

AGRICULTURAL POLICY ANALYSIS PROJECT

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Technical Papers:
A Symposium on Incentives
to Agricultural Production
in West Africa

Presented at a Symposium of 16 West African States sponsored by the Secretariat of ECOWAS and USAID/REDSO/WA in Abidjan, April 9-13, 1985. The project was supported by the AID/S&T funded Agricultural Policy Analysis Project under contract to Abt Associates Inc., Washington, D.C.

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Item 1

Preface

These papers were presented for discussion at a symposium on Agricultural Incentives for Increased Food Production which was held in Abidjan, Ivory Coast, on April 9-13, 1985. The symposium was sponsored jointly by the Secretariat of the Economic Community of West African States (ECOWAS) and the regional office of the U.S. Agency for International Development (USAID/REDSO/WA) and supported by the Agricultural Policy Analysis Project (APAP) under a contract with Abt Associates Inc.

The overall goal of the symposium, which was attended by delegates of the member states, was to discuss agricultural policies that would provide farmers of the region with incentives to increase food production. More specifically, the symposium:

- Examined experiences, within and outside of the ECOWAS region, in implementing policies that have provided greater incentives to improve food production;
- Analysed relevant ECOWAS member states' agricultural policies in light of the foregoing goals; and,
- formulated a short and medium term program for the ECOWAS Secretariat to assist member governments to implement appropriate policies.

The symposium was developed within the broad outlines of a Common Agricultural Policy (CAP) for the ECOWAS region which had been defined at a meeting of the Ministries of Agriculture in Cotonou in May 1982. The CAP was later adopted by a meeting of the Heads of State along with a strategy to achieve regional self-sufficiency in food production by the year 2000, reduce food losses, and ensure a better distribution of food in accordance with the Lagos Plan of Action.

The strategy for agricultural development embraced a number of areas including:

- food production;
- rural infrastructure and social welfare;
- crop and livestock production;
- fishing, forestry, and wildlife;
- inputs and agricultural credit;
- conservation and storage of products and food security;
- processing marketing and trade; and,
- agricultural research and training.

Some specific projects that are currently being undertaken as part of this strategy include:

- creation and strengthing of 7 seed multiplication centers;
- creation and strengthening of 8 centers for breeding, selection and improvement of cattle;
- Studies on costs of production and pricing policies for agricultural products;
- Production and the commercialization of fertilizers and pesticides;
- A study on the need for protection of the environment against predators, insects, deforestation, desertification, and bush fires.
- A study to identify approaches to increase consumption and utilization of local food products.
- Three areas within the sub-region were identified for integrated development projects to increase crop and livestock production and the development of supporting agro-industries. The 3 areas are:

  (1) The middle basin of the Niger River
  (2) The upper basin of the Niger River
  (3) The O.M.V.S. zone

Dr. Stephanie Wilson
Director, APAP

Item 2

ECONOMIC COMMUNITY OF WEST AFRICAN STATES
ECOWAS ---- USAID

SYMPOSIUM ON AGRICULTURAL INCENTIVES FOR INCREASED FOOD PRODUCTION

ABIDJAN 9-13 APRIL, 1985

C O N C L U S I O N S A N D R E C O M M E N D A T I O N S

by

Frank Ofei
Director of Research
ECOWAS

CRISIS OF THE FOOD AND AGRICULTURAL SECTOR

During the Symposium, participants considered the prevailing widespread food shortages within the West African sub-region. It was pointed out that food production, and agricultural growth in general, had been stagnant and in some areas had actually declined over the past decade, while average annual population growth has been more than 2.5%. Importation of food and agricultural raw materials as industrial inputs has consequently been on the increase. However, because of foreign exchange constraints, such importation has become more and more difficult to sustain resulting in a growing unsatisfied demand for agricultural goods.

MAJOR CAUSES OF THE CRISIS

The participants stressed that past inappropriate policies and insufficient attention to agriculture were more to be blamed for the poor performance of the agricultural sector, even more so than the droughts and, in the case of agricultural export commodities, depressed world market prices. It was observed that, in general, agriculture had been neglected or had received only margin attention. The little attention given had mainly been concentrated on the development of exports, to the detriment of domestic food production. The rural peasantry has been forgotten or systematically exploited instead of recognising the need to improve the living conditions of the rural population and rewarding its efforts. Moreover, governmental policies and activities in other areas were pursued without appreciating their effect on the agricultural sector - thus either indirectly affecting adversely agriculture or not giving the requisite support to the sector.

RECOMMENDATIONS OF THE PARTICIPANTS

The recognition by all ECOWAS Member States of the crisis in which the West African agricultural sector finds itself through the adoption of a Community decision to achieve, as quickly as possible, sub-regional food self-sufficiency as part of its regional agricultural development strategy was well appreciated by the participants. To achieve the objectives of the strategy and ensure the sound development of the agricultural sector, the following recommendations were made during the Symposium:-

.../...

1. Re-ordering national economic priorities:

Top priority should be accorded and maximum resources made available to the agricultural sector not only because of equity considerations, but it is the main sources of all economic activities. Almost invariable, more than 80 % of the GDP derives from or is related to the agricultural sector. The inter-relationship between agriculture and the other sectors of the economy should be fully recognised so as to ensure that the need for adopting compatible policies is adequately met. This would call for an intimate knowledge of and information on the agricultural sector and its development needs. The highest levels of decision-making must give active support to agriculture if the sector's status is to be raised.

2. Focus on peasant farmers and rural development:

Attention should be focussed on the traditional peasant farmers and on the development of the rural environment in order to improve the earning capacity of small farmers and improve their living conditions. There should be close contact with peasants and their direct involvement with efforts to improve agricultural performance this could be more easily achieved by organising small farmers into groups to facilitate input supply, production, marketing and financing arrangements.

3. Increased and diversified production:

As part of the effort to increase agricultural production, the full potential of the various ecological zones should be exploited by encouraging the development of those crops and livestock species best suited to different localities. It should be the aim to promote the right production mix of food, export and industrial raw material.

4. Input supplies:

To raise the productivity of the peasant, improved agricultural inputs should be supplied in adequate quantities on a timely basis. This would call for a well-organised production and distribution of seeds, breeding stocks, fertilizers, pesticides as well as tools.

5. Technological and management requirements:

Apart from improved inputs, efforts should be made to improve upon the traditional methods of crop farming, raising animals and fishing. In this context, simple farm management techniques should be identified and introduced to the farming communities, including plant and animal health, water management, prevention of bush fires, soil erosion and land degradation.

6. Agricultural Financing:

Adequate budgetary and foreign exchange allocations should be made to meet the financial requirements of the sector. New methods of ensuring accessibility of peasant farmers to credit on preferential terms should be introduced. This should include the development of rural banking and saving schemes suited to the background and circumstances of the peasantry, and capable of mobilising local funds.

7. Pricing Policy:

For prices to act as incentives for increased production, fixation of discriminatory agricultural prices should be discontinued so as to allow market forces to establish more remunerative prices for producers. Similarly, price controls that distort the market mechanisms of neighbouring countries and create unofficial parallel transactions should be discouraged; consultations leading to harmonization of pricing policies should be encouraged by ECOWAS among its Member States.

.../...

8. Research and development:

Considerable attention should be given to applied research as a basis for the development of the new and more appropriate techniques, tools and other inputs required in modernising the agricultural sector and making it more productive. National and sub-regional cooperation efforts should be encouraged to achieve this aim.

9. Prevention of Post-Harvest Losses:

Methods for the prevention of food losses during and after harvesting should be developed and widely disseminated. Attention was drawn to the incidence and causes of losses at various stages during harvest. These included inefficient harvesting techniques and tools. Post-harvest losses are caused through poor handling or insect and pest control, inadequate storage methods, inefficient drying and other forms of preservation, and inappropriate transportation methods.

10. Storage and Preservation:

To increase the total supply and help regulate the flow of agricultural products to the market, attention should be paid to the methods of storage and preservation and a system developed that would ensure the provision of adequate facilities.

11. Processing:

There should be the encouragement of the establishment of the processing facilities that would transform agricultural primary commodities into food products and other agricultural derivatives. This would further increase the value of commodities and establish the link between agriculture and industry.

12. Transport

To remove a basic bottleneck to the monetisation of the traditional agricultural sector, adequate transport infrastructural facilities would have to be created and

an efficient rural/urban transportation system established. This would facilitate the flow of input supplies to the rural area and the transportation of farm produce to the urban centres.

13. Distributive channels:

There should be assistance in the development of marketing and distributive systems, including an adequate market information mechanism on prices, supply and demand situations. This should be developed at both the national and sub-regional level, with a special effort being made to implement the free trade provisions of the ECOWAS Treaty for agricultural products.

14. Institutional arrangements:

A whole range of institutional support mechanisms would have to be established to ensure the smooth functioning of the above recommendations. This would include a well-tuned extension service accessible to every farmer, farmers organisations, farmers financing or rural banking institutions, land tenure systems that ensure access of land to potential farmers, and agricultural marketing bodies.

15. International assistance to agriculture:

There would need to be a significant increase in assistance received by the sub-region from the UN system, other international multilateral as well as bilateral sources, if the measures enumerated above are to be all implemented fully.

HARMONIZING FOOD AND AGRICULTURAL POLICIES IN WEST AFRICA[1]

Keeping in mind that one of the major purposes of this symposium is to develop the basic elements of a program for ECOWAS for the next few years, I would like to take this opportunity to touch on some of the issues related to the task of harmonizing food and agricultural policies in the 16-country region. I would like to raise some questions for discussion at this symposium and suggest some approaches to a prioritized time-phased plan that might be considered, analyzed, and tested by the ECOWAS organization and by member countries in the coming months.

Perhaps equally important, if not more so, are the issues which member governments will have to consider as they weigh the advantages and disadvantages of the hard economic choices and the political compromises that will have to be made. Along with some of the other speakers, we need to explore some of the options and discuss some of the consequences in the hope that this will stimulate further analysis to support decisions in the stark realism of your own social, economic, and political environments at home.

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1. Address by Oswald P. Blaich, Robert R. Nathan Associates, Washington, D.C. Selected references used as a basis for this report are listed in Appendix A.

The Theme

The hypothesis that underlies my remarks is that: Regional harmonization of policies affecting food and agriculture can lead to increased productivity in crop and livestock production by each country exploiting its own comparative advantage and, through trade, to increase the total product of the region beyond what it would otherwise be.

The notion of comparative advantage suggests a look at policies and policy instruments that affect resource use, technological adoption, costs, and supply response. These will determine how countries are likely to respond to incentives to produce different products in different quantities. The notion of trade suggests a look at import and export potentials, trade policies, foreign exchange controls, and the infrastructure that allows commodities to flow from countries that can produce a surplus to those that have a deficit. Without trade, a country's comparative advantage cannot be exercised fully.

Exploring this hypothesis raises some important economic questions:

- What has to be done and how much?
- What incentives are needed? What is the role of prices?
- What is an appropriate level for price harmonization?
- What can harmonization contribute to the growing food deficit?
- What are some of the necessary conditions for harmonization?

- What can ECOWAS do to help member countries on the road to prosperity?

The G al of Self-Sufficiency

At a meeting of the ECOWAS Council of Ministers in Cotonou in 1982 it was resolved that the region should be self-sufficient in food production by the year 2000. That is only 15 years from today. While a good deal of urgency was expressed at that meeting, the degree of urgency vis a vis the many other ECOWAS objectives related to tariff and trade, transportation and communication, monetary cooperation, and people movements were not made clear. Also left open was the question of the degree of self-sufficiency that might be appropriate for each member country to satisfy its own food security objectives. If each country pursues 100 percent self-sufficiency there would be little basis for talking about harmonization of food policies. However, the Council of Ministers made it clear that they intend to pursue an increasing degree of economic, social, and political interdependence in the region. This implies that individual countries were not meant to seek full self-sufficiency as a national goal, especially in products for which they do not have a comparative advantage. It does not of course deny the goal of individual country self-reliance, nor does it deny that for food security reasons some countries may want a somewhat higher degree of self-sufficiency than is optimal, with respect to its comparative advantage.

I do not wish to belabor the urgency of the food situation for this region. But, to provide the proper setting I would like to remind ourselves that the goal of

self-sufficiency has rapidly been loosing ground. Ten years ago, when ECOWAS was born, the region was 95 percent self-sufficient in major food grains; today it is only about 76 percent self-sufficient and in 15 years it will be only 60 to 65 percent self-sufficient unless something is changed.

Most authorities agree that without a deliberate and concerted effort to stimulate food production, the problem will only get worse. With the consumption of food grains continuing to increase at a rate of about 3 percent per year and production not likely to increase more than 2 percent, the deficit for the region will reach 10 to 15 million tons by the year 2000 -- about one-third of total needs and two to three times what is is today.

The picture is not much different from country to country, only that some countries are worse off than others. In those areas where cassava, plantains, yams, and similar food crops constitute a large part of the diet, the situation tends to be slightly better. In most countries, worldwide, the production of these non-cereal food crops tends to keep pace with needs of the rural people and more or less with the diminishing demands of people in the cities. USDA and other estimates show that production of these crops tends to keep in balance with demands and usually with little upward price creep relative to general prices.

Imported subsidized wheat and rice have substituted in the cities for much of the cassava, plantain and yams that were once eaten by those people when they lived a more rural existence. The fact of substitution is reflected in the levels of per capita cereal consumption in this region which

rose from 121 kgs. in 1975 to 160 kgs. in 1984. At the same time, the overall per capital consumption of all food remained static or declined in some cases.

Table 1. Total Cereal Production,[a] Imports and Availabilities, 1975-84

Item	Years 1975	1982	1984	Change 1975 to 1984
	------- metric tons -------			%
Production	15,076	17,745	17,467	+ 16
Imports	806	4,856	5,347	+ 563
Total available	15,876	22,601	22,814	+ 43
	- - kgs. per person - -			
Per Capita Available	121	150	160	+ 39
	- - percent - -			
Self-sufficiency	95	79	76	-19

a. Excludes rice.
Source: USDA - ERS.

Factors Contributing to Slow Growth in Production

Before this conference discusses the steps that might be taken to deal with the problem of food production, it is helpful to understand what has contributed to its slow growth in recent years. There was a time when many countries in the region maintained a respectable rate of agricultural growth, and one or two do today. We need to find out what the latter have done that is right. Some of the

past growth came through an expansion of area, which coincidentally paralleled the rate of growth of the rural population, and some came through increased yields. During the 1970s, however, the growth of the rural population slowed down and a chain reaction of economically devastating events, that you all know about, forced policies that were, to say the least, inconsiderate to agriculture. This slowed the rate of growth in land under cultivation as well as progress in farm resource productivity.

By 1980 only about 4 million hectares of new land had been added to the 1970 base of about 54 million hectares in the 16-country region. This comes to less that 3/4 of 1 percent per year for the decade (Table 2). Add to this a virtual stoppage in yield improvement and we have total farm output growing barely more than 1 percent year. Almost all crops were affected but growth in the traditional export crops was slowed even more than growth in the grains and food crops. The production of some crops declined. There was, of course, some variation among countries; Liberia and Ivory Coast maintained respectable growth rates of 2.7 and 3.8 percent per year, respectively, while Mauritania and Burkina Faso at the other extreme lost ground with rates of -1.3 and -2.1 percent.

The root-cause of much of the poor performance of agriculture in recent years, besides periodic bad weather, was due to rapidly rising farm costs and declining farm prices that began about 1974. The story was much the same in most countries but there were some important differences.[1]

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1. The basic data and economic indicators underlying the analysis of this report are presented in Tables 1 through 7 of Appendix B.

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Table 2. Land Use for Crop Production and Average Rates of Growth of Total Agricultural Output 1970-80

Country	Land use for crops			Average rate of growth of Agriculture
	1970	1980	Change 1970-80	
	----1,000s of hectares----			
Benin	1,600	1,800	200	2.3
Cape Verde	--	--		
Ghana	2,600	2,800	200	-0.1
Guinea	1,600	1,600	-	.2
Guinea-Bissan	3,000	0	1.4	
Mali	1,700	2,100	400	1.4
Niger	2,700	2,100	400	1.4
Sierre Leone	1,500	1,800	300	1.7
Togo	1,400	1,400	-004	
Burkina Faso	2,200	2,600	400	-2.1
Gambia	--	--	0.1	
Ivory Coast	2,800	3,900	1,100	3.8
Liberia	400	400	207	
Mauritania	300	200	-100	-1.3
Senegal	4,800	5,200	400	1.1
Nigeria	29,900	30,430	530	1.7
TOTAL	53,800	57,800	4,000	1.2

Source: IBRD - Accellerated Development in Sub-Saharan Africa, 3rd printing, 1983.

Despite continuation of the traditional farm programs of research, extension, disease and pest control, and the continuation of foreign assistance to agriculture at a high level, it was not enough to stem the rapidly deteriorating terms of trade for farmers in relation to the cities where they had to compete for labor and capital or in relation to international markets where they had to compete with products produced in other countries. Farmers were caught in the vice of a cost price squeeze that persisted for much of the past 12 years. Real prices of farm products declined, reducing returns to farming relative to costs. The result was that farm workers drifted to the cities where opportunities for young people appeared brighter. As net returns to farming diminished, new investments were not undertaken, previous investments were allowed to deteriorate, farming methods were not improved, new technology was not adopted, and land and water improvements were not made. Much of this occurred in spite of input subsidies and credit programs that were carried out at some level -- perhaps not enough.

The plight of agriculture in the ECOWAS region was not unique. It happened throughout much of the developing world where dreams for rapid economic growth through industrialization were shattered one by one, dragging down with it the capacity to produce food.

In an attempt to sustain economic growth and provide for essential imports, many governments borrowed heavily from abroad. Neither they nor their bankers realized the permanence of the fundamental changes that had occurred in world energy, commodity and financial markets. The international debt of most countries mounted, and in some cases the debt service exceeded the value of their foreign trade.

As foreign exchange for debt service, for food, and for essential inputs for agriculture and industry became more scarce, it had to be rationed. Often they were allocated on the basis of bureaucratic and political power rather than by market criteria and so bore little relation to supply and demand focus. Generally, foreign exchange was allocated so that basic food grains continued to be imported at an increasing rate while luxury goods were restricted. However, as allocations for inputs for agriculture and industry were cut, petroleum, fertilizers, chemicals, machinery, spare parts, and items that keep industry and agriculture productive and growing became scarce.

In the mean time, inflation accelerated not only because of rising import prices, but also because of liberal monetary policies. The latter was especially true in countries where the governments had the power to control their money supply. Ghana, Nigeria, Sierra Leone and Mauritania were examples. Since most of these countries were slow to devalue their currencies, it became more and more overvalued. The inflation and resulting foreign exchange problems were somewhat less in countries whose currencies were tied to the French franc or in the case of Liberia, which uses U.S. dollars.

By the early 1980s the situation had gotten worse. Interest rates were being pegged at low levels in an attempt to encourage investment. As a result, credit had to be allocated by the government rather than by the market because there was not enough to go around. But, high inflation, negative real interest rates, and decreased savings diminished the supply of investment funds. And despite the low interest rates, restrictions on imported inputs and general uncertainty of net returns caused foreign

and domestic investors to lose confidence. As business activity slowed down, unemployment increased and real wages declined while the cost of food rose in spite of price controls.

To cope with these problems, governments felt that they needed to become more and more involved in affairs that once were largely the purvue of the private sector. The parastatals flourished. Today in this region there is not one major farm commodity or major farm input that does not bear the influence of some state marketing agency or other.

The growth of government further increased its cost which, with a declining tax base resulting from unemployment, loss of business activity, and black marketing created larger and larger budget deficits. These were financed through increased borrowings and in some cases through liberal monetary policies. All of this fueled more inflation and discouraged savings and investment further. The pressure was on governments to do something and they responded by becoming more involved. But in all of this, agriculture with its generally limited political power tended to come up short in the allocation process.

In food and agricultural two types of actions were taken: (1) governments fixed prices in an attempt to hold down the price of food to urban consumers; and (2) they began to tax agriculture directly, and in most cases indirectly through parastatals, to pay the cost and to offset the diminishing tax base. As I already indicated, the terms of trade for farmers declined and especially so for export products which were the most obvious to tax. Added to this dilemma was an overvalued exchange rate that gave a competitive edge to imported products and made competition

in export markets more difficult, at least for the limited amount of legal private trade that was allowed.

It is not surprising that the policies that were intended to hold down food prices were unable to do so in most cases. The food price controls, exchange controls and restrictions on the volume of imports led to shortages and a high degree of black marketing so that food, for the most part, became more expensive and more limited in variety. An important fact was, however, that the poor were not helped and farmers were hurt. Those who held the political power got rich, the rich survived and those who risked dealing outside of the regular market channels reaped the profits.

In sum, the whole process of the 1970s and 1980s was a situation where problems begat more problems. It was a situation that created a downward spiral for agriculture and the entire economy that was difficult to turn around. It was a period in which countries failed to recognize the overiding importance of agriculture in generating economic activity. Clearly, if agriculture accounts for up to 60 to 70 percent of total economic activity, then if agriculture does badly so does the entire economy because it loses:

- Markets for industrial products;
- Supplies for processing, storage and distribution;
- Exports for foreign exchange;
- Sources of capital and labor; and
- Food for the population.

Harmonization in Perspective

The process that led to the current situation in agriculture is important not only from the point of view of what has to be done to extricate countries from the currently depressed agricultural situation, but also how much adjustment is necessary to achieve harmonization and when it might start.

Although similar chains of events occurred in each of the 16 member countries, each ended up in 1985 with a different set of social, economic and political issues. In economic terms, the countries of ECOWAS today are probably farther apart than they were 10 years ago when the community was formed. Through much of this period, several important growth rates and economic trends illustrate the divergence. Individual countries' average GDP growth rates, for example, varied from -0.1 percent per year for the worst case to 7.5 percent per year for the best. Similarly, growth of countries' labor forces ranged from a slow 1.2 to a fast 5.0 percent per year; inflation ranged from 11.0 to 32.0 percent per year on the average; and agricultural output ranged from an average decline of -1.5 to a rise of 4.2 percent per year.

As this happened, countries' agricultural prices also moved apart. By 1980, FAO reports agricultural product prices in some ECOWAS countries were only about 25 percent of comparable levels of world prices while others were reported to be more than 100 percent above. At the same time, official foreign exchange rates in many countries became overvalued to the extent that they were below their parallel market rates by as much as 400 to 500 percent as

reported in Picks World Currency Report, some were reported to be higher and some remained at par. Despite some progress in the last year or two, countries' prices and foreign exchange rates remain substantially apart.

Obtaining the goal of agricultural price harmonization will involve a highly integrated and coordinated set of adjustments by member countries. However, not all of the adjustments are of equal urgency at this time. Somewhere on the road to harmonization, countries will have to:

- Agree on a level at which commodity prices should be harmonized to provide adequate incentives to agricultural production.
- Ease their foreign exchange and other trade restrictions once surpluses for trade begin to appear. (This is especially important if the private sector is expected to participate significantly in intra-community trade.)
- Develop an integrated infrastructure for transporting, storing, handling and processing farm products throughout the Community as intra-regional trade becomes a reality.

At the present time, there is very little formal trade among the ECOWAS countries in cereals or food crops. Available trade data suggest that the total may be somewhat less than 2 or 3 percent of all of their agricultural trade. The small amount of intra-community trade which does take place, occurs primarily in coffee, cocoa, rice, groundnuts, groundnut oil and some livestock. But these are also the traditional export products, which for the most part, all member countries can produce and only a few need to import.

From among the several export products currently traded, some immediate prospects for increased intra-community trade appear to be in groundnuts, palm oil, livestock, and occasionally other food products. Since the technology for producing these products is well-known and the trade channels are already established, they seem to offer the best opportunity for quick production response and trade, whether it be for the limited intra-community markets or to regain world markets.

Until there is some sign of expansion in the production of food to the point of periodic local surpluses, there appears, on the surface, and from the point of view of harmonization, to be no urgency to press for removal of the barriers to trade. Yet, since the removal of these constraints is usually politically sensitive, it may take considerable time. For this reason, it would be appropriate for ECOWAS to urge countries to start soon to deal with these issues, particularly as ECOWAS pursues related policy adjustments for economic recovery. We know of course that a protocol for the removal of tariffs on raw products has already been accepted. What appears not to have been accepted is the removal of far more stringent barriers to trade -- the licences, the quotas, and the administrative and allocative mechanisms. They still remain.

The Level of Price Harmonization

The selection of appropriate levels of prices for harmonization will depend on two major factors that need to be reconciled:

- The amount of incentive farmers need to stimulate them to increase production of some or all major food products to meet country and community goals; and

- The degree of tolerance or intolerance of consumers and other vested interests to higher food prices.

The second question is both economic and political and will have to be worked out by each country in accordance with its own situation. The groups generally hurt most by higher food prices, if it is necessary to raise prices, are the poor who spend perhaps 80 percent or more of their incomes (or labors) on food. They have few alternatives but to buy less food or cheaper food when prices go up. For them some specifically targeted food programs may have to be considered to tide them over until wage and employment opportunities allow them to participate more broadly in economic activity. There are several such programs in use around the world, namely; subsidies on poor peoples foods, food stamps, ration shops, and direct food distribution.

The responsiveness of agriculture to price incentives is not easy to judge. There is only spotty information available for West Africa or other comparable regions. The current study being conducted by FAO for ECOWAS on costs of production is intended to provide some clues to the question of comparative advantage and potential supply response. Most economists, of course, have great faith in the power of prices, but few can predict how much production will be generated since it varies by region, by country, by area, and from farm to farm according to the on-farm cost price situation and resource availability.

In the short-run agricultural price responsiveness usually depends on the extent to which farmers can shift additional resources to the production of a price-favored commodity. Such resource shifts may occur in land, water, labor or capital, the latter in the form of equipment, structures and modern inputs such as pesticides, fertilizers, antibiotics and medicines. In a market economy, these resources must be drawn away from current use or from disuse and idleness by the expectation of greater net returns.

Commonly, small subsistence farmers using traditional production techniques have fewer opportunities for achieving resource shifts than the larger, more commercially oriented ones. Thus, small farms tend to be less responsive to price incentives unless they have access to additional land and additional labor. In country situations like Mauritania, for example, neither resource is available in large quantities in the short run. New land with adequate rainfall or water is in short supply and the seasonal labor shortages that already occur are not likely to be resolved by people returning to rural areas from Nouakchott or abroad. Any short-run response that could result from higher prices must come from the small amount of irrigated land that now exists in a questionable state of repair.

In the longer run, input availability and substitution may continue to provide some additional response if the incentives are sustained. And generally, some additional long-run supply response can be obtained if farmers are confident that additional investments in farm improvements, land, irrigation, technology and better management will be profitable.

Recent estimates by FAO and some other institutions suggest that the short-run responsiveness of crop production in developing countries may vary from near 0, as is the case of Mauritania, to as much as 3 percent in other cases if the general level of farm prices is increased about 10 percent. The response for an individual crop, when only its price is increased could, of course, be many times more; but then usually such production increases occur because the production of some other crop is reduced. In the longer run, FAO suggests that a response of 1 to 6 percent may be possible if an increase of 10 percent in the general level of prices is sustained over a longer period. Again, for individual crops the response may be much greater and certainly it will vary from country to country and from area to area.

The main point is that the nature and degree of supply responses to relative real price changes is clearly an important policy consideration and especially as long as prices continue to be established largely through government intervention. In setting relative incentive prices, governments need to consider carefully the crop or livestock products they want to encourage and the possible adverse consequences to the output of other products when the price relationships are altered.

Obtaining agreement on the levels at which major commodity prices should be harmonized in the community will not be easy and countries will have different notions about the regional commodity mix that should be encouraged. Also, being at different starting points, the amount of adjustment needed by each country will vary.

If the community agrees to harmonize prices at levels compatible with international markets, it would mean that most countries will have to adjust their farm prices upward and few downward (Table 3). Estimates are available for six countries and 10 of their traded commodities. Among these, Nigerian prices for maize, rice, groundnuts and groundnut oil were reported to be from 30 to 140 percent above their international equivalent in 1980. The other five countries reported individual commodity prices that ranged from 20 to 75 percent below that level.

Table 3. Estimated Protection Coefficients of Major Commodity Prices for Six Selected ECOWAS countries; c.a. 1980 (percent)[a]

Commodity	Togo	Ivory C.	Nigeria	Mali	Senegal	Burkina Faso
Coco	.30	.39	-	-	-	-
Coffee	.26	.43	-	-	-	-
Cotton	.57	.76	-	.48	.52	.75
Maize	-	1.39	-	-	-	-
Rice	-	2.39	-	-	-	-
Groundnuts	-	.73	1.32	.48	.46	-
Groundnut Oil	-	1.98	-	-	-	-
Palm Oil	-	.81	-	-	-	-
Copra	-	.76	-	-	-	-

a. Nominal protection coefficients corrected for marketing and transportation costs and adjusted to include estimated exchange rate bias.

Source: H.P. Binswanger and P. Scantizzo "Patterns of Agricultural Protection," mimeo, November 1983.

The level at which the community chooses to harmonize its farm prices need not be the international level. While that would have certain administrative, budgetary, and competitive advantages, it may not be welcome by farmers in countries where some commodity prices are already reported to be above international levels. Furthermore, the international price levels may not be enough to stimulate production to reach the announced community goal. If that is the case, farm prices will have to be supported through import controls or through Treasury payments.

The European Economic Community, for example, found it impossible to compromise, without compensation, its agricultural prices much below the highest level that prevailed at the time the community was formed. To cope with this issue, an exceedingly complex structure of variable levies was developed to protect those high prices against third country competition. In addition, another very complex and controversial mechanism called the "Green Rate of Exchange" was developed to adjust and compensate countries for differences in their foreign exchange rates. Despite these cumbersome and costly mechanisms, the EEC has had a large measure of "success" in stimulating agricultural production and in achieving economic integration.

Other regional attempts at economic integration have been less ambitious and less far reaching in their effects. The Caribbean Community and the Latin American Integration Association, for example, moved ahead more slowly than the EEC by simply establishing selective trade preferences or supply agreements among member countries. Currently, trade in those regions does not flow freely, but when it does, it

does so at zero or preferred tariffs. Something akin to this approach might be considered as an initial strategy for ECOWAS to move toward harmonization.

There is no doubt that the achievement of full harmonization in the ECOWAS region will be a difficult and slow process for all of the reasons mentioned. Until a substantial intra-community trade develops, there seems to be little urgency to promote regionwide harmonization of prices or foreign exchange rules, or for the removal of trade barriers for farm products. Nonetheless there is already a substantial amount of bilateral trade among neighboring countries, some of which is not considered legal. By removing barriers and harmonizing prices among groups of two or three neighboring countries, this illegal trade would automatically be legalized and each country would gain by exercising its own comparative advantage. And as surpluses are stimulated, additional trade could take place freely.

There is probably even less urgency for the harmonization of farm input prices on a regionwide basis than there is for commodity prices. It is not likely that inputs, other than possibly phosphatic fertilizers and some minor items, are likely to become important in intra-community trade in the near future. However, as long as inputs are subsidized at different levels in neighboring countries, illegal trade is encouraged with a resulting drain on the treasury of the country that subsidizes the input most, either through price or through an overvalued exchanged rate. Therefore adjustments that are just sufficient to equate such border disparities might be considered by countries where this is a problem.

Countries also need to consider carefully the purpose for which input subsidies are applied. If it is to encourage the use and adoption of a heretofore unknown technology, subsidies can help by compensating farmers for their perceived risk of the investment. However, many countries provide subsidized inputs for the ostensible purpose of offsetting low product prices. This is largely a fallacy. Unless the inputs are a substantial part of the total cost of production (including the cost of all labor and capital), a subsidy on inputs is usually too small a portion of the total production costs to make much difference to net returns.

I do not wish by these remarks to minimize the supreme importance of effective policies for stimulating the efficient use of inputs and resources. That is at the heart of the region's potential for increasing the food production. Without the technology to improve yields or to expand area, where that is possible, the goal of regional self-sufficiency in food production cannot be achieved. But without adequate compensation for farm labor and resource investment, this will not happen. I would therefore like to emphasize the overriding importance of product prices as the real incentives to stimulate production. Without that, the best designed production programs may be mere window dressing.

Conclusion

It should now be clear that the road to harmonization and economic integration provides an enormous challenge for the ECOWAS Secretariat. To accomplish this will require a carefully charted and flexible course of action. Its

implementation will need to be supported by convincing analyses and constant monitoring to seek out opportunities for progress toward food and agricultural development. The ECOWAS Scretariat can provide the catalyst that stimulates, and the leadership that encourages individual countries to move step by step along the charted course.

To provide the necessary guidance, the Secretariat should consider in the next year to develop and obtain agreement on a long-range, prioritized, time-phased plan of action for implementation that would gradually steer the countries of the region toward economic cooperation and ultimate integration. Such a plan needs to be flexible to meet changing country and regional situations, and needs to allow for the pursuit of opportunities for cooperation and economic integration when they occur.

The ECOWAS plan of action needs to go beyond a mere statement of goals and platitudes (there are already enough of these); it needs to provide the information and rationale for policy adjustments for the Secretariat to recommend to member countries. And when countries' policies and actions depart seriously from the agreed regional goals and strategies, the Secretariat should be prepared to discuss with the leadership of the country the means to get back on course. To implement this plan ECOWAS needs information, it needs to know what it is talking about, it needs to be fully informed before entering into a dialogue with member country leadership. At this symposium we can do little more than to outline the basic elements of such a plan and to provide the framework on which such a plan can be built in the next year.

Without the knowledge and benefit of the discussions that will ensue this week, I would like to propose for consideration the following elements of an incremental plan of action for ECOWAS. Undoubtedly these will be modified, discarded or added to as this symposium unfolds.

The plan I suggest consists of three phases which overlap in time:

Phase I.	The revitalization of agriculture;
Phase II.	The development of neighboring country ties;
Phase III.	Consolidation and integration.

PHASE I: The revitalization of agriculture and food production would be largely an individual country responsibility with some urging from ECOWAS. It would include among others:

- Developing and obtaining approval of a set of farm-level price targets for major crops and livestock products that are consistent with the regions' need and capacity to produce. Initially this may be more symbolic of harmonization than real; but it would provide a goal.

- Holding discussions with the leadership of individual countries to encourage them to adjust their food and agriculture policies to make them effective in meeting national and regional goals. Such discussions will require substantial preparation and supporting analysis, including perhaps a survey of farm-level prices for major products and how these relate to international prices.

- Developing a regionwide monitoring system that will be sensitive and timely to detect even temporary localized commodity surplus or shortage situations and opportunities for trade in food products. This would include collecting data on actual farm prices (not official prices), anticipating harvests, designating surplus areas, and tracing progress toward agreed targets. A prior benchmark survey might be appropriate.

- Encouraging bilateral arrangements that will allow trade to take place when opportunities for even limited trade appear. In some cases it may be necessary to include one of the major donors in the arrangement.

PHASE II: Developing and strengthening neighboring country and other regional ties would include:

- Providing the leadership to assure harmonious progress for strengthening ties among neighboring countries by encouraging agreements whenever opportunities for trade and economic interdependence seem to be developing by:

  - harmonizing commodity and input prices;

  - minimizing tariff and non-tariff barriers to trade in products, labor and capital;

  - coordinating the development of harbors, as well as adjacent market roads and transportation systems;

  - developing reciprocal joint ventures for processing, storage and distribution of farm products and farm inputs;

  - sharing research results and technology, and cooperating on disease and pest control.

- On a multilateral or regional basis the ECOWAS Secretariat should provide the leadership for possible broader development of:

- cooperation and exchange of research findings among groups of countries with common interests, including the strengthening of country and donor support for regional research;

- joint export market development strategies to assure quality control, dependable supplies, and fair pricing for major export commodities;

- joint purchases for imported commodities supported by market information and strategies for hedging against risks of supply shortages and excessive prices;

- continued support of a regionwide harbor, road and transportation system; and

- a coordinated system for marketing, processing, and storing farm products where the infrastructure permits.

PHASE III: Moving toward consolidation and integration through broadened regional arrangements by:

- Reassessing the objectives for price harmonization in light of progress in production, trade, and the development of price policies under bilateral agreements;

- Moving toward the ultimate goal of harmonization by effectively eliminating all barriers or by developing mechanisms by which the goal of harmonization can be accommodated.

These are not easy challenges for the ECOWAS Secretariat. It will require great sensitivity in dealing with the issues in an informed and objective way. More importantly, however, ECOWAS needs to be consistent and persistent in providing the necessary leadership.

In many ways the challenge for the leaders of individual member countries is even greater. They are the ones that will have to implement the changes. They are the ones that must bear the responsibility for the consequences of their decisions.

As each and every delegate leaves this symposium, he or she should take with them a resolve to re-examine, objectively, their policies affecting food and agriculture; and, in the light of their own situation determine:

- The extent to which their country goals and objectives are consistent with the goal of bilateral and ultimately regional harmonization;
- The effectiveness with which policies are being implemented to achieve what they purport to do; and
- To examine alternative policies and implementation strategies for consideration by the leadership to improve effectiveness in achieving national as well as regional goals.

Once this is done in a comprehensive, objective and convincing manner, the analysts need to make sure that the results are brought to the attention of the leadership and to those who are responsible for removing the macroeconomic policy constraints that have harmed agriculture for more than a decade.

Appendix A

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Appendix A

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Appendix B

Economic Indicator and Other Data

Table 1. Selected economic indicators, ECOWAS, 1970-1980

Country	1980 population	1979 gross domestic product			Annual growth 1979-80	
		Total	Per capita	% Agric.[a]	Total GDP	Agric. GDP
	-number-	-$ million-	-dollar-	-percent-	-percent-	-percent-
Mali	6.8	1,220	179	42	5.0	4.2
Burkina Faso	5.6	860	153	38	-0.1	-3.3
Gambia	.6	132	220	46	2.8	7.0
Niger	5.2	1,710	329	44	3.7	-1.5
Mauritania	1.6	470	294	27	1.8	-1.4
Guinea Bissau	.8	137	171	54	-	-
Benin	3.4	840	250	43	3.3	-
Sierra Leone	3.4	790	232	36	1.6	2.3
Guinea	5.3	1,540	290	41	3.6	-
Togo	2.4	1,000	417	25	3.6	0.3
Ghana	11.3	10,160	899	66	-0.1	-0.2
Senegal	5.5	2,480	450	29	2.5	3.6
Liberia	1.8	940	522	35	1.8	5.0
Ivory Coast	8.2	9,130	1,113	26	6.7	3.4
Cape Verde	-	-	-	-	-	-
ECOWAS	144.5	106,589	738	49	-	-

a. Including agriculture, hunting, forestry, and fisheries.
Source: IBRD, Accellerated Development in Sub-Saharan Africa, 3rd printing 1983.

Table 2. Selected economic indicators, ECOWAS, 1970-80

Country	Annual growth rate 1970-80		Petroleum imports as percent of total energy used	Trade		
	Inflation	Gross dom. investment		Total export growth	Total import growth	Deficit as a percent of GDP[a]
	percent					
Mali	9.7	3.2	92	6.7	5.5	-20
Burkina Faso	9.8	1.2	94	3.1	5.2	-27
Gambia	-	25.5	-	11.7	6.5	-3.1
Niger	10.8	6.8	92	-1.1	5.5	-9
Mauritania	10.1	6.9	92	-	-	37
Guinea Bissau	-	-	-	-	-	-34
Benin	9.2	8.3	91	-11.4	6.3	-20
Sierra Leone	11.3	-1.3	96	-6.5	-3.0	-11
Guinea	4.4	-	66	-	-	-1
Togo	10.3	14.5	91	-2.5	9.8	-28
Ghana	32.4	-7.9	66	-7.2	0.1	-1
Senegal	7.6	1.8	96	-0.8	4.5	-19
Liberia	9.4	5.2	92	2.3	2.3	-4
Ivory Coast	13.5	13.8	95	5.2	10.1	-4
Nigeria	19.0	17.8	-	0.3	20.6	1
Cape Verde	-	-	-	- -	-	-

a. Resource balance 1979.
Source: Ibid

Table 3. Selected trade indicators, ECOWAS, 1970-80

Country	1979 distribution of exports to:		Barter terms of trade 1979	1978 share of total trade	
	Industrial countries	Sub-saharan countries		Food exports	Food imports
	-------percent------		1979=100	------percent-----	
Mali	68	15	186	47	19
Burkina faso	75	9	185	49	19
Gambia	93				
Niger	97	1	82	21	10
Mauritania	88	2	59	9	-
Guinea Bissau	29	22	-	96	43
Benin	89	2	75	40	15
Sierra Leone	98	1	79	47	21
Guinea	69	3	-	2	-
Togo	67	8	138	43	8
Ghana	70	2	119	73	9
Senegal	59	27	96	72	23
Liberia	86	1	67	6	17
Ivory Coast	78	6	101	74	13
Cape Verde	-	-	-	-	-

Source: Ibid.

Table 4: Estimated debt service, ECOWAS 1970-1979

	1970			1979		
	Debt service as percent of:		Gross reserves	Debt service as percent of:		Gross reserves
	GDP	Exports		GDP	Exports	
	-----percent-----		-$ million-	-----percent------		-$million-
Mali	.2	1.2	1	.7	8.5	17
Burkina Faso	.6	4.0	36	.8	3.8	67
Gambia	-	-	-	-		
Niger	.6	3.8	19	.8	3.6	137
Mauritania	2.0	3.2	3	13.6	32.4	118
Guinea Bissau	-	-	-	6.0	59.0	22
Benin	.7	10.1	39	8.6	22.2	47
Sierra Leone	2.9	10.1	39	8.6	22.2	47
Guinea	2.4	26.7	13	5.7	22.2	35
Togo	.9	3.0	35	6.9	24.4	71
Ghana	1.1	5.2	58	0.5	4.2	404
Senegal	.8	2.7	22	5.0	13.7	35
Liberia	5.5	-	-	8.1	13.8	55
Ivory Coast	2.5	6.8	119	6.0	15.2	168
Nigeria	.7	4.2	223	0.4	1.5	5,870
Cape Verde	-	-	-	-	-	-

Source: Ibid.

Table 5. Development assistance, ECOWAS, 1970-79

	Official Development Assistance: net disbursements			Grants percent of net ODA 1979	Increase 1970 to 1979 GDP	ODA as percent of
	1970	1975	1979			
	----------millions----------			----------percent----------		
Mali	21	145	190	86	905	16
Burkina Faso	22	89	199	91	904	23
Gambia	1	8	36	57	3,600	27
Niger	36	141	172	95	477	10
Mauritania	8	62	166	92	2,075	35
Guinea Bissau	7	19	53	-	757	39
Benin	15	54	81	78	540	10
Sierra Leone	7	18	52	57	742	7
Guinea	10	30	57	49	570	4
Togo	17	42	112	41	659	11
Ghana	59	126	171	47	289	2
Senegal	43	139	309	61	718	12
Liberia	13	21	82	48	630	9
Ivory Coast	53	101	162	21	305	2
Nigeria	102	83	26	139	-25	0
Cape Verde	-	-	-	-	-	-

Source: Ibid.

Table 7: Expected production, consumption and deficits of cereals and other food crops, ECOWAS countries receiving food aid, 1984-85[a]

Country	Cereals			Other food crops			
	Production	Consumption	Deficit	Production	Consumption	Deficit[b]	Type[c]
	'000 metric tons						
Mali	1,022	1,192	171	-	-	-	-
Burkina Faso	1,227	1,325	98	-	-	-	-
Gambia	87	136	49	171	30	146	Pe
Niger	1,777	1,941	165	-	-	-	-
Mauritania	32	215	183	-	-	-	-
Guinea Bissau	36	77	41	35	41	6	R
Benin	358	471	113	1,364	1,364	44	R
Sierra Leone	375	464	89	645	672	27	R
Guinea	435	566	131	519	534	15	R
Togo	301	391	90	960	1,008	48	R
Ghana	568	890	322	5,475	5,733	258	R
Senegal	745	1,319	574	-	-	-	-
Liberia	175	294	119	205	211	6	R
Nigeria	-	-	-	-	-	-	-
Cape Verde	5	54	49	1	1	0	P
Total							

a. Projected values as of July 1984.
b. Minus indicates surplus.
c. Type of other food crops: R- roots, tubers, plantains; P = pulses; Pe = peanuts.
Source: USDA - Food AID Needs and Availabilities 1985.

Table 6. Area under cultivation, cereal production and imports, ECOWAS, 1970-84

Country	Area under cultivation		Cereals (excluding rice)				
			Production		Imports		
	1970	1980	1975	1983	1975	1983	1979 food aid
	-- '000 ha --		----------000 metric tons----------				
Mali	1,700	2,100	1,041	798	127	290	25
Burkina Faso	2,200	2,600	1,198	1,198	36	163	49
Gambia	-	-	34	59	28	54	9
Niger	2,700	3,300	859	1,275	22	50	23
Mauritania	300	200	51	14	96	262	31
Guinea Bissau	300	300	29	26	-	6	23
Benin	1,600	1,800	293	437	16	24	5
Sierra Leone	1,500	1,800	380	390	-	101	6
Guinea	1,600	1,600	460	544	71	95	33
Togo	1,400	1,400	263	337	15	32	9
Ghana	2,600	2,800	647	850	96	281	73
Senegal	4,800	5,200	746	764	219	712	65
Ivory Coast	2,800	3,900	644	1,001	81	635	-
Nigeria	29,900	30,400	8,269	9,623	404	2,475	-
Cape Verde	-	-	-	3	40	52	37
Total	538,000	578,000	15,076	17,467	806	5,347	389

Source: USDA-ERS-IED.

POLICIES FOR INCREASED AGRICULTURAL PRODUCTION WITH APPLICATIONS FOR WEST AFRICA[1]

West African nations have made notable gains in recent decades in health, sanitation, disease control, education, modern communication, and transportation. Moreover, the economies of some nations have continued to expand. Despite these generally favorable developments, the economies of West Africa in general are depressed and out of balance with the world.

The major problems arise from inadequate gains in food output relative to rapid growth in population, from huge increases in food grain imports and sharply reduced exports of major commercial cash crops. These inadequacies led to acute shortages of foreign exchange, sharply higher foreign debts, rampant inflation, overvalued exchange rates, reduced government revenues, and depressed overall economic activity.

The agriculture-food industry, the main source of total production and employment for most of the economies, has faced dismal earnings prospects, rising input costs (and reduced availability), declining export earnings, and inadequate investment even to maintain food output.

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1. Prepared by Rex F. Daly, consultant to Robert R. Nathan Associates, Inc.

Generally unfavorable economic developments in the ECOWAS Region have been due to drought, the energy crisis in the mid-1970s, and weaker world markets in recent years. These conditions were beyond the control of ECOWAS countries. But these developments mainly exacerbated generally ineffective policies and programs for the agriculture and food industry.

Many analysts in the developed world today believe that inadequate food production in West Africa arises to a very large extent because of:

- Ineffective policies (often because they are poorly implemented) that reduce earnings prospects for agriculture;
- Rising costs and shortages of farm production inputs;
- Generally unfavorable terms of trade for agriculture -- price-cost squeeze, unprofitable returns, and low priority in the allocation of scarce resources;
- Large imports of food grains; and
- Overvalued exchange rates that favor imports and penalize commercial exports.

These developments not only curb incentives to produce, even among small farmers, but they also reduce producers' ability to increase production of food and commercial crops as well as their ability to maintain food production.

It is against this rather bleak backdrop that the policy dialogue moves to discussions of the nature and role of the economic policy/program choices that will facilitate

an expansion in food production in West Africa. The major objectives of this presentation are:

- The scope of the agricultural and food industry and linkages with the macroeconomy;
- The direction and possible magnitude of the policy/program impacts on agriculture;
- Developments in West Africa and selected ECOWAS nations; and
- Apparent root causes underlying the persistence of unfavorable economic conditions in West Africa.

Policy/Program Choices

Policy choices usually reflect goals and objectives of the leadership. "What" they wish to accomplish using the always scarce resources. The strategy or programs and how well they are implemented demonstrate "how" the leadership links resources to their policy choices. It is the latter that demonstrates how serious governments are about actually implementing plans and policy choices. Although the policy choices for agricultural production may be very logical, they mean nothing if in implementation they are not administered effectively.

Agriculture's Role and Priorities in Development

In the last 20 years, most development economists and planners (even in such prestigious international agencies as IBRD, IMF, USAID and The African Development Bank) have given priority to industry as the "engine of development." Agriculture was usually squeezed to finance

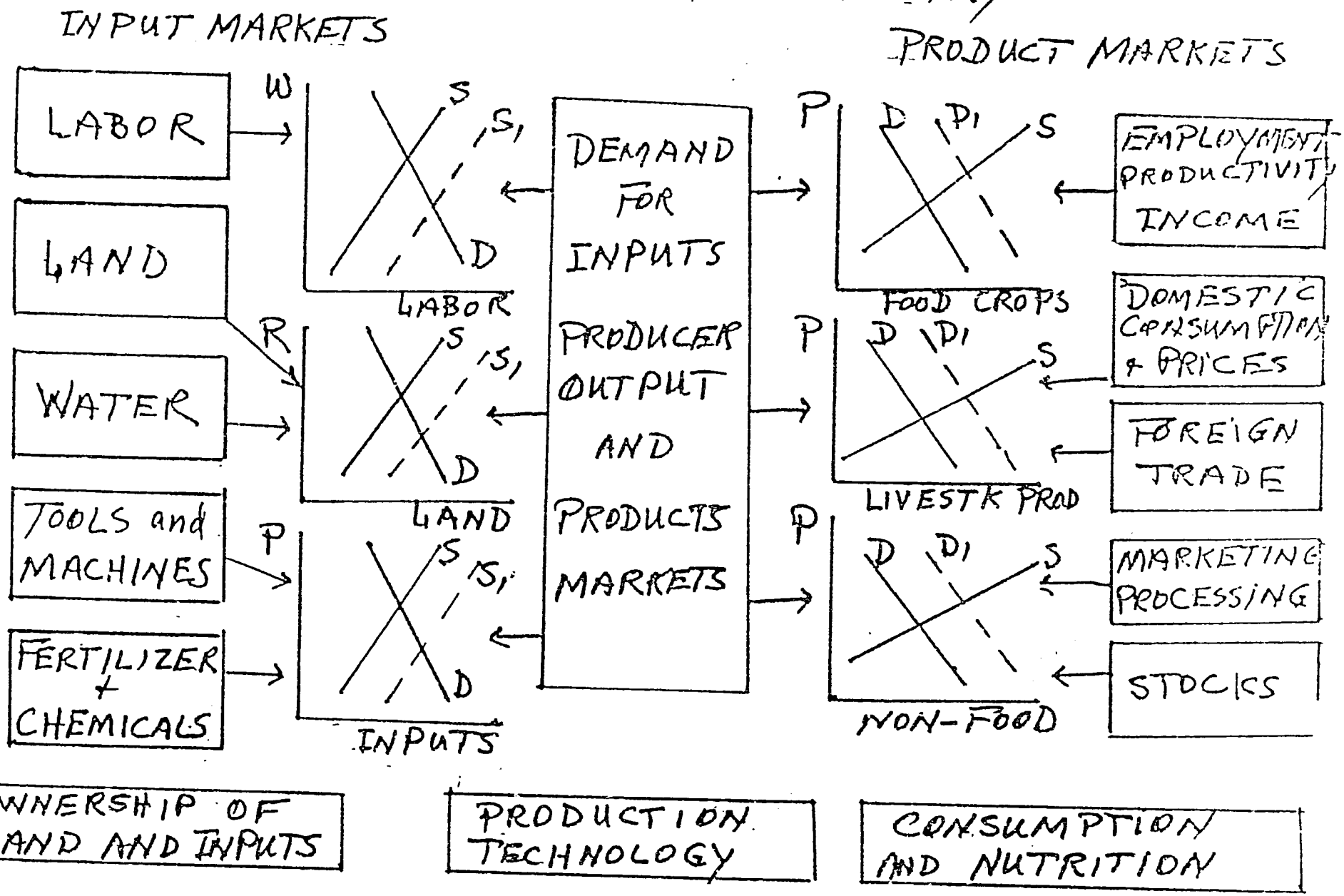
roads, schools and often inefficient industrial development. Except for a few commercial cash crops, there were few "bankable projects" in the heavily subsistence economies of West Africa.

Macroeconomic planners and politicians usually gave very low priority to food production. And, even today, they often do not recognize the dominant role of the agriculture and food industry in most developing economies. Unfortunately, too, ministries of agriculture in developing nations and agricultural development officers usually know little about the economics and politics of agriculture and the industry's strategic role in developing economies.

The Agriculture-Food Industry

The farmer, his family, and his land and livestock make up the centerpiece of farming. But the agriculture and food industry is much broader; it includes fisheries as well as significant linkages through land, water and labor and extends to such natural resource activities as forestry and mining. However, of even greater importance in the broad agricultural and food industry, is the input support industries (fertilizers, chemicals, machines, tools, spare parts, banking, communication, services, research) and the complex of agribusiness industries that transport, store, process, import, export and market the food and fiber used by the nation. These activities exist for agriculture and are integral parts of the agriculture-food industry. The labor for manufacturing and service industries and for cottage industries as well as most export earnings and savings for industrial development must come from an agriculture capable of producing a surplus (see Chart on page 5).

THE AGRICULTURE-FOOD INDUSTRY



This broad agriculture and food industry in developing nations usually accounts for three-fourths to as much as 80 to 90 percent of the economy's total economic activity, provides employment for 80 to 90 percent of the labor force, accounts for 85 to 90 percent of export earnings, and provides most of the food and fiber consumed by the nation.

Someone may ask, "so what, why is this an important issue?" One need not be an agricultural fundamentalist to recognize that the broad agriculture-food industry is the life blood of most developing economies in West Africa. If agriculture is out of balance and depressed, the entire economy suffers.

The issue is important also because agriculture has not been accorded the necessary priority in resource allocations to provide the incentives and the ability to expand production of food crops and commercial crops for export.

Even today, many nations only "talk priority for agriculture." The millions of small producers and their families (often most of the population) have only a small voice when it comes to the allocation of available resources. This may be one of the larger obstacles to overcome in trying to provide adequate producer incentives and resources to encourage and facilitate increases in food production.

Macro-Micro Policies

Policies are often divided by the development economists into the macro and micro policies. Macro policies include, for example:

- Foreign exchange and exchange rate policy;
- Monetary and credit policies;
- Fiscal revenues and expenditures;
- Foreign trade, including taxes, tariffs, quotas; and
- Price and subsidy levels.

Industry micro policies for agriculture, include, for example:

- Price or other special program incentives to expand or modify the mix of food production;
- Production input measures to expand, restrict or modify the cost of labor, land, fertilizer, chemical, hybrid seed, machinery, spare parts;
- Taxes or incentives on trade;
- Programs to facilitate or limit the use of land and water for production; and
- Low food price policies that largely determine farm-gate prices, etc.

However, the macro-micro breakdown of policies is not particularly meaningful in the developing nations where the agriculture-food industry so dominates all economic activity. The development economist or financial analyst concerned with macro policy issues is often only struggling with the symptoms of imbalances and problems that originate in agriculture. The macro policies may simply reflect an agriculture pinched between reduced earnings prospects and sharply rising costs for inputs, high taxes and rents, sharply larger competing food imports, and the generally

unfavorable impacts of overvalued exchange rates. At the same time, decisions on macro policy and program issues, made by the general development economist who has no first-hand knowledge or insights into the economics of agriculture, may cause or at least aggravate depressed conditions in agriculture.

It is unfortunate also that most agriculturalists have limited training or experience in the economics of agriculture and the broad role of the agriculture-food industry in developing economies. Accordingly, essential interdependencies (linkages) between agriculture and the general economy usually are not explicitly considered in weighing policy/program alternatives and resource allocations.

Commodities at Cutting Edge of Policy Impacts

General policy goals and implementing programs often do not deal explicitly with commodities. But their impacts on agriculture are usually manifested in imbalances and problems for a commodity or related group of commodities. As a result, the planner and agriculture development officer should understand and monitor developments for major agriculture-food commodities. In addition to insights into the economics of major commodities, planners and analysts should understand and be able to monitor regularly the political, institutional, and social forces influencing the production, consumption, trade, prices, costs, competitive relationships, etc. among all major food and other agricultural commodities. There really is no substitute for detailed insights and understanding of commodity developments if the planner or agriculturalist is to:

- Develop logical policies and implementing programs;
- Monitor and appraise program/project developments;
- Develop realistic and effective annual budgets; or
- Make logical longer run plans.

The forces shaping commodity developments will be quite unique for each country of West Africa. However, some developments and institutional arrangements may be similar for many nations in the region. Even so, it is very difficult, indeed almost presumptious, for strap-hanger policy analysts (short-term visitors) to pontificate about country-specific policies and programs for agriculture.

Unfortunately, many policy analysts (whether from IBRD, IMF, USAID, FAO, the universities, or perhaps even ECOWAS) are of the strap-hanger group. Often they are not in the country long enough to gain the understanding and insights into the politics, economics, institutions, culture, and the political power points that are essential as a basis for effective policy/program development. However, the well-trained economic and policy analyst with ministry experience can be helpful in working with, advising and assisting a less experienced country staff.

Moreover, the well-trained staffs of the international and regional lending agencies and donors, who study and regularly visit selected countries, prepare some excellent country assessments and policy/program recommendations. But even they can misjudge critical issues and may not provide

adequate insights and the understanding necessary to interpret and advise on country-specific policies and implementing programs.

Conceptual Analytical Framework

As a framework for further discussion of agriculture and food industry policies and programs, a simple conceptual schematic helps to organize major areas of policy for the industry.

Input Policies

The policy and program handles having most direct impacts on food production operate through input markets. Increases in supplies of major inputs and lower costs will stimulate increased use of inputs and large production. But this is a gross oversimplification. There are many variations and possible combinations in the use and cost of inputs that may prove offsetting in their impact on food production. And the producer's response to market prices and prospective earnings may increase or decrease his demand for and use of production inputs. Moreover, weather conditions can intercede and offset the production effect of improved earnings prospects and increased use of inputs.

Labor and Land Inputs

Availability and quality of land and labor will be critical in determining food production in West Africa, especially where "a man and a hoe" largely determine the production unit. To the extent this is the case, food

production increases will depend importantly on policy-program measures affecting labor and land. This includes policies related to the:

- Availability and wages of labor in rural areas as influenced by rural-to-urban population shifts;
- Development of rural industry that competes for labor, but which may have a positive effect on food output;
- Population and labor force growth;
- Food prices and food distribution programs in rural versus urban areas;
- Land tenure arrangements and policies affecting the ownership and use of land resources. Private ownership often encourages the development, use, productivity and conservation of land and water resources;
- Laws and institutions that idle good crop land and limit food production; and
- Investment in reclamation and irrigation -- dams, wells, pumps, etc.

Purchased Inputs

Purchased inputs often consist of imported high-cost fertilizers, chemicals, machines, tools, spare parts, imported seed, etc. In attempts to encourage increased use of selected inputs, governments in developing nations often, for example:

- Subsidize costs to encourage the adoption and greater use of inputs to increase output of selected crops -- often cash crops for export;

- Initiate programs to subsidize the transportation, packaging, credit, and cost of major inputs; and

- Develop policies, programs, and priorities for the use of limited foreign exchange reserves to maintain or perhaps increase the use of selected critical inputs.

Production Technology

Policy initiatives usually include programs to support basic research and extension to develop new breeds and varieties, increase the amount and quality of seed, improve husbandry and cultural practices, and develop better disease and pest control. New production technology usually leads to increased output and greater output potential. Also, it often leads to larger total costs, but smaller unit costs of production.

Price Policy

Price policies and programs have pervasive impacts on producer prices and prospective earnings, terms of trade for agriculture, food prices, and the general price level. They have widespread impacts in both the input markets and in the final product markets.

The direct impacts of pricing policies and programs -- producer price supports, pricing of major inputs, pricing of competing crops -- usually show relatively small direct price impacts (low elasticities) in many econometric analyses, but many such analyses tend to understate price effects. Such analyses are often highly aggregated and relate to total production of a crop or commodity rather than measure the separate influence of prospective price

changes on area planted and on crop yield. Since these analyses often aggregate widely different producing areas and different producing seasons, they inappropriately generalize competing crops and combine widely varying weather conditions. Nevertheless, there is ample evidence that improved prices and earnings prospects have a positive and significant impact on food production, even among the smaller, largely subsistence producers. However, one would expect small subsistence producers to be less responsive to price than the larger, market-oriented.

Secondary Price and Earnings Impacts

Although direct annual impacts of prices on food output are usually significant, the secondary or extended longer term impacts of better price and earnings prospects are probably even greater. Generally improved terms of trade for agriculture and the need for increased food output will bring investment in land improvements and irrigation facilities as well as adoption of improved seed and disease and pest controls. Generally improved terms of trade for the agriculture and food industry -- better earnings prospects, reduced cost squeeze, lower taxes, lower penalties on exports, fewer competitive imports, and a better balance of producer prices and retail food prices -- will materially slow the rural-urban population movement and encourage investment in agriculture and in supporting roads, transport and market infrastructure.

Pricing by Region and Season

Governments often specify for all regions of their country the same producer support prices and the same

ceiling prices. This may be done for reasons of equity and ease of setting the price. But such pricing is virtually doomed to failure at the outset unless the government is prepared to control strictly internal movements of food and perhaps make large outlays for transportation. Similar imbalances develop when market prices are set the same for the flush supply-season as for the short supply-season. Again, large government costs may be necessary to override the differences in costs of transport from surplus to deficient areas or the storage costs of carrying a commodity from one season to another. These are normal economic costs that would not be borne by the private sector, and governments often find these costs excessive even though they may be justified on political grounds.

Government Set Prices and Costs

Available information suggests that all governments in West Africa set important producer prices, costs, price margins, wholesale and retail prices through parastatals or price boards. There seems a willingness, a political compulsion, to assume the impossible task of controlling or influencing virtually all economic decisions in agriculture. This is doomed to failure unless prices and costs are set reasonably close to the equilibrium of constantly changing market supply-demand forces.

Except for stop-loss minimum producer price interventions for a commodity, at a level that may prove not too costly to government, no parastatal or marketing board has the information, the analyses, the wisdom, or the foresight required to draw up a workable set of market prices for a major commodity and even less so for a whole range of

commodity and input prices. Any set of fixed prices will be constantly out of phase with underlying economic forces. This leads to parallel markets and other opportunities for fraud unless imports and exports are adjusted to largely offset imbalances in the market. Any such offsets usually are to the disadvantage of the domestic producer.

If governments, through their parastatals and marketing boards, are able to provide only token support for a commodity when market supplies are large and allow producer supports to decline in real terms, producers will likely cut production of that commodity by reducing both plantings and yields. It does not take many such adverse scenarios for producers and rural people to lose confidence in their government. Governments with limited depth in management skills may be well-advised to handle the big decision and allow the markets to help them adjust the smaller, less important market imbalances.

Product Market Policies

In the schematic for the agriculture-food industry, the product markets allocate output (supplies) generated by inputs and production. Output may be of little value unless product markets are functioning to assemble and distribute available supplies, determine equitable prices, and signal back to producers the value and mix of output that can be profitably absorbed by the market.

Product market policies, including macro policies, impact directly and heavily on farm output, on input markets, and on the distribution of available supplies of food. Some of the more widely used policy/program handles employed include:

- Programs to stabilize food prices -- price ceiling, special prices for the needy, imports, rationing and available supplies, etc.;

- Low food price policies involving explicit or implicit subsidies that are often borne by the producer;

- Monopoly controls for major foods with programs that regulate producer prices, price margins, imports, exports, and even the domestic movement and supplies; and

- Special food distribution programs for the needy or target groups such as children and pregnant and nursing mothers.

These are examples of policy/program handles. There are many more and many variations and combinations designed to effect desired policy targets.

Direction and Magnitude of Policy Impacts

Because of the dominant influence of the agriculture-food industry in developing nations, impacts of agriculture price policy are pervasive throughout the economy. Price changes for food and fiber products directly affect farm income, the cost of living, wages of farm and industrial workers, government revenues, and the supply and use of farm and non-farm products. Price policy linkages throughout the economy can be weighed qualitatively to indicate at least the direction of impacts, if not the magnitude:

- Increases in producer prices for food, especially in terms of real buying power, would be expected to:

  - Increase food production unless the price effect is offset in some other way;

- Increase producer incomes;
- Increase demand for production inputs;
- Encourage and facilitate investment and improvements in food production potentials; and
- Increase consumer food prices and expenditures for food.

• Increases in producer prices of export crops would lead to:

- Increased output of export crops which may restrict output of food crops;
- Increased producer incomes with increases in demand for inputs and increases in government revenues.

• Increases in agricultural input subsidies or reductions in import duties or in other import restrictions would lead to:

- Increases in the use of inputs;
- Increases in agricultural output;
- Increases in agricultural income, gross domestic product, consumption, and perhaps wages and profits; and
- Increases in government cost (or a reduction in tariff revenues).

• Reduction in overvalued exchange rates would operate to:

- Stimulate exports and discourage imports;
- Encourage the shift of resources toward agriculture;
- Increase agricultural output;
- Increase consumer prices and reduce real wages accordingly; and

- Increase exports and government revenue.

Increases in consumer food subsidies would tend to:

- Reduce food prices and increase consumption of food and non-food products;
- Increase real income and buying power of consumers;
- Increase imports of food, perhaps; and
- Increase government subsidy costs.

The message of this listing is to emphasize the prevasive nature of agricultural price policy impacts on the economy. Understanding these linkages and their possible magnitudes of change is vital in national policymaking and program formulation.

Macro policies on trade, monetary-fiscal arrangements, price controls, subsidies, and wage-employment programs have direct and large impacts on the availability and cost of production inputs. Farm production costs and prospective returns influence the intensity of resource use, the adoption of new technology, improvements in cultural practices, and the output of products for domestic use and export.

In most less developed nations, growth and change in the agriculture and food industry are main determinants of the economy's gross domestic product, employment, income, and savings. Accordingly, the agriculture-food industry complex is in essence the economy of most developing nations. A healthy prosperous agriculture is essential for a prosperous expanding economy.

Economic Developments in West Africa

Although available data are fragmentary and each nation is unique, a clear message seems to come through. But it remains for those who know West Africa best to judge that message. Most developing nations, and indeed West Africa as a whole, have similar problems and development profiles. But this does not mean that they are the same or need the same polices and programs.

Available data on production of grains in West Africa show very small increases in area planted and in yields in the 1970 decade (Table 1). Grain output increased less than 1.5 percent per year. In the same period, population grow at more than 3 percent per year.

This area, yield, and production pattern is much the same for Nigeria. But the trend in area, yield, and production of grain declined during the decade for Mali and Ghana. In Sierra Leone, grain output about matched population growth due mainly to increases in area harvested. However, Ivory Coast increased the area in grains and the relatively high yields were further increased. But large increases in grain output were matched by population growth.[1]

Grain production in the region slowed materially in the 1980 to 1984 period when drought in many nations quickened downtrends already underway. Generalizations become a bit risky since data are not readily available for recent years.

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1. For detailed data on these countries, see appended tables.

Table 1. Area, Yield and Production of grain, Selected Countries of West Africa (ECOWAS)

Country	1970	1975	1980 Actual	1980 Growth	1981	1982	1983	Pre 1984 Actual	Pre 1984 Growth from 1980
West Africa (ECOWAS)									
Area (1000 Ha)	22,516	22,583	23,883	0.6	24,447	24,317	23,609	24,346	0.5
Yield (kg)	674	705	727	0.8	739	751	594	621	-3.9
Population (1000 M.T.)	15,184	15,920	17,382	1.4	18,032	18,240	14,016	15,100	-3.5
Nigeria									
Area	12,110	12,785	13,490	1.1	13,580	13,705	13,384	13,710	0.4
Yield	680	645	711	.4	716	741	720	858	4.8
Output	82,40	8,248	9,594	1.5	9,726	10,055	9,635	11,759	5.2
Population (mil)	56.3	65.7	77.1	3.2	79.7	82.4	85.2	88.1	3.4
Mali									
Area	1,674	1,512	1,625	-0.3	1,645	1,572	1,670	1,600	-0.4
Yield	599	747	549	-0.9	678	648	562	509	-1.8
Output	1,003	1,129	892	-1.2	1,116	1,018	938	815	-2.2
Population (mil)	5.58	6.20	6.91	2.2	7.07	7.23	7.39	7.56	2.3
Ghana									
Area	998	806	854	-1.6	843	822	760	907	1.5
Yield	860	833	789	-0.9	860	662	561	869	2.4
Output	858	671	674	-2.4	725	544	426	788	4.0
Population (mil)	8.79	10.31	12.13	3.3	12.53	12.94	13.37	13.80	3.3
Ivory Coast									
Area	223	231	275	2.1	262	270	262	323	4.1
Yield	2,646	3,263	3,171	1.8	3,218	3,281	3,656	3,433	2.0
Output	590	837	872	4.0	843	886	958	1,109	6.2
Population (mil)	5.43	6.76	8.05	4.0	8.33	8.61	8.89	9.18	3.3
Sierra Leon									
Area	353	346	428	1.9	428	455	455	455	1.5
Yield	1,269	1,616	1,278	0.1	1,206	1,138	1,253	1,257	-0.4
Output	448	559	547	2.0	516	518	570	572	1.1
Population (mil)	2.73	3.04	3.43	2.3	3.52	3.60	3.70	3.80	2.6

Source: Based on USDA/ERS and estimates based on FAO, USDA/FAS.

Grain Imports Rise Sharply

As the output of grains slowed and fell well short of accelerating population growth, imports of grain rose sharply. To maintain consumption of grains, most nations resorted to imports. In the 1970-75 period, grain imports to ECOWAS totaled around 1.25 million tons per year. But imports rose sharply from 1975-80 and increased further through 1984. At that time, grain imports totaled nearly 5.5 million tons and were equal to more than one-fourth of West Africa's grain consumption (Table 2).

Grain imports increased sharply in most nations of the region in the 1975-85 decade. The expansion took place in some countries even though increases in output of millets and sorghum about matched population growth. Much of the increase in imports was in such preferred grains as rice, wheat, and, in some nations, maize. Import increases for these grains have been phenomenal in the past 15 years in the five selected countries -- Nigeria, Mali, Ghana, Ivory Coast, and Sierra Leone. But underlying circumstances were somewhat quite different for each country.

Related Economic Developments

In almost all countries for which data were available, producer prices for grains rose much less than the general price/cost level. This reduced the producer's real income and explains in large measure the general deterioration in terms of trade for agriculture. Food output trends have been steady-to-lower so that the rapidly growing population sharply reduced per capita output. But the much larger imports helped to maintain total grain consumption (Table 3).

Table 2. West Africa: Grain Output and Imports
(1000 metric tons)

Country	1970		1975		1980		1984	
	Output	Import	Output	Import	Output	Import	Output	Import
West Africa	15,943	1,237	16,210	1,294	18,053	3,882	15,567	5,342
Nigeria	8,440	271	8,192	404	9,488	1,739	7,935	2,475
Togo	300	19	269	15	305	46	289	32
Ivory Coast	610	184	692	81	799	373	958	635
Ghana	542	157	890	96	780	211	426	281
Mali	1,147	36	1,115	127	1,172	102	938	290
Niger	1,420	17	1,136	22	1,627	95	1,400	50
Burkma Fass	1,030	32	1,176	36	1,216	86	1,130	163
Mauritania	116	64	56	96	44	185	22	263
Guinea	598	55	576	71	608	106	625	96
Gambia	41	18	32	28	79	64	79	54
Guinea Bissau	18	0	20	0	38	0	25	0
Liberia	144	58	260	42	266	101	294	115
Sierra Leone	441	2	508	41	559	70	570	101
Senegal	824	292	959	219	664	564	552	712
Benin	272	15	329	16	402	83	320	24
Cape Verde	0	17	0	40	6	57	4	52

Source: Based on USDA/ERS and estimates from FAO, USDA/FAS.

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Table 3. Grain Production, Trade and Use, Selected Countries, West Africa (ECOWAS)

(1000 metric tons)

Country/year	Output	Import	change	Non-food use	Food use		Population	
					Total	Percep.	Total	Growth
						--kg.--	-million-	
West Africa								
1970	15,943	1,064	9	495	16,521	157	105.0	--
1975	16,210	1,286	-33	0	17,463	614.4	121.4	2.95
1980	18,053	3,880	116	824	21,225	150	141.2	3.07
1981	17,382	4,889	-54	953	21,264	146	145.6	--
1982	18,032	4,856	-110	932	21,846	145	150.2	3.11
1983	18,240	4,638	362	797	22,443	145	155.0	--
1984	15,567	5,342	-125	848	19,936	125	160.0	3.17
1985E	16,500	5,000	0	700	20,800	126	165.2	3.19
Nigeria								
1970	8,440	271	9	128	8,592	152.6	56.3	--
1975	8,191	404	-20	0	8,578	130.6	65.7	3.14
1980	9,488	1,739	76	434	10,869	141.0	77.1	3.25
1981	9,764	2,500	22	535	11,751	147.4	79.7	--
1982	9,895	2,386	-164	533	11,584	140.6	82.4	--
1983	10,424	2,162	360	399	12,547	147.3	85.2	--
1984	7,935	2,475	-110	486	9,814	111.4	88.1	--
1985E	10,083	2,000	0	--	--	--	91.2	3.42
Mali								
1970	1,147	36	--	30	1,153	207	5.58	--
1975	1,115	127	--	34	1,208	195	6.20	2.13
1980	1,172	102	--	27	1,247	180	6.91	2.19
1981	892	98	--	33	957	135	7.07	--
1982	1,116	156	--	31	1,241	172	7.23	--
1983	1,018	155	--	28	1,145	155	7.39	--
1984	938	290	--	24	1,204	159	7.56	--
1985E	815	--	--	--	--	--	7.74	2.29

(Continued)

Table 3. (continued)

Country/year	Output	Import	change	Non-food use	Food use		Population	
					Total	Percep.	Total	Growth
						--kg.--	-million-	
Ghana								
1970	542	157	--	26	673	76.5	8.8	--
1975	890	96	--	20	966	93.8	10.3	3.20
1980	780	211	--	20	971	80.2	12.1	3.27
1981	674	259	--	22	911	72.9	12.5	--
1982	725	197	--	16	906	70.2	12.9	--
1983	544	223	--	13	754	56.3	13.4	--
1984	426	281	--	24	683	49.5	13.8	--
1985E	788	85	--	25	848	59.3	14.3	3.40
Ivory Coast								
1970	610	184	--	10	784	144	5.43	--
1975	692	81	--	16	757	112	6.76	4.48
1980	799	373	--	17	1,280	159	8.05	3.55
1981	872	548	--	18	1,438	173	8.33	--
1982	843	546	--	20	1,369	154	8.61	--
1983	886	594	--	25	1,455	164	8.89	--
1984	958	635	--	27	1,566	171	9.18	--
1985E	1,109	--	--	--	--	--	9.47	3.30
Sierra Leone								
1970	441	2	--	66	377	138	2.73	--
1975	508	1	--	80	429	141	3.04	2.17
1980	559	70	--	87	542	158	3.43	2.44
1981	547	68	--	83	532	151	3.52	--
1982	516	72	--	84	504	140	3.60	--
1983	518	122	--	95	545	147	3.70	--
1984	570	101	--	84	587	154	3.80	--
1985E	572	--	--	--	--	--	3.91	2.65

Source: Based on USDA/ERS and estimates from FAO, USDA/FAS.

Larger imports were financed by big increases in government deficits, foreign borrowing, and food aid. The rising foreign debt led to big increases in annual debt-servicing costs, especially relative to declining export earnings. The value of local currencies declined and official exchange rates became overvalued. This pinch on exports and an already burdensome export tax (the main source of government revenue for many nations) led farmers to neglect the production of commercial export crops. Foreign exchange earnings declined, reducing available resources for purchase of essential production inputs.

Unfortunately, this general scenario of economic disaster seems to fit many nations of West Africa. Weather conditions improved in some parts of the region in 1984, increasing producer returns and general economic conditions. But political stability in many countries appears to be fragile, and many economies are virtually bankrupt. Moreover, actual conditions may be worse than indicated by reported data.

Identification of Root Causes

Are economic developments in West Africa really as bleak as the data seem to suggest? Why do obviously bad policies and imbalances persist? Can we identify the root causes of economic conditions in West Africa?

- Perhaps the generally unfavorable economic developments in the region are not due to bad policies and poor planning, but arise from an inability to launch and support effective implementing programs. This may reflect inadequate resources or perhaps a management staff that is too small, poorly trained, or inexperienced.

- Development theory and development economists usually give agriculture low priority, or even neglect, as resources are used for industrial development. These views and related priorities still persist and may be a major impediment to effective implementation of agricultural programs. Interestingly, the most successful economies in Africa -- Ivory Coast, Kenya, Cameroon, Malawi, Botswanna, for example -- have leaders with roots in agriculture.

- Serious imbalances in the markets, overvalued exchange rates, and widespread shortages lead to parallel markets and often to graft and corruption in government. If these conditions persist because of vested interests of people in power, policy and program changes may have little corrective impact on these conditions.

- Since many nations of West Africa have less population than an efficient sized city, the people/resource base may not be adequate to support needed roads, transportation facilities, an airline, widely dispersed school and health facilities, and a full set of government ministries, for example.

- Detailed government control of markets, foreign trade, finance, prices, costs, etc. requires extensive information and an ability to monitor economic and political developments. A trained staff is required to interpret developments if management is to be even modestly efficient and successful in correcting imbalances. This capability usually does not exist in most developing nations, especially in Africa.

Good and Bad Policies and Programs for Agriculture

The decision maker or administrator of agricultural programs in developing nations seldom has the economic information, statistics, the institutional and political

facts, and the analyses that would help him to build a productive agriculture with equitable incentives and a reward system for agriculture. The informed decision maker should be able to monitor, understand, and approximately measure:

- The role of prospective earnings and other incentives in expanding agricultural production;
- The need for greater freedom -- fewer controls -- in market pricing, market distribution, and processing of food;
- The need for policies and programs that do not in essence confiscate the farmers' produce, at prices below the market;
- The need for a private sector role by which to judge the efficiency and costs of cooperatives, parastatals, transport, and input industries serving agriculture;
- The need for more but less costly inputs of fertilizer, disease and insect controls, tools and spare maintenance parts;
- The need for a flexible credit policy that provides adequate financing for agriculture;
- The need for land and water use policies that facilitate land ownership, land improvements, and intensive use of agricultural land;
- The need for a trade policy that rewards the producer for his key role in earning foreign exchange;
- The need for government to demonstrate that national planning objectives for agriculture and food policies and programs are serious and not just talk to impress donors; and
- The need for policies, institutions, and programs that accord priority to agriculture,

> motivate producers, reduce the price-cost squeeze, and rectify inequities between agriculture and nonfarm activities.

These are the kinds of policies and programs that will build an efficient and prosperous agriculture as well as a productive and growing general economy.

Nigeria: Grain Production, Trade and Related Economic Developments
(1000 metric tons)

	1970	1975	1980 Actual	1980 Growth from 1970	1982	1983	1984 Actual	1984 Growth from 1980	Proj. 1985
Grain production[a]	8,311	8,016	9,197	1.0	9,480	9,962	7,506	-5.0	9,630
Rice (milled)	257	348	579	8.5	825	918	851	10.1	900
Corn	20	18	23	1.4	25	30	35	11.1	40
Millet & sorghum	6,608	6,300	6,925	0.5	6,880	7,229	4,960	-8.0	6,890
Imports	313	412	1,739	18.7	2,386	2,162	2,475	9.2	--
Rice (milled)	1	6	394	81.7	651	712	775	18.4	--
Wheat	271	404	1,176	15.8	1,375	1,400	1,500	6.3	--
Millet & sorghum	40	1	1	--	10	--	--	--	--
Total supply	8,624	8,428	10,936	2.4	11,866	12,124	9,981	-2.3	--
Per capita (kg)	153	128	142	-0.7	144	142	113	-5.6	--
Population (million)	56.3	65.7	77.1	3.2	82.4	85.2	88.1	3.4	91.2
Related econ trends									
Consumer Price Index (1975=100)	53	100	228	15.7	301	376	545	24.3	--
Producer Price (real) (N/mt)									
Rice	257	230	144	-5.6	133	106	92	-10.6	--
Corn	128	115	88	-3.7	70	56	66	-6.9	--
Millet & sorghum	106	98	94	-1.2	75	60	66	-8.5	--
Exchange rate (n/$ unofficial)	.58	.89	.90	-4.5	1.14	1.81	--	26.2	--
Debt outstanding (mil. dol.)	494	1,399	6,831	30.0	12,748	15,009	--	30	--
Exports, merchandise (mil. dol.)	1,248	8,329	25,741	35.3	12,877	10,456	10,200	-20.7	--
Percent debt service/export merch.	4.5	3.7	3.8	--	16.8	27.5	--	--	--

a. One year lag.
Source: Based on USDA/ERS and estimates based on USDA/EAS, FAO, IBRD, IMF.

Mali: Grain Production, Trade and Related Economic Developments
(1000 metric tons)

	1970	1975	1980 Actual	1980 Growth from 1970	1982	1983	1984 Actual	1984 Growth from 1980	Proj. 1985
Grain production[a]	1,092	1,042	1,116	0.2	1,057	974	883	-5.7	781
Rice (milled)	106	142	109	0.3	116	86	108	-0.2	66
Corn	913	800	943	0.3	871	793	700	-7.2	650
Millet & sorghum									
Imports	49	127	102	7.6	156	155	291	30.0	350
Rice (milled)	14	25	53	14.2	71	52	162	32.2	110
Wheat	30	49	31	0.3	40	67	29	-1.6	70
Millet & sorghum	3	28	18	19.6	30	20	60	35.1	100
	2	25	0	--	15	16	40	--	70
Total supply	1,141	1,169	1,218	0.7	1,213	1,129	1,174	-0.9	1,131
Per capita (kg)	204	189	176	-1.5	168	153	155	-3.1	146
Population (million)	5.58	6.20	6.91	2.2	7.23	7.39	7.56	2.3	7.74
Related econ trends									
Consumer Price Index (1975=100)	55	100	(165)	11.6	--	--	--	--	--
Producer Price (real) (N/mt)									
Rice (1000 CFA)	45.5	40.0	(37.9)	1.8	--	--	--	--	--
Millet & sorghum (1000 CFA)	32.7	32.0	(30.0)	-0.9	--	--	--	--	--
Exchange rate (CFA/$)	560	431	419	-2.9	666	762	--	22.1	--
Debt outstanding (mil. dol.)	236	332	843	13.6	1,024	1,130	--	10.3	--
Exports, merchandise (mil. dol.)	33	53	205	20.0	146	--	--	--	--
Percent debt service/export merch.	3	6	17	--	35	--	--	--	--

a. One year lag.
Source: Based on USDA/ERS and estimates based on USDA/EAS, FAO, IBRD, IMF.

Ivory Coast: Grain Production, Trade and Related Economic Developments
(1000 metric tons)

	1970	1975	1980 Actual	1980 Growth from 1970	1982	1983	1984 Actual	1984 Growth from 1980	Proj. 1985
Grain production[a]	520	533	784	4.2	856	942	1,050	7.6	1,192
Rice (milled)	128	170	226	5.8	242	260	230	0.4	304
Corn	354	326	510	3.7	564	639	782	11.3	843
Millet & sorghum	38	37	48	2.4	50	43	38	-5.7	45
Imports	185	81	367	7.1	546	589	635	14.7	--
Rice (milled)	79	2	168	7.8	357	380	400	24.2	--
Wheat	101	79	183	6.1	176	206	225	5.3	--
Other	5	0	16	--	13	3	10	--	--
Total supply	705	614	1,153	5.0	1,402	1,531	1,685	10.0	--
Per capita (kg)	130	91	143	1.0	163	172	184	6.5	--
Population (million)	5.43	6.76	8.05	4.0	8.61	8.89	9.18	3.3	--
Related econ trends									
Consumer Price Index (1975=100)	70	100	216	11.9	252	267	278	6.5	--
Producer Price (real) (N/mt)									
Rice (1000 CFA)	31.4	65.0	23.1	-3.0	23.8	22.5	28.8	5.7	--
Corn (1000 CFA)	18.1	25.0	--	--	19.8	15.0	--	--	--
Exchange rate (CFA/$ unofficial)	280	215	210	-2.8	333	400	440	20.3	--
Debt outstanding (mil. dol.)	256	947	5,513	35.9	6,122	6,046	--	3.1	--
Exports, merchandise (mil. dol.)	497	1,239	3,012	19.7	2,453	2,152	2,400	-5.5	--
Percent debt service/export merch.	8	11	33	--	52	57	--	--	--

a. One year lag.
Source: Based on USDA/ERS and estimates based on USDA/EAS, FAO, IBRD, IMF.

Sierra Leone: Grain Production, Trade and Related Economic Developments
(1000 metric tons)

	1970	1975	1980 Actual	1980 Growth from 1970	1982	1983	1984 Actual	1984 Growth from 1980	Proj. 1985
Grain production[a]									
Rice (milled)	299	340	375	2.3	347	349	383	0.5	385
Corn	265	312	343	2.6	314	314	346	0.2	348
Millet	10	12	12	--	12	13	14	--	14
	24	16	20	--	21	22	23	--	23
Imports									
Rice (milled)	2	1	70	--	72	122	101	9.6	--
Wheat	0	0	42	--	46	85	51	5.0	--
	2	1	28	--	26	37	50	15.6	--
Total supply	301	341	445	4.0	419	471	484	2.1	--
Per capita (kg)	110	112	130	1.7	116	127	127	-0.6	--
Population (million)	2.73	3.04	3.43	2.3	3.60	3.70	3.80	2.6	3.91
Related econ trends									
Consumer Price Index (1975=100)	66	100	190	11.2	307	--	--	--	--
Producer Price (real) (N/mt)									
Rice (1000 LE)	12.8	18.3	14.6	1.3	--	--	--	--	--
Exchange rate (LE/$)	.85	.90	1.05	2.1	1.24	1.68	--	17.0	--
Debt outstanding (mil. dol.)	59	169	468	23.0	523	513	--	3.1	--
Exports, merchandise (mil. dol.)	100	126	215	8.0	168	--	--	--	--
Percent debt service/exports	12	16	28	--	--	--	--	--	--

a. One year lag.
Source: Based on USDA/ERS and estimates based on USDA/EAS, FAO, IBRD, IMF.

Ghana: Grain Production, Trade and Related Economic Developments
(1,000 metric tons)

	1970	1975	1980 Actual	1980 Percent of 1970	1982	1983	1984 Actual	1984 Percent of 1980	1985
Grain production[a]	520	866	749	144	693	532	413	55	766
Rice, milled	45	49	62	194	65	24	27	44	44
Corn	304	486	480	158	378	346	299	62	450
Millet and sorghum	171	331	307	180	250	162	87	28	272
Imports	157	95	212	135	197	223	281	132	--
Rice, milled	53	0	30	57	26	34	71	236	--
Wheat	99	95	131	131	120	120	106	81	--
Corn	5	0	40	800	41	59	94	235	--
Millet and sorghum	0	0	10	--	10	10	10	100	--
Total supply	677	961	960	142	890	755	694	72	--
Per capita (kg)	77	93	79	103	69	56	50	63	--
Population (million)	8.79	10.31	12.13	140	12.94	13.31	13.81	114	14.25
Related Economic Trends									
Consumer price index (1975=100)	46	100	1,355	--	3,588	--	--	--	--
Producer Price (real) (cdi/mt)									
Rice	200	771	571	--	(201)	--	--	--	--
Corn	163	250	283	--	(107)	--	--	--	--
Millet and sorghum	209	415	430	--	(163)	--	--	--	--
Exchange rate (CFA/$, unofficial)	1.7	1.9	15.9	--	61.7	76.6	(150)	--	--
Debt outstanding (mil. dol.)	486	743	1,341	--	1,423	1,63[illegible]	--	--	--
Exports, merchandise (mil. dol.)	458	808	(1,215)	--	(800)	--	--	--	--
Percent debt service/exports	5	8	(11)	--	(17)	--	--	--	--

a. One year lag.
Source: USDA/ERS: Preliestimates based on USDA/FAS, FAO, IBRD, IMF.

Item 5

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E C O W A S -------- U S A I D

DEVELOPMENT OF AGRICULTURE IN SIERRA LEONE

BY DR. C.J.B. BOLA-CLARKSON

SYMPOSIUM ON AGRICULTURAL INCENTIVES FOR INCREASED FOOD PRODUCTION

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DEVELOPMENT OF AGRICULTURE IN SIERRA LEONE

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INTRODUCTION:

In Sierra Leone, the development of the agricultural sector is considered crucial for accelerated economic growth and development because of its strategic importance in terms of its contribution to the Gross Domestic Products in creating employment opportunities for the large sector of the rural population and in providing foreign exchange earnings. Agricultural development is necessary for the country's economic well-being since it also provides the major source of food supply - rice, cassava, maize, ground groundnuts, bananas, yams, onions, vegetables etc. for the urban and rural population; it provides foreign exchange earning with its export of cocoa, coffee, ginger, palm kernel, etc.etc. it is also a potential source for the supply of relevant raw materials for agro-based industries. The agricultural population with adequate purchase chasing power could provide a thriving market for the industrial goods and services produced by the country. Thus with its contribution and role prosperity of rural population can be considered an important facet to a balanced and stable economic growth in real terms.

Agriculture has the potential for quick and considerable contribution to the foreign exchange needs of the economy by import-substitution in the food industry as well as through diversification of exports . The agricultural sector will also be increasingly relied upon to absorb the growing labour force and to feed an expanding rural population.

The extent to which the agricultural sector can rise to the challenge depends upon the degree of efficiency of organisation within the sector and upon the economic resources allocated to agricultural development. A comprehensive report on the organisation and major problems of the agricutural sector has been recently adopted by the Government. This has lead to the remarriage of the

Ministry of Agriculture and Forestry and the Ministry of Natural Resources to form the Ministry of Agriculture and Natural Resources (MANR). The therefore confines itself to summarising several key aspects and issues raised about production, marketing, pricing and commenting on selected policy attitudes and measures towards the sector and an attempted appraisal of the current financial situation of agriculture.

The Place and Importance of Agriculture in the Sierra Leone Economy

The economy of Sierra Leone is strongly dualistic. In the past, the mining sector, especially the diamond industry, provided the impetus of economic development in Sierra Leone. In recent years, however, the relative weight of the diamond industry in income generation and employment has declined. The development, in turn, has raised a serious challenge to the orderly and sustained growth of the national economy. Unless new sources of economic expansion are quickly developed, the rate of growth in income, employment and export earnings will inevitably reach stagnation. A major issue confronting the Government is to devise new policies which would defeat the occurance of such stagnation.

In terms of employment and GDP, agriculture plays a key role in the economy of Sierra Leone. It provides livelihood for 75 per cent of the total population of 3.4 million and accounts for nearly 30 per cent of the total GDP and some 25 per cent to export earnings. Mining on the other hand employs only 4 per cent of the population, provides 12 per cent of the GDP and 70 per cent of export earnings. Since 1973, agricultural exports have contributed about 21 per cent to GDP annually. In the past, agriculture has been responsible for 20 per cent of exports, although this rose to 37 per cent in 1976/77. The most important agricultural exports are palm kernels, coffee, cocoa and ginger.

The agricultural base, although substantially has played a secondary role in the monetary economy, and has largely been at

the subsistence level. Over the years, export oriented agriculture has suffered disproportionately from high levels of taxation in the form of export duties, taking one third to one half of potential income. Of greatest concern, for an essentially agricultural economy, is the increasing food import bill. In 1979/80 food imports stood at Le 86 million compared with Le 17.78 million in 1969/70. The lack of farmer incentives and the high rate of population growth have been major causes of the increasing food deficit. Government is seeking a way of providing stimulus to agricultural production in order to increase its earning potential and break free from the growing dependence on imports.

Agricultural production is characterised by low productivity both per man and per acre. Over the years, the sector has been neglected coupled with inappropriateness of policies. Proper allocation of development measures to agriculture cannot however be done successfully without a good understanding of the underlying basis for the policies and strategies.

The place of agriculture in the Sierra Leone economy is rapidly changing; agricultural exports in relation to mineral exports are on the increase more so since the closure of the iron-ore mines and the apparent near depletion of the country's richest diamond deposits compounded by the fall in price of diamond on the world market. The minerals have come and are on the way out, agriculture is left with the dual tasks of feeding the rising population and as the major foreign exchange earner. Any increase in the income of the country's largest sector would have a major impact on the economy because of its greater multiplier effect.

Sierra Leone has tremendous potential for increasing agricultural production. Agriculture is viewed in its widest sense.

In this context, it includes animal health, animal and crop production, home economies, forestry, fisheries, mechanisation, plant protection and other closely related field services and institutions.

Agriculture is, and will remain, the predominant industry in Sierra Leone for many years to come. With a population presently approaching 4.3 million, and annual growth rate of 2.1 per cent the population will double in 35 years. It is clear that, unless prompt steps are taken to increase production, the rate of population growth will outstrip the rate of production increase.

Brief Review of Past Performance

Persistent and increasing rice deficits pose the most important development challenge to Sierra Leone. Despite the high priority accorded to agriculture by the Government in the public investment programme, various problems connected with pricing policies, marketing and credit facilities; extension services, organisational arrangements, shortages of labour during the peak agricultural season, shortening of the fallow periods, management techniques required to derive the optimum benefits from the usage of improved varieties of seeds and high priced inputs like chemical fertilisers and the lack of capital to purchase and utilise agricultural machinery have limited the maximum realisation of the benefits of the investment channelled into this sector.. The non-optimal allocation of the scarce financial resources as between recurrent and capital items has also dampened the increase in agricultural productivity. Hitherto, the development of the agricultural sector has been chiefly through a policy of Integrated Agricultural Development Projects. This approach is expected to continue because of the interdependence of inputs associated with the promotion of agriculture as an integral component of the rural development programme. However, some re-organisation of the existing arrangements are envisaged to improve the effectiveness of integrated approach already applied by the Government in the seven on-going DADP'S. The two major export crops are coffee and cocoa and due to depressed international prices, the tree crop sector

has not been performing well either. There are no organised large-scale plantations for concentrating the efforts in regard to these crops.

Although the forestry sector has shown some progress in terms of the establishment of small-scale industries and the expansion of rulling capacity, the forestry sector as a resource base remained neglected. High forest corner is now only five per cent of the country's surface area due mainly to uncontrolled exploitation characterised by the export of logs rather than processed timber. Prior to 1977 about 1500 cubic meters were rulled annually. Since then the volume of sawn wood has doubled due to the expansion of logging activities in the GIOLA forest. However, very little planting of forest trees have been carried out in recent years and major efforts will have to be made to ensure that Sierra Leone will not become a net importer of timber and force a shortage of fuel wood in the long-term.

The livestock and fisheries sectors have been performing at below capacity. There has been little development in the livestosk sector except for the poultry industry which has been developing in the Western Area. Feed ration has remained the greatest constraint to further expansion of the industry.

Marine fisheries are of importance and while the catch of the traditional or artisanal sector has remained fairly constant over the past decade, industrial fleet catches have increased dramatically due to foreign involvement. The catch of foreign vessls has increased from 27,000 tons in 1977 to approximately 100,000 tons in 1980.

It is considered that the major factors affecting the fisheries and livestock sectors are associated with inadequate resource control, inadequate provision of credit, the neglect and inadequacy of advisory and support services and poor infrastructure.

Integrated Agricultural Development Projects (IADP)

Sierra Leone's agricultural development strategy have been based on IADPs and there are now seven on-going projects in the country. All IADP's follow the same objectives, which are to increase the general welfare of the rural community and to enable the farmer to increase his income by providing services including :

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- credit/Supply of inputs
- extension
- farm development
- marketing facilities
- village water supplies
- health centres
- schools.

All IADP's have a management team with the exception of the BO/Pugehum which operates a series of individual projects operated by the appropriate line ministries.

The main thrust has been on rice but each project accords priority to production of the crops most suited to the projected area. The main crops are rice, coffee, cocoa, oil palm, groundnuts, livestock, citrus.

The IADPs have tries to organise farmers on a group basis at chiefdom and village level. Village Farmers Associations are organised and where such Association have been established like the Eastern IADP, loans are made to the Associations through the village leader farmer to be distributed to the members.

Group credit scheme and in some cases like the Moyamba IADP, credit operations are closely tied to marketing arrangements. Loan repayment are made in various combination of cash and kind. Marketing programmes have been introduced into the IADPs.

- where the local situation has dictated that the project should assume the responsibility for crop marketing
- as a means of ensuring loan recovery
- as a means of ensuring the farmer receives a more equitable return for his produce

In some projects marketing is left entirely to the farmers.

The extension service is at the centre of the IADP projects who needs to liaise with the agronomy section, with the credit and marketing unit, the land development personnel and the monitoring and evaluation unit.

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IADPs were established with the objectives of concentrating resources in areas with agricultural promise to increase production and to foster field level coordination of activities to secure the availability of an adequate package of support services to farmers. While these aims have been largely achieved, the development of IADP's have led to a dual system of agricultural services in the field, with predictable consequences of duplication, confusion and unbalanced development.

IADP was justified on the basis of the need to increase and focus resources at the field level and to create a limited source of extension, credit and input supply services but its operation has faced technical, sociological and operational problems.

Technical

There has been a tendency for IADPs to become preoccupied with targets, to the detriment of technical standards. In both the EIADP and NIADP, poor swamp rice yields were obtained due to lack of standards of water control and fertiliser water application rates.

Problems have also arisen on projects where credit packages have been supplied without the benefit of an appropriately applied research facility to test the effect of improved inputs under local conditions. In some cases as in the NIADP inadequate loan packages with the result that farmers needed to supplement their requirements with high cost credit obtained through traditional sources.

Sociological

Lack of understanding of the socio-economic of the area has led to difficulties. Upland farming was neglected, although this has traditionally been the most important type of farming. On the other hand, swamp rice cultivation failed to be successfully integrated into the traditional farming system, although it was central to the project's objectives, and loans were only disbursed for cash crops

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Operational

All projects have experienced problems in obtaining tim timely deliveries of inputs such as seed, fertilisers, fuel and spare parts. KOZIRADUGU particularly hampered by lack of transport and delays in project supplies.

Several operations, notably credit, have proved very expensive, with high overhead and running costs. Credit and input distribution costs in EIADP and NIADP have been expensive due to the fragmented nature of loan disbursement. This underlines the advantages of organising farmers into groups. Recovery of loans in kind by the EIADP has also incurred heavy costs due to the expense of collection, transportation and storage.

Marketing and pricing Policies

Weaknesses in the marketing and pricing policies of agricultural products, especially export commodities, are perhaps the most crucial reasons for the depressed status of agriculture in Sierra Leone. The pricing system for export crops is devised mainly for purpose of generating tax revenues rather than for protecting the farmers from the adverse effects of international markets and to providing incentives for increased production. This policy has resulted in low farm income and loss of potential exports. Studies have shown that the farm gate prices for export crops paid by the agent on behalf of SLPMB range betseen 60- 70 per cent of the announced prices and probably no more than 50 per cent of the export prices, except for palm kernels.

Through SLPMB, Government has been the sole rice importer and for maintaining security stock of rice. It is also the government's agency for buying and milling local rice. MAMR provides the SLPMB with a forecast of the projected deficit every quarter and stocks of rice are then imported to fulfil demand. Distribution is carried out as a centrally planned operation. Because of its monopoly position in importing rice and coupled with the over-valued exchange rates, this has been a profitable activity for the Board especially since market prices have been close to that implied by the unofficial exchange rate.

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SLPMB recommends the price to be offered to producers for paddy, although this has to be approved both by MANR and Cabinet. However, the producers price for paddy has remained low. Policy makers appear reluctant to raise consumer prices in line with rising costs, and this has been a major cause in lowering productivity in the food crop sector. No pricing policy exists for other food crops such as sassava sorghum, vegetables and onions. Seasonal price fluctuations tend to be large, and farmers are often forced to make distress sales at harvest time in order to raise funds to meet other household commitments, even though this is the period of lowest producer prices. Of even greater concern, is the case of onions, imports have been allowed to enter the country at harvest time , thus undermining the market for local productivity.

Subsidisation of rice prices to the consumer, at the expense of the farmer, has had the following adverse effects:-

- national development potential is retarded as public revenues are diverted from development projects
- rise in imports requirements and depletion of scarce foreign exchange resources
- urban consumers benefits at the expense of their counter parts exacerbating the income disparity between the two gaps
- pressure is applied to the already deteriorating balance of payments situation.

Payment of prices significantly lower than the prevailing world market price for exports have had a deleterious effect on actual supply response. It is also worth noting that the timing of the announcement of guaranteed prices has little immediate effect on the current supply position, as farmers normally base their production decisions on the previous year's commodity price.

It is an acknowledged fact that the farm sizes are small and the bulk of the farmers illiterate, despite these shortcomings their operations cannot blind them to the effect of Government policies and the practices of Government agencies on their operations.

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Where the farmer becomes convinced, rightly or wrongly that Government's policies and activities of Government agencies in their relationship with him are not beneficial to him or to his farming efforts, he is bound to lose faith in Government and limit the degree of his cooperation with Government agents, or ignore them altogether.

Farmers do have a positive response to prices. The lack of farmer incentives and the high rate of population growth have been major causes of the increasing food deficit. The result is an increasing drift from the land and a growing dependence on imported foodstuffs including rice, the country's staple food. Low agricultural returns and poor rural wages are encouraging more young people to move to the cities where relatively high wages can be earned in the tertiary sector. This had led to labour problems in the provinces and overcrowded housing in the cities. Although agriculture is a national priority more will be needed than an injection of capital for revival since basic policies act against any improvement.

The government is seeking a way of providing a lasting stimulus to agricultural production in order to increase its earning potential and break free from the growing dependence on food imports.

Some steps to address these problems have been introduced starting in July 1983 in connection with the support agreement with the IMF. The official value of the currency was adjusted from Le 1.25 to Le 2.50 per $US in July 1983, following a period in which a parallel commercial market for foreign exchange was operating. The government's minimum price for husk paddy was raised from Le 12 to Le 18 per bushel in early 1983 ; in July 1983 SLPMB buying prices for coffee and cocoa were raised from Le 1904 to Le 3472 and from Le 1568 to Le 3034 per ton respectively. Considerably increased interest in production of these crops has been reported. Further increases in producer prices has been announced to stimulate production. The following table show the various price levels :

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Table : Producer Prices for Export Commodities

Leones/Ton

	1981/82	1982/83	1983/84	1984/85
Palm kernel	224	246	448	896
Coffee	1344	1904	4256	8900
Cocoa	1456	1568	3024	5600
Ginger	874	1008	3024	5600

However, due to the chronic shortage of foreign exchange, an unofficial market still exists and it remains to be seen if these prices will continue to provide an adequate incentive.

In the past, the problem of low producer prices has been compounded by delays in price adjustments. As a result, price announcements of price often caused disruption in the market. MANR has lacked an adequate data base on agricultural production and farm prices on the analytical capability to adequately fill its role in this area of agricultural price formulation.

Rural Credit

Credit to farmers is largely confined to the village level money lender. The efforts of the National Development Bank in long-term loans, that of the National Cooperative Development Bank for commodity credit and the credit.

Guarantee scheme for small borrowers under the Bank of Sierra Leone are far too limited in scope to be able to meet the credit requirements of small holders. One exception is the credit scheme under the IADPS Here, the credit scheme has been functionning satisfactorily and the repayment record is encouraging. Credit is provided in both kind and cash and the level of supervision is very effective. However, the cost of supervision, for which no figures have been made available, are believed to be high and quite beyond the resources of normal services operated by the MANR

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It is well accepted, however, that unless there is adequate motivation and a sufficient degree of technical knowledge brought to producers, combined with a readily available market at favourable prices, credit alone can hardly result in a major break-through. It is very likely that the absence of such complementary factors prevented the success of previous credit attempts. Certainly, the experience of repayment, whether in schemes operated by the MANR, the Cooperative Department or from other sources, has not been a happy one. More recent experience, however, has shown that provided these other complementary factors can be met, then lack of credit is bound to become a critical constraint on agricultural development.

Conclusion

It is generally agreed that there is a discrepancy between the official exchange rate and the real value of foreign currency. This discrepancy has risen largely because of the severe decline in commodity prices. This discrepancy is a major factor in the decline of production of agricultural export crops ; and also subsidised cheap inports which threaten home production of rice, palm oil, palm kernel oil, maize, onions and other crops.

Low prices reduce the amount of foreign exchange available for the import of inputs, spare parts and replacement equipment for the agricultural sector as well as the materials needed for the production of essentials and incentive goods needed in the rural areas Deteriorating facilities and inadequate incentives have in turn contributed to a decline in the production of export crops which further deepens the foreign exchange crisis.

Producer prices have not been maintained at levels which will provide an income sufficiently attractive for farmers, especially the new generation, to stay in the villages and continue farming. The low producer prices coupled with the shortage of incentive goods in the rural areas and the natural attraction of city life has lead to a very high influx to the urban centres of young people from the villages. Incentive goods are required to improve the motivation to grow cash crops and also for the operation of incentive schemes for estate crops workers. Bicycles and radios are particularly sought after. Bicycles can also be used for transportation of inputs and outputs.

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Development of the agricultural sector has been given renewed emphasis by the Government during the last few years following the sharp decline in the mining sector; performance as a main foreign exchange earner as well as a source of government revenue.

The policy now is to boost agriculture so that it becomes the main sector of the economy so as to provide not only employment but also raw material for industry as well as earning foreign exchange for the country. To this end, the Government has launched various agricultural schemes including IADPs aimed at increasing export earnings and achieving self-sufficiency in the country's food requirements. In addition, various incentives including higher prices for produce are being extended to the farming community. The recovery of the economy depends on the agricultural sector, since in the medium term it is the only foreseeable engine of growth. Incentive policies would determine the ultimate success of the IADPs.

Item 6

ECW/IANC/AGR(SY[illegible]/2/5

E C O W A S --- U S A I D

OVERVIEW OF GUINEAN AGRICULTURE

SYMPOSIUM ON AGRICULTURE INCENTIVES FOR
INCREASED FOOD PRODUCTION

ABIDJAN, 8-17 APRIL 19[illegible]5

I. MAIN FEATURES OF THE AGRICULTURAL SECTOR

1. INTRODUCTION

About 82 % of the population are currently engaged in the agricultural sector which accounts for approximately 42 % of the GDP. During the last two decades, production in the rural sector déclined. The share of agriculture in the GDP dropped from 46 % in 1977 to 42 % in 1981. However, production in the agricultural, live-stock, fishing and forestory sectors increased at an estimated rate of 20 % between 1973 and now, a rate lower than the growth rate of the rural population during the same period.

During this period of crisis, the sub-sector of cash crops has been the most seriously affected which explains the insignificant share of agriculture in the volume of exports for the past years.

Similarly, rice production lagged behind the growth rate of the rural population which accounts for the high volume of imports now approaching the 100.000 ton per annum mark.

The ecological areas and their production

- Maritime Guinea - Basse Guinée:
- oil palm trees
- Fruits: bananas, mangoes pineapples, oranges, etc...
- Market gardening, especially in the vicinity of towns,
- Groundnuts
- Limited live-stock.

- Moyenne Guinée - Fouta Djallon

- Agriculture and live-stock
- Fruits and vegetables in the lower lands.
- Groundnuts (Koundara and Gaoual region)

- Rain-fed and irrigated rice farming (Gaoual and Koundara)
- Maize and fonio.

- Haute Guinée

- Agriculture and live-stock
- Cotton
- Fruits including mangoes
- Irrigated rice farming in valleys
- Maize and cassava.
- Tobacco
- Groundnuts.
- Forest areas in Guinea

- Low-land rice farming
- Coffee - cocoa
- Oil palm trees, rubber trees
- Forest resources.

At present, the cultivated area stands at 1.7 million hectares almost half of which is used for rice cultivation. The national area for cultivation is estimated at million hectares which represents about 30 % of the territory.

2. AGRICULTURAL PRODUCTION

The previous agricultural policy was mainly based on the development of a strong state sector participating in agricultural productions (integrated agro-industrial plants, community agricultural farms etc...). Moreover, the state controlled all agricultural activities through a system of highly restrictive regulations (official prices, export monopoly, forced collection, etc...).

This policy led to the decling of agricultural export, drop in food production increase in food imports and increase in State expenses.

The main agricultural export crops such as coffee, pineapple, bananas, palm kernel, tobacco, etc.. dropped sharply.

The food situation is characterized by inadequate production and rice imports estimated at about 100.000 tons per annum to cater for the needs of big centres.

3. ANIMAL PRODUCTION

Emphasis was placed on the big state-owned complexes i.e. large Governmental farms (Ditinu, Famoïla) and collective farms. Animal breeders were abandoned in a ruinous state (but were obliged to pay a levy of 10 % of the flock every year). Live-stock marketing was the preserve of the state which paid, when it did, at the official price which was far below the lectural price. These constraints forced breeders to turn to more renumerating external markets.

The live stock population is about 2 million cattle of the N'Dama race and about 1 million sheep and goats.

4. Forests

The forest formations include

. th dense forest - 800.000 hectares
. the savana - 12.000.000 "
. Mangrove - 240.000 "
. Degraded fores -1.700.000 "

The resources are not quantified but could represent 30 to 60 m^3/hectare in forest areas, of building timber 10 to 30 m^3/hectare of fuel wood in the savana and mangrove regions. At present, consumption could average 150.000 m^3 per annum for building timber and 10 millions stacks, per annum of fuel wood.

Activities in the area of forestry centre on replanting (of very little importance) protection of certain great drainage basins and demonstration on exploitation, development and management methods.

A new policy on forestry matters should be defined on a rational basis.

5. Fishing

The continental plateau of Guinea covers 56.000 Km2 at its ZEE. It has enormous fish resources such as sardines, balist fish, shellfish, etc...

The overall potential is still not well know but its seems there is confirmation that various resources exist - in large quantities for artisanal and industrial fishing to flourish. The recent creation of a State Secretariat for fishing within the Ministry of Rural Development indicates the interest that the Government has in this vital sector.

II. MAJOR CONSTRAINTS IN THE RURAL SECTOR

1. Statistics

Lack of basic study which is necessary for the formulation of efficient policies and strategies and for determining priority projects.

2. Roads and Transport

The access roads are in deplorable states and means of transport are inadequate. There is a chronic shortage of fuel and spare parts.

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3. Marketing and prices

The pricing policy which is frought with shortfalls is compounded by the mediocrity of the marketing structure.

4. Research in the field of Agroculture

Almost inexistent, since 1970 however, efforts are being made to revive it especially with respect to applied research.

5. Inputs:

Poor utilization of inputs due to the low level of technologic as well as the lack of foreign exchange to buy fertilizess, pesticides veterinary products, agricultural machinaring and implements.

6. Agricultural credit

Lack of appropriate credit system. The farmers have not yet really benefitted from this type of credit.

7. Technology:

Bad choice of technology (Massive and disorderly imports of tractors).

8. Storage:

Inadequacy of storage infrastructure (silos and others).

9. Agro-industry: inefficient lack of agricultural inputs.

10. Deterioration of Agricultural produce and livestock exports

Coffee.

Banana

Pineapple.

These products constituted in the port a source wealth for Guinea.

11. Training:

Lack of well trained staff and inefficiency of extension services. The relationship between senior staff (Engineers) and intermediary staff (Agricultural work inspectors) is practically inexistant.

12. Irregularity of rain fall

Draught especially north of the 10th parallel.

13. Financing

Row compared with actions to be undertaken and poor planning.

14. Poor facilities for extension services:

Absence of dialogue between farmers and the Department of Agriculture

III. New strategy for Agricultural Development

An interim programme for economic development (1985-1987) has just been adopted (Priority is given to the agricultural sector 28 %). The main objective is to channel efforts into the rural sector through a series of actions aimed at regaining the confidence of the farmers and improving conditions for production.

The revival of the rural sector calls for the establishment of technical and service support structures and ressort to private initiative as well as farmer organizations.

In concret terms, the strategy for the development of the rural sector will be based on the following principles :

1. Increased efficiency of the public sectors, participation of the State and promotion of the private sector by carrying out studies and project analysis before any decision for implementation is taken.

2. Extension services should take into account the production system of the farmer, the potentiality and constraints of the ecosystem in which he lives in order to define an improved production model which is to be discussed with him.

3. Preparation of a coherent agricultural pricing policy. The production price should be guaranteed.. Considerable progress has already been made in this areas(Export products price: coffee cocoa, palm kernel; liberalization of the sale of rice and other food products).

4. Fight againt urban drift by improving conditions of living (wells, water conveyance, integrated development programme, creation of employment in rural areas).

5. Inventory of potentials in the four natural regions and preparation of master plans for their development.

6. Organization of input supplies for areas where farming conditions are favourable. Agricultural constraints should be taken into account in the definition of such areas.

7. Improvement of farmer equipment.

8. Establishment of structures for improved seeds

9. Encouragement for the formation of free groupings which could assure various functions within village communities (marketing of agricultural produce, purchase of consumer goods).

10. Rehabilitation of agricultural research.

11. Market studies for export purposes (banana) pineapple, fruits and vegetables, coffee,mangoes, palm kernel)

12. Training and reconversion of agricultural staff.

13. Encourage the estab lishment of private guinean and foreign enterprises with possible state participation in the form of mixed companies to help these enterprises take off.

14. Terms of reference for the preparation of the development plan underway:

- Inventory of forest resources,
- Agricultural research = planning and programming of reserch over a period of 10 years;

- National programme for seed production and improvement of plant and animal production;
- Study of a long strategy for rice production including development programming (self-sufficiency in food production and exports);
- Introduction of cash crops with interesting market potentials or for the purpose of supplying new agro-industrial plants coffee, coconuts, palm kernel

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CONCLUSION

In this critical phase of the national recovery plan, the new strategy lays emphasis on the reorganization of the structures of production, the organization of the rural sector, the development of free enterprise and the private sector.Special emphasis is placed on food production in order to ahieve self-sufficiency in food. To attain this objective, regional and sub-regional cooperation is today, more necessary than ever before. This is all the more so since the economies of our various states are rich and endowed with various resources which make them complementary especially in face of the more and more adverse climatic conditions in which we live at present.

ECOWAS has a leading role to play in this context.

Item 7

ECW/IANC/AGRI (SY)/I/7

WORKSHOP ON WAYS AND MEANS OF ACCELERATING THE IMPLEMENTATION OF FOOD PRODUCTION STRATEGIES IN AFRICA

THE IVORIAN EXPERIENCE

MINISTRY OF RURAL DEVELOPMENT
OF IVORY COAST

SYMPOSIUM ON INCENTIVES
FOR AGRICULTURAL PRODUCTION

ABIDJAN, 9-13 APRIL, 1985

WORKSHOP ON WAYS AND MEANS OF ACCELERATING THE IMPLEMENTATION OF FOOD PRODUCTION STRATEGIES IN AFRICA

THE IVORIAN EXPERIENCE

The development of the agricultural sector constitute the basis for the rapid expansion of the ivorian economy. Consequently, the Government intends to accord top priority to this sector in its economic policy.

The President of the Republic, His Excellency, Felix HOUPHOUET-BOIGNY, made it known in these terms :

"Our agriculture, which is and should remain the strongest pillar of our development is not only aimed at security export revenue for the State. It should provide healthy and abundant food for all in the form of food crops. Those countries which did not take cognizance of this fact are now obliged to import at high cost what their neglected soil would have produced in abundance". "Moreover, a healthy agricultural sector is a powerful incentives to maintain the youth on the land. Everything will be done to achieve this. It will be ensured of course, that farmers receive a fair remuneration for their labour and that the villagers, who are moreover not subject to the various stresses of urban life, enjoy benefits of comfort , health , education, information, communication and entertainment that modern techniques have made available to us".

"After decolonisation, many politically independent countries have become increasingly dependent on external sources to feed their populations thereby losing in the economic and financial areas a great portion of the advantages they had secured in the political area".

I. The establish ment of the Ivorian Strategy

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The last Congress of the "Parti Démocratique de la Côte d'Ivoire" held in 1980 proclaimed "Aid to farmers" as one of the priorities of the country. The slogan "Self sufficiency in food" was also adopted and various missions went round the country to explain and to secure the support of the people.

In 1981, the new Secretary of State for Agriculture also responsible for development of food crops, initiated a "Crusade" for self sufficiency in food based on the following six main points :

- preparation and dissemination of high yielding plant materials adapted to farming conditions and eating habits of the people ;
- modernization of production techniques through the improvement of traditional agriculture and introdution of agricultural machines ;
- granting of special assistance to the youth and women in the modernization process ;
- organization of marketing with special emphasis on the organization and revival of cooperatives ;
- preparation of conservation and processing technologies ;
- organization of food crop production through the strenghtening of development structures.

In 1983, the measures taken for the development of food crops were further strenghtened through the creation of the Ministry of rural Development which, in addition to plant food crops, livestock and fishing was entrusted with the greater responsibility of implementating the ivorian food production strategy.

This institutional effort to provide the country with an operational instrument was accompanied with an in-depth analysis of the food situation. Thus, the Food Plan, a strategy and a Plan of Action for Rural Development were prepared.

II. Preparation of the Food Plan (1983)

The preparation was carried out by five interministerial commissions and each commission was presided over by the technical

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Ministry most directly concerned. These various commissions dealt with the following areas :

A. Research : identification and definition of the relatio ship between research and development/Extension services.

B. Production : with the help of production and consumption statistics, evaluate the differences between supply and demand of food crops in 1982, and make projections to 1985 and 1990; identification of priority actions to be undertaken to cater for potential deficits and reduce imports.

C. Consumption : study of obstacles to the efficient commercialization of food crops; analysis of conditions for the improvement of relations between producers and consumers (creation of markets , organisation of commercialization , etc...)

D. Processing : study of best conditions for development , storage and processing of food crops i.e. yam , plantain and cassava.

E. Finance : on the basis of the recommendations contained in the four previous technical reports, estimate the financial cost and evaluate the economic effects of the proposed food plan.

These five points have therefore made it possible to draw up a series of documents containing the ideas and recommendations of the principal ministries involved in the implementation of the Food Plan in Ivory Coast. It was also possible for the Ministry of Rural Development to define a strategy and plan of action.

III. Strategy and Plan of Action of the Ministry of Rural Development

Above all, this strategy aims at increasing the revenue of farmers by placing them in a favorable economic environment where the following have defined :

- a pricing policy as an incentive for production
- a subvention policy as a means of encouragement for the adoption of more advanced technology
- a fiscal policy for the protection of local production

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and for discouraging the consumption of imported products on the one hand, and the reduction of the cost of agricultural inputs through customs exemptions on the other hand

- an agricultural credit policy to adapt the codditions and modalities to the requirements of agriculture, livestock and fishing
- a policy for the promotion, encouragement and organization of village savings for a self-financing agriculture
- a policy for the structuring of the rural area through the enlargement of the role of rural organizations such as friendly societies and cooperatives and through the reorientation of Regional Funds for Rural Development (FRAR) towards more productive investments
- a policy for the improvement of living conditions in the rural areas by undertaking actions in the field of housing roads, collective equipment, health cover, educational infrastructure and the encouragement of handicraft
- a policy for the modernization of farming methods especially in the area of load clearing, mechanization and motorization, water control, utilization of selected seeds and other inputs which will help intensify agricultural activity
- a policy for training planters, farmers, breeders and fishermen in which audio-visual methods and the media will play an ever increasing role for the dissemination of information while the introduction of new techniques will call for the closer supervision of the planters in projects
- a policy for pre-extension services ensuring better cooperation between agronomic research and animal husbandry, and extension services bearing in mind real producer needs
- a policy in the area of processing and marketing based on

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the adaptation of appropriate rural technologies, organization of primary marketing circuits and for the supply of inputs and the development of rural and regional markets for the maximum increase of farmers production.

IV. Implementation framework

The priviledged framework of this policy is the "rural development projects". However, for this policy to be highly efficient, it is imperative that it is accompanied by :

- national policies (price, credit, etc...) or sectoral plans (food plan, livestock or fisheries development plan
- regional plans or master plans based on the results of diagnostics for the definition of potentials and regional vocations taking into account the realities in the field

In addition, these projects should take into account three determining factors :

a) response capacity of the various sources of financing (national and international) to the proposed projects
b) Ivorian capacity to absorb these financings
c) Ivorian capacity to bear the recurrent cost.

Thus, the Ministry of Rural Development has fixed in a rigourous manner the s ize of its projects ensuring that they are assigned specific objectives which are easy to quantify, to follow-up and to manage.

In addition, it is necessary for the regions to specialize in the various types of production (food and animal) according to their natural potentials.

That is why, in completing the national projects relating to specific and emergency objectives, the Ministry of Rural Development has opted for the departmental type of projects. The idea is to implement projects whose dimension is limited to one or two departments.

This approach is justified for two reasons :

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- large integrated regional projects which have already been the object of complicated studies, have not been able to secure effective financing because of their large s ize
- projects implemented on the outskirts of urban areas have revealed that, apart from their cost, they were likely to bring about competition between towns and rural areas at the expense of the latter. It would therefore be desirable to envisage the development of the area of influence of towns.

The departemental rural development project seems to be the most suitable option since it concerns, in general, the locally elected and the administrative authorities.

However, Ivory Coast will continue to implement national projects concerning specific or emergency areas such as the organization of the seeds sector animal health or the emergency rice programme which is of the utmost priority

Conclusion

In conclusion, it is important to note that there will no agricultural development without the revenue of the producer being maintained or increased through a subvention system.

Was the average subsidy granted by the European Economic Community in 1983 to each farmer not estimated at 1.5 million CFA and that granted the same year to each producer in the United States of America at 4.8 million FCFA ?

Indeed, if it is important to talk about the reality of prices, it is also necessary to be cautious when dealing with food production.

The facts indicate that countries which have succeeded are those which have created pricing, aid and subvention conditions to encourage their farmers to produce and commercialize their surplus food.

That is why, instead of being dependant on the international market for certain strategic food products such as rice, in the

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name of the sacrosanct theory of comparative benefits, it is urgent and imperative to create in Ivory Coast and Africa an economic environment adapted to the aspirations and needs of the farmers in order to enable Africa to produce the food it requires without which it will lose its economic independence and the possibility of making a free choice.

Indeed, if it is true that a country like the Ivory Coast produce everything alone and has to acquire a number of goods from the world market, it is also true that it cannot depend wholly on this market for the acquisition of its basic food products.

If for one reason or another, there is a shortage of a given product, it will always be possible to cope with such a shortage for sometime especially where it concerns a non essential product. However, if the item concerned is an essential food product, it may lead to social upheavals.

Item 8

ECW/IANC/AGRI(SY)1/4

ECOWAS --- USAID

INCENTIVES TO STIMULATE AGRICULTURAL PRODUCTION IN GHANA

PREPARED BY

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SYMPOSIUM ON AGRICULTURAL INCENTIVES FOR INCREASED FOOD PRODUCTION

ABIDJAN, 9 - 13 APRIL, 1985

INCENTIVES TO STIMULATE AGRICULTURAL PRODUCTION IN GHANA

BACKGROUND INFORMATION:

The total area of Ghana is approximately 240,000sq. kilometers or 92,000 sq.miles. The land surface is about 22.7 million hectares (about 97 percent of the total area) of which 2.6 million hectares (11 percent is under cultivation. About 34 percent of the land surface is covered by forests (10 percent under reserved forests and 24 percent under unreserved forests) and 55 percent is bush.

The population of Ghana is currently estimated at 12.6 million with an annual growth rate of about 2.5 percent. Nearly 70 percent of the people live in the Rural Areas and are engaged in agricultural pursuits.

About 50 percent of the population are under 15 years and 3 percent are above 65 years. The literacy rate is 30 percent.

The country has produced a considerable number of Professional and Skilled manpower over the years. The labour force in 1980 was estimated at 4.1 million or 36 percent of the population. Of this 57 percent was in agriculture, fishing and forestry. Self employed constitute the majority of the employed labour force.

INFRASTRUCTURE:

It was estimated that in 1980 the country had a total of some 20,000 miles of road; about 20 percent of which was paved. Road transport contributes about two-thirds of the transportation and communication sector's gross value. The railway system of the country covers about 800 miles and forms a triangle linking the capital Accra to Kumasi in the hinterland and Takoradi in the West Coast/Region. The rail network passes through the main cocoa growing areas and the forest areas where timber is produced.

AGRICULTURE:

Agriculture is the largest sector of the economy. Ninty-five percent of all farming is done by small scale farmers using traditional techniques of cultivation. The average holding is about three hectares per farmer. In 1981, the sector comprising fisheries and forestry contributed about 51 percent of G.D.P. and provided nearly two-thirds of total employment.

Cocoa is the most important crop covering about 50 percent of the land under cultivation, and accounting for 60 percent of export earnings. Food crops and livestock contribute 52 percent of agricultural production. The main food crops are Cereals and Starchy Staples. Maize is the most important cereal output and this forms about 50 percent of the cereal production. Other Cereals are rice, millet and sorghum.

Cassava is the most important starchy staple constituting 50 percent of output of the category. The others are plantain, yams, and cocoyams. The remaining food crops consist of legumes, vegetables and fruits. The main Industrial Crops consist of Cotton, tobacco, rubber, oil palm and sugar cane.

Forestry products are Ghana's third largest foreign exchange earner and the sector employs around 70,000 persons. Felled trees are either exported as round logs or transformed into semi-processed products such as sawn-timber, veneers,, plywood and finished produces of furniture doors, flooring.

Ghana is located in close proximity to some of the World's richest deep water fishing areas. Although some marine fishing is done mainly by canoes, the potential has not been exploited to a significant extent.

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The Fisheries sub-sector has two major components. Marine Fisheries and Inland Fisheries. The Marine Fisheries comprise canoe, in-shore, deep sea and Tuna fishing. The Inland fisheries consist of Volta Lake fisheries, fishing in rivers and lagoons and aqua-culture development of fish.

Table below shows,

FISH REQUIREMENT PROJECTIONS ASSUMING 2.5 PERCENT INCREASE IN POPULATION:

	Tonnage Requirement	Domestic Production (MT)	Short fall (MT)
1984	457,700	328,600	129,100
1985	469,100	393,150	75,950
198	480,800	431,125	49,675

As an incentive to farmers to achieve the above targets, it is necessary to rehabilitate and replace Outboard engines, fishing gear, canoes, nets to produce spare parts for marine engines and refrigerants for cold storage facilities.

In pursurance of this an amount of $27.0 million is to be allocated during the three years. Institutions under this Sub-sector are :

(1) Department of Fisheries which deals with research and provision of equipment for all fishing Organi ations both public and private.

(2) The State Fishing Corporation, and

(3) Private Fishing Co-operatives.

Most of the fishing is done by private fishermen and financial support is provided by the Agricultural Development Bank in the form of Credit.

Canoe fishing which accounts for 70 per cent of total fish catch, is carried out by individual fishermen.

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Before the PNDC came into office, pond culture of fish or fish farming was being practised by the department of Fisheries on a very smal scale in the Northern and Upper Regions of Ghana. On assumption of office, the new Government launched a short term programme for increased food production to feed the people of Ghana. The department of Fisheries accepted the challenge and intensified efforts to propagate the fish farming idea in all the nine regions of Ghana. People living in the country-side who have access to farm lands have to estab lish farm ponds or earthen ponds for large scale fish production.

In the regional capitals too, particularly Accra-Tema metropolis in Greater Accra Region; Kumasi in the Ashanti Region and Koforidua in the Eastern Region, a large number of people have embarked upon fish farming as a farm business. More and more people have continued to receive technical assistance in the construction of household or backyard fish ponds to raise fish for home consumption and for profit. The projects have been aimed at improving the nutritional status of rural and urban families.

In 1982 during the first year of the Revolution, 1,612 farmers in the country benefited from technical assistance under programme. During the same perod, 482 backyard fish ponds and 141 medium scale commercial fish farms were stocked with 73,270 and 78,803 Singles Tilapia respectively. In all, 41.4 acres of backyard fish ponds and 45.5 acres of commercial fish ponds were developed.

During the first half of 1983, i.e. from January to June, 1983, 1,153 farmers benefitted from fish farm technical assistance through the country. During the same period, 300 back yard fish ponds and 153 commercial fish ponds were stocked with 44,683 and 63,368 Tilapia SPP. respectively.

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The surface areas of ponds stocked totalled 25.30 acres for backyard fish ponds and 16.8 acres for medium scale commercial fish ponds for the period ended 30th June, 1983.

During the first eighteen months of the Revolution (January, 1982 - 30th June, 1983) 614 back yard fish ponds with total surface area of 66.7 acrea of 66.7 acres have been stocked with 117.953 Tilapia fingerlings. During the same period 216 commercial fish ponds with a total surface area of 62.3 acres have been stocked with 142,171 Tilapia fingerlings.

Under the technical assistance programme, the services provided by the Government to farmers covered all aspects of fish farming operations, namely,

(1) Site inspection
(2) Pond Construction and design criteria
(3) Selection and supply of fish seed for stcking
(4) Water quality central management
(5) Pond management techniques which include fertilization and supplementary feeding.

Besides, extending these services to farmers engaged in the construction of back yard fish ponds; the Government aided fish farmers with the supply of inputs such as cement and wire netting which are needed by back yard fish pond developers to enable them complete their projects.

AGRICULTURAL SECTOR:

The Ghana Government's agricultural policy seeks to remove the numerous constraints to increased agricultural productivity by injecting the necessary capital into sector for,

(The Rehabilitation of existing projects and programmes,

.../...

(2) Ensuring sufficient quantities of critical Inputs on time

(3) Maintaining an Incentive price structure

(4) Easing the transportation bottle-necks.

(5) Decentralization of agricultural administration and,

(6) Reforming the main Institutions involved in agricultural production.

In furtherance of this policy the Government earmarked $479 million basically to provide adequate quantities of seeds, agro-chemicals, agricultural implements and tools.

The 1983-86 agricultural policy and programming are aimed at increasing the production of food, selected raw materials and export crops. The Cocoa Industry has been the back-bone of the economy and will remain so for a number of years to come. The output performance of the Industry since the second half of the 1970's has been unsatisfactory.

The Thrust of policy during the rehabilitation period will therefore aim at the small private farmer. Output will be increased through raising the yield per acre by proper and timely spraying, weeding and improved cultural practices, adequate producer prices. Removing transportation bottle-necks and rehabilitating storage sheds constitute a major objective of policy.

Under the Renabilitation programme, Cocoa Production is projected at the following levels:

	Metric tons
1983-84	210,000
1984-85	250,000
1985-86	300,000

The financial requirements of this Sub-sector during the next three years worked out to $195.0 million, the public investment programme is minimal amounting to only $27.9 million.

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(26)

With the Industry, rehabilitation and replanting is being encouraged through remunerative producer prices which are revised and adjusted periodically so that the real income of the farmer is preserved. In furtherance of this policy the producer price per bag of 30 kilos has been raised from ₵98.00 in 1982 to ₵600 with effect from May 31, 1983. Additionally a more rational policy for spraying materials is being pursued together with adequate provision and distribution to farmers. In addition to the existing stock, orders have been placed to import further One million liters of Gammalin. This will bring the total available supplies of Insecticides to about 2 million liters. Furthermore, 20,000 Spraying machines are on order which together with the spare parts should enable the equivalent of One-fourth of the estimated 4.0 million acres under Cocoa to be effectively sprayed. It is estimated that with effective control of Capsid, Cocoa ouput should increase by about 25 percent in the first year rising to 40 percent in the second year of the total acreage sprayed. A special replanting programme has been launched in the areas most severely affected by the recent bush fires.

Food production in 1982 was particularly low. Rainfall was both inadequate and haphazard. By December 1981 no fertilizer has been imported into the country with the result that the main season had to start without any fertilizer applications. In 1983 the situation was critical due to widespread bush fires. The following year the PNDC Government made all possible efforts to ensure that reasonable quantities of fertilizers were available for the planting season. To date about 70,000 tons of fertilizers have been imported, distributed and used by farmers. The Government has decided to phase out the subsidy on fertilizers. The distribution and marketing of fertilizers have also been opened up to the private sector and Co-operatives.

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These measures, it is hoped, will rationalise the pricing structure and also promote efficient use and application of fertilizers with beneficial impact on the out put of major food grains. The Government has also imported Insecticides, Weedicides and Pesticides in sufficient quantities to be distributed through private sector firms.

The sale of all food grains and starchy staples takes place through the normal marketing channels and Government does not intervene in setting, controlling, or monitoring the prices in any way except to announce guaranteed minimum support prices. The prices of these commodities have varied widely from region to region and season to season but the net prices received by the farmers is lucrative.

The deteriorating transportation system of the country is responsible for the high and erratic price movements of food items in major Urban areas. The Government is therefore tackling this problem with great urgency and in addition to the emergency imports of tyres, spare-parts and batteries, more systematic efforts are being made to rehabilitate the roads and highways, railways, ports, cargo handling in the context of medium term investment programmes. These investments hopefully should help in reducing transportation costs of food.

The Government is aware of the problems faced by the farmers in the procurement of good quality seeds. Although the Ghana Seed Company is endeavouring to improve its performance, the Government is encouraging the Co-operatives and private sector to establish seed multiplication and distribution companies and this will offset the growing demand for quality seeds. Similarly adequate incentives including tax holidays of about 5 years is being provided to the Co-operatives and private sectors in establishing livestock, poultry and dairy farms to increase production in this areas as the present nutritional needs cannot be met by the existing domestic production.

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AGRICULTURAL CREDIT:

Under the Government economic recovery programme, agricultural credit will be provided through the Agricultural Development Bank, Rural Banks and the Commercial Banks. Apart from the Institutional loans, traditional money-lenders also grant agricultural loans to Farmers.

The public sector investment programme has been kept to a bare minimum and it is in the native of essential supporting services rather than public sector.

Over draft, loans and advances granted by the Social Security Bank to agricultural sector show the following:-

AGRIC SECTOR

	Ø		%
1981	11 million	=	5.4%
1982	35 million	=	11.4%
1983	77 million	=	18.6%
1984	290 million	=	26.3%

Total loan All Sectors:

1981	=	Ø214 Million
1982	=	Ø309 million
1983	=	Ø415 million

Nearly 3,000 peasant Farmers on the Tono and Vea Irrigation Projects have been benefitting annually under Social Security Bank Limited short term unsecured loans scheme. An additional (3,500 Farmers - are representing 145 groups) spread over the country were financed under the scheme. The credit extended to these other groups amounted to 56.6 million Cedis as at the end of June, 1984.

The Government has already decided to allow market prices to determine the net returns to Farmers engaged in food production. Oil Palm, (a cash crop production), pricing and distribution decisions are also to be made by farmers themselves without any intervention from the Government. Similar

materials such as cotton, tobacco, and rubber so that farmers are assured adequate incentives.

Organi ation of Producers:

Farmers are organized into various Co-operatives and Crop Association. The main Federation is the Ghana Agricultural Co-operatives under whose umbrella the other bodies operate. They negotiate on behalf of farmers for good prices, inputs, and distribution of agric. Inputs. The programme with Ghana Agricultural Federation Co-operatives is based on the fact that any major increases in agricultural productinn in general and in food crop production in particular will for quite a period to come depend on the small scale peasant farmers who are responsible for about 90% of all agric. production./ Considerqtion of their requirements and marketing have been centered to the work of Ghana Federation of Agricultural Co-operatives.

Land Reform/Legislation:

In Ghana we do not have much problems with land. There are two groups which own land in the country. The public lands are in the custody of the Government and are mainly sited in the Urban areas with the exception of forest reserves which are scattered all over the country. Those lands are acquired by the Government by Legislative Instrument.

Then we have stool lands which are controlled by the Traditional Chiefs. It is easier to acquire stool lands than Government owned lands. The Government has launched educational programme asking traditional chiefs to release lands to people who are interested in agriculture and other related ventures. Chiefs are responding favourably to the Government call.

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C O N C L U S I O N :

Even though the PNDC has inherited economic misery, with economic discipline, hard work, devotion to duty and the last but not the least, favourable natural conditions, especially good rainfall there will be sustain increase in food production in the years to come. This is especially so when more and more Ghanaians are beginning to realise the lucrativeness of farming.