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THE IMPACT OF AGRICULTURAL SECTOR ADJUSTMENT PROGRAMMES ON INTRA-REGIONAL TRADE IN AGRICULTURAL PRODUCTS IN WEST AFRICA

GHANA COUNTRY REPORT

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ACRONYMS AND ABBREVIATIONS

APPP	Agricultural Productivity Promotion Programme
ASAP	Agricultural Sector Adjustment Programme
ASIP	Agricultural Sector Investment Project
ASRP	Agriculture Sector Rehabilitation Project
CEPS	Customs, Excise and Preventive Services
CIDA	Canadian International Development Agency
CPI	Consumer Price Index
CSIR	Council for Scientific and Industrial Research
CRIG	Cocoa Research Institute of Ghana
DAES	Department of Agricultural Extension Services
DEMC	District Environmental Management Committee
DRC	Domestic Resource Cost
DWM	31 December Women's Movement
ECOWAS	Economic Organization of West Africa States
EPZ	Export Processing Zone
ERP	Economic Recovery Programme
FAO	Food and Agriculture Organization
FLS	Front Line Staff
FSR	Farming Systems Research
GAPTO	Ghana Agricultural Produce Traders Organization
GDP	Gross Domestic Product
GEPC	Ghana Export Promotion Council
GFDC	Ghana Food Distribution Corporation
GGDP	Ghana Grains Development Project
GIDA	Ghana Irrigation Development Authority
GIPC	Ghana Investment Promotion Center
GLSS	Ghana Living Standards Survey
GNAFF	Ghana National Association of Farmers and Fishermen
GSS	Ghana Statistical Service
GTZ	German Development Organization
ICOUR	Irrigation Company of Upper Region
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IMP	Integrated Pest Management
IRS	Internal Revenue Service
ISSER	Institute of Statistical, Social and Economic Research
LACOSREP	Land Conservation and Smallholder Rehabilitation Project
MIDAS	Managed Inputs Development Assistance Project
MMB	Meat Marketing Board
MOFA	Ministry of Food and Agriculture
MOTI	Ministry of Trade and Industry
MTADP	Medium-Term Agricultural Development Programme

NAEP	National Agricultural Extension Project
NGO	Non-Governmental Organization
NPK	Nitrogen Phosphorous Potassium fertilizer
NTEs	Non-Traditional Exports
OFR	On-farm research
PIP	Public Investment Programme
PPMED	Policy, Planning, Monitoring and Evaluation Department
PPRSD	Plant Protection and Regulatory Services Department
RELC	Research-Extension Liaison Committee
RISS	Rural Institutions Sector Study
SOFA	State of Food and Agriculture
UNDP	United Nations Development Programme
URADEP	Upper Region Agricultural Development Project
USAID	United Stated Agency for International Development
VORADEP	Volta Region Agricultural Development Project
WERADEP	Western Region Agricultural Development Project
WIAD	Women in Agriculture Division

1. THE CONTEXT FOR AGRICULTURAL SECTOR ADJUSTMENT PROGRAMMES

1.1 Pre-1980 Macroeconomic Crises

1.1.1 Post-independence macroeconomic policies

At independence, Ghana, which was part of the sterling area, had an open economy characterized by automatic import licensing and few limitations on foreign account transactions. The economy was robust - export growth was strong and the foreign reserve position was healthy - and full of promise of growth. To achieve this development potential, the country increased the draw-down on its foreign exchange reserves during the early period of construction in 1950-1961, resulting in increasing pressures on its foreign reserves.

In response, the authorities began imposing exchange and trade controls: in 1961 the import license was introduced. From late 1963, inefficiencies in the import license allocation system resulted in an upsurge of imports and an explosion of debt at a time of a glut on the world cocoa market. The deterioration of the external position contributed to the fall of the Nkrumah regime in February 1966.

The military government initiated austerity and the first attempt at liberalization and stabilization: the currency was devalued by nearly 43 percent in July 1967, some imports were effectively controlled and public expenditure was curtailed, as public sector employees were retrenched, and foreign debt payments were rescheduled. A new civilian government in 1969 increased the pace of liberalization as the number of commodities on the import license was gradually reduced to less than 40 percent of all imports by 1970 (Leith 1974).

However, the government could not manage excess growth in aggregate demand from the rapid liberalization of imports: the result was balance of payment problems which were worsened by a return to normal cocoa prices (Leith 1974). In 1971, expansionary fiscal and monetary policies, increased imports and a sharp 28 percent decline in cocoa earnings resulted in a record current account deficit which led to a massive 80 percent of the currency in December 1971.

The government was overthrown two weeks later in January 1972. The new military regime promptly revalued the Cedi by 26 percent, re-introduced stringent import controls, started domestic price controls and temporarily suspended foreign debt service. Aided by rising in cocoa prices, the economy responded positively, but the gains in 1972 and 1973 were curtailed by the oil price hikes of late 1973 and Ghana had to reschedule its debts in 1974. By 1975, as public spending accelerated under a strategy to revitalize state institutions, inflation accelerated, reaching 100 percent in 1977 (Younger 1992).

In response to the worsening conditions, a new leadership in 1978 attempted unsuccessfully to stabilize the economy: the Cedi was devalued by 139 percent, the budget deficit reduced and a limit imposed on the increase in both money supply and bank credit. But, like the 1968 stabilization package, the 1978 attempt failed to implement the necessary set of complementary measures; the program did not involve any exchange rate adjustment

and was again undermined by a sharp fall in cocoa prices starting in 1980 (Manarolla and Vordzorgbe 1987). As the balance of payment worsened, the budget deficit was financed with domestic credit, resulting in increased money supply, accelerated inflation and reduced national output.

The key lesson from Ghana's experience was that import and exchange controls, which remained a key policy instrument for all previous governments since 1961, failed to close the foreign exchange gap, as it penalized exports by inflating the prices of domestically produced goods relative to imported ones. Further, they created excessive economic and political rents for those with access to import licenses, generated distortions in the economy that misallocated scarce resources, due to the substitution of rent-seeking activities in commerce for production, and led to significant expansion of the underground black market economy.

1.1.2 Evolution of the macroeconomic situation

Ghana began the spiral of long-term economic decline in the 1960s: real GDP grew by 4.1 percent during 1950-1960, compared to 2.1 percent during 1960-1970 and 0.6 percent during 1970-1980 (World Bank, World Tables 1984 and 1987). Considering population, on a long-term basis, between 1960 and 1982 real income per capita fell at an average annual rate of nearly 2 percent (Pickett and Shaeeldin, 1990).

The basic causes of the secular decline in economic growth were low investment, low and falling efficiency of resource use and declining exports. Between 1960-1970, total factor productivity growth fell by 1.91 percent annually; this accelerated to 3.11 percent during 1970-1982 (Pickett and Shaeeldin 1990). Capital investment as a ratio of GDP fell from 20 percent in the 1970s to 5 percent by 1980 (Roemer 1984).

The crisis in economic growth resulted in rising inflation as domestic supply of wage goods lagged behind demand leading to high imports. Annual average CPI inflation rose from 6.2 percent in 1960-61 to 25.5 percent in 1964-65, dropped to 3.6 percent in 1969-1970, but rose again steadily to 116.3 percent in 1976-77 and 123 percent in 1982-83 (Azam and Besley 1989).

As the tax base was eroded from rising inflation, low production, smuggling of exports and corrupt abuse of trade and exchange controls, public finance suffered. The long-term deficit in the central government budget first started in 1959-60, when the current budget deficit was 1.3 percent of GDP (Republic of Ghana 1967). However, the public finance situation deteriorated in the 1970s: from a surplus in 1970 to a deficit of 15 percent of GDP in 1980/81 as tax revenue fell from 15 percent of GDP in 1970 to about 6 percent in 1981/82 and the share of current expenditure financed by revenues dropped from 144 percent to 56 percent (World Bank 1983).

Although the terms of trade declined by about 1.1 percent per annum between 1970 and 1984, foreign earnings dwindled because the overvaluation of the currency negatively affected exports in the long run: the share of exports in GDP fell from 34 percent in 1950 to 17 percent by 1965 and to as low as 8 percent by 1978. Consequently, despite foreign exchange rationing, the effect on the current account deficit was severe during the 1970s: the current account deficit after official transfers grew from $68 million in 1970 to $421 in 1981.

As the foreign exchange situation worsened, external debt soared, beginning from the 1960s: during 1960-1965, foreign debt increased by $500 million while foreign reserves fell from about $450 million to $50 million (Killick 1978). By 1983, total external debt rose from $572 million in 1970 to $1650 million. Over time, the worsening economic fundamentals led to a reduction of official development assistance from donors. As the country's credit-worthiness disappeared, private capital also dried up. By 1983, Ghana's development efforts had come to a standstill.

The trend in economic growth, inflation, public finance and external accounts can be gauged from the list of economic indicators of economic performance during the period 1960 - 1982 in Table 1.1.

1.1.3 Evolution of agricultural sector

1.1.3.1 Policies affecting agriculture

Previous development strategies in Ghana discriminated against agriculture as the sector was negatively affected by macroeconomic and sectoral policy failures. The single greatest macroeconomic policy factor was the long-term gross distortion of the foreign exchange rate. An overvalued exchange rate outside the control of the agricultural sector was used to minimize the rise of cost of living and of imported industrial and other production inputs between the late 1960s through the 1970s. The overvaluation also led to a real decline in producer prices for both export and domestic crop producers. This undermined the competitiveness of cocoa and other agricultural exports,

Table 1.1

Performance of the Economy of Ghana: 1960-1982

Economic Performance Indicator	1960-66	1967/71	1972/82
Growth rate of real GDP (%)*	3.0	3.1	-0.1
Growth rate of population (%)	2.6	2.5	2.9
Growth rate of real per capita GDP (%)	0.4	0.6	-3.0
Rate of inflation (%)	11.0	4.7	57.1
Growth rate of money supply (%)	12.0	13.3	36.7
Growth rate of exports (%)	-2.9	5.4	1.2
Growth rate of imports (%)	-1.4	2.8	3.6
Current account deficit/GDP (%)	9.7	4.2	0.1
Investment/GDP (%)	18.5	11.4	5.4
Budget deficit/GDP (%)	5.7+	4.0	6.2
Govt. revenues/expenditures (%)	0.8+	0.8	0.5

*All growth rates, including inflation, were average annual values.
+Refer to 1965 and 1966 only.

Source: Manarolla and Vordzorgbe (1987).

The distorted exchange rate also affected food crop export which were curtailed under a restrictive trade regime while increasing costs of food imports placed severe demands on the nations's foreign resources. The resultant unavailability of wage goods and worsened terms of trade against agriculture largely contributed to an upswing in smuggling of food to neighboring countries.

The slow-down of agricultural exports negatively affected foreign exchange availability which, in turn, resulted in inadequate supply of production inputs and a drastic deterioration in the physical infrastructure base of agriculture, including rural roads, transpiration and storage facilities (Vordzorgbe 1986). This affected agricultural output. The foreign exchange shortage also affected the availability of wage goods which reduced incentives for cash cropping. Meanwhile the breakdown of the transport services adversely affected agricultural marketing which contributed to higher marketing costs and consumer

prices, further fuelling inflation.

Trade taxes, mainly cocoa export taxes, were also used to derive rents from agriculture. Cocoa was heavily taxed, accounting for about a third of total government revenues and about 70 percent of total trade taxes during 1969/70 - 1979/80 (World Bank 1983). In fact, the cocoa sector was devastated by excessive taxation: indirectly through the distorted exchange regime and inflation, and directly through export tariffs. By 1982, the cocoa farmer received less than 17 percent of the 1962/63 price while producer prices were less than half those in Togo and Cote d'Ivoire. Using 1970 as a base, the real producer price index fell from 100 in 1970/71 to 42.3 in 1980/81 (World Bank 1975).

With reduced earnings from cocoa exports increasing pressure on dwindling foreign reserves contributed to rising inflation. As inflation soared, relative incentives favoured crops which can be sold in the open market compared to those cash crops whose prices were controlled, such as cocoa and cotton. Thus, producers of cocoa and similar crops gradually shifted to production of maize, cassava and rice (World Bank 1985). Rising inflation also resulted in higher wages and shortage of farm labour.

Another aspect of price policy was input pricing. As part of the general regime of price controls and to support producers, the supply and prices of agricultural inputs such as fertilizer, seeds and sprayers were controlled by the government. The government has subsidized fertilizer since 1968: the level of subsidy on compound NPK fertilizer rose from 49, percent in 1970 to high of 86 percent in 1975 before dropping to 45 percent by 1980. The system of government importation and distribution of fertilizer was inefficient and ineffective. Regarding cocoa inputs, subsidies on insecticides and sprayers reached 57 percent and 96 percent, respectively, by 1984 (World Bank 1985).

Cocoa aside, agricultural price control started in 1967 when minimum producer prices were announced for maize and rice. Support pricing later extended to industrial crops for which monopolies exist (oil palm cotton and tobacco). In addition, there were consumer price ceilings on imported rice and sugar. Thus, there were attempts to use price policy to achieve several conflicting objectives, including producer support and food security needs. The Ghana Food Distribution Corporation (GFDC) attempted to support announced minimum guaranteed prices of maize and paddy rice through an inadequate nationwide purchasing and marketing system: between 1982-1986, the GFDC was able to purchase only 4.4 percent of total national marketed surplus of maize (Vordzorgbe 1987).

The system of price support fragmented the market for maize into a small formal market characterized by price support and a large informal one ruled by open market prices. Administered price fixing in the formal market was based on the cost-plus approach which did not ensure parity between domestic and international prices (Vordzorgbe 1987). The price support system reflected the government's implicit emphasis on consumer-oriented price control rather than producer-targeted incentive pricing since market prices were normally higher than GFDC purchase prices. In the event, the consumer objective was also

not met due to the small share of the formal market.

Governments promoted heavy direct state participation to expand employment and create strategic industries. The overvalued exchange rate, coupled with inefficient import-substitution industrialization in an environment of artificially low-priced capital inputs, led to an emphasis on capital-intensive industrialization. This strategy protective industrialization failed to generate backward linkages to the domestic resource sector: rapid industrialization did not engender agricultural growth because it was based on imported raw materials.

As in industry, agricultural policy in the early post-independence period (1957-65) emphasized state participation through large-scale production by mechanized state-owned enterprises with relatively less resources devoted to small-farmer development (Government of Ghana (1959, 1964). The parastatals established were inefficient and large-scale mechanization failed because of various policy, resource and managerial constraints in the economy Dadson (1973). Afterwards, emphasis was placed on generating growth through the private sector, large-scale irrigation projects and public commodity development boards for the major cereals and industrial crops. These boards were largely unsuccessful in achieving their many and often conflicting objectives. During the 1970s, emphasis shifted to small-farmer development using the approach of integrated agricultural development projects such as MIDAS, URADEP and VORADEP.

The negative effects of the policy deficiencies were compounded by weaknesses in the technological, institutional, infrastructural, and human resource base of agriculture, culminating in the poor performance of the sector. But these notwithstanding, the major cause of the decline of Ghana agriculture since 1960 was policy failure. In sum, during the pre-ERP period, the agricultural sector was characterized by a situation of low output and productivity in an environment of distorted macroeconomic policies, pervasive and inefficient state participation in input distribution, production and marketing, and high input subsidies. These strategies eliminated incentives to export and ignored linkages between industrial and agricultural development.

1.1.3.2. Performance of the sector

The performance of the agricultural sector mirrored that of the entire economy. In response to the deteriorating condition of the sector, agricultural production gradually declined from the very high levels at post-independence: Ghana, which once exported commodities other than cocoa, became a net food importer by the 1960s. Production incentives proved insufficient for the majority of farmers such per capita food production progressively fell from 54 kg in 1970 to 23 kg in 1982. Maize and cassava production fell from 482,000 MT and 2.39 million MT respectively in 1970 to 172,000 MT and 1.73 million MT in 1983.

Overall, the agricultural sector grew at an annual average rate of 3.7 percent during 1960-1970, compared to 1.2 percent during 1970-1980 (World Bank World Tables 1984 and

1987). But the share of agriculture in GDP remained at about 40 percent from 1950 to 1980.

In the cocoa sector, the disincentive to production posed by the overvalued exchange rate and the heavy tax imposed on cocoa farmers by the Cocoa Marketing Board's price policies led to decreased producer incomes with a resultant fall in output and official purchases: official purchases fell from 454,000 MT in 1971/72 crop year to 158,000 MT in 1982/83 year. As a result, the share of Ghana cocoa on the world market fell from 37 percent in 1960/61 to under 12 percent in 1982/83 (Pickket and Shaeeldin 1990).

The trend in agricultural production, prices and input supply is given in Table 1.2.

1.1.4 The development of poverty

At independence, Ghana was classified as a middle income economy, but became one of poorest by 1980. The food gap widened, access to basic social services deteriorated, unemployment and underemployment soared, the share of the total population living in urban areas increased from 23 percent to 36 percent and income distribution worsened (World Bank 1983).

High inflation eroded nominal income gains resulting in a low rate of growth of real incomes. This, together with wage caps imposed by low productivity, constrained demand. thus hampering economic expansion and employment generation. The increase in the prices of essential commodities and services affected the rural poor, urban unemployed or underemployed labour and salaried workers most. Meanwhile, low farm-gate prices have depressed real earning of small-scale traditional foodcrop farmers.

Table 1.2

Trends in Selected Agricultural Indicators

Year	Index Per Cap. Food Prod 1974-76 = 100	Crop Prodn. 000 MT				Cattle Pop. (000)	Fertilizer Imports# (000 MT)
		Maize	Mlt/Sogh*	Cassava	Cocoa		
1970	NA	482	327	2388	413	903	8250
1971	NA	465	303	2388	454	903	8625
1972	100	402	249	2840	407	933	12307
1973	101	429	276	2865	340	962	16931
1974	110	486	331	3606	376	1061	12470
1975	102	343	257	2398	396	898	22241
1976	87	286	334	1819	320	829	43983
1977	78	274	256	1811	271	762	26550
1978	75	218	214	1895	265	745	39360
1979	79	380	307	1759	281	780	58650
1980	70	382	217	2322	254	804	60460
1983	62	172	96	1729	158	1000	No imports

*Millet and sorghum.
#Total imports of all fertilizers
**Wholesale prices deflated by rural CPI.
***Producer price deflated by rural CPI.

Sources: World Bank 1985; H. Genner, E. O. Asante, E. Owusu-Bennoh and K. Marfo, 1995; MSI et al 1995.

The change in basic indicators of basic needs during 1960 - 1980 is shown in Table 1.3.

Table 1.3

Basic Needs Indicators: 1960 and 1980

Indicator	1960	1980
Life expectancy at birth	40	49
Crude birth rate (per 1000 population	49	49
Population per physician	21,600	12,910
Population per nurse	5,430	1,070
% of population with access to potable water	-	35
Daily calorie supply per capita as % of total requirement	98	88
Number in primary school as % of age group	38	69
Number in secondary school as % of age group	5	36
Adult literacy rate (%)	27	30

Source: Table 11 in World Bank, 1983.

The worsening poverty situation and three shocks to the economic system at the beginning of the 1980s underscored the need for drastic remedial action which culminated in the ERP. The shocks were: a rise in petroleum prices coinciding with falling prices of major exports; drought and bush fires which led to the most serious food and energy crisis since independence; sudden return of over 1 million Ghanaians expelled from Nigeria.

1.2 Initiation of Structural Adjustment Programmes (SAPs) to Address the Crises

In April 1983, the government took dramatic action to breath new life into a collapsed economy. The Economic Recovery Programme (ERP) launched in April 1983 comprised short-term macroeconomic stabilization and liberalization coupled with medium-term rehabilitation of productive capacity to facilitate long-term growth.

1.2.1 General Objectives of SAPs

The broad objective of the far reaching economic reforms initiated under the ERP was to reverse the country's downward trend and set in motion a process of sustained growth to make possible higher income levels over the long term, especially for rural folk. Since Ghana is a relatively small economy, this required the creation of an efficient, self-reliant and competitive domestic economy increasingly integrated into the international economy (Manarolla and Vordzorgbe 1987).

1.2.2 Macroeconomic Policies and Programmes

Ghana's adjustment history covers three periods: ERP I (1983-1986) which focused on realigning relative prices, ERP II (1987-89) which initiated structural reforms, and the post-1990 period of accelerated structural and institutional reforms.

The basic economic strategy underlying the ERP was to restore domestic and external balance in the medium term consonant with sustainable economic growth. This involved: (a) moving towards the rule of market forces away from direct controls and interventions, (b) realigning relative prices in favour of productive activities and exports, (c) adopting disciplined fiscal and monetary policies, (d) rehabilitating infrastructure, (e) supportive structural and institutional reforms to improve incentives, facilitate private sector role, improve management of public resources and address social costs of adjustment (Kapur et al 1991; World Bank 1989).

The centerpiece of the programme was the relaxation of controls on foreign exchange and external trade system to realign relative prices. The adjustment in the value of the CEDI to a market-determined exchange rate was progressive. First, a system of import surcharges and export bonuses were instituted in April 1983, followed by seven devaluations of the official rate. By early 1986, the currency was valued at 90 Cedis to U.S dollar and the ratio of parallel to official exchange rates had fallen to 2 to 1, down from 20 to 1 of early 1983. By the end of 1986, Ghana introduced an auction system for foreign exchange, unified the auction and official fixed exchange rates at the auction rate in 1987, licensed forex bureau to buy and sell foreign currencies in 1988 and covered all current account transactions by the auction by 1990. To further enhance the effectiveness of the improved exchange regime, the Bank of Ghana began to allow Ghanaians to hold foreign exchange accounts in authorized local banks in 1985, and instituted a system of foreign exchange retention accounts for exporters in 1986.

Devaluations were accompanied by reforms to the regime of quantitative import restrictions, including simplification of the structure of import taxation into a uniform system to provide a more even and moderate protection. In late 1986, automatic import licenses were introduced for goods imported with foreign exchange obtained from the auction. In addition, consumer price controls progressively were relaxed to allow market forces to determine price levels while distribution controls were lifted in 1985. Subsidies on

petroleum products were lifted while administered prices for major export crops and others were raised.

Demand management policies centered on improved fiscal and monetary discipline supportive of growth.

The main aims of fiscal policy were to correct fiscal imbalances, reform the tax system, increase private and public savings, and rehabilitate infrastructure (Kapur et al 1991). To enhance revenue, both the direct and indirect tax systems were reformed, including reducing marginal rates for personal and corporate income, and simplifying the schedule of sales tax and excise duty. Government repaid its arrears on public debt while reducing use of domestic banking finance for the budget. Public expenditure was controlled within set targets although civil service salaries were raised in real terms and differentials between highest and lowest employees widened. Cost-recovery in the use of public services and inputs (e.g. fuel) was improved. Development expenditure was programmed within the framework of three-year rolling Public Investment Programmes (PIPs). Equity goals were enhanced through directing public resources to address the social costs of adjustment.

With the goal of bringing inflation down while ensuring growth, monetary policy aimed at eliminating excess liquidity in the economy and reducing budget deficit financing by domestic banks. Credit policy has been tight as expansion of nominal commercial bank credit was curtailed through ceiling on net domestic assets of the banking system. Also, open market operations were used to mop excess liquidity. However, reduction in government bank borrowing, accompanied by lifting of controls on interest rates and abolishing of sectoral lending targets, especially to agriculture. The financial sector was restructured and expanded, as more money-market instruments emerged.

Key structural and institutional reforms accompanying macroeconomic reforms included: divestiture of state owned enterprises, liberalization and development of financial markets, improvement of investment incentives, and, establishment of fora for government-private sector dialogue and collaboration.

The response of the economy to the macroeconomic reforms and structural adjustment from 1983 to 1990 is in a matrix of economic and financial indicators in Table 1.4.

Table 1.4

Selected Economic Indicators: 1982-1994

	1982-84	1989-91	1992-94
NATIONAL ACCOUNTS			
Real GDP (constant 1975 prices)	+3.8	4.6	4.2
Agriculture	-0.9	2.3	1.1
Industry	-6.6	4.4	4.3
Services	1.8	6.8	6.9
MONEY & PRICES			
Broad Money	40.0	22.5	41.3
Inflation	61.6	26.8	20.0
Treasury Bill Rate (1-day)	13.4	23.6	27.1
Terms of Trade (1984=100)	+	77.6	68.7
Real Exchange Rate (1984=100)	-	317.3	425.7
Exchange Rate (Cedis/US$)	15.9	325.0	680.9
NARROW FISCAL ACCOUNTS [a]			
Total Revenues and Grants	6.5	14.5	18.3
Total Expenditure & Net Lending	9.9	13.7	20.0
Current Account Deficit	-2.3	2.4	0.5
Narrow Budget Deficit (IMF)			
Including Grants	+3.5	0.8	-1.7
Excluding Grants	-3.6	-0.6	-2.9
Enlarge Budget Deficit	+2.7	+4.7	+9.4
BALANCE OF PAYMENTS			
Merchandise Exports (fob)	549.0	900.9	1092.3
Merchandise Imports (cif)	-617.0	-1262.8	+1733.7
Trade Balance	-68.0	-361.9	-641.4
Resource Balance	+148.7	+491.8	+776.8
Current Account Balance	-200.7	-400.1	-624.2
Capital Account (net)	141.0	538.8	651.0
Overall Balance	-59.7	138.7	26.8
MEMO ITEMS:			
GDP per Capita (US$)	354.3	408.6	377.6
Current Account Deficit (% of GDP)	-4.8	+6.7	+10.2

a/ The narrow fiscal accounts excludes foreign project aid (both loans and grants) but includes program grants).

Source: Various Government of Ghana and World Bank reports.

1.2.3 Sectoral Programmes

1.2.3.1 Social Sector: Education and Health

The economic recovery and structural adjustment programme was designed to alleviate poverty by restoring economic growth, increasing incomes of a broad section of Ghanaians and directing public expenditure to vulnerable groups. A key set of measures to achieve this involved rehabilitating and expanding education, health, water and sanitation infrastructure, reforming the education system, and improving and expanding health service delivery.

Education

Initial efforts aimed at enhancing sectoral financing, rehabilitating essential infrastructure, developing a comprehensive reform programme for initiation in 1987. =Education sector reform polices focussed on (i) expanding access at all levels, especially at primary, junior secondary education and vocational levels, (ii) changing the structure of education to reduce the pre-university period from 17 to 12 years, (iii) improving the quality, efficiency and relevance of education by including technical and vocational training (iv) improving the quality of education by increasing non-salary recurrent expenditure, and (v) making education financing more efficient and equitable by promoting efficiency, raising teacher-pupil ratios and increasing user fees.

Health

The health sector reforms focused on improving management, procurement, financing and manpower. The sector strategy was designed to (i) restructure the delivery of health services to focus on local-level delivery under the primary health care system, (ii) promote community involvement in health services management, (iii) generate revenues to help meet operating cost through user fees and sale of drugs. However, the government still subsidizes several services and utilities since user fees are only a fraction of total costs, although the subsidy goes to economic groups with access to those services. Since women form the majority of the Ghanaian population, they constitute the focus of specially-targeted programs.

1.2.3.2 Transport and Communications Sector

Transport

The sector was one of the priority public investment areas. The key elements of the sector programme were to: rationalize public involvement in providing direct transport services; facilitate private investment; rationalize the system of transport tariffs; rehabilitate and maintain transport infrastructure; strengthen sector institutions.

The authorities started implementing a 10-year (1988-97) road rehabilitation and

maintenance programme; strengthened relevant public institutions; reduced direct public labour input in road contracts; started the Road Fund to sustain sector financing; initiated labour-intensive feeder road rehabilitation and improved the capacity of private sector contractors. They also rehabilitated rail transport, developed water transport infrastructure on the Volta Lake while investments in air travel facilities development, realignment of the public role have resulted in expanded air services by international carriers.

Telecommunications

The government began to liberalize and rehabilitate the telecommunications sector in 1987. The government post and telecommunications outfits were separated and their operations commercialized; Ghana Telecoms was rehabilitated while services were expanded and new ones introduced, and private participation encouraged. Recent measures to facilitate private sector role include: privatization of Ghana Telecom; licensing a second national carrier to compete with Ghana Telecoms; creating a regulatory body and liberalizing value-added services. As a result, telecommunications have improved with the introduction of several services, including communication centers, cellular telephony, data transfer, internet and private networks, satellite radio and satellite linkage.

1.2.3.3 Manufacturing industry

The sector has been impacted by the overall macroeconomic reforms, especially in exchange rate, trade and credit. Sector-specific reforms were aimed at shifting incentives in favour of efficient manufacturing enterprises, enhancing private investment in industry and achieving a more efficient and productive state sector. Post-1990 objectives of industrial policy were to improve sectoral performance in the short-term, increase local content of manufactured products in the medium term and create a balanced industrial structure in the long-term. Overall, the sector is to promote export-led growth and efficient import-substitution.

Policies and programmes have included: (a) reduction of corporate income tax rates; (b) rationalization of taxation of imported commodities to equalize protection to local and foreign production; (c) increasing of public resources to support the sector, including credit and guarantee schemes; (d) liberalization of the regulatory framework and further enhancing incentives for investment; (e) acceleration of privatization of state owned enterprises; (f) emphasizing medium and small scale industries; (g) establishment of the Private Sector Advisory Group and the Private Enterprise Foundation.

Recent efforts have been concentrated on internationalizing the sector through duty drawback and exemptions, bonded warehouses, EPZ, industrial parks, free ports and liberalized skies, aimed at promoting Ghana as the trade and investment gateway to West Africa.

1.2.3.4 Agriculture Sector Adjustment Programme

Agriculture sector reforms were initiated as an integral part of overall macroeconomic reforms under the ERP. Consequently, the first policy changes during 1983-84 were aimed at reducing the erosion in farmers incomes and increasing incentives (World Bank 1984). These early measures included: an increase in the producer price for cocoa and initiation of analyses to reform the cocoa sub-sector, market determination of prices of commodities with minimum guaranteed prices, reduction of subsidies on fertilizer and insecticides, and removal of price caps on imported maize, rice and sugar.

The main objectives of sectoral policy during this period were to achieve self-sufficiency in several commodities, minimize post-harvest losses, provide producer price support, maintain buffer stocks of grain and increase agricultural exports (Republic of Ghana 1984 A, B) through the operational strategy of sector rehabilitation, policy reform, institutional restructuring and special production programmes (Vordzorgbe 1986).

Sectoral reforms intensified under ERP II, beginning with the initiation of Agricultural Services Rehabilitation Project in 1987 (World Bank 1987). The overall objective for agriculture during the period 1987-1990 was to ensure renumerative incomes for those engaged in agriculture comparable to those in other sectors by promoting the efficient production of commodities in which Ghana had comparative advantage, through increasing the productivity, competitiveness and efficiency of smallholder agriculture.

Basically, the approach was to improve prices and liberalize markets in the short-term while strengthening public sector management in the medium term, supported by adequate infrastructural development. Therefore, the key elements of the overall operational strategy for achieving these objectives were to: (1) liberalize the mechanism for domestic price determination, (2) shift from heavy taxation of export crops to providing incentives for production of exports and import-substitutes to promote and diversify agricultural exports, (3) replace quantitative controls and import licensing with market-oriented mechanisms, (4) encourage market orientation and private participation in favour of direct state role in pricing, production and input supply, (5) rehabilitate sectoral infrastructure, (6) restructure institutions to improve public management and supply of services, (7) achieve cost-effective and sustainable food security (World Bank 1987, Republic of Ghana 1989). The strategy indicated the government's focus on both price and non-price policy issues in restoring growth to the sector (Sisson and Vordzorgbe 1989).

From 1991, the government started implementing a 10-year Medium-Term Agricultural Development Strategy (MTADS) with the objective of transforming Ghanaian agriculture to support Ghana's long-term accelerated growth strategy by unlocking the potential of the Ghanaian farmer. The MTADS aimed at outward orientation, agricultural diversification, export promotion and efficient import-substitution, private-sector-led growth, cost-effective delivery of agricultural support services and strengthened sector management, and supportive sectoral investments (World Bank 1991). The MTADS us now being transformed into an Accelerated Agricultural Growth Strategy to support Ghana's long-term vision of growth until 2020.

Overall, policy reforms in the following areas have had far-reaching effects on incentives for agricultural production:

1. Agricultural input price support and distribution: removal of subsidies and privatization of fertilizer and seed supply and distribution.

2. Agriculture commodity price policy: price deregulation through removal of controls on prices of domestically-produced and imported foods; reform of producer pricing policy, involving first increasing prices of commodities with recommended guaranteed prices (of so called 'schedule commodities)' and later abolishment of the system of minimum-price support by the Ghana Food Distribution Corporation; exemption of imported agricultural inputs from import duties.

3. Liberalization of imports of agricultural products: involving free importation and removal or reduction of tariffs (such as on grains and animal products).

4. Credit policy: abolishment of the requirement for banks to lend at least 20 percent of their total loans to agriculture, and, removal of the protection to agricultural interest rates through interest rate de-regulation.

Cocoa sector reforms centered on providing better incentives for farmers through progressive increase in producer prices and improved efficiency of operations of the COCOBOD. COCOBOD staff were retrenched, some operations divested, such as input supply, were phased out and overall operational efficiency improved.

2. EXAMINATION OF APPLICATION OF ASAP

2.1 Measures to Influence Agricultural Productivity

The government implemented several measures to influence agricultural productivity, but one of the most influential has been farmer training or extension.

2.1.1 Farmer training

This mainly refers to improving farmer access to improved technology and their capability to utilize them through extension methods including animation. There has been relatively little training of farmers in Ghana, in the form of educational training or formal professional training.

The major sources of extension services, in addition to MOFA are, NGOs (such as Sasakawa Global 2000 and Technoserve) and bilateral donor projects. Since the commencement of the ERP, the major interventions in improving extension were the 1989-91 USAID-funded Agricultural Productivity Promotion Program (APPP) and the current (1992-97) World Bank-financed National Agricultural Extension Project (NAEP).

The process of improving the extension service system has involved reforms in several areas, aimed at the following major objectives: (a) focussing the system on its basic functions, (b) unifying the extension services of Ghana, (c) strengthening the technical capability to deliver effective extension messages, (d) improving the relevance of technologies to farmers, (e) strengthening linkages between researchers and extension staff, (f) facilitating formation of farmers groups.

The types and status of activities implemented to achieve the above objectives are presented in the matrix in Table 2.1

Despite the significant gains in improving the extension system, several problems remain, including the following: (a) land and labour productivity are still low, (b) cocoa extension is still separate from general agriculture extension, (c) the number of front-line staff (FLS) are inadequate and the allocation does not accord with regional differences in agriculture situation, (d) inadequate and slow disbursement of government counterpart funds, (e) inadequate attention to extension in marketing, irrigation, livestock, fisheries, post-harvest, and other second-generation issues, (f) inadequate technology base for extension of some commodities.

Table 1.5

Matrix of Measures in Farmer Extension

Objectives	Actions	Period	Status
1. Focus the system on basic extension functions	- Stop extension staff from procuring and distributing inputs, delivering credit and collecting payments and marketing produce	1984-1989	Completed
2. Unify all extension services in Ghana	- Make DAES solely responsible for all extension	Planned 1993 completion	Completed except for cocoa extension
3. Strengthen the technical capability to deliver effective extension messages	- Create a separate department for extension - Increase number of professional staff, including Subject-Matter Specialists (SMS) - Rationalize Front Line Staff (FSL) - Strengthen DAES through provision of logistics and training	1988 Complete in 1997 Complete in 1997 Complete in 1997	DAES created in 1988 Staff increased from 87 to 112 by 1996 90% SMS target achieved by 1996 Ongoing; FLS reduced from 2687 in 1992 to 1333 in 1996 Ongoing
4. Improve the relevance of technologies to farmers	- Increase farmer involvement in technology development	- Began in 1980s	GGDP started in 1981, SG 2000 peaked in late 1980s, MOFA farmer demonstration plots increased, farmer participation institutionalized in research system
5. Strengthen linkages between researchers and extension staff	- Establish Research-Extension Liaison Committees (RELC)	- Complete by 1992	Started in 1994, mostly completed by 1996; RELCs being strengthened
6. Facilitate farmer-group formation	- DAES to assist Dept. of Cooperatives to organize farmers	- Reinforced since 1992	Continuing; about 24,000 groups formed to date with DAES involvement

2.1.2 Irrigation

Traditionally, little land under cultivation is irrigated in Ghana, since irrigation began in the early 1960s. The Ghana Irrigation Development Authority (GIDA) and the Irrigation Company of Upper Region (ICOUR) are responsible for developing water resources for irrigation, livestock and fish culture. By 1994, GIDA had developed 5,211 HA under irrigation under 11 projects, with on-going projects expected to add 1,297 HA, increasing the total irrigable area in Ghana to about 6,500 HA but new projects under development would further expand this area to 10,000 HA by 2001. However, cropped area under GIDA projects rose from 1,205 HA in 1992 to 1,451 HA in 1994. Five complete projects, about 13 percent of the area developed by GIDA, were started during the 1980s. Farmers on GIDA projects numbered 1,557 in 1994. The main crops cultivated under irrigation are rice, vegetables, maize, soybeans, cowpeas. GIDA charges only nominal water fees.

Under the ERP, a 1986 review of the irrigation sub-sector recommended: (a) greater priority on small-scale irrigation, (b) greater consolidation and improved management of projects, (c) improved skills and incentives for participating farmers (World Bank 1986).

Yields per hectare have been below potential levels: GIDA average yields for 1992-1993 was 4.6 MT for rice (compared to 6-8 MT potential), 1.7 MT for maize (compared to 6-9 MT) and 6.7 MT for tomato (compared to 45-65 MT). Overall, irrigation development has had little impact on productivity.

Under the ERP, GIDA re-focused emphasis on small-scale gravity systems. But the backlog of previous investments in large-scale systems is so big that it is yet to make an impact on small-scale irrigation development.

The matrix of major objectives and actions for the irrigation sector is presented in Table 2.2.

Continuing problems affecting irrigation development include: (a) lack of extension messages for irrigation, (b) no irrigation research, (c) farmers inability to manage irrigated agriculture systems, (d) little private sector participation in developing irrigation systems, (e) little small-scale irrigated area, (f) inadequate professional staff, (g) inadequate budget.

Table 2.2

Matrix of Measures to Expand Irrigation

Objectives	Major Actions	Timeframe	Status
1. Focus on micro and small-scale schemes	- Initiate small schemes	Started in 1990	Continuing initiative: studies completed in 1993; two valley-bottom schemes initiated, earth dams rehabilitated under IFAD, small schemes being financed under ASIP and later WERADEP
	- Increase attention to improved soil and water management practices		Continuing effort, little adoption to date
2. Exploit existing investments	- Reduce operating costs	Started in 1990	Ongoing, cost data unavailable
	- Complete economically-feasible schemes		Kpong Project rehabilitation and expansion being completed, others to be tackled
3. Strengthen GIDA to improve management of projects	- Reorganize GIDA	Beginning from 1990	GIDA reorganization undertaken
	- Increase training of GIDA staff		Ongoing, little training done to date
4. Increase farmer participation in management of irrigation schemes	- Form Water Users Associations (WUA) for small schemes	Started in 1993	Upper East LACOSREP formed 7 WUAs by end of 1994, continuing
	- Facilitate increased farmer role in managing large projects	Started in 1992	Farmers active in management of ICOUR projects and Kpong Project. GIDA continuing farmer empowerment
5. Develop irrigation extension messages	- Enhance irrigation research and extension	Started in 1990	Irrigation Development Center for applied research and extension established by 1993
	- Integrate irrigation in general agricultural extension system	Beginning 1992	MOFA began integrating GIDA extension unit into DAES, continuing
6. Increase commercialization of GIDA	- Provide consultancy and construction services	To begin 1992	Proposal to governmetnin 199; no action yet

2.1.3 Credit, subsidies, inputs

The major policy affecting credit to the sector was the liberalization of the financial sector, including abolishment of interest rates caps and credit ceilings.

The broad orientation of agricultural policy under the ERP called for the abolishment of subsidies as part of improving the overall economic incentive framework for increased output and productivity. The centerpiece was the withdrawal of fertilizer subsidies.

The three-phased programme of reform of the fertilizer market began in 1988 to privatize retailing, wholesaling, and imports. By 1991, the number of dealers registered to retail reached 800. However, with privatization, (and exchange rate movements), the farmer

price of 15-15-15- compound fertilizer increased from ¢4,500/bag of 20 kg in 1990 to ¢22,000 in 1994. Consequently, fertilizer imports fell from 65,000 MT in 1989 to 24,000 MT in 1994. a decline of 63 percent. Nutrient/grain price ratios show the unfavourable input/output price relationship during the period. The results of these developments include continued low productivity and increased intensification of production with negative environmental consequences (Vordzorgbe 1995).

The matrix of objectives and programmes regarding the input and credit markets is presented in Table 2.3.

2.1.4 Access to land

Land is generally available but population pressures and declining soil fertility has increased land pressure in some parts of the country. Also, there are conflicts in land use for various purposes and insecurity of tenure for some enterprises, including tree cropping and livestock. Overall, increasing land use suggests implicitly that access is not a constraint: total area under cultivation in Ghana increased from 4.0 million HA in 1988 to 5.3 million HA in 1994.

There has been little direct intervention in the land market under the reform programme in Ghana, as there has been no change in the traditional system of land tenure and access.

Key actions to improve the land situation are presented in Table 2.4.

Table 2.3

Matrix of Actions on Credit, Subsidies and Inputs

Objectives	Major Actions	Timeframe	Status
1. Liberalize credit markets	- Remove credit ceilings - Liberalize interest rates	1990	Implemented in 1991
2. Improve credit delivery to the sector	- Promote rural banks and non-bank financial institutions (NBFIs) - Channel increased public finance to sector	Beginning from 1986 Beginning from 1990	Rural Banks strengthening ongoing with significant success, new NBFIs established Various projects with credit components launched
3. Liberalize the inputs market	- Stop government involvement in input procurement and distribution -Promote private participation - Eliminate subsidies on inputs	Beginning 1987	Completed by 1991 for fertilizer, stopped role in supplying other inputs Largely completed, fertilizer and other inputs now imported and sold by private sector Completed; fertilizer subsidies removed by 1991

Table 2.4

Matrix of Actions on Access to Land

Objectives	Major Actions	Timeframe	Status
1. Reduce insecurity in land acquisition	- Document existing land acquisition procedures - Register title to land - Prepare land ownership map	Beginning in mid-1980s Beginning early 1990	Ongoing, little progress, implementation decentralized Successful in Accra, to be extended to other areas, chiefs starting to document stool land titles Map being prepared under Ghana Environmental Resource Management Project
2. Make more land available	- Promote intensification of cultivation - Make onchocerciasis-free zones safe for agriculture	Beginning from 1990s Began in early 1980s	Ongoing, unsuccessful as input use declined and cultivated area increased Completed by late 1980s, agriculture settlements to be encouraged

2.1.5 Environmental protection

One of the key aims was to develop an environmentally-friendly and sustainable agriculture system. Consequently, several measures have been started, but many are yet to take hold. The matrix of major actions on environmental management is presented in Table 2.5.

Table 2.5

Matrix of Actions in Environmental Management

Key Objectives	Major Actions	Timeframe	Status
1. Facilitate sustainable agriculture	- Promote environmentally-friendly agricultural practices: mulching, agro-forestry; bunding, fishing with approved methods, IPM, minimum tillage, etc	Began 1987	Ongoing; MOFA and CSIR actively promoting concept and practice of sustainable agriculture but impact is low; public awareness emerging
2. Address environmental impacts of agriculture	- All projects to prepare environmental impact assessment	Began 1992	Ongoing, done for public projects, private sector yet to comply fully; weak monitoring capability of EPA
	- Promote intensive agriculture, including livestock practices (e.g. dry-season feeding)	Began 1992	National Livestock Project initiated, little impact
	- Sustain emphasis on tree crops cultivation		Ongoing; tree crop production sustained
	- Establish District Environmental Management Committees (DEMCs) by Assemblies	Began 1987	Many assemblies have DEMCs, but effectiveness is weak
3. Control degradation of water bodies	- Control water hyacinth in water bodies	Started in the 1980s	CSIR implementing programme; logistics constraints
	- Promote increased livestock utilization of watering points;	Began 1992	Water bodies being rehabilitated and expanded; user associations being formed; steady progress made
4. Control degradation effects of mining and forestry activities	- Mining companies to comply with stringent environmental management procedures	Started in 1985	Strictly enforced
	- Loggers to replant felled trees	Began before ERP	Little replanting and impact; few private forestry firms developing plantations
	- DEMCs to control land-use activities, including forestry and mining	Began 1987	Several DEMCs ineffective

2.2 Measures Relative to Agricultural Product Markets

2.2.1 Pricing

Pricing policy changes were central to agricultural market reforms. The two key objectives were to achieve free-market liberalized pricing and to improve the efficiency of pricing of cocoa and selected exportables. Extending the principle of market pricing to inputs called for major reforms in the supply and pricing of fertilizer, agro-chemicals and other inputs. Following the scope of work of the study, the discussion in this section will focus only on reforms in product markets. However, it should be noted that some of the key reforms in agricultural markets occurred in input markets.

The matrix of reforms, actions and timeframes is presented in Table 2.6.

2.2.2 Market organization and Market regulation

The major thrust of government policy was to eliminate the direct role in product marketing by government, deregulate markets, and enhance increased private sector participation.

The major actions are presented in Table 2.7.

2.3 Measures to Increase Rural Participation in Agriculture

In line with the overall people-centered philosophy of the macroeconomic reforms of the ERP, agricultural sector reforms included measures to facilitate increased participation of rural stakeholders, especially small farmers and women. Measures implemented included: improving the efficiency of service delivery to and by farmers through the group approach, enhancing farmers participation in management of projects and in research and extension development and dissemination, motivating farmers through national recognition of their efforts, and, actively sporting women activities.

The matrix of objects and actions is presented in Table 2.8.

Table 2.6

Matrix of Actions in Product Pricing

Key Objectives	Major Actions	Timeframe	Status
1. Promote liberalized free market pricing	- Abandon minimum guaranteed pricing of cereal crops	1992/1993	-Completed
	- Continuously revise guaranteed prices for selected industrial crops (cotton, tobacco, kenaf)	Began 1983	Continuing; effectively implemented
	- Abolish control of price of imported foods	1983-1984	Completed
2. Improve efficiency of cocoa pricing	- Regularly adjust the producer price	Beginning 1983	Ongoing, being implemented
	- Improve the efficiency of the COCOBOD	Major reforms began 1985	COCOBOD restructured and downsized; secondary functions eliminated
	- Provide additional incentive to farmers through production bonuses	Began mid-1980s	
	- License private buyers	Began 1992	Ongoing; private buyers licensed
	- Improve system of payment for cocoa purchases	Began 1984	Payment with chits and cheques consolidated by 1986

Table 2.7

Matrix of Actions in Market Organization and Regulation

Key Objectives	Major Actions	Timeframe	Status
1. Rationalize government role in marketing of products	- Abolish government direct role in marketing	1992	Completed: GFDC stopped direct marketing
	- Re-focus GFDC on food security goals	1992-1994	Completed but GFDC ineffective in food security role
	- Eliminate MMB role in livestock marketing		Completed; MMB now liquidated
	- Abolish licensing sellers of imported food commodities	By 1990	Completed
		1984/85	
2.Promote increased private sector role in domestic marketing	- Support formation of GAPTO	By 1993	Completed; association weak
	- Support emergence of large-scale marketing enterprises	From 1995	Ongoing; credit provided
	- Support development of market infrastructure	-From 1986	Ongoing; major effort under ASIP, etc: community participation institutionalized participation
	- Provide regular market information	- Began 1986/87	Ongoing; radio and newspaper coverage of market prices, little analysis
3. Promote export marketing	- Abolish direct export taxation of agricultural products	1983-1985	Completed
	- Introduce foreign exchange retention schemes for exporters	1984	-Exporters now have 100% retention
	- Launch export promotion drive	1986/1987	Non-cocoa and coffee agricultural exports rising, GEPC strengthened, export programme proceeding

Table 2.8

Matrix of Actions on Rural Participation

Key Objectives	Major Actions	Timeframe	Status
1. Improve efficiency of services to and by farmers through the group approach	- Transform farmers association to GNAFF	Began 1986	GNAFF established by 1988: weak capacity
	- Facilitate formation of farmers groups for extension	Began 1992	Dept. of Cooperatives and DAES/MOFA collaborating; being reinforced
	- Support activities of NGOs which actively deal with groups	Began 1985/86	MOFA supported Global 2000 and other NGOs; appointed Assistant Director for NGOs; ongoing
2. Enhance farmers participation in research and extension development and dissemination	- Initiate on-farm research (OFR) and farming systems research (FSR) programmes by CSIR, MOFA, CRIG, NGOs	Began since 1979	On-going, accelerated from mid-1980s
3. Enhance farmers role in management of projects	- Make farmers representatives members of project committees	Began in 1983	Ongoing
	- Increase farmers role in managing irrigation projects	Began in mid-1980s	Reinforced since 1990s. farmers active at Dawhenya Irrigation Project
4. Motivate farmers through national recognition of their efforts	- Award farmers at nationwide annual Farmers Days	Began 1986	Ongoing; Awards Day institutionalized as national holiday
5. Encourage increased women participation in agriculture	- Establish division for women in agriculture (WIAD) in MOFA	Started 1987	Completed by 1988/89: several resource constraints
	- Promote women farming and processing	Started in 1986/87	Ongoing, reinforced under DWM and ASIP activities

2.4 Investment in Agriculture

2.4.1 Public Investment

A key strategic approach to rationalizing government's role in agriculture was to limit direct involvement in production, marketing and services, while increasing its support for developing agricultural infrastructure.

Public investment in agriculture consists of: budgetary outlays for MOFA and its parastatals, counterpart funds for donor-funded projects, and credit from government-owned credit resources.

Government Budget Resources

During 1977/78 - 1980/81, total recurrent and development expenditures on agriculture, excluding forestry, averaged 12.5 percent of total government expenditure, excluding net lending. During 1982 and 1983, this fell to 10.1 percent and reached 4.9 percent (including forestry) in 1984, as seen from Table 2.9. During the 1990s, the ratio further fell, averaging 2.7 percent during 1991-1995, reaching a low of 1.6 percent in 1994.

To rationalize public resource use, the government initiated in 1986/87 a Public Investment Programme (PIP) as a series of three-year rolling plans of total public development expenditures. Agriculture was one of the three initial priority sectors incorporated in the programme.

Government development expenditures represent actual investments in the sector. Table 2.9 showed that the share of development expenditures in the total agriculture budget has risen but agriculture development expenditure declined as a ratio of total national development expenditure.

Table 2.9

Indicators of Government Expenditure in Agriculture*

Year	% share of agric. in total government expenditures	% Share of capital budget in total agricultural budget	% Share of capital expenditure in total capital expenditure
1982	9.8	14.0	14.1
1983	10.4	9.6	10.9
1984	4.9	29.1	9.6
1985	4.2	34.2	9.1
1986	4.5	33.7	11.0
1967	4.6	35.3	5.7
1988	3.5	47.8	4.9
1989	4.7	64.1	7.3
1990	4.1	45.2	5.8
1991	3.6	36.8	4.4
1992	3.1	46.8	4.2
1993	2.8	41.7	3.8

*Includes forestry.

Source: Quarterly Digest of Statistics, Ghana Statistical Service, Various issues.

Considering only the MOFA, central government expenditures on agriculture during 1991-1995 are shown in Table 2.10. During the period, the government spent about $100 million on the Ministry. As seen from the Table, the share of development expenditures in the agricultural budget has been small, averaging 6.1 percent during 1991-1995.

Table 2.10

Central Government Expenditures on Agriculture Sector: MOFA
($ million)

Expenditure	1991	1992	1993	1994	1995
Total Agriculture	25.8	18.5	21.6	15.0	16.8
Development Expend. on agriculture	6.7	6.9	6.0	5.4	5.4

Source: Converted from Cedi figures obtained from PPMED, MOFA.

The slack in central government expenditures on agriculture has been met with donor funding, as part of overall public funding for the sector.

Aid inflows into agriculture

The agriculture sector has received significant donor assistance, especially since the initiation of the Medium-Term Agricultural Development Programme (MTADP) in 1991. Between 1991 - 1995, the MOFA estimated that donors invested a total of about $581.5 million in 60 projects. Of this, the World Bank contributed $253.8 million in 10 projects and USAID $80.9 million in two projects. Other major donors include: UNDP/FAO, CIDA, GTZ, the European Union, Japan and IFAD.

Initial donor input into the sector was limited to assistance for food aid and sector rehabilitation under the Agriculture Sector Rehabilitation Project (ASRP) started in 1987. During 1989-1991, USAID launched the first program targeted assistance to the sector under the $20 million Agriculture Productivity Promotion Program (APPP) which supported policy changes in fertilizer supply and pricing, extension service improvement and feeder road rehabilitation.

Between 1984-1990, donor projects initiated totaled about $200.0 million, excluding food aid. During 1990-1994, total aid disbursement to agriculture totaled $225.2 million while $184.6 million went into food aid (World Bank 1992). During this period, the share of agriculture in total aid disbursement averaged 11 percent annually.

Annual aid disbursements in agriculture are given in Table 2.11.

Table 2.11

Annual Aid Disbursement on Agriculture: 1990-1994

($ million)

Sector	1990	1991	1992	1993	1994
Agriculture	22.9	38.1	44.7	54.5	65.0
Food aid	49.1	35.9	42.8	30.5	26.3
Total	72.0	74.0	87.5	85.0	91.3

Source: World Bank, 1992.

2.4.2 Private Investment in Agriculture

Private investment in agriculture consists of input by: foreign direct investors, domestic agriculture holders, and domestic financial institutions.

Foreign Direct Investment

Post-reform inflows of foreign direct investment have been in response to the progressive transformation of the environment for direct private investment, including revising the investment code. Current incentives for investment in agriculture include: 5 - 10 years tax holiday, 8 percent income tax from non-traditional exports, loss carry-over for 5 years, 100 percent duty exemption on plant and machinery, and 100 percent transfer of profits and dividends.

Data are unavailable on private direct investment in agriculture; but data from the Ghana Investment Promotion Center (GIPC) from the last quarter of 1994 to mid-1996 showed that 28 agriculture projects were registered, representing 12 percent of all projects registered during that period. Total agriculture investment requirement of the 28 projects was $24 million, of which 49 percent was foreign.

Domestic agriculture holders

The investment of domestic producers or farm holders is very difficult to quantify. However, it was estimated that 2.1 million agriculture holders expended ¢45.7 billion ($100.3 million) during September 1991-September 1992 on crop and livestock activities, excluding household processing (Ghana Statistical Service 1995). Average per capita agriculture holder expenditure was $47.5 during the period.

Financial Institutions

As noted, the ERP has transformed the financial system via its impacts on interest rates, credit allocation and other variables.

The major share of resources from the financial institutions originate from the banking sector. Although credit unions have contributed to agriculture, non-bank financial institutions have only emerged since 1990.

Prior to 1989, banks were mandated to lend at least 20 percent of their portfolio to agriculture under the regulated banking system: total bank lending to agriculture averaged $70.6 million annually, averaging 24 percent of total lending, during 1984-1986. With deregulation in 1989, total lending to agriculture dropped to $38.9 million, representing 14.4 percent of the total. Credit from the banking system to agriculture further suffered after the restructuring of banks began in 1990: between 1990-1993, bank credit to agriculture averaged $32.6 million, which was 11.8 percent of total bank loans and advances. In 1993, agriculture credit was 8.3 percent of the total (ISSER 1996).

Despite the contribution of the financial sector to agricultural investment, agriculture is a net contributor to the rest of the economy: for the year ending March 1993, the sector made a net contribution of ¢8,193 million ($12 million), as seen from Table 2.12.

Table 2.12

Value of Deposits From and Lending to the Agricultural Sector
($ million)
(For the year as of March 1993)

Source / Levels	Deposits	Loans	Net Contribution
Commercial banks	32.4	27.4	5.0
Rural banks	13.0	6.6	6.4
Credit Unions	3.2	2.6	0.6
Total Agric.	48.6	36.6	12.0
National total	404.9	195.9	209.0
% Agric. Share	12.0	18.7	5.7

Source: Converted from Table 1 in Technoserve (1995).

3. EFFECTS OF AGRICULTURAL SECTOR ADJUSTMENT PROGRAMMES ON INTRA-REGIONAL TRADE

3.1 Structure and Trends in Trade in Focus Commodities

3.1.1 Share of focus commodities in total national production and exchange

A. Share in total national production

The agricultural system of Ghana is dominated by cocoa, cereals (maize, rice, sorghum and millet) and starchy staples (yam, cassava, plantain, cocoyam). Vegetables constitute a minority while livestock forms a smaller share than crop production in total national agricultural output. Regarding the whole sector, the contribution of agriculture to national GDP has fallen from 58 percent in 1980 to 40.2 percent by 1993.

MOFA estimates showed that livestock formed 7 percent of agricultural GDP in 1987, as seen from Table 3.1

Table 3.1

Contribution of Various Commodities to Agriculture GDP
(Percent)

Sub-sector	Contribution
1. Crops (Total)	64
- Roots & Tubers	46
- Plantain	9
- Cereals	7
- Others	2
2. Cocoa	13
3. Forestry	11
4. Livestock/poultry	7
5. Fisheries	5

Source: Ministry of Food and Agriculture, 1988.

In general, horticultural crops form a small share of total crop production. Data are sketchy on horticultural production, but, during 1983-1989, total production of tomatoes, pepper, okro and garden-egg (the traditional vegetables) averaged 305,729 MT annually, compared to 901,286 MT for the cereals. During 1993-1995, production of these vegetables

averaged 347,633 MT. In the same period, average annual production of onion/shallot was 23,633 MT (Vordzorgbe 1996).

Share of Livestock Production in Agriculture GDP

The study computed a more recent share of livestock in agricultural GDP as shown in Table 3.2

Table 3.2

Share of Livestock in Agricultural GDP: 1992, 1993

Year	National GDP ($ million)	% Agric. Share	Agric. GDP ($ million)	Total Livestock Value*	% Share of livestock in agric. GDP
1992	6,883.7	41.4	2,849.9	182.1	6.4
1993	5,662.5	40.2	2,276.3	119.9	5.3

*Computed values of cattle, sheep and goats only, based on total national livestock population and annual livestock prices in northern Ghana.

From the Table, the share of livestock in agricultural GDP has dropped to 5.3 percent in 1993. Note that this figure would be higher if the values of poultry, pigs, and other animals were included in the computation.

Share of Onions in Agriculture GDP

Ghana remains a low-producer and minor consumer of fresh horticultural products, including onions, in the West Africa region. However, production of onion/shallots has risen in recent years, from 16,800 MT in 1993 to 29,000 MT in 1995, averaging 26,333 MT annually.

The MOFA estimates that domestic production of horticultural crops forms 2 percent of agricultural GDP (Vordzorgbe 1996). However, this estimate appears high.

In 1995, agriculture GDP was estimated at $2,348.3 million (ISSER 1996). Estimated total 1995 domestic production of 29,000 MT was valued at $20.45 million (based

on the 1995 national average wholesale price from PPMED/MOFA of $705/MT), which was equivalent to 0.9 percent of agriculture GDP in 1995.

According to Ghana Living Standards Survey data, the total value of domestic harvest of onion in 1991/92 was ¢8.2 billion ($18 million), equivalent to 0.6 percent of agricultural GDP in 1992. In sum, onion production constitutes about 1 percent of agricultural GDP.

Share of Cowpeas in agriculture GDP

In terms of aggregate production, the output of cowpeas is higher than that of onions, but onions form a higher share of agriculture GDP.

Latest MOFA production data on cowpeas indicated an output of 18,800 MT in 1989. The study estimated the value of that level of production as $10.6 million (based on the 1989 national average wholesale price of $563.3/MT), equivalent to 0.4 percent of agriculture GDP ($2,472 million). For 1987, the share of cowpeas in agriculture GDP was estimated as 0.56 percent (World Bank 1991).

B. Share of commodities in total national exchange

Estimating the share of the commodities in total trade involved analyzing Ghana's total trade in agricultural products. The time-series of value of Ghana's agricultural trade is presented in Table 3.3. From the Table, Ghana has always had a surplus in agricultural trade, although the gap narrowed since 1992.

The share of the focus commodity imports in total merchandise and agricultural imports during the pre and post-ERP period is given in Table 3.4.

From Table 3.4, the share of live animal imports in total merchandise imports and agricultural imports has fallen to 0.3 percent and 1.6 percent, respectively. Onion imports accounted for less than 1 percent of total merchandise import and 2 percent of agricultural inflows. The share of pulses, including cowpeas, was even smaller than that of onion. Together, the three focus commodities formed 0.6 percent and 3.8 percent of total merchandise and agricultural imports, respectively.

Table 3.3

Ghana: Value of Agricultural Trade
($ Million)

Year	Imports	Exports	Agric. Trade Gap
1961	64	199	135
1962	76	203	127
1963	60	205	145
1964	54	208	154
1965	54	208	154
1966	79	164	85
1967	56	205	149
1968	71	215	144
1969	56	247	191
1970	77	331	254
1971	66	223	157
1972	49	253	204
1973	93	347	254
1974	127	475	348
1975	93	568	475
1976	112	529	417
1977	113	707	594
1978	139	740	601
1979	90	744	654
1980	136	744	608
1981	115	436	321
1982	106	422	316
1983	100	269	169
1984	97	383	286
1985	81	405	324
1986	77	509	432
1987	111	539	428
1988	135	481	346
1989	133	426	293
1990	176	413	237
1991	223	366	143
1992	230	320	90
1993	231	336	105

Source: FAO 1995.

Table 3.4

Levels and Share of Focus Commodities in Total Agricultural Trade

Period	Level of Imports ($ million)					% Share in Total Merch. Trade			% Share in Total Agric. Trade		
	Merch. Imp	Agric. Imp	Live Anmls.	Pulses	Onion	Animals	Pulses	Onion	Animals	Pulses	Onion
1970-72 ann. average	379.7	94.2	5.7	0.3	1.3[@]	1.5	INS	0.3	6.1	0.3	1.4
1978-82 ann. average	1077.2	97.6	2.06[#]	0.64[+]	1.6[@@]	0.2	INS	0.1	2.1	0.7	1.7
1992[*]	1457.0	238.4	4.7[**]	1.1[++]	2.4[x]	0.3	INS	0.2	2.0	0.5	1.0
1993[*]	1518.0	239.9	3.9[**]	1.7[++]	3.5[x]	0.3	0.1	0.2	1.6	0.7	1.5

Sources: Import data from FAO Trade Yearbooks, IMF International Financial Statistics, MOTI, GSS, MOFA.

Notes:

[@]1971 - 1973
[@@]1977 - 1979 imports from Niger and Burkina Faso and elsewhere
[#]1977-1979 live imports from Burkina Faso and Niger
[+]1977 - 1979 pulse imports from Burkina Faso and Niger
[++]Includes estimated value of overland cowpea imports
[*]Agricultural import data include overland imports
[**]Bovine cattle only; excludes small ruminants
[x]Imports from the region
INS - Insignificant value

3.1.2 Share of focus commodities in intra-regional trade

A. Share in total regional trade by Ghana

During the early post-ERP period, Ghana was importing about one-third of its merchandise imports from the region. However, trade between Ghana and the rest of the region has declined as a share of Ghana's total trade. Regarding imports, the share of 27.6 percent in 1985 dropped to 17.7 percent during 1991 - 1993 while exports share fell from 3.8 percent during 1985-1987 to 1.8 percent during 1991-1993 (IMF 1994).

Ghana is a net importer of agricultural commodities from the region: the data exclude overland export values, but official data showed that during 1991-1993, imports from the region averaged $652,759 annually, compared to $41,337 for exports.

The basic problem with estimating trade shares is the inadequate database, especially as Ghana started its reforms in 1983. The Plant Protection and Regulatory Services Department of MOFA inspects and documents inflows and outflows of all plant and animal material. Their data are sent to the Customs, Excise and Preventive Services (CEPS) and the Ghana Statistical Service (GSS). However, since tariffs were removed on agricultural imports under the ERP, PPRSD data have not been incorporated into the CEPS or GSS trade database. Unfortunately, the PPRSD database available for this study did not include data on the value of commodities traded across borders.

Official trade data: Data do not exist on the true levels of livestock imports from Burkina Faso and Niger into Ghana. Official data on inflows obtained from the Veterinary Services Department of MOFA show only the number of official imports: cattle passing through the approved routes and which attract customs tariffs.

Officially-recorded levels of imports of the focus commodities, mainly from Burkina and Niger, are presented in Table 3.5.

Movements of crop commodities are free and attract no levies. Hence, official recorded data by PPRSD capture most flows, since the majority of flows pass through approved routes. Consequently, computed imported values of crops are more complete that those of livestock, which exclude informal inflows. Levels of unofficial cattle imports estimated in PLANCONSULT (1995) for some years were included to estimate total cattle imports, as presented in Table 3.6.

Table 3.5

Imports of Focus Commodities from the Sahel: Official Data

Commodity	1979	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Onion (MT)	27.8	NA	NA	NA	NA	NA	NA	NA	NA	4350	3799	NA	3203	6699	6216	11676	13347
Cattle (heads)	1682	5889	1070	-	350	371	137	-	188	362	21	60	13	35	252	15079	NA
Ruminants (heads)	3601	2142	5202	NA	1196	11493	76	4	281	162	361	377	161	738	1125	146	9912
Cowpea (MT)	4.2	NA	NA	NA	NA	NA	NA	NA	NA	1328	1572	NA	1864	2583	1682	1308	6798

Sources: Annual Reports, Upper East Region, PPRSD, MOFA, various issues; Quarantine Station Records, Veterinary Services Department, Headoffice, MOFA.

Table 3.6

Estimates of Total Cattle Imports
(Heads)

Year	Official	Unofficial	Total Imports
1989	188	8971	9159
1990	362	7138	7500
1991	21	33152	33173
1992	60	31751	31811
1993	13	37924	37937
1996	15079	25000	400079

Sources: Official data from Veterinary Services Department, MOFA. Unofficial estimates for 1989-1993 from PLANCONSULT (1995); 1996 was study estimate.

Due to absence of complete, consistent and reliable secondary data on the value of Ghana's intra-regional trade, the study estimated total imports by adding estimates of the internal value of regional imports of food, proxied by livestock, onion and cowpeas, to available secondary data on merchandise imports. Historically, the three commodities account for a majority (at least 70 percent) of food imports from the region. Computing the value of imported focus commodities involved applying domestic national annual average wholesale prices of the commodities obtained from MOFA files. The results are in Table 3.7.

Table 3.7

Estimated Value of Ghana's Total Trade in the Region
1992-1993
(¢ million)

Year	Livestock Imports	Onion Imports	Cowpea Imports	Other Merch. Imports	Total Merch. Imports
1992	2,163.2	1,085.3	373.8	149,001.2	152,623.5
1993	2655.6	2,369.9	772.8	96,253.6	102,051.9

Based on the estimated value of Ghana's total merchandise regional trade in Table 3.3, the share of the focus commodities in this total trade in 1991 and 1992 are shown in Table 3.8.

Table 3.8

Percent Share of Focus Commodities in Ghana's Total Merchandise Trade in the Region

Year	Livestock	Onion	Cowpea
1992	1.4	0.7	0.2
1993	2.6	2.3	0.8

As seen from Table 3.8, livestock and onion imports from the region accounted for less than 3 percent of Ghana's total merchandise trade in 1992 and 1993, while cowpea imports formed less than 1 percent.

B. Share in Ghana's trade with study partner countries

As indicated earlier, the study estimated values of inter-country trade by adding computed values of livestock and other imports to recorded data. Total estimated trade and the shares of the focus commodities for 1992 and 1993 are presented in Table 3.9, with the simplifying assumption that livestock comes from Burkina Faso while onion and cowpea originate from Niger.

Table 3.9

Estimated Values of Trade and Shares of Focus Commodities Between Study Partners ($000)

Year	Official Imports from Burkina	Est. Tot. trade Burkina	% Share of Cattle	Off. imports from Niger	Est. Total trade Niger	Percent Share	
						Onion	Cowpea
1992	611	5360.07	88.6	6	3209.29	74.2	25.6
1993	727	4613.43	84.2	7	4606.3	4606.30	24.6

From the Table, livestock exports to Ghana accounted for at least 80 percent of the estimated value of Ghana's merchandise imports from Burkina Faso during 1992-1993.

Most of Ghana's trade with Niger is in agricultural products which formed 78 percent of total imports from Niger in 1980 and 1.6 percent of export to Niger. Imports from Niger are dominated by onions and cowpeas, which formed about 75 percent and 25 percent, respectively, of imports by Ghana during 1992-1993.

Based on the historical knowledge of trade between Ghana and Burkina Faso and Niger, these estimates of shares of the focus commodities are plausible and realistic.

3.1.3 Trends in trade growth of focus commodities

As noted earlier, Ghana's trade in the focus commodities involves imports originating almost solely from the region. Some onions are imported from Holland and the European Community (see Vordzorgbe 1996), but no live cattle or cowpeas are imported from outside the region. Ghana's livestock imports come almost exclusively from Burkina Faso while onion and cowpea come mainly from Burkina Faso. Hence, for these commodities, total trade is synonymous with regional trade, which in turn, approximates trade between the study countries. The long-term trend in imports is given in Table 3.10.

Table 3.10

Ghana: Total Imports of Focus Commodities

Year	Onion (MT)*	Cowpea/Pulses (MT)*	Live Cattle (Heads)"
1970	113	147	61882
1971	3375	1679	18952
1972	3262	3250	1295
1973	4318	4030	2106
1974	3937	495	1140
1975	2965	492	2199
1976	1812	111	4024
1977	94	66	2108
1978	68	120	1070
1979	125	104	1683
1980	100	500	1305
1981	100	300	5889
1982	ND	80	1200
1983	100	50	1000
1984	500	50	1350
1985	45	300	371
1986	ND	80	ND
1987	100	50	ND
1988	500	50	325
1989	4950	1928	9159
1990	4599	2282	7500
1991	1100	250	33173
1992	4303	2234	31811
1993	7249	2583	37937
1994	6216	1682	35
1995	11676	1308	252
1996	13341	6798	15079

Source: FAO Trade Year Books, GSS, PPRSD/MOFA.

*1989-1993 data combined PPRSD and FAO data. 1993-1996 data were from PPRSD only.
ND - No data.
"1994 - 1996 data solely were MOFA official imports.

Cattle

Levels of officially-recorded imports were as high as 61,882 in 1970, but this dropped to 1,305 in 1980, representing an annual average decline of 9.8 percent during the decade. From 1981, official live cattle imports further fell, as seen from Table 3.6. Between 1981 - 1991, officially-recorded imports dropped by 10 percent annually. However, available estimates of unofficial imports showed that informal inflows jumped drastically from 7,138 in 1990 to 33,152 in 1991, an increase of 364 percent, as indicated in Table 3.6.

The little data available on informal imports of cattle since 1989 suggest an inverse relationship between official and unofficial imports. The sharp rise in informal imports in 1991 corresponded to the sharp fall in recorded official imports since 1991 when official imports dropped by 94 percent from the 1990 level. However, available data indicate that official livestock imports from the region have started increasing since 1995 when imports rose by 88 percent over the 1994 level. Officially-recorded imports further increased by 14 percent in 1996.

Overall, live animal imports from Burkina Faso (and Niger) fell from very high levels in the 1960s and 1970s, reaching the lowest levels from 1977, but have started rising since 1988, with growth accelerating since 1991.

Onion

Available data indicated that both the volume and value of onion imports from the region showed an overall long-term increasing trend.

Initially, however, imports fell: imports from Niger and Burkina Faso dropped from 4,318 MT in 1973 to 100 MT in 1983, an average annual rate of fall of 9.8 percent. The sharp recorded fall in 1977 import data was probably partly due to data deficiencies.

The volume of imports began a positive trend from 1988 which accelerated in 1989. Between 1989-1996, imports showed an average rate of growth of 24 percent annually. In particular, the increase in imports accelerated from 1995 when imports rose by 88 percent over the 1994 level, probably in response to the CFA devaluation of 1994.

In terms of value, the average annual import of onions increased by 23 percent during 1970-1972 to 1978-1982. Average annual imports during the 1978-1993 period increased by 119 percent by 1993.

Cowpea/Pulses

It was more difficult estimating the trend in growth of trade in cowpeas since data on 'pulses' was used as a proxy for cowpeas during some years.

Imports of pulses were more variable that the two other commodities. However,

historical volume imports showed a decline of 9.8 percent per annum between 1972/1973, when imports averaged 3,640 MT annually, and 1982/1983 when imports averaged 65 MT.

Imports showed an upward trend from 1989, rising from 1,928 MT in 1989 to 6,798 MT in 1996, representing an annual rate of growth of 36 percent. Import volumes rose in 1996, reflecting delayed effects of the CFA devaluation.

The value of imports of cowpeas/pulses doubled from $0.3 million in 1970-1972 to $0.64 million in 1978-1982 (FAO 1995). Import values further doubled by 1992 and showed yet a 55 percent increase in 1993.

Overall, for all the commodities, imports fell from the levels in the 1970s, but started increasing from 1989.

3.2 Contribution of ASAPs to Trade Flows

3.2.1 Changes in pre and post-ASAP trade flows

This section builds on the earlier analysis of trends in commodity inflows.

Ghana's total merchandise imports from the region fell drastically immediately after the inception of the ERP: imports dropped from $1,139.7 million/year during 1980-1982, representing a drop of 45 percent. It is noteworthy that 1982 and 1983 were years of the strongest drought in Ghana in the last 40 years.

In analyzing changes in trade flows, one would consider four aspects: (a) levels (volumes or money values), (b) direction of flows, (c) commodity structure or composition, and (d) type of flow. Inadequate data and time prevented detailed review of these aspects of trade flows, but the analysis allows some observations.

A. Changes in levels of trade flows

This aspect of flow registered major pre and post reform changes. As shown in Chapter 3.1, levels of imports of the three commodities by Ghana from the region increased over the long-term. However, there were differences in how their flows changed as a result of the reforms.

Cattle imports fell immediately after the reforms began in 1983 due to factors to be discussed in the next section. However, imports increased later in the 1980s and into the 1990s. Levels began increasing in 1988, coinciding with the initiation of agriculture sector-specific reforms that year.

Officially-recorded data on onion imports presented in Table 3.5 showed that the fall in the level of imports started well before the reforms began in 1983. As, noted, part of the

fall may have been due to data problems, but the negative trend persisted until late the 1980s, after the agriculture-sector reforms began. Thus, the data did not show any immediate post-reform changes until later. The major post-reform increase occurred in 1995.

As in the case of onion, cowpea/pulses imports from the Sahelian trading partners started declining before the reforms in 1983 and it continued until the late 1980s.

In general, immediate post-reform changes in the levels of trade flows were most pronounced for cattle, and less so for the crop commodities. However, imports of all three commodities exhibited positive responses to the devaluation of the CFA in 1994.

B. Changes in the direction of trade flows

There has been no change in the direction of trade flows between Ghana and the study partners in the three commodities since the inception of the ERP. Ghana still imports these commodities with none or negligible quantities going the other direction.

C. Changes in commodity structure of trade flows

The focus of the study is on the three selected commodities. But it was noteworthy that these three commodities have remained the top agricultural imports by Ghana from the study partners.

D. Changes in the type of flows

Trade flows are either official or unofficial. The former pass through approved routes, undergo necessary customs, phytosanitory and other regulatory procedures, and pay all approved fees. In the case of cattle, time-series data were unavailable on informal imports, but discussions with stakeholders as well as official data showed that official flows dropped after the reforms. It, however, appears that imports through official channels have increased sharply since 1995, due both to the CFA devaluation and reforms in livestock trade controls. Regarding the two other commodities, it was difficult to estimate unofficial inflows, if any, since restrictions on general agriculture trade were lifted under the ERP. Nevertheless, these commodities traditionally come in through official channels.

3.2.2 Variables affecting changes in flows

A. Set of Change Variables

Several factors can potentially affect any change in trade flows. Within the framework of the Ghanaian experience, the following variables have variously affected trade flows within the region in the focus commodities to different degrees:

1. Foreign exchange market
    -market-determined exchange rate
    -liberalized payments regime
2. Trade reforms
    -change in trade restrictions
    -transit requirements
    -tariff reforms
3. Price reforms
    -liberalization of output prices
    -high inflation
4. Productivity
    -enterprise revenues (or declining)
    -high transaction costs
    -deteriorating terms of trade
5. Consumption
    -increased demand
6. Relative state-private sector roles in the sector
    -state withdrawal from direct marketing (related to productivity)
    -increased cost-recovery from public services

Natural resource management issues and stake-holder participation in decision-making were considered to have made relatively little impact on agricultural environment and intra-regional trade.

A matrix showing our assessment of the nature of change in imported levels of the focus commodities in response to relevant change variables in given in Table 3.11.

Table 3.11

Matrix of Change Variables and Effects on Import Levels

Change Variables/Reforms	Cattle	Onion	Cowpea
Foreign exchange regime reforms			
- Exchange rate devaluation	- / +	-	-
- Payments reform	+	+	?
Trade reforms			
- Import restrictions	-	+	+
- Transit requirements	-	-	-
- Tariff reforms	- / +	N	N
Price reforms			
- Liberalized output pricing	N	+	+
- Increasing inflation	-	-	-
Productivity factors			
- Higher enterprise revenue	+	+	+
- Higher transaction costs	-	-	-
- Falling terms of trade	-	-	-
- Reduced input supply	+	+	N
Consumption factors			
- Trend in demand	-	+	+
State role in marketing			
- Stop role in marketing	+	N	N
- Higher service cost-recovery	-	N	N

Key:

+ signifies positive effect or increased imports
- signifies negative effect or decreased imports
N signifies neutral or no effect

B. Impact mechanisms of change variables

The policy of flexible exchange rates is the key variable that has affected trade, since the price of foreign exchange determines the levels of other prices in the economy.

Devaluation, at one level, directly led to lower imports, but at another level, its systemic beneficial effects of lowering distortions in the economy exerted positive impact on overall trade, including higher imports. The liberalization of the exchange rate and payments system restored incentives for traded foods in general. The renewed profitability of exports and import-substitutes contributed to the improvement of the foreign exchange situation which catalyzed imports.

Livestock Imports

The factors that affected live animal imports most significantly were: (a) the ban on imports from the region in 1983, (b) other trade and exchange system factors, (c) elimination of state role in imports, (d) increased demands from population and income increases, (e) external circumstances.

Ban on imports

The key factor that determined the level of flows immediately after the ERP was the ban on imports of live animals imposed by the Ministry of Food and Agriculture due to outbreak of Rinderpest disease in 1983. Prior to that period, the sanitary situation in Ghana had been stable since the completion of the International Campaign against Rinderpest (JP 15) in the middle 1960s: there was only one outbreak of Rinderpest in Ghana between 1978 and 1983, while there were 34 in Burkina Faso, 78 in Mali and 90 in Nigeria (World Bank 1987). The ban, imposed to minimize the risk of introducing the disease again by migrating herds and unofficial imports, in conjunction with severe drought in 1982-1983, drastically reduced flows. The ban has been maintained and was later enforced under a programme code-named 'Operation Cowleg' which, among others, banned cattle-truck movements after 6 pm within Ghana.

The ERP created incentives for higher imports but the ban has facilitated higher unofficial or smuggled imports, while it has been ineffective in preventing disease. For example, Rinderpest outbreaks occurred every year in Ghana between 1988 and 1991, despite the ban being still in effect during the period (Aryee et. al. 1991).

Trade and exchange reforms

The combined effect of the devaluation of the 'Cedi' and the liberalized access to foreign exchange through the forex bureaus undoubtedly impacted positively on livestock movements to Ghana. Since 1992, inflation has been higher than the rate of depreciation of the Cedi, resulting in a net appreciation of the currency, which favours imports more than

exports, in general. Trade-related factors that negatively impacted flows to Ghana were livestock transit requirements and tariff policy.

Cattle transported across Ghana's border must meet several transit requirements, which have been documented in PLANCONSULT (1995) and MSI et al. (1995). These include: completing customs documentation, statutory two to four weeks quarantine, obtaining various permits such as movement permits from District Assemblies, submitting Quarterly Income Tax Certificate for registered livestock dealers, and, passing through several checkpoints, at least 27 of which are within Ghana. The cattle are subject to import tariff (duty, sales tax, IRS Form fee) and various taxes, permit fees and dues. One particular fee which has negatively affected inflows was user-fees introduced in 1986 for veterinary services performed on imported cattle.

In response to recent documentation on the negative effects of these measures, and to catalyze increased availability of animal products in the domestic market, the MOFA met with livestock dealer groups in late 1995 and took two remedial measures that boosted inflows in 1996: the cattle import duty was reduced by 100 percent to ¢100,000 per head and the ban on cattle-truck movements in the evening was lifted.

Public role

Another variable that impacted import flows was the realignment of public-private roles in the trade. As was the practice before and during much of the period of the ERP, the parastatal Meat Marketing Board (MMB) was also responsible for live imports and for purchasing live imports brought by private traders at fixed prices. These practices were disincentives to private imports and helped to stifle trade flows. However, the MMB was liquidated in the early 1990s after its functions atrophied from inefficiency, non-performance and bankruptcy in the 1980s.

Demand considerations

Imports of beef have shown a declining trend in recent years, falling from 16,000 MT in 1992 to 8,000 MT in 1995, while domestic slaughters (including imported livestock) rose from 56,000 to 110,000 during the period (MOFA 1996). Since it was estimated that the number of animals available for slaughter from the local herd dropped during the period MSI et al (1995), the increased slaughter rates must be partly due to higher imports of live cattle.

In general, beef consumption is low in Ghana and has shown a declining trend since the 1970s: beef consumption has dropped by 53 percent from 2.8 kg per capita in 1970 to 1.3 kg in 1988. The ERP has been successful in ensuring growth of per capita GDP, but income levels are still relatively low: few people can afford regular supplies of meat and meat products in general (Aryee et al 1991). One negative factor documented was the collusive behaviour of butchers which keeps meat pries up, thereby damping domestic demand for livestock products, including imports (MSI et al 1995).

Terms of trade

Transaction costs have increased with rising transportation costs and transit requirements. The extent to which this has reduced livestock imports was difficult to compute, but the overall effect was negative. The trend in the terms of trade of agricultural products for both Ghana and Burkina Faso are presented in Table 3.12. As seen from the Table, Ghana's terms of trade deteriorated more than that of Burkina Faso.

External factors

Since 1992, two external factors have made a positive impacts on inflows of live animals to Ghana. These were: (a) the abolishing of export duties and veterinary service charges on live animal exports by Burkina Faso as part of its ASAP during 1992/93, and (b) the devaluation of the CFA in 1994. The effects of these reforms on livestock exports from Burkina Faso will be analyzed in the Burkina Faso Country Paper of this study.

Onion Imports

The key variables that affected changes in pre- and post reform flows of onion imports were: (a) foreign exchange and trade reforms, (b) the productivity factor, (c) demand considerations, (d) state role in input supply.

Foreign exchange and trade reforms

Clearly, the fall in onion imports during the immediate post-ERP period was partly due to the rapid devaluation of the Cedi. Traders interviewed indicated that liberalized access to foreign exchange through the forex bureaus facilitated their trading operations, enhancing exports to Ghana. Removal of the restriction on imports of agricultural commodities and the abolishment of import duties on agricultural imports, except livestock, also contributing to maintaining flows. Furthermore, the abolition of the requirement for importers to obtain import licenses in 1989, following the institution of forex bureaus in 1988, acted as impetus to increasing imports of onions and other commodities.

Table 3.12

Agriculture (Income) Terms of Trade: Ghana, Burkina Faso
(1979-1981 = 100)

YEAR	GHANA	B. FASO
1969	121.1	106.6
1970	156.9	89.0
1971	101.9	79.0
1972	105.6	81.0
1973	121.3	82.4
1974	132.2	87.3
1975	145.8	100.6
1976	133.9	110.1
1977	166.0	110.5
1978	154.0	70.3
1979	131.3	108.2
1980	110.1	111.3
1981	65.3	81.8
1982	64.5	61.0
1983	43.8	78.7
1984	64.5	109.7
1985	66.8	78.8
1986	77.7	79.8
1987	73.8	128.8
1988	60.7	113.3
1989	54.5	86.5
1990	48.5	140.4
1991	43.3	136.4
1992	36.6	86.6
1993	40.6	111.2

Source: FAO, SOFA 95

Productivity

Productivity factors that affected onion flows include higher transaction costs, mainly due to bureaucratic import regulation procedures, including the stops at the numerous checking points: it was estimated that stops along the way from Niger add about 10 days per

month to travel times in the onion trade with Ghana (Vordzorgbe 1996).

Another productivity factor that determined inflows to Ghana was comparative advantage. This study did not compute coefficients of comparative advantage, such as Domestic Resource Costs (DRC), but Vordzorgbe (1996) showed that Niger did not enjoy any comparative advantage over Ghana in onion production: onion unit production costs were 40 percent higher in Niger (Gelmin) than in Ghana (Bawku) while yields were similar. Onions imports flow to Ghana because of the larger volume of production in Niger and the existence of a large market in Ghana where onions are a staple vegetable consumed nationwide.

Demand factors

Onions are a staple vegetable in the Ghanaian diet but there are no estimates of demand for onions. Per capita requirement of the traditional vegetables consumed in Ghana (onion, pepper, tomatoes, garden egg) was estimated at about 28 kg/head in 1995 (Vordzorgbe 1996). Some indirect evidence suggests that the demand for onions has risen since the reforms, contributing to maintaining import levels: (a) the restaurant and cooked-foods subsector has expanded, implying increased utilization of onions, (b) local production of shallots, which competed with onion, has fallen in recent years.

Public role

Another variable which had an indirect effect on post-reform flows was the privatization of agricultural input supply, which has negatively affected input availability, pricing and use in smallholder agriculture (Jebuni and Seini 1992). This has likely affected domestic onion production.

Cowpea/Pulses Imports

Factors affecting import inflows of cowpeas were more difficult to discern than for the other two commodities, partly because the data were more variable, as mentioned earlier. Nevertheless, being a crop commodity which is often imported and transported together with onions, it has been subject to similar policy and institutional pressures. However, since cowpeas are more widely cultivated in Ghana than onion, although production levels are low, changes in domestic production have contributed to influencing levels of import inflows.

3.3 Contribution of ASAPs to change-variables

This section was based on: (a) evidence from the literature, (b) the author's knowledge of and role in effecting some of the reforms discussed in this study, and (c) stakeholder views obtained through interviews for this study and from other documentation of stakeholder views on agricultural development in Ghana, including MOFA (1995) and the ongoing World Bank-supported Rural Institutions Sector study (RISS).

The study identified the key stakeholders listed in agriculture in Table 3.13 whose views are essential in assessing impacts of adjustment on trade flows in agricultural commodities. Due to time and budgetary constraints, it was not possible to interview all the stakeholders. But combining all the sources. the views of the following stakeholders were considered in the analysis of effects of ASAP on trade flows:

(a) Livestock: MOFA policy makers, livestock traders, financial institutions, and transport operators.
(b)Onions/Cowpeas: MOFA policymakers, individual and groups of importers and traders, transport operators, customs officials, and consumers.

An example of the questionnaire used to capture the views of livestock imports and traders in Accra for this study is attached as Annex A.

The major factors that affected imports of the focus commodities were trade, exchange rate, payment and pricing policies which were instituted as part of economy-wide reforms and were not specific to the agricultural sector. Consequently, there was no specific Agricultural Sector Adjustment Programme (ASAP) in Ghana, in contrast to what may have pertained in the other study countries.

Most agricultural sector-specific reforms started late, about five years after the ERP was initiated in 1983. But even the sector-specific policy changes were within the context of the overall macroeconomic programme. Hence, reforms in the agriculture sector have been supportive of the macro reforms, contributing indirectly to the evolution of the key variables affecting trade flows in the focus commodities.

Several interventions in the agricultural sector contributed to sustaining and re-enforcing the systemic effects of exchange regime, pricing, and trade liberalization reforms. including the following:

(a) relaxation of import control and licensing to allow free importation of rice, sugar and other commodities. The administrative control of livestock flows under the ban on imparts goes against the grain of trade liberalization but it has been necessary. for sanitary and environmental reasons.

(b) elimination of tariffs on all agricultural inputs while product imports attract the normal import duty and sales tax.

Table 3.13

Key Stakeholders in Food and Agriculture

1. Public policy makers
2. Individual and institutional producers
3. Service providers
   - (a) Agro-processors
   - (b) Input suppliers
   - (c) Transport operators
   - (d) Financial intermediaries
   - (e) Others....
4. Individual and institutional traders
5. Consumers
6. Donors
7. Private investors
8. Special-interest groups/associations
   - (a) Producers
   - (b) Traders
   - (c) Consumers
   - (d) Professionals
   - (e) Organized labour
   - (f) Environmentalists
   - (g) Child labour
   - (h) Women
   - (i) Others.....
9. Traditional authorities

(c) removal of selling restrictions, including elimination of state role in direct output marketing supported the overall programme of enhancing the role of markets and the private sector.

(d) agricultural sector output pricing policy, including more efficient determination of administered prices, was part of overall move towards market-determined pricing. The market pricing of agricultural products eliminated part of the rent-seeking activities associated with the regulated exchange regime.

(e) some donor-supported programmes in agriculture, such as the USAID-funded Agricultural Productivity Promotion Program (APPP), provided balance of payment support to facilitate movement towards market-determined exchange rate regime, while pushing agriculture-sector

reforms in fertilizer supply and pricing.

It is noteworthy that changes in agricultural input supply and pricing also supported overall trade reforms in the economy.

4. RECOMMENDATIONS

The recommendations of the study are geared towards issues pertinent to improving the positive impacts of ASAP on intra-regional trade flows in West Africa. In Ghana's context, this implies attention to broader macroeconomic reforms. Secondly, with regard to the focus commodities, the issue is how to facilitate increased imports by Ghana from the study partners.

1. There is little in Ghana's overall macroeconomic policy framework that militates against increased imports of the three commodities, perhaps except of livestock. The nominal level of the livestock import duty was reduced in 1995 but these tariffs remain a barrier to increased animal imports from Burkina Faso. The Ghana authorities have to review the tariff position, including issues of equalizing protection to domestic production and imports, both of livestock from the region and meat products from the European Union.

2. The declining value of the Cedi tends to make imports more expensive, but, as noted, the real rate of depreciation may be negative, implying a real appreciation in recent years which favours higher imports. It is the policy of the government of Ghana to continue with the policy of market-determined flexible exchange rate. We recommend measures to restore the real value of the Cedi.

3. Overall, the CFA devaluation and reform of Burkina's export tariff and trade regulatory procedures should induce increased exports to Ghana. However, the authorities need to continuously assess the net effect of movements in the real values of the Cedi and the CFA on trade between partner countries.

4. Most of the macroeconomic and sectoral policy barriers have been removed or lowered, but infrastructural and institutional constraints remain as barriers to increasing trade flows.

5. There is the need to harmonize trade laws, payments regulations and movements of goods and people within the framework of facilitating expanded regional trade in general. Commodity-specific initiatives in trade harmonization need to be part of and integrated with broader efforts.

6. Within the context of improving currency transfers to facilitate intra-regional trade, the West African Clearing House and the proposed West Africa Central Bank need to be made operational expeditiously. In addition, banks of both countries should also be encouraged to establish branches at the major border crossing points to ease payments problems associated with the trade. Furthermore, exporters from Burkina to Ghana should be encouraged to utilize the same-day currency transfer facility of the newly-opened branch of the ECOBANK Ltd. in Ougadougou.

7. It is essential to review the practice of using tariff policy to regulate livestock imports, given the porous nature of our borders. The high tariffs constraint imports while veterinary user fees encourage uninspected inflows. The tariff and the practice of veterinary control need to be harmonized with those of Burkina Faso.

8. It would be useful to integrate procedures for livestock import control with measures underway to turn Ghana into the gateway for trade in West Africa. The authorities should make livestock and other agricultural commodities destined for Ghana subject to any simplifying procedures that will apply to general goods to be exported through the ports.

9. Governments in partner countries need to revive or establish bilateral trade commissions to review, advise on and help resolve trade-related issues between partner countries. This is in the belief that the multilateralist goal of enhancing intra-regional trade can be achieved through effective bilateral relations between partner countries.

10. The information base supporting the trade needs to be improved, including improving the collection and dissemination of relevant information on commodity supply and demand, economic conditions, state of transport sector and other relevant issues. In this regard, the Plant Protection and Regulatory Services Department (PPRSD) of the Ministry of Food and Agriculture (MOFA) needs to be supported with computers and other communication devices, vehicles and technical assistance to enhance its agricultural commodity data functions.

11. It is instructive to consider the issues relating to the input side in trying to facilitate output trade, as relations in input markets determine the supply response to price and commercial policies. Specific areas include agro-input, labour and credit markets.

In conclusion, the major recommendations to facilitate increased imports of the study commodities by Ghana are to:
(a) maintain market-oriented and private-sector driven economy
(b) control inflation and increase domestic productivity to arrest devaluation of the Cedi
(c) lower or eliminate remaining tariffs on livestock imports within the framework of equalizing protection among the various sources of supply
(d) review bureaucratic practices and regulatory procedures affecting imports and control corruption at the any stops
(e) continue to invest to improve transportation infrastructure and marketing systems
(f) enhance access of traders to trade financing and guarantees
(g) enhance the overall environment for private investment in agriculture and the rest of the economy.

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ANNEX A

SAMPLE QUESTIONNAIRE FOR INTERVIEWING STAKEHOLDERS

NAME OF RESPONDENT: Alhaji Yahaya, Vice-Chairman - Greater Accra Livestock Traders Association.

DEVCOURT LTD.

CILLS/FERAP STUDY ON IMPACT OF REFORMS ON INTRA-REGIONAL TRADE IN AGRICULTURAL PRODUCTS IN WEST AFRICA

TRADERS QUESTIONNAIRE

NOTE: THE QUESTIONNAIRE REFERS ONLY TO TRADE BETWEEN GHANA AND BUKINA FASO OR MALI IN LIVESTOCK, ONIONS, CEREALS.

1. (a) Do you think the depreciation of the Cedi under since 1983 has increased or reduced the volume of trade in your commodity?

[ ] Increased volume [X] Decreased volume

1. (b) Has this changed the direction of trade to:

[X] Ghana - Bukina Faso/Mali [✓] Bukina Faso/Mali - Ghana

2. (a) Before 1983, imports were controlled. How has free trade policy since 1983 affected the volume of trade?

[X] Increased volume [ ] Decreased volume

2. (b) Has this changed the direction of trade to:

[ ] Ghana - Bukina Faso/Mali [X] Bukina Faso/Mali - Ghana

3. (a) Has production of your commodity in Ghana risen or fallen since 1983?

[ ] Increased [✓] Decreased

3. (b) How has the change in 3. (a) affected the volume of trade?

[ ] Increased volume [✓] Decreased volume

3. (c) Has this changed the direction of trade to:

[ ] Ghana - Bukina Faso/Mali [✓] Bukina Faso/Mali - Ghana

4. (a) Has quality of production of your commodity in Ghana risen or fallen since 1983?

[X] Increased [ ] Decreased

4. (b) How has the change in 4. (a) affected the volume of trade?

[X] Increased volume [ ] Decreased volume

4. (c) Has this changed the direction of trade to:

[ ] Ghana - Bukina Faso/Mali [✓] Bukina Faso/Mali - Ghana

5. (a) Has the transaction costs of doing your business risen or fallen since 1983?

[X] Increased [ ] Decreased

5. (b) How has the change in 5. (a) affected the volume of trade?

[ ] Increased volume [X] Decreased volume

5. (c) Has this changed the direction of trade to:

[ ] Ghana - Bukina Faso/Mali [X] Bukina Faso/Mali - Ghana

6. (a) Has the profitability of your business risen or fallen since 1983?

[ ] Increased [X] Decreased

6. (b) How has the change in 6. (a) affected the volume of trade?

[ ] Increased volume [X] Decreased volume

6. (c) Has this changed the direction of trade to:

[ ] Ghana - Bukina Faso/Mali [X] Bukina Faso/Mali - Ghana

7. (a) Has the consumption of your commodity in Ghana risen or fallen since 1983?

[X] Increased [ ] Decreased

7. (b) How has the change in 7. (a) affected the volume of trade?

[X] Increased volume [X] Decreased volume

8. (a) Do you as traders have more say in how your business is handled by government? [ ] (Yes) [ ] No

8. (b) Do you now have more say in how your business is handled by your association? [ ] (Yes) [ ] No

8. (c) How has the change in 8. (a) affected the volume of trade?

[✓] Increased volume [ ] Decreased volume

8. (d) How has the change in 8. (b) affected the volume of trade?

[✓] Increased volume [ ] Decreased volume

9. (a) Do you now face more concerns about the effects of your activities on the environment? [X] Yes [ ] No

9. (b) How has the change in 9. (a) affected the volume of trade?

[ ] Increased volume [ ] Decreased volume

10. Please discuss any other issues affecting trade flows.

1. Inadequate disease control at Entry points.
2. Lack of maintenance of existing watering facilities (dams) across com
3. Extortion from route manning officials - customs + police.
4. Lack of basic facilities (sanitory) at Market.
5. Increased Extension activities.