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POLICIES FOR INCREASED AGRICULTURAL  
PRODUCTION WITH APPLICATIONS FOR WEST AFRICA

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SYMPOSIUM ON AGRICULTURAL INCENTIVES FOR  
INCREASED FOOD PRODUCTION

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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, 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 developments led to acute shortages of foreign exchange, sharply higher foreign debts, rampant inflation, overvalued exchange rates, reduced Government revenues and generally depressed economic activity.

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

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

Many analysts in the developed world today believe that inadequate

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1) Materials prepared by Rex F. Daly for ECOWAS Symposium on Agricultural Incentives for Increased FOOD Production, Abidjan, April 9 to 13, 1985.

food production in West Africa arises to a very large extent out 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, inequitable returns, low priority in allocation of scarce resources,
- Large imports of food grains, and
- Overvalued exchange rates that penalize commercial export crops.

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

It is against this rather bleak backdrop that the policy dialogue moves to a discussion of the nature and role of 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 macro-economy,
- The direction and possible magnitude of policy/program impacts on agriculture,
- Developments in West Africa and selected ECOWAS Nations, and
- What appear to be root causes underlying persistent unfavorable economic conditions in West Africa.

#### POLICY/PROGRAM CHOICES

Policy choices usually express goals or 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 demonstrate 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 implementing programs are not initiated or are ineffectively administered.

### AGRICULTURE'S ROLE AND PRIORITIES IN DEVELOPMENT

In at least the past 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.

Most macro-economic planners 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 centre piece of farming. But the agriculture and food industry is much broader. It includes as well the fisheries and significant linkages through land, water and labor 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 (fertilizer, chemicals, machines, tools, spare parts, banking, communication, services, research) and the complex of agri-business 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.

This broad agriculture and food industry in developing nations usually accounts for three-fourth to as much as 80 to 90 per cent of the economy's total economic activity, provides employment for 80 to 90 per cent of the labor force, accounts for 85 to 90 per cent 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 same problems.

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 policies, for example:

- Foreign exchange
- Monetary and credit,
- Fiscal revenues and expenditures,
- Foreign trade, including taxes, tariffs, quotas, etc., and
- Price and subsidy levels.

And into industry micro policies for agriculture, including 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, machinery, spare parts, for example.
- Taxes or incentives on trade,
- Programs to facilitate or limit the use of land and water for production,
- 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 agricultural development officer should understand and currently monitor developments for major agriculture-food commodities. In addition, 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 foreign developments, and local institutional arrangements may be similar for many nations in the Region. As a result, it is very difficult, indeed almost presumptuous, for strap-hanger policy analyst (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 country long enough to gain the understanding and insights into the politics, economics, institutions, culture (people) 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.

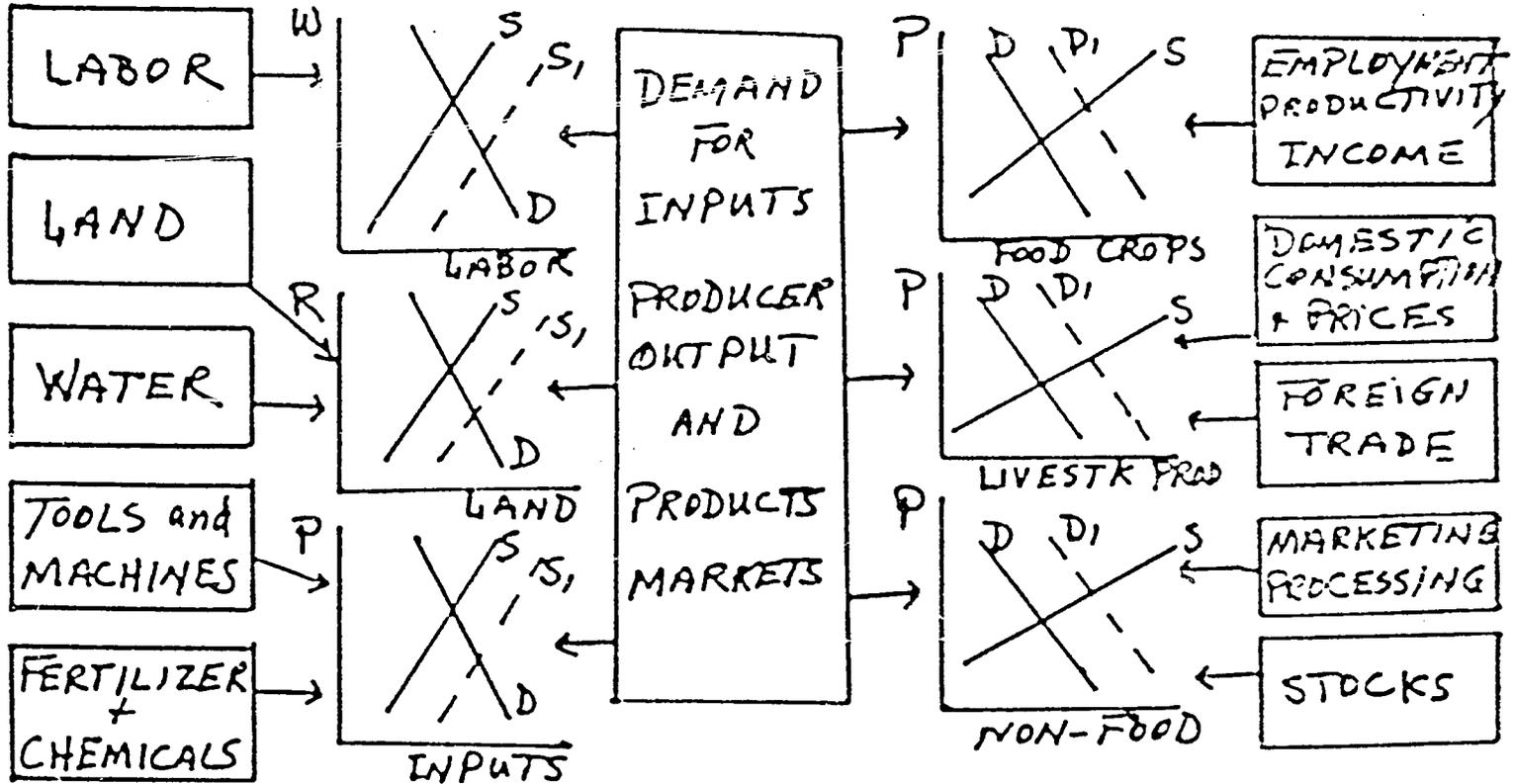
#### CONCEPTUAL ANALYTICAL FRAMEWORK

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.

# THE AGRICULTURE-FOOD INDUSTRY

## INPUT MARKETS

## PRODUCT MARKETS



OWNERSHIP OF LAND AND INPUTS

PRODUCTION TECHNOLOGY

CONSUMPTION AND NUTRITION

### 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 larger production. But this is a gross over simplification. 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 productions 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 determines the production unit. To the extent this is the case, food production increases will depend importantly on policy-program measures affecting labor and land:

- Rural-to-urban population shifts and availability and wages of labor in rural areas,
- Development of rural industry that competes for labor, although on balance this may have some positive effects on food output,
- Population and labor force growth,
- Differences in food prices and food distribution programs in rural and urban areas,
- Land tenure arrangements and policies affecting the ownership and use of land resources. Private ownership usually leads to improvement in the development, use, productivity and conservation of land and water resources,
- Policies, programs and institutions that idle good crop land will limit food production, and
- Programs to increase investment in reclamation and irrigation --- dams, wells, pumps, etc. --- will increase food production.

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

### Production Technology

Policy initiatives usually include programs to support basic research, develop new varieties, increase the amount and quality of seed, improve cultural practices, and develop better disease and insect controls. 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. The analyses are often highly aggregated. They may relate to total production of the crop rather than measure the separate influence of price prospects on area planted and on crop yield.

The analyses often aggregate widely different producing seasons. They inappropriately generalize competing crops and combine widely varying weather conditions. Nevertheless, there is ample evidence that prices and earnings prospects do have a positive and significant impact on production of food crops even among the smaller largely subsistence producers. However, one would expect the small subsistence producer to be less responsive to price than the larger market oriented producer

#### Secondary Price and Earnings Impacts

Although direct annual impacts of prices on food output are usually significant, the secondary 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 development of improved seed and disease and insect 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, encourage investment in agriculture and in supporting roads, transport and market infrastructure.

#### Pricing by Region and Season

Governments frequently specify for all regions 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 government is prepared to strictly control internal movements of food and perhaps make large outlays for transportation. Similar imbalances develop when set market prices are the same for the flush supply season as the short-supply season. Again large government costs may be necessary to over-ride usual variations in costs of transport from surplus to deficit areas or the storage costs

of carrying a commodity from one to another season. These are normal economic variations that would not be borne by the private sector. And governments often find the costs excessive even though they may be considered justified on political grounds.

### Government Set Prices and Costs

Available information suggests that most, if not all, governments in West Africa set producer prices, costs, price margins, wholesale and retail prices through parastatals or price boards. There seems a willingness or political compulsion to assume a virtually impossible task and one doomed to failure i.e. doomed unless prices are set reasonably close to constantly changing market supply-demand forces.

Except for a stop-loss minimum producer price for a commodity, at a level that may not prove too costly to Government given current production technology, no parastatals or marketing boards have the information, the analyses, the wisdom or the insights into the future that would be required to draw up a workable set of market prices for a major commodity. Any such set will be constantly out of phase with underlying economic forces. This leads to parallel markets, and other opportunities for fraud unless imports and exports can be implemented to largely offset imbalances in the market. And such offsets usually are to the disadvantage of the domestic producer.

If governments, through their parastatals and marketing boards, can manage only token support for a commodity when market supplies are large: or when supplies are short, if they virtually confiscate available supplies and allow producer supports (adjusted for inflation) to decline, producers will likely cut production of that commodity by reducing both plantings and yields. It does not take many such 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 decisions 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 volume and mix of output that will be profitably absorbed by the markets.

Policies in the product markets, 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 ceilings, special prices for the needy, imports, rationing of 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 of 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:

1. 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,
  - Increase consumer food prices and expenditures for food.
2. Increase in producer prices of export crops would lead to:
  - Increased producer incomes with increases in demand for inputs and increases in government revenues.
3. 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,
  - Increases in government costs (or a reduction in tariff revenues),

4. Reduction in overvalued exchange rates would operate to:
  - Stimulate exports and discourage imports,
  - Encourage the shift of resources toward agriculture
  - Increase consumer prices and reduce real wages accordingly and
  - Increase exports and government revenue.
  
5. Increase 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 discussion is to emphasize the pervasive nature of agricultural price policy impacts on the economy. Understanding these linkages and possible magnitudes of change are vital in national policy making 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

Table 1

AREA, YIELD AND PRODUCTION OF GRAIN, SELECTED  
COUNTRIES OF WEST AFRICA (ECOWAS)

COUNTRY	1970	1975	1980		1981	1982	1983	Pre 1984	
			Actual	Growth				Actual	Growth from 1980
<b>WEST AFRICA (ECOWAS)</b>									
Area (1000 Ha)	22516	22583	23883	0.6	24447	24317	23609	24346	0.5
Yield (Kg)	674	705	727	0.8	739	751	594	621	-3.9
Output (1000 M.T.)	15184	15920	17382	1.4	18032	18240	14016	15100	-3.5
Population (Mil)	105.0	121.4	141.2	3.0	145.6	150.0	155.1	160.0	3.2
<b>NIGERIA</b>									
Area	12110	12785	13490	1.1	13580	13705	13384	13710	0.4
Yield	680	645	711	.4	716	741	720	858	4.8
Output	8240	8248	9594	1.5	9726	10055	9635	11759	5.2
Population (Mil)	56.3	65.7	77.1	3.2	79.7	82.4	85.2	88.1	3.4
<b>MALI</b>									
Area	1674	1512	1625	0.3	1645	15723	1670	1600	-0.4
Yield	599	747	549	-0.9	678	648	562	509	-1.8
Output	1003	1129	892	-1.2	1116	1018	938	815	-2.2
Population (Mil)	5.58	6.20	6.91	2.2	7.07	7.23	7.39	7.56	2.3
<b>GHANA</b>									
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
<b>IVORY COAST</b>									
Area	223	231	275	2.1	262	270	262	323	4.1
Yield	2646	3623	3171	1.8	3218	3281	3656	3433	2.0
Output	590	837	872	4.0	843	886	958	1109	6.2
Population (Mil)	543	676	805	4.0	8.33	8.,61	8.89	9.18	3.3
<b>SIERRA LEONE</b>									
Area	353	346	428	1.9	428	455	455	455	1.5
Yield	1269	1616	1278	0.1	1206	1138	1253	1257	-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: USDA/ERS, preliminary 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. In order to maintain consumption of grain, most nations resorted to imports. In the 1970-75 period grain imports to West Africa (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 1975-1985 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 5 selected countries - Nigeria, Mali, Ghana, Ivory Coast and Sierra Leone. But underlying circumstances were somewhat quite different for each country.

### Related Economic Developments

In most 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, accelerating population growth, sharply reduced percapita output. But the much larger imports helped to maintain

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Table 3:

WEST AFRICA: GRAIN OUTPUT AND IMPORTS  
(1000 Metric Tons)

Country	1970 <sup>1</sup> /		1975 <sup>1</sup> /		1980 <sup>1</sup> /		1984 <sup>1</sup> /	
	Output	Imports	Output	Import	Output	Imports	Output	Imports
West Africa	943	1237	16210	1294	18053	3882	15567	5342
Nigeria	8440	271	8192	404	9488	1739	7935	2475
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	1147	36	1115	127	1172	102	938	290
Niger	1420	17	1136	22	1627	95	1400	50
Burkina Faso	1030	32	1176	36	1216	86	1130	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
X- Sierra Leone	441	2	508	1	559	70	570	101
Senegal	824	292	959	219	664	564	552	712
Benin	272	15	329	16	402	83	320	24
← Sierra Leone	0	17	0	40	6	57	4	52
Cape-Vert								

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consumption (Table 3)

Larger imports were financed by big increases in government deficits, and 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 were overvalued. The pinch on exports and already burdensome export taxes, the main source of government revenue for many nations, led to neglect 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 fill 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 *Causes profondes.*

Are economic developments in West Africa really as bleak as the data seems to suggest? Do these conditions arise from bad policies, from outside influences, from poor administration? Why do obviously bad policies and imbalances persist? Can we identify the root causes of economic conditions in West Africa?

1. 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.

2. 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.

Table 2

(Cont.) GRAIN PRODUCTION, TRADE AND USE, SELECTED COUNTRIES; WEST AFRICA (ECOWAS)  
(1000 Metric Tons)

COUNTRY/YEAR	Output	Net Import	Stock Change	Nonfood Use	Food Use		Population	
					Total	Per cap Kg.	Total Million	Growth
GHANA								
1970	542	157		26	673	76.5	8.8	
1975	890	96		20	966	93.6	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	1280	159	8.05	3.55
1981	872	584		18	1438	173	8.33	
1982	843	546		20	1369	159	8.61	
1983	886	594		25	1455	164	8.89	
1984	958	635		27	1566	171	9.18	
1985E	1109						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

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3. 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 impact on the situation.

4. 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, transport facilities, and airline, widely dispersed school and health facilities, and a full set of government ministries, for example.

5. Detailed controls on markets, foreign trade, finance, prices, costs, etc. require extensive information and an ability to currently 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 virtually confiscate the farmers produce, frequently 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 and less costly inputs of fertilizer, disease and insect controls, tools and spare maintenance parts,
- 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 major role in foreign exchange earnings,
- The need for government to demonstrate that national plan objectives for agriculture and food policies and programs are not just talk to impress donors, and
- The need for policies, institutions, programs and priorities that should be accorded agriculture in order to motivate producers, reduce the price-cost squeeze and other 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	1982	1983	1984	1985	1985
			Actual	Growth		Actual	Growth	Proj.
			Chiffre Niels	from 1970		Chiffre Niels	from 1980	1985
				de 1970			de 1980	Proj. 1985
GRAIN PRODUCTION <sup>1)</sup>	8311	8016	9197	1.0	9480	9962	7506	9630
Rice (Milled)	257	348	579	8.5	825	918	851	900
Wheat	20	18	23	1.4	25	30	35	40
Corn	1426	1350	1670	1.6	1750	1785	1660	1800
Millet & Sorghum	6608	6300	6925	0.5	6880	7229	1960	6890
IMPORTS	313	412	1739	18.7	2386	2162	2475	9.2
Rice (Milled)	1	6	394	81.7	651	712	775	18.4
Wheat	271	404	1176	15.8	1375	1400	1500	6.3
Corn	1	1	168	66.9	350	50	200	4.5
Millet & Sorghum	40	1	1		10			
TOTAL SUPPLY	8624	8428	10936	2.4	11866	12124	9981	-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
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	1399	6831	300	12748	15009		30
Exports, Merchandise (Mil. dol.)	1248	8329	25741	35.3	12877	10456	10200	-20.7
Percent Debt Service/Export Merch.	4.5	3.7	3.8		16.8	27.5		

<sup>1)</sup> One year lag

SOURCE: USDA/ERS.

Prel. estimates based on USDA/EAS, FAO, IRRD, IMF

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MALI: GRAIN PRODUCTION, TRADE AND RELATED  
ECONOMIC DEVELOPMENTS  
(1000 metric tons)

	1970	1975	Actual 1980 needs	Growth from 1970 to 1980	1982	1983	Actual 1984 needs	Growth from 1980 to 1984	Proj. 1985
GRAIN PRODUCTION <sup>1)</sup>	1092	1042	1116	0.2	1057	974	883	-5.7	781
Rice (Milled)	106	142	109	0.3	116	86	108	-0.2	66
Corn	73	100	64	-1.3	70	95	75	4.0	65
Millet & Sorghum	913	800	843	0.3	871	793	700	-7.2	650
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
Corn	3	28	18	19.6	30	20	60	35.1	100
Millet & Sorghum	2	25	0		15	16	40		70
TOTAL SUPPLY	1141	1169	1218	0.7	1213	1129	1174	-0.9	1131
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 (75=100)	55	100	(165)	11.6					
Producer Price (Real)									
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	1024	1130		10.3	
Export, Merchandise (Mil.dol)	33	53	205	20.0	146				
Percent Debt Service/Exports	3	6	17		35				

<sup>1)</sup> One year lag

SOURCE: USDA/ERS: Prel. estimates based on USDA/FAS, FAO, IBRD, IMF

GHANA : GRAIN PRODUCTION, TRADE AND RELATED ECONOMIC DEVELOPMENTS  
(1 000 METRIC TONS)

	1970	1975	1980		1982	1983	1984		Proj. 1985
			Actual	Growth from '70			Actual	Growth from '80	
GRAIN PRODUCTION 1/	520	866	749		693	532	413		766
Rice, milled	45	49	62		65	24	27		44
Corn	304	486	380		378	346	299		450
Millet & Sorghum	171	331	307		250	162	87		272
IMPORTS	157	95	211		197	223	281		
Rice, milled	53	0	30		26	34	71		
Wheat	99	95	131		120	120	106		
Corn	5	0	40		41	59	94		
Millet & Sorghum	0	0	10		10	10	10		
TOTAL SUPPLY	677	961	960		890	755	694		
Percapita (Kg)	77	93	79		69	56	50		
POPULATION (Million)	8.79	10.31	12.13		12.94	13.31	13.80		14.25
RELATED ECON. 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 & Sorghum	209	415	430		(163)				
Exchange rate(CFA/\$, Unofficial)	1.7.	1.9.	15.9		61.7	76.6	(150)		

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	1970	1975	1 9 8 0		1982	1983	1 9 8 4		Proj 1985
			Actual	Growth from '70			Actual	Growth from '80	
Debt Outstanding (Mildol)	486	743	1 341		1 423	1 635			
Exports, Merchandise (Mildol)	458	808	(1215)		(800)				
Percent. Debt Service/Exports	5	8	(11)		(17)				

<sup>1</sup>/One year lag.

SOURCE : USDA/ERS : Preliestimates based on USDA/FAS, FAO, IBRD, IMF

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IVORY COAST:

GRAIN PRODUCTION, TRADE AND RELATED  
ECONOMIC DEVELOPMENTS  
(1000 metric tons)

	1970	1975	Chiffre Actual réels	1980 Growth from 1970 à partir de 1970	Croissance	Actual	Chiffre Actual réels	1984 Growth from 1980 à partir de 1980	Croissance	Proj. 1985 Préj. 1985
GRAIN PRODUCTION <sup>1</sup>										
Rice (Milled)	520	533	784	4.2	856	942	1050	7.6	1192	
Corn	128	170	226	5.8	242	260	230	0.4	304	
Millet & Sorghum	354	325	510	3.7	564	639	782	11.3	843	
	38	37	48	2.4	50	40	38	-5.7	45	
IMPORTS										
Rice (Milled)	185	81	367	7.1	546	589	635	14.7		
Wheat	79	2	168	7.8	357	380	400	24.2		
Other	101	79	183	6.1	176	206	225	5.3		
	5	0	16	-	13	3	10	-		
TOTAL SUPPLY	705	614	1153	5.0	1402	1531	1685	10.0		
Percapital (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 (75=100)	70	100	216	11.9	252	267	278	6.5		
Producer Price (Real)	31.4	65.0	23.1	-3.0	23.8	22.5	28.8	5.7		
Rice (1000 CFA)	18.1	25.0	-	19.8	15.0	-	-	-		
Corn (1000 CFA)										
Exchange Rate (CFA/\$ Unoff.)	280	215	210	-2.8	333	400	440	20.3		
Debt Outstanding, (Mil.dol)	256	947	5513	35.9	6122	6046				
Export, Merchandise (Mil.dol)	497	1239	3012	19.7	2453	2152	2400	-5.5		
Percent Debt Source/ Export Merch	8	11	33		52	57				

<sup>1</sup> One year lag

SOURCE: USDA/ERS: Prel. estimates based on USDA/FAS, FAO, IBRD, IMF

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SIERRA LEONE: GRAIN PRODUCTION, TRADE AND RELATED  
ECONOMIC DEVELOPMENTS  
1000 metric tons)

	1970	1975	<i>Chiffres</i> 1980 Actual <i>reels</i>	<i>Croissance</i> Growth from 1970 <i>a partir de 1975</i>	1982	1983	<i>Chiffres</i> 1984 Actual <i>reels</i>	<i>Croissance</i> Growth from 1980 <i>de 1980</i>	Proj. 1985
GRAIN PRODUCTION <sup>1)</sup>									
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	2	1	70		72	122	101	9.6	
Rice (Milled)	0	0	42		46	85	51	5.0	
Wheat	2	1	28		26	37	50	15.6	
TOTAL SUPPLY	301	341	445	4.0	419	471	484	2.1	
Percapita (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 (75=100)	66	100	190	11.2	307				
Producer Price (Real) 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						

<sup>1)</sup> One year lag

SOURCE: USDA/ERS: Prel. estimates based on USDA/FAS, FAO, IBRD, IMF

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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

ABIDJAN, 9 - 13 APRIL, 1985

## 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~~ purchasing 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 agricultural 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 paper therefore confine 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. This 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 occurrence 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 3.8 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.

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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 <sup>4.0</sup>~~3.3~~ 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. <sup>(iADPs)</sup> 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 the 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

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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 saw milling capacity, the forestry sector as a resource base remained neglected. High forest <sup>cover</sup> ~~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 <sup>milled</sup> ~~ruled~~ annually. Since then the volume of sawn wood has doubled due to <sup>the</sup> expansion of logging activities in the ~~GIOLA~~ <sup>GOLA</sup> 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 <sup>face</sup> ~~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 livestock 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 vessels 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/Pugethum 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, *fisheries*

The IADPs have tried 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 operations <sup>have</sup> ~~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<sub>s</sub> 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.

## Operational

All projects have experienced problems in obtaining ~~tim~~ timely deliveries of inputs such as seeds, fertilisers, fuel and spare parts. <sup>KOINADUGU</sup> ~~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 between <sup>w</sup> 60- 70 per cent of the announced prices and probably no more than 50 per cent of the export prices, except for palm kernels. (at 56%)

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. <sup>N</sup> 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.

MAMR =  
Ministry of  
Agriculture  
& Fisheries

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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 Cassava, 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 counterparts 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 :

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 functioning 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 imports 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 led 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.

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.

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

ATELIER DE TRAVAIL SUR L'ACCELERATION DE LA MISE EN  
OEUVRE EN AFRIQUE DES STRATEGIES ALIMENTAIRES  
L'EXPERIENCE IVOIRIENNE

PAR

LE MINISTERE DU DEVELOPPEMENT RURAL,  
COTE D'IVOIRE

SYMPOSIUM SUR LES FACTEURS DE STIMULATION DE LA PRO-  
DUCTION ALIMENTAIRE

ABIDJAN, 9-13 AVRIL 1985

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Le développement du secteur agricole est à la base de l'essor de l'économie ivoirienne. Le Gouvernement entend donc garder à ce secteur la plus haute priorité dans sa politique économique.

Ainsi que l'a exprimé le Président de la République, son Excellence Félix Houphouët Boigny :

"Notre agriculture, qui est et doit demeurer le pilier le plus ferme de notre développement n'a pas pour seul objet de procurer des recettes d'exportation à l'Etat. Elle doit fournir à tous une alimentation saine et abondante en produits vivriers. Certains pays qui ne l'ont pas compris sont maintenant obligés d'importer à grands frais ce que leur sol négligé aurait pu leur apporter en abondance."

"En outre, la bonne santé de l'agriculture est un puissant incitateur pour maintenir la jeunesse à la terre. Tout sera fait pour cela, en s'attachant bien entendu à ce que les paysans reçoivent la juste rémunération de leur labeur, mais aussi à ce que les villageois, à qui sont épargnés par ailleurs les mille stress de la vie urbaine, jouissent des avantages de confort, de santé, d'éducation, d'information, de communication, de distraction que nous offre la technique moderne".

"Depuis la décolonisation, bien des pays politiquement libérés ont vu s'accroître leur dépendance de l'extérieur pour la nourriture de leurs populations, perdant ainsi dans le domaine économique et financier, une large partie des avantages récoltés sur le plan politique".

#### 1. La mise en place de la stratégie ivoirienne

C'est pourquoi, le dernier Congrès du Parti Démocratique de Côte d'Ivoire, en 1970, a fait de l'"aide à la paysannerie" une

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des priorités du pays, le mot d'ordre de l'"autosuffisance alimentaire" a été adopté et diverses missions ont parcouru le pays pour l'expliquer et entraîner l'adhésion populaire.

En 1961, le nouveau Secrétariat d'Etat à l'Agriculture, chargé du développement des cultures vivrières, a lancé une "croisade" pour l'autosuffisance alimentaire dont les six grands axes étaient les suivants :

- \* mise au point et vulgarisation de matériel végétal à haut rendement, adapté aux conditions de culture et aux habitudes alimentaires des populations
- \* modernisation des techniques de production par amélioration de l'agriculture traditionnelle et l'introduction de la motorisation ;
- \* mise en oeuvre d'une assistance particulière aux jeunes et aux femmes dans ce processus de modernisation ;
- \* organisation de la commercialisation avec un accent particulier sur l'organisation et la redynamisation des coopératives ;
- \* mise au point de technologies de conservation et de transformation ;
- \* organisation de l'encadrement de la production par le renforcement de l'action des structures de développement en faveur des vivriers.

En 1963, cette action en direction du développement des vivriers était renforcée par la création du Ministère du Développement Rural, qui, regroupant les productions végétales vivrières, l'élevage et la pêche, se voyait investi d'une tâche beaucoup plus large, touchant directement la mise en oeuvre de la stratégie alimentaire ivoirienne.

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Cet effort institutionnel, pour doter le pays d'un outil opérationnel, s'est accompagné d'une analyse approfondie de la situation vivrière. Ainsi furent élaborés un Plan Vivrier, une Stratégie et un Plan d'Action du Développement Rural.

## II. La mise au point du Plan Vivrier (1963)

Cette mise au point a été réalisée par cinq commissions interministérielles, chaque commission étant présidée par le Ministère Technique le plus directement concerné. Les domaines des différentes commissions étaient les suivants :

- A - Recherche : identifier et préciser les relations entre recherche et développement/vulgarisation.
- B- Production : à partir des statistiques de production et de consommation, à chercher à évaluer les écarts entre offre et demande des produits vivriers en 1962, et réaliser des projections à 1985 et 1970 ; identifier les actions prioritaires à entreprendre pour combler les déficits potentiels et réduire les importations.
- C - Consommation : étudier les obstacles à la commercialisation efficace des vivriers ; analyser les conditions de l'amélioration des relations entre producteurs et consommateurs (création de marchés, organisation de la commercialisation, etc...).
- D - Transformation : étudier les meilleures conditions de valorisation, de stockage et de transformation des produits vivriers, notamment igname, banane plantain et manioc.
- E - Finances : à la lumière des recommandations formulées dans les quatre rapports techniques précédents, estimer le coût financier et évaluer les effets économiques du plan vivrier proposé.

Ces cinq analyses ont donc permis de disposer d'un ensemble de dossiers, regroupant les idées et les recommandations des principaux Ministères concernés par la mise en oeuvre du plan vivrier en Côte d'Ivoire. Il était donc possible pour le Ministère du Développement Rural de définir, sur ces bases, une stratégie et un plan d'action.

### III. La stratégie et le plan d'action du Ministère du Développement Rural

Cette stratégie recherche avant tout l'accroissement du revenu des exploitants en les plaçant dans un environnement économique, favorable où se trouvent définies :

- \* une politique de prix comme moyen d'incitation globale à la production ;
- \* une politique de subventions comme moyen d'encouragement à l'adoption de techniques plus avancées ;
- \* une politique fiscale permettant d'une part de protéger les productions locales et de décourager la consommation de produits importés par l'instauration de taxes, d'autre part de réduire le coût des intrants agricoles par l'octroi d'exonérations douanières ;
- \* une politique de crédit agricole afin d'en adapter les conditions et les modalités aux exigences de l'agriculture, de l'élevage et de la pêche ;
- \* une politique de promotion, d'encouragement et d'organisation de l'épargne villageoise en vue d'une agriculture qui s'autofinance ;
- \* une politique de structuration du milieu rural s'appuyant sur l'élargissement du rôle des organisations rurales telles que les associations mutuelles et les groupements à vocation coopérative et sur la réorientation des Fonds Régionaux d'Aménagements Ruraux

(FRAR) vers des investissements productifs ;

\* une politique d'amélioration des conditions de vie en milieu rural en menant des actions sur l'habitat, les pistes, les équipements collectifs, la couverture sanitaire, les infrastructures scolaires et l'encouragement à l'artisanat ;

\* une politique de modernisation des exploitations agricoles portant notamment sur le défrichement des terres, la mécanisation et la motorisation, la maîtrise de l'eau, l'utilisation des semences sélectionnées et autres intrants concourant à l'intensification et à la sédentarisation de l'agriculture ;

\* une politique d'encadrement des planteurs, agriculteurs, éleveurs et pêcheurs dans laquelle l'audio-visuel et les médias jouent un rôle de plus en plus important pour la diffusion et l'information de masse, tandis que l'introduction d'innovations techniques fait l'objet d'un encadrement rapproché des planteurs à l'intérieur de projets.

\* une politique de pré vulgarisation assurant la meilleure collaboration possible entre la recherche agronomique et zootechnique et les services de vulgarisation, en tenant compte des besoins réels des producteurs ;

\* une politique en matière de transformation et de commercialisation enfin, axées sur la mise au point de technologies rurales appropriées, l'organisation des circuits de commercialisation primaire et d'approvisionnement en intrants, le développement de marchés ruraux et régionaux afin de permettre la meilleure valorisation possible de la production des paysans.

#### IV. Le cadre de réalisation de l'action

L'instrument privilégié de cette politique d'action est le "projet de développement rural". Cependant pour être pleinement

efficace, il est impératif que ce type d'intervention s'insère dans un cadre cohérent constitué :

\* par les politiques nationales (prix, crédit, etc...) ou les plans sectoriels (plan vivrier, plan de développement de l'élevage ou de la pêche).

\* par les plans régionaux ou les schémas directeurs s'appuyant sur des bilans diagnostics permettant de définir les potentialités et les vocations régionales à partir des réalités du terrain.

De plus, ces projets doivent tenir compte de trois facteurs déterminants :

- a) la capacité de réponse des différentes sources de financement (tant nationales qu'internationales) aux projets proposés ;
- b) la capacité ivoirienne d'absorption de ces financements ;
- c) la capacité ivoirienne d'assurer les charges récurrentes.

Ainsi le Ministère du Développement Rural fixe-t-il une dimension très rigoureuse à ces projets, en faisant en sorte qu'ils soient parfaitement délimités dans leur objet, faciles à quantifier, faciles à suivre et à gérer.

De plus, il importe de spécialiser les régions dans les différentes spéculations vivrières et pastorales que leur confèrent leurs potentialités naturelles.

C'est pourquoi, complétant les projets d'ampleur nationale qui concernent les objectifs ponctuels ou urgents, le modèle de projet auquel tend le Ministère du Développement Rural est le projet départemental de développement rural. Il s'agit donc de mettre en oeuvre des projets dont l'ampleur est limitée à un ou deux départements.

Cette approche est confortée par deux observations :

- les grands projets régionaux intégrés qui ont déjà fait l'objet d'études lourdes, n'ont en fait abouti à aucun financement effectif, tant leur ampleur était importante ;
- les projets péri-urbains mis en oeuvre de façon ponctuelle, montrent qu'au delà de leur coût, ils risquaient d'amener une concurrence entre ville et campagne, au détriment du développement des campagnes, et qu'il serait plutôt souhaitable d'envisager un développement de la zone d'influence des villes.

Le projet départemental de développement rural paraît alors d'autant mieux adapté qu'il intéresse de plus près l'ensemble des élus locaux et des autorités administratives.

Il reste bien évident cependant que la Côte d'Ivoire poursuit également la mise en oeuvre de projets d'ampleur nationale, sur des sujets concrets ou présentant un caractère d'urgence, tels que l'organisation de la filière semencière, la santé animale ou le programme d'urgence riz qui représente aujourd'hui la priorité des priorités.

### Conclusion

En guise de conclusion, il paraît important de remarquer qu'il n'existe pas au monde d'agriculture qui se développe sans que soit maintenu ou accru le revenu des producteurs grâce à la mise en place de systèmes de subventions.

N'estime-t-on pas en effet à 1,5 million de FCFA par exploitant agricole, la subvention totale moyenne attribuée en 1973 dans la Communauté Economique Européenne, et à 4,0 millions de FCFA, celle accordée pour la même année à chaque producteur des Etats Unis d'Amérique ?

Certes, s'il est important de parler de vérité des prix, il s'agit d'être très circonspect, en ce qui concerne les productions.

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alimentaires.

En effet, la vérité des faits montre que les pays qui réussissent sont ceux qui savent créer des conditions de prix, d'aides et de subventions telles que leurs paysans soient incités à produire et à commercialiser leurs surplus alimentaires.

C'est pourquoi, avant d'être complètement tributaire du marché international pour certains produits alimentaires stratégiques, tel que le riz, au nom de la sacro-sainte théorie des avantages comparatifs, il paraît urgent et prioritaire de créer en Côte d'Ivoire et en Afrique un environnement économique, adapté aux aspirations et aux besoins des paysans, afin que l'Afrique puisse produire par elle-même la nourriture qui lui est nécessaire, sous peine de perdre son indépendance économique et la possibilité de ses libres choix.

Certes si un pays comme la Côte d'Ivoire ne peut tout produire tout seul et a intérêt à acquérir un certain nombre de biens sur le marché mondial, il ne peut être question pour elle de se livrer à la même démarche avec ses produits vivriers de base.

En effet, si pour une raison ou une autre, un produit vient à manquer, il sera possible de s'en priver momentanément s'il s'agit d'un produit non essentiel et seul le train de vie des populations s'en trouvera affecté, alors que ce sera un élément de troubles sociaux s'il s'agit d'un produit vivrier de base.

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

APERCU SUR L'AGRICULTURE GUINEENNE

SYMPOSIUM SUR L'AGRICULTURE ET LES FACTEURS SUSCEP-  
TIBLES DE STIMULER LA PRODUCTION ALIMENTAIRE.

ABIDJAN 9-13 AVRIL 1985

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## I. CARACTERISTIQUES PRINCIPALES DU SECTEUR AGRICOLE

### 1. Généralités

L'agriculture occupe actuellement près de 22% de la population et contribue pour 42% environ au PIB. Le secteur rural a connu un déclin pendant les deux dernières décennies. La contribution de l'Agriculture au PIB est tombée de 46% en 1973 à 42% en 1981. Toutefois la production du secteur (Agriculture, élevage, pêche et forêts) s'est accrue à un taux estimé à 2% de 1973 à maintenant, taux inférieur à celui de la croissance de la population rurale pendant la même période.

Durant cette période de crise le sous-secteur des cultures de rapport a été le plus sérieusement touché d'où la part négligeable de l'Agriculture dans la valeur totale des exportations des dernières années.

De même, la production de riz n'a pas suivi le rythme d'accroissement de la population rurale d'où l'importance des importations qui approchent maintenant de 100.000 T/an.

La population totale est estimée à 6 millions d'habitants.

### Les grandes zones écologiques et leur production

#### - Guinée maritime ou Basse Guinée

- . Riziculture aménagée mangrove et de bas-fond.
- . Palmier à huile
- . Fruits dont banane, mangue, ananas, orange etc..
- . Maraichage surtout . proximité des villes.
- . Arachide
- . Peu d'élevage.

#### - Moyenne Guinée au Fouta Djallon .

- . Agro-pastoralisme
- . Fruits et légumes dans les bas-fonds et les tapades
- . Arachide (région de Koundara et Gaoual).

- . Riziculture pluviale et irriguée (Gaoual et Koundara)
- . Maïs et fonio.

- Haute Guinée

- . Agro-pastoralisme
- . Coton
- . Fruits dont le manguier
- . Riziculture irriguée dans les vallées
- . Maïs et manioc
- . Tabac
- . Arachide.

- Guinée forestière

- . Riziculture de bas-fonds
- . Café-Cacao
- . Palmier à huile, hévéa
- . Exploitation forestière.

La superficie actuellement cultivée serait de 1,4 millions d'ha dont près de la moitié en riz, alors que la superficie nationale cultivable est estimée à 7 millions d'ha, ce qui représente environ les 30% du territoire.

2. La production Agricole

La politique agricole d'avant était avant tout axée sur le développement d'un secteur étatique puissant, intervenant au niveau de la production (complexes agro-industriels intégrés, FAPA fermes agricoles - communales etc...). De plus l'Etat contrôlait l'ensemble des activités agricoles à travers un système réglementaire très contraignant (prix officiels, monopole de l'exportation, collecte forcée etc..).

Cette politique s'est traduite par l'effondrement des exportations agricoles, la regression des production vivrières, l'accroissement des importations alimentaires et alourdissement des charges de l'Etat.

Les principales exportations agricoles café, ananas, banane, palmiste, tabac etc... ont fini par chuter terriblement.

La situation alimentaire s'est traduite par une insuffisance de la production et les importation de riz ont affecté les 100.000 T/an pour l'approvisionnement des grandes centres.

### 3. La production animale

On avait surtout mis l'accent sur les grands complexes étatiques, c'est à dire de grandes fermes gouvernementales (Ditinu, Famoïla) les exploitations collectivistes (FAPA). Les éleveurs avaient été délaissés sauf pour les obliger à des prélèvements (10% du troupeau chaque année).

La commercialisation du bétail était l'exclusivité de l'Etat qui payait, lorsqu'il le faisait à des prix officiels très en dessous du prix réel. Ces contraintes poussaient les éleveurs à rechercher de plus en plus les marchés extérieurs plus rémunérateurs.

Le cheptel compte environ 2 millions de bovins de la race N'Dama et près de 1 million d'ovins et caprins.

### 4. Les Forêts

Les formations forestières comprennent :

La forêt dense :	900.000 ha
La savane :	12.000.000 ha
les mangroves :	260.000 ha
Forêts dégradées	1.700.000 ha.

Les ressources ne sont pas qualifiées mais pourraient représenter de 30 à 60 m<sup>3</sup>/ha de bois d'oeuvre en forêt de 10 à 30 m<sup>3</sup>/ha de bois énergie en savane et en mangrove. La consommation pourrait représenter actuellement de 100.000 m<sup>3</sup>/an pour le bois d'oeuvre et 10 million de stères/an de bois énergie.

Les actions forestières concernent pour le moment le reboisement (très faible envergure), la protection de certains grands bassins versants et la démonstration au niveau de l'exploitation, l'aménagement et la gestion.

Il y a lieu de définir une nouvelle politique forestière sur des bases rationnelles à partir des connaissances rassemblées.

#### 5. La pêche

Le plateau continental guinéen dans sa ZEE couvre 56.000 km<sup>2</sup>. Son potentiel exploitable serait très riche surtout en ressources pélagiques, sardines, le poisson baliste, les crustacés etc...

Toutes ces potentialités sont encore mal connues mais il semble se confirmer que des ressources diverses existent en quantité pour permettre un essor tant des pêches artisanales qu'industrielles. La création récente d'un Secrétariat d'Etat à la pêche au sein du Ministère du Développement Rural indique bien l'intérêt que le Gouvernement attache désormais à ce secteur vital.

## II. LES PRINCIPALES CONTRAINTES PESANT SUR LE SECTEUR RURAL

1. Statistiques : Manque d'études de base approfondies, indispensables pour formuler une politique et une stratégie efficaces et pour déterminer les projets prioritaires.

2. Routes et transports : Mauvais état des routes de désertes et des moyens de transport déjà insuffisants, pénurie chronique en carburant et pièces de rechange.

3. Commercialisation et Prix

Une politique de prix, pas très adéquate, doublée de la médiocrité des circuits de commercialisation.

4. Recherche Agronomique

Pratiquement abandonnée mais des efforts sont déployés depuis 19<sup>00</sup> pour la reprise, surtout en ce qui concerne la recherche appliquée.

5. Intrants

Faible utilisation des intrants, résultat du faible niveau technologique ainsi que le manque de devises pour l'achat d'engrais, pesticides, produits vétérinaires, machines et outils agricoles.

6. Crédit agricole

Absence d'un système de crédit approprié. Les exploitations agricoles n'en ont pas encore bénéficié réellement.

7. Technologie

Mauvais choix technologique (importation massive et désordonnée de tracteurs).

8. Stockage

Inadéquation des infrastructures de stockage (silos et autres).

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## 9. Agro-industrie

Peu efficiente manque d'intrants agricoles pour les  
viteaux agricole.

## 10. Détérioration des exportations agricoles et d'élevage.

Café

Banane

Ananas

qui avaient fait la richesse de la Guinée.

## 11. Formation

Insuffisance des cadres bien formés et inefficacité de  
l'encadrement technique au niveau de la vulgarisation. Le rapport  
entre cadres supérieurs (ingénieurs) et moyens (contrôleurs des  
travaux agricoles est pratiquement de 1.

## 12 Irrégularité du régime pluviométrique

Sécheresse et fortes crues notamment au Nord du 10<sup>e</sup>  
parallèle.

## 13. Financement

Faible par rapport aux actions à entreprendre et mauvaise  
planification, la majeure partie allait aux actions à caractère  
étatique (FAPA)

## 14. Faiblesse des moyens de vulgarisation

Ce qui se traduit par l'insuffisance de dialogue entre  
le monde paysan et l'administration de l'Agriculture.

### III. STRATEGIE NOUVELLE DE DEVELOPPEMENT AGRICOLE

Un programme intérimaire de développement économique (1985-1987) vient d'être adopté. La priorité est à ce secteur (27 %). Les objectifs prioritaires consistent à orienter les efforts vers le monde paysan, grâce à une série d'actions visant à regagner sa confiance et à améliorer les conditions de la production.

La dynamisation du monde paysan demande que l'on mette en place des structures d'appui technique et de service faisant largement appel à l'initiative privée et aux organisations paysannes.

Plus précisément la stratégie de développement du secteur rural sera basée sur les principes suivants.

1. L'accroissement de l'efficacité des secteurs publics, des interventions de l'Etat et de la promotion du secteur privé notamment en procédant systématiquement aux études et aux évaluations des projets avant toute décision de réalisation.

2. Les méthodes de vulgarisation doivent tenir compte du système de production du paysan, des potentialités et des contraintes de l'écosystème dans lequel il vit pour définir un modèle amélioré de production à discuter avec lui.

3. Elaborer une politique cohérente des prix agricoles. Le prix à la production doit être garanti. Un pas important est déjà fait dans ce domaine (prix des produits d'exportation café, cacao, palmiste; libéralisation de la vente du riz et autres denrées alimentaires).

4. Lutte contre l'exode rural par l'amélioration des conditions de vie (puits, adduction d'eau, programme intégré de développement, création d'emplois en milieu rural).

5. Inventaire des potentialités au niveau des régions naturelles et élaboration de schémas directeurs de développement pour ces régions.

6. Organisation de l'approvisionnement en intrants des zones favorables et réceptives, à définir en tenant compte des contraintes agronomiques.

7. Amélioration des équipements des exploitations agricoles.

8. Mise en place des structures de production de semences améliorées.

9. Incitation à la mise en place de groupements libres pouvant assurer diverses fonctions au sein des communautés villageoises (commercialisation des produits agricoles, achat de biens de consommation).

10. Réhabilitation de la recherche agronomique.

11. Etudes des marchés en vue de l'exportation des produits (banane, ananas, agrumes, café, mangrones, palmistes).

12. Etude et reconversion des cadres agricoles dans le secteur privé.

13 Favoriser l'installation d'entreprises privées guinéennes et étrangères avec éventuellement la participation de l'Etat pour démarrer ces entreprises dans le cadre des sociétés mixtes.

14. Terme d'études en vue de la préparation du plan de développement en cours.

- Inventaire forestier
- Recherche agronomique : planification et programmation de la recherche sur 10 ans.
  
- Programme national de production de semences et amélioration des productions végétales et animales.
- Etude d'une stratégie à long terme de la filière riz incluant la programmation des aménagements (autosuffisance alimentaire et exportation).
  
- Introduction de cultures de rente présentant des marchés potentiels intéressants ou pour approvisionner de nouvelles agro-industries. (Café, noix de coco, noix de palme etc...).

#### CONCLUSION

En cette phase critique de lancement du plan intérimaire de redressement national, la nouvelle stratégie met l'accent sur la réorganisation des structures de production, l'encadrement du monde paysan, le développement de la libre entreprise et du secteur privé.

Un accent tout particulier est mis sur la production vivrière en vue d'atteindre au plus tôt l'auto-suffisance alimentaire.

Pour atteindre ces objectifs, la coopération sous-régionale et régionale est aujourd'hui plus que jamais nécessaire tant il est vrai que les économies de nos différents Etats sont riches et variées mais complémentaires et surtout face aux difficultés alimentaires de plus en plus prononcées que nous vivons présentement.

La CEDEAO a un rôle de tout premier plan à jouer dans ce contexte.

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ECOWAS --- USAID

INCENTIVES TO STIMULATE AGRICULTURAL  
PRODUCTION IN GHANA

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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 35 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. Ninety-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 50 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
1986	480,800	431,125	49,675

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

In pursuance 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 Organisations 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 small 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 establish 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 period, 482 backyard fish ponds and 145 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 backyard fish ponds and 153 commercial fish ponds were stocked with 44,583 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 56.7 acres 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 stocking
- (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,

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- (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 Rehabilitation programme, Cocoa Production is projected at the following levels:

				<u>Metric tons</u>
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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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 output 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 nature 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

	₪	=	%
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	=	₪214 Million
1982	=	₪309 million
1983	=	₪415 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 (3,600 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 steps are under consideration for other important industrial raw

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

Organization 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 production 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./ . Consideration 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.