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Report No.: 22439

**PERFORMANCE AUDIT REPORTS
AND SECTORAL OVERVIEW**

GHANA

**NATIONAL AGRICULTURAL RESEARCH PROJECT (CREDIT 2247 - GH)
NATIONAL AGRICULTURAL EXTENSION PROJECT (CREDIT 2346 - GH)
NATIONAL LIVESTOCK SERVICES PROJECT (CREDIT 2441 - GH)
AGRICULTURAL DIVERSIFICATION PROJECT (CREDIT 2180 - GH)
AGRICULTURAL SECTOR INVESTMENT PROJECT (CREDIT 2555 - GH)**

June 22, 2001

*Sector and Thematic Studies Group
Operations Evaluation Department*

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Currency Equivalents

Currency Unit = Cedi

Annual Average Exchange Rate (Cedi to US\$):

1990	326	1994	957	1998	2314
1991	368	1995	1200	1999	2647
1992	437	1996	1637	2000 (mid-October) 5800	
1993	649	1997	2050		

Abbreviations and Acronyms

AAGDS	Accelerated Agricultural Growth and Development Strategy	GNP	Gross National Product
ADB	Agricultural Development Bank	GOG	Government of Ghana
ADP	Agricultural Diversification Project	GOPDC	Ghana Oil Palm Development corporation
AfDB	African Development Bank	GREL	Ghana Rubber Estates Limited
AgSSIP	The Bank's Agricultural Services Sub-sector Investment Program	GSS	Ghana Statistical Service
AGSSIP	The Government's Agricultural Services Sub-sector Investment Program	GLSS	Ghana Living Standards Measurement Survey
APCC	Agricultural Policy Coordinating Committee	ICO	International Coffee Organization
APL	Adaptable Program Loan	ICR	Implementation Completion Report
ARPC	Agricultural Research Policy Coordinating Committee	ICRISAT	International Crop Research Institute for Semi-Arid Tropics
ASIP	Agricultural Sector Investment project	IDA	International Development Association
ASPR	Agricultural Sector Performance Review	IFAD	International Fund for Agricultural Development
BOPP	Benso Oil Palm Plantation	ITSPM	Intermediate Technology Small Scale Oil Palm Mill
CDF	Comprehensive Development Framework	M&E	Monitoring and Evaluation
CG	Consultative Group	MOFA	Ministry of Food and Agriculture
CGIAR	Consultative Group for International Agricultural Research	MTADS	Medium-Term Agricultural Development Strategy
CIDA	Canadian International Development Agency	MTR	Mid-term Review
CLW	Community Livestock Worker	NAEP	National Agricultural Extension Project
COCOBOD	Ghana Cocoa Board	NARP	National Research Agricultural Research Project
CPM	Computerized Project Management	NAR	National Agricultural Research Station
CRIG	Cocoa Research Institute of Ghana	NDPC	National Development Planning Commission
CRI	Crops Research Institute	NGO	Nongovernmental organization
CSIR	Council for Scientific and Industrial Research	NLSP	National Livestock Services Project
CWIQ	Core Welfare Indicators Questionnaires	OED	Operations Evaluation Department
DANIDA	Danish International Development Agency	PAD	Project Appraisal Document
DAs	District Assemblies	PAR	Performance Audit Report
DFID	Department for International Development	PCC	Program Coordination Committee
DRC	Domestic Resource Cost	PIC	Project Implementation Committee
EIU	Economist Intelligence Unit	PPMED	Policy, Planning, Monitoring and Evaluation Department
ERP	Economic Reform Program	PU	Project Unit
ERR	Economic Rate of Return	RELC	Research Extension Liaison Committee
EU	European Union	RELC	Research-Extension Linkage Committee
FOB	Free on Board	SARI	Savannah Agricultural Research Station
GAINS	Ghana Agricultural Research Information System	SMS	Subject Matter Specialist
GDP	Gross Domestic Product	T&V	Training & Visit
GEPC	Ghana Export Promotion Council	TSA	Technical Support Agency
		UNDP	United Nations Development Program
		VIP	Village Infrastructure Project
		WDR	World Development Report

Fiscal Year January 1 to December 31

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June 22, 2001

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Performance Audit Reports on Ghana
National Agricultural Research Project (Cr. 2247–GH)
Ghana National Agricultural Extension Project (Cr. 2346–GH)
Ghana National Livestock Services Project (Cr. 2441–GH)
Ghana Agricultural Diversification Project (Cr. 2180–GH) and
Ghana Agricultural Sector Investment Project (Cr. 2555–GH)
and Sector Overview

Attached are Performance Audit Reports for five Ghana rural projects approved between 1990 and 1993 together with a sector overview drawing mainly on the findings of those audits. The five audits are for the following projects: (i) the National Agricultural Research Project (NARP) (Cr. 2247–GH) for which a credit in the amount of SDR 16.3 million (US\$22.0 million equivalent) was approved in May, 1991. The project closed in December 1999, more than two years behind schedule. The total disbursement was SDR 16.1 million (US\$22.6 million equivalent). (ii) The National Agricultural Extension Project (NAEP) (Cr. 2346–GH) for which a credit in the amount of SDR 21.8 million (US\$ 30.4 million equivalent) was approved in March, 1992. The project closed in November 1999, two years behind schedule. The final disbursement was SDR 20.3 million (US\$ 28.76 million equivalent). (iii) The National Livestock Services Project (NLSP) (Cr. 2441–GH) for which a credit in the amount of SDR 15.3 million (US\$ 22.45 million equivalent) was approved in December, 1992. The project closed in December 1999, one year behind schedule. The final disbursement was SDR 14.88 million (US\$ 21.29 million equivalent). (iv) The Agricultural Diversification Project (ADP) (Cr. 2180–GH) for which a credit in the amount of SDR 12.5 million (US\$ 16.5 million equivalent) was approved in October, 1990. The project closed in December 1999, one year behind schedule. The final disbursement was SDR 10.2 million (US\$ 14.27 million equivalent). (v) The Agricultural Sector Investment Project (ASIP) Cr. 2555–GH) for which a credit in the amount of SDR 15.3 million (US\$21.5 million equivalent) was approved in December, 1993. The project closed in November 1999. The final disbursement was SDR 15.12 million (US\$ 20.93 million equivalent). The Implementation Completion Reports (ICRs) for all five projects are incomplete: they omit some of the basic data.

While each individual project had its own specific objectives, the common goal was to accelerate agricultural growth and increase the incomes of smallholders through improvements in productivity and diversification, supported by the improvement of small rural infrastructure. Technology, institutional improvements, increased participation, and training were important means to achieve the objectives. The NARP supported the improvement of the planning, management, budgetary procedures, research-extension linkages and human resources in the research system and invested in selected research programs. The NAEP strengthened the extension services in all 10 regions and in the central ministry, in particular establishing Research Extension Liaison Committees to link with research. The NLSP improved the capacity of the Open Nucleus Breeding Centers, rehabilitated veterinary laboratories, supported the privatization of veterinary services, and supported vaccination and work on tsetse control. The ADP supported diversification into higher value tree and horticulture crops, especially pineapple,

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through policy reforms to promote liberalization and privatization, through rehabilitation or planting of coffee, rubber, and oil palm, through feeder roads and through technical support for export crops. The ASIP supported small rural infrastructure including investments in small-scale water schemes, marketing infrastructure, feeder roads, storage and food processing and studies and technical assistance.

The CDF approach has initiated a process of donor coordination in the sector, particularly with respect to addressing poverty concerns, and the Bank has played a significant role. However, there is still a long way to go and at this stage it is questionable whether coordination of actual programs has really changed much. So far donors have yet to buy fully into the new Bank project (AgSSIP), approved by the Board in August 2000 but not yet effective, and there remain differences of view and emphasis on the design of support for some sub-sectors.

The PAR ratings for the five projects are as follows:

National Agricultural Research Project (Cr. 2247). The audit rates outcome as *moderately satisfactory* versus the ICR rating of satisfactory. The project is not rated fully satisfactory because there were a number of weaknesses including the implementation delays, the lack of transparent lines of management and accountability, and the problems created by delayed and inadequate release of funds which raise questions about the scale of the program. The PAR Institutional Development Impact, Bank and Borrower Performance ratings are the same as the ICR. The PAR however, downgrades sustainability from likely to *unlikely*. This is common to four of the projects that were audited in this package. The severe shortfall in counterpart funding, followed by the limited availability of funds in the post project period suggests that the borrower was either unwilling to or unable to support the project scale designed in all four cases.

National Agricultural Extension Project (Cr. 2346). The audit rates outcome as *moderately satisfactory* versus the ICR rating of satisfactory. The project is expected to achieve most of its major relevant objectives, but with significant shortcomings. As in the case of the research project there is no change in the Institutional Development Impact, Bank and Borrower Performance Ratings. However, sustainability is again downgraded to *unlikely*.

National Livestock Services Project (Cr. 2441). The audit rated outcome as *moderately satisfactory* versus the ICR rating of “partial.” The project is expected to achieve most of its major relevant objectives, but with significant shortcomings. Institutional Development Impact is rated *substantial* versus the ICR rating of “partial.” There is no change in the Bank and Borrower Performance ratings. As in the case of the other two projects, sustainability is downgraded to *unlikely*.

Agricultural Diversification Project (Cr. 2180). The PAR Outcome, Bank and Borrower Performance ratings are the same as in the ICR. The PAR rates Institutional Development Impact as *substantial* versus the ICR rating of “partial.” Sustainability is rated as *non-evaluable* versus the ICR rating of likely. This is because some evidence supports a likely rating and other evidence supports an unlikely rating and there is insufficient information to make a conclusive judgment. Unlike the other four projects, a continued flow of resources from the government is not required under ADP to sustain activities begun under the project. Most of the outgrowers schemes in rubber and oil palm and the pineapple growers can be viable, but for the current economic crisis.

Agricultural Sector Investment Project (Cr. 2555). The PAR rates the outcome as *unsatisfactory* versus the ICR rating of satisfactory. By closing, though the project had created a number of physical structures, the quality of construction was variable and their usefulness, limited. Several structures were poorly designed and were constructed in locations where they could not be effectively utilized. Few of them were actually constructed in response to identified community needs. A poor and unrealistic project design that over-estimated the capacity of grass-roots institutions, led to an inefficient use of resources. It resulted in a target driven implementation schedule, and did not allow for development of capacity among *the communities at their own pace to manage, implement and maintain their investments*. The audit also downgrades both Bank and Borrower Performance to *unsatisfactory*. Both need to share the blame for the

poor and unrealistic design of ASIP. Bank supervision missions, did not stress the need to build capacity in the community, nor did the Borrower bring the issue to the attention of the Bank. The Bank should have put greater emphasis on providing training to beneficiaries. The pressure to lend created an unrealistic disbursement schedule. In common with the other three projects, sustainability is downgraded to *unlikely*. Institutional Development Impact is rated *negligible* versus the ICR rating of “unsatisfactory.”

The audits of the five projects provided the building blocks for the sector overview. The overview finds that growth in the agriculture sector has accelerated from about negative 1 percent in the 1970s, through positive 1 percent in the 1980s, to 2.7 percent in the 1992-1997 period (matching population growth rate), then accelerating to 4 percent from 1996 to 1999 - overall quite an impressive improvement. The government's ambitious goal is now to raise this growth rate to 6 percent and to make more progress on poverty alleviation. But there are a number of economy-wide constraints. A quite unstable macroeconomic situation with a high inflation rate is crowding out the private sector. Decentralization of most services to the District Assemblies, including agricultural extension and small infrastructure, while a sound move for the longer term, is stalled halfway - with roles but not budget transferred - and is presenting challenges including capacity and financial management problems. The main rural sector constraints to achieving the growth and poverty targets include: financial constraints in key areas reflected in the widespread shortage of counterpart funding for projects; insufficient attention to the poorer northern areas where, in particular, the cotton sub-sector needs institutional reform; insufficient acknowledgement in the strategy that expansion of cultivated area will continue for many years and needs to be managed; a land tenure system arguably unsuited to sustainable land management under more intensive conditions; lack of rural finance services; and, lack of a rural sector policy coordination mechanism.

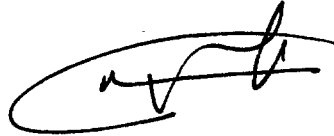
The projects themselves offer six main lessons. *First*, borrower capacity to provide counterpart funding should be projected and realistically assessed, and program design should be adjusted to match the findings of that assessment. *Second*, there are opportunities for relatively minor adjustments in project strategy and mechanisms which can enhance poverty focus without risk to growth. *Third*, publicly funded agricultural research needs to focus not simply on yield maximization but on financial profitability, returns to labor, and the low input technology needs of the poorer farmers. *Fourth*, to improve the efficiency of extension services a phased strategy is needed to increase the role of cost recovery, private sector, community groups and NGOs. *Fifth*, in supporting community infrastructure investments, the importance of the social change element should not be underestimated, approaches that specifically target the poor are important if community driven programs are to reach the poorest who are generally the least organized. *Sixth*, the short-term impact of public sector services reform may be negative on the poor. Likely impacts need to be forecast, and, to the extent feasible, addressed through some form of short-term safety net arrangements.

The findings of this sector overview point to several recommendations for the Bank's future involvement in Ghana's rural sector:

- Once the immediate macroeconomic crisis is resolved, the challenge will be to further increase sectoral growth, to improve public sector efficiency, to enhance poverty focus, and to broaden strategy coordination cross-sectorally toward a rural rather than agricultural focus.
- The Agricultural Policy Coordinating Committee should be reactivated, but as a rural coordinating committee rather than an agricultural coordinating committee, to broaden the attention to rural spatial issues, strategy analysis, including cross-sectoral linkages and poverty alleviation.
- The Agricultural Services Subsector Investment Project (AgSSIP), awaiting effectiveness, should be re-examined with respect to realism of the implementation schedule, scale of local funding demand, enhancement of the pro poor focus, and better addressing the input supply constraints.

- There are opportunities for enhancement of the pro-poor focus of rural interventions in a number of areas including research, the District Assembly's community organization skills, support for Farmer-Based Organizations, livestock breeding, and the institutional reform of the cotton subsector in the north.
- The Bank should revisit, and agree with the leading sectoral donors, on a consultation process mechanism, procedures, and leadership arrangement acceptable to all.

Attachment

A handwritten signature in black ink, consisting of a large, stylized initial 'A' followed by several loops and a final flourish.

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This report was prepared by Ridley Nelson and Nalini Kumar who audited the projects in October 2000. William B. Hurlbut edited the report. Helen Phillip and Maisha Hyman provided administrative support.

Principal Ratings

National Agricultural Research Project	<i>ICR</i>	<i>PAR</i>
Outcome	Satisfactory	Moderately Satisfactory
Sustainability	Likely	Unlikely
Institutional Development	Substantial	Substantial
Borrower Performance	Satisfactory	Satisfactory
Bank Performance	Satisfactory	Satisfactory
National Agricultural Extension Project	<i>ICR</i>	<i>PAR</i>
Outcome	Satisfactory	Moderately Satisfactory
Sustainability	Likely	Unlikely
Institutional Development	Substantial	Substantial
Borrower Performance	Satisfactory	Satisfactory
Bank Performance	Satisfactory	Satisfactory
National Livestock Services Project	<i>ICR</i>	<i>PAR</i>
Outcome	"Partial"	Moderately Satisfactory
Sustainability	Likely	Unlikely
Institutional Development	"Partial"	Substantial
Borrower Performance	Satisfactory	Satisfactory
Bank Performance	Satisfactory	Satisfactory
Agricultural Diversification Project	<i>ICR</i>	<i>PAR</i>
Outcome	Satisfactory	Satisfactory
Sustainability	Likely	Non evaluable
Institutional Development	"Partial"	Substantial
Borrower Performance	Satisfactory	Satisfactory
Bank Performance	Satisfactory	Satisfactory
Agricultural Sector Investment Project	<i>ICR</i>	<i>PAR</i>
Outcome	Satisfactory	Unsatisfactory
Sustainability	Likely	Unlikely
Institutional Development	Unsatisfactory	Negligible
Borrower Performance	Satisfactory	Unsatisfactory
Bank Performance	Satisfactory	Unsatisfactory

Key Staff Responsible

	<i>Department Director</i>	<i>Division Chief</i>	<i>Task Manager</i>
National Agricultural Research Project (Credit 2247)			
Appraisal	E. Lim	John Joyce	Ian Hill
Midterm	Olivier Lafourcade	Gotz Schreiber	Solomon Berkure
Completion	Peter Harrold	Jean-Paul Chausse	Solomon Berkure
National Agricultural Extension Project (Credit 2346)			
Appraisal	E. Lim	John Joyce	Solomon Berkure
Midterm	Olivier Lafourcade	James Wright	Solomon Berkure
Completion	Peter Harrold	Jean-Paul Chausse	Eustacius Betubiza
National Livestock Services Project (Credit 2441)			
Appraisal	E. Lim	John Joyce	S. Berkure
Midterm	Serge Michailof	Jean Paul Chausse	S. Berkure
Completion	Calisto Madavo	Jean Paul Chausse	Eustacius Betubiza
Agricultural Diversification Project (Credit 2180)			
Appraisal	Caio K. Koch-Weser	Anand K. Seth	Surjit Singh
Midterm	Olivier Lafourcade	Gotz Schreiber	Surjit Singh
Completion	Peter C. Harrold	Jean Paul Chausse	Solomon Berkure
Agricultural Sector Investment Project (Credit 2555)			
Appraisal	E. Lim	John Joyce	P. Werbrouck
Midterm	Caio K. Koch-Weser	Anthony Pellegrini	P. Werbrouck
Completion	Peter Harrold	Jean-Paul Chausse	Eustacius Betubiza

Preface

This report consists of five project performance audits complemented by a sectoral overview. The audit elements are as follows:

- Performance Audit Report (PAR) for the National Agricultural Research Project (NARP) (Cr. 2247–GH), for which a credit in the amount of SDR 16.3 million (\$22.0 million equivalent) was approved in May 1991. The project closed in December 1999, more than two years behind schedule. The final total disbursed was SDR 16.1 million (\$22.6 million equivalent). An Implementation Completion Report (ICR) was submitted on 06/30/2000.
- Performance Audit Report (PAR) for the National Agricultural Extension Project (NAEP) (Cr. 2346–GH), for which a credit in the amount of SDR 21.8 million (\$30.4 million equivalent) was approved in March 1992. The project closed in November 1999, two years behind schedule. The final total disbursed was SDR 20.3 million (\$28.76 million equivalent). An Implementation Completion Report (ICR) was submitted on 06/30/2000.
- Performance Audit Report (PAR) for the National Livestock Services Project (NLSP) (Cr.2441–GH), for which a credit in the amount of SDR 15.3 million (\$22.45 million equivalent) was approved in December 1992. The project closed in December 1999, one year behind schedule. The final total disbursed was SDR 14.88 million (\$21.29 million equivalent). An Implementation Completion Report (ICR) was submitted on 06/30/2000.
- Performance Audit Report (PAR) for the Agricultural Diversification Project (ADP) (Cr.2180–GH), for which a credit in the amount of SDR 12.5 million (\$16.5 million equivalent) was approved in October 1990. The project closed in December 1999, one year behind schedule. The final total disbursed was SDR 10.2 million (\$14.27 million equivalent). An Implementation Completion Report (ICR) was submitted on 06/30/2000.
- Performance Audit Report (PAR) for the Agricultural Sector Investment Project (ASIP) Cr.2555–GH), for which a credit in the amount of SDR 15.3 million (\$21.5 million equivalent) was approved in December 1993. The project closed in November 1999. The final total disbursed was SDR 15.12 million (\$20.93 million equivalent). An Implementation Completion Report (ICR) was submitted on 06/30/2000.

The report was prepared by the Operations Evaluation Department (OED) based on the Implementation Completion Reports, the Staff Appraisal Reports, the Development Credit Agreements, and review of Bank files. An OED mission traveled to Ghana in September-October 2000 where it discussed the projects with Bank staff, relevant government officials, nongovernmental organizations, beneficiaries, donors, and consultants. The cooperation and assistance of all stakeholders and government officials is gratefully acknowledged, as is the support of the staff of the World Bank Country Office in Accra.

This report set out to answer a number of questions of which the following were the most important:

- How sustainable were these projects given the apparently persistent counterpart funding problem?
- How did these projects interact with the decentralization process in Ghana?
- How did they handle the participatory processes?

- What has been the poverty impact? How could it be increased?
- More broadly for the sector as a whole, what have been the main emerging issues from the project experience, and what are the implications for the future of the rural sector and the appraised, but not yet effective, AgSSIP.

The ICRs for these projects were somewhat incomplete, partly as a result of a commendable attempt to do a sectoral overview which, in the event, short-changed the project ICRs themselves and omitted some of the basic data. The borrower's completion reports were more useful and more complete, although not fully covering the required elements of the Bank ICR. Following standard OED procedures, the draft report was sent to the borrower for comments before being finalized. No comments were received.

PART I

Sectoral Overview

Introduction

1.1 The purpose of the sectoral overview section of the report is to expand on the sectoral background relevant to the five audits, to explore the issue of poverty relevance and impact, and to translate the main individual lessons of experience from the five audits into broader sectoral lessons, focusing particularly on those which have implications for the design of the future program. The sectoral overview does not represent a comprehensive sectoral study—for example, it omits important sub-sectors such as cocoa and forestry, it does not include a public expenditure review, and it has not addressed rural finance or land policy issues. However, with five audits available, it does cover a significant portion of recent sectoral activities and the findings have substantial relevance to the future lending program, particularly since the proposed future lending is largely an extension of these projects. The overview builds on the Region's sectoral overview. In particular, it offers a poverty-oriented view with an element of farm systems perspective, it focuses on decentralization, it addresses donor perspectives, and it offers findings relevant to forthcoming projects. Section I of the Sectoral Overview provides a background to the rural sector in Ghana including a rural poverty profile (expanding on this in Annex A). Section II outlines the government's new agricultural strategy and briefly examines whether the current conditions (macro and institutional environment¹) are right for the strategy to deliver. Section III examines the direction of government agricultural expenditure and summarizes the main generic findings of the five audits relevant to the sector as a whole—leaving the audits themselves to cover the main project-specific lessons. Section IV discusses the proposed Bank support through the Bank's Agricultural Services Sub-sector Investment Project (AgSSIP)—shortly to be effective—and the status of donor coordination in that context. Section V concludes with summary findings and recommendations.

Section I. Background to the Rural Sector

Resources, Comparative Advantage, and Early Government Sector Policy

1.2 **Agriculture Sector.** Agriculture, the dominant sector of the Ghanaian economy, employs 70 percent of the labor force, contributes about 40 percent to GDP, and accounts for more than 50 percent of foreign exchange earnings. The sector is made up of five sub sectors : crops other than cocoa, (61 percent of agricultural GDP), cocoa (14 percent), livestock (7 percent), fisheries (5 percent) and forestry (11 percent). Ghanaian agriculture is dominated by family-operated farms that produce about 80 percent of total agricultural production.² Ghana has 5.3 million hectares of land under cultivation. This represents 22 percent of the total land area and 39 percent of the total agriculturally useable land area. Less than 1 percent of this area is irrigated. Fertilizer use, at about 4 kilograms per hectare, is one of the lowest in Africa.

1. expanding on this in Annex B.

2. MOFA estimated in 1997 that that the country's agriculture was operating at just about 20 percent of its potential. Draft Accelerated Agricultural Growth and Development Strategy in Support of Ghana Vision 2020.

1.3 Agricultural Growth. Despite its importance, agricultural growth has historically lagged behind other sectors. Average annual growth of agricultural GDP rose from about –1 percent in the 1970s, through 1 percent in the 1980s to 2.7 percent in the 1990–97 period (matching population growth), then accelerating to 4 percent from 1996 to 1999. The Government of Ghana’s (GOG) objective is to now raise this growth rate to 6 percent — a substantial challenge. Agriculture’s contribution to GDP is expected to fall to about 25 percent by the year 2020. The Food Production Index for 1996–98 on a 1989–91 base is impressive at 144. In fact, it is one of the highest in the world over that period. However, this is more a reflection of the poor production levels in the base period than high production levels in the closing period. Ghana has a Gini Coefficient of about 33 percent. About 35 percent of the rural population is below the national poverty line. Over the 1992–97 period, Total Factor Productivity in Ghana’s agriculture was estimated at 3 percent, relatively high for Africa. There is therefore still substantial scope to exploit agriculture as a significant factor in broad-based growth.

1.4 Where Does Ghana’s Comparative Advantage Lie?³ Domestic Resource Cost (DRC) calculations are available only for certain commodities.⁴ The commodities covered by the analysis exhibit an order of comparative advantage from best to worst (depending on zone, technology, etc.) approximately as follows: yam, plantain, coffee, cotton, maize, cassava, and finally rice. Both cassava and rice have DRCs that are mostly above 1, indicating that the economy is spending more than it gets back with respect to foreign exchange when it produces these commodities. This is especially true for rice. At the other end of the scale, yams, plantain, coffee, and cotton show very competitive DRCs well below 0.5.

1.5 Regional Differences in Production Potential. With a wide range of agro-ecological zones in Ghana, regional differentiation in strategy is important. As might be expected from the land/labor ratios, soils, and climate, the northern areas of Ghana show high levels of cropped area expansion whereas the southern areas show high levels of yield increase. Soil suitability, land availability, and rainfall suggest that the Brong-Ahafo Region and the northern regions offer potential for area expansion in annual crops including cereals, legumes, cotton, and root crops and, indeed, this is where area expansion is taking place. These are also the regions of greatest poverty which suggests that, for poverty alleviation, area expansion will still be an important factor. Main constraints in these northern areas are infrastructure, problems with cotton production and marketing, limited alternative sources of income, and limited technologies for these low rainfall areas. Rural population density, cropping intensity, and rural road density for Brong-Ahafo, Northern, and Upper West regions are well below national averages. Elsewhere, the Western Region has substantial potential for tree crop area expansion, but the location of infrastructure would need to be carefully planned to ensure protection of the high moist tropical

3. The mission did not address the cocoa subsector since none of the projects audited had a significant direct impact on cocoa, and since it would require a whole study on its own to do a justice. The earlier Bank funded Cocoa Rehabilitation Project largely achieved its objectives. The policy reform, institutional development, and investments, and the resulting improved farm gate prices, have lifted exports from less than 200,000 tons in 1987 to over 400,000 tons in 1999. However, there remains significant unfinished business. The Government is moving cautiously on the privatization front given the initial negative experience of total liberalization in Nigeria, Cameroon and Cote d’Ivoire.

4. The DRC compares the opportunity costs of domestic production to the value added it generates — all calculated at border prices. A DRC of less than 1 indicates efficiency and international competitiveness. If a DRC is greater than 1 the economy is incurring costs in excess on what it gains or saves from the production in terms of net foreign exchange. The efficiency of domestically producing a non-tradable good can be estimated by using the price of a tradable substitute as a benchmark. A ranking of DRCs is indicative of relative levels of efficiency of domestic production or of international competitiveness.

rainforest and steep slopes.⁵ There is a dilemma with respect to investing in lower poverty, higher potential, higher rainfall areas in the south versus investing in higher poverty, lower potential, lower rainfall areas in the north. While clearly a balance needs to be maintained, given the potential for cotton and the poverty needs of the north, and, the still relatively low per capita investments in that area, the north appears still to be relatively neglected.

1.6 Early Government Sector Policy. In 1983, following a long period of failed interventionist policies, the Economic Reform Program (ERP) was initiated. This aimed at trade liberalization, privatization of public entities, improved collection of revenue, reform of the civil service, tighter budgetary control, and devaluation. Before the ERP, policy constraints in the agricultural sector included grain purchasing and storage restrictions, government marketing control, and low fixed prices in a number of commodities including cocoa, cotton, coffee, and palm oil. The government also controlled input supply. The result of these policy distortions was a staggering decline in the per capita food production index from 100 in 1974–76 down to 62 by 1983. With the ERP, agriculture GNP growth picked up, but significant price and marketing controls remained. To respond to this situation, with support from the World Bank, the 1990 Medium-Term Agricultural Development Strategy (MTADS) sought to put the private sector at the heart of rural development. The strategy prescribed liberalization of fertilizer imports and domestic marketing, phasing out of state-owned enterprises, improved public expenditure coordination, stronger focus on the rural poor and women, promotion of rural finance, promotion of forest protection, enhanced public sector investment in transport infrastructure, market information, and improvements in research and extension. It was within the framework of that strategy that the five audited projects were implemented.

1.7 Bank Support in the 1990s. The Bank program of the 1990s represented a significant increase in agriculture sector lending over the 1980s. Project support since fiscal 1990 has been largely in sector adjustment, technology, infrastructure and market investments, diversification, and environment. As indicated in the Bank's 2000 Agricultural Sector Performance Review (ASPR), issues addressed by these operations included strengthening the Ministry of Food and Agriculture (MOFA); strengthening local institutional capacity through, for example, support for producer associations; policy reform, including liberalization of pricing, marketing, and input supply, resulting in increased private sector involvement; strengthening publicly supported technology development (research and extension); strengthening rural finance; support for rural infrastructure; cocoa sub-sector rehabilitation; diversification into palm oil, coffee, rubber, and pineapple; and improved environmental management. The Bank support has been broadly relevant to the strategies of both the borrower and the Bank although there appear to be some areas that would have warranted more or different attention at the time and new directions that warrant consideration now. We return to this issue in Section II.

1.8 In four particularly critical areas the reforms did not deliver. First, the private response to liberalization was disappointing because of the devaluation of the Cedi and very high real interest rates — unanticipated macroeconomic developments. Second, notwithstanding redirection of expenditures in some areas, the government found it impossible to maintain committed budgeted resources resulting in serious implementation delays with projects. Third, the Agricultural Policy Coordinating Committee (APCC), set up in 1990 to coordinate sectoral policies and to review

5. The Region in its comments re-emphasizes the importance of not advocating expansion of tree crop cultivation in the Western Region at the expense of environmental degradation. We agree with this.

budgets of agricultural sector agencies, never functioned and is now moribund (para 1.24).⁶ Fourth, cocoa sector marketing liberalization was not completed. These issues are discussed in more detail later.

1.9 Rural Poverty Profile. Ghana has unusually good poverty data by the standards of most low income countries. Annex A presents an analysis of the poverty profile with particular reference to the rural areas. Briefly, the overall trend in poverty since 1988 has been broadly favorable in Ghana. From 1988 to 1992, poverty incidence and the level of inequality (measured by the Gini coefficient) declined. There was a further decline in poverty levels between 1992 and 1998. GDP is estimated to have grown, on average, by 4.3 percent over the period 1992–98. Based on the upper poverty line of 900,000 cedis, the percentage of the Ghanaian population defined as poor has fallen from 52 percent to about 39 percent, whereas the percentage of the Ghanaian population that is extremely poor (lower poverty line 700,000 cedis) has fallen from about 36 percent to about 27 percent.⁷ The decline was not evenly distributed geographically, however. The significant reductions in poverty at the national level have been concentrated in four regions: Western, Accra, Volta, and Brong-Ahafo. The Central, Northern, and Upper East regions have actually experienced increases in poverty between these two years. Statistics show that poverty is lowest in Greater Accra and highest in the Upper East Region. The three poorest regions in the country are the Upper West, Upper East, and Northern. Annex A Table A2 shows that these three regions also have the least access to education, health, water supply, transport and marketing facilities and the highest concentration of livestock per household. A modest decline in poverty incidence is reported in the Upper West Region from 88 percent to 84 percent. The Upper East Region, on the other hand, reports the greatest increase in the incidence of poverty. The document *Poverty Trends in Ghana in the 1990s* also reports that the depth⁸ of poverty for those who remain poor has remained stable between the two periods.

Section II. The New Agricultural Strategy and the Macro and Institutional Environment in the Country

1.10 The New Agricultural Strategy. The government's national strategy, *Ghana Vision 2020*, introduced in 1995, is a long-term comprehensive vision for the Ghanaian economy that is directed towards transforming the country from a low-income economy to a medium-income economy by the year 2020. GOG's *overall social and economic development strategy* includes the following elements:

- Sound fiscal, monetary, and other macroeconomic policies.
- Strengthening growth in the agricultural sector by opening access to markets and promoting modern farming methods and marketing practices.
- Broadening and deepening manufacturing and services to create employment opportunities.

6. The APCC consisted of senior representatives from the Ministries of Agriculture, Roads and Highways, Trade, Industry Science and Technology, Transport and Communication, Local Government and Finance and Economic Planning. Its main objective was to make recommendations to the Secretary of Agriculture on matters affecting the formulation, implementation, monitoring, and evaluation of agricultural policies and programs sector-wide. Budget allocations for all major public sector agencies operating in the agriculture sector were to be reviewed together so as to rationalize sector wide allocations of public financial resources.

7. As is often the case, perceptions of NGOs at the field level differ from the data. The audit mission for the five agricultural sector projects met with NGOs who felt that the conditions of the poor had worsened over the years.

8. The depth of poverty is a measure of its intensity. It is measured by the income gap ratio, which gives the proportion by which the average consumption level of poor households falls below the poverty line.

- Human resource development through improved nutrition, education, health, and water and sanitation services.
- Improving access to training, financial services, and markets to develop entrepreneurial capacity.
- Assisting poor communities by strengthening infrastructure such as roads and communications.

1.11 Within the overall strategy, the MOFA has formulated an Accelerated Agricultural Growth and Development Strategy (AAGDS) which is designed to increase the sector's annual growth from 2–3 percent (1990–99) to an ambitious 5–6 percent. The government's Agriculture Services Subsector Investment Program (AGSSIP) is considered the vehicle for implementing the strategy.⁹ It is aimed at rationalizing both sectoral public expenditures and the role of MOFA and improving the effectiveness of policy formulation, regulations, and service provisions in the agriculture sector. Within the economy-wide vision, the *strategic objectives of MOFA* are stated as:

- Strengthen institutional capacity for improved agricultural research and development, policy formulation and analysis, technical services delivery, and sound management of programs.
- Formulate and pursue policies that are equitable and gender sensitive in order to promote and increase agricultural productivity.
- Promote and provide efficient technical services, and technological and other measures, that would improve and diversify food and agricultural production and processing for domestic and export markets.
- Ensure the availability of timely, reliable, and relevant information for strategic planning and efficient management of the sector.

1.12 **Current Unstable Macroeconomic Situation.** The economic renewal of the 1983-90 period suffered a setback in 1992 when, coinciding with elections, public expenditure financed by borrowing from the banking sector increased substantially following large rises in the salaries of the civil service. This resulted in a large increase in money supply and high inflation - reaching levels of around 30% - 40%. There was an appreciation of the real exchange rate which adversely affected the export sector and the balance of payments. The high interest rates have continued through the 1990s. Given the continuation of the difficult macro-economic situation, the immediate relevance of the sectoral strategy statements are somewhat questionable for three main reasons. First, the strategy emphasizes the major role of the private sector yet, at present interest rates, the private sector cannot be expected to make significant new investments and indeed private sector operations that borrowed over this period are facing serious repayment difficulties (see audit report for Agricultural Diversification Project). Second, government budgetary resources are being squeezed so that planned public interventions that may have been considered realistic in terms of financing capacity earlier may no longer be so, at least in the shorter term, calling for rethinking of short term public expenditure priorities. Third, the persistent problematic macro-economic situation is impacting on the poor and thus raising the relative importance in the strategy of poverty-focused interventions. Indeed, there may be a case for an interim rural *bridging strategy* specially designed to get over the immediate hump and emerge prepared for take-off once stabilization is achieved.

9. For a distinction between AGSSIP and the Bank supported AgSSIP project, see Box 1.2.

1.13 Institutional Capacity at the Central and District Level. Ghana has only recently (1988) launched an ambitious decentralization program and progress on the decentralization front is likely to have a major impact on the implementation of AAGDS. Annex B describes the decentralization scenario more fully. Briefly, over the period of the five projects, the institutional environment has changed fundamentally although the final stages of this change are still to be accomplished. District Assemblies (DAs) now implement much of the strategy at the district level following the shift to decentralization, but significant capacity problems are taking time to resolve. Several studies¹⁰ have explored the potential of decentralization in Ghana to contribute to poverty alleviation. Once a decentralization framework is properly in place it should ensure effective coordination between the national vision and local planning and implementation — a challenging balancing act. Today, however, Ghana continues to be in transition from centralized to decentralized planning and control. Some argue that the transition has taken so long because there is lack of genuine commitment from the center to give up the control.^{11 12} Successful implementation of the AAGDS within a decentralization framework now requires that central government provide a supportive macroeconomic environment, clear sectoral strategic direction and leadership, and effective and efficient support and knowledge transfer. This will enable district institutions to prepare and implement local plans that are consistent with both local needs and a national *rural* vision. Does the center have the capacity to play this role? Are the district institutions equipped to plan and implement district strategies? Is there effective coordination across the central ministries supporting decentralization, in particular, MOFA and Ministry of Local Government and Rural Development (MLGRD)? The mission's findings suggest that the answer to these questions is, "Not yet."¹³

1.14 Several weaknesses (covered more fully in Annex B) are apparent in the currently stalled decentralization reform process:

- At the central level, the MOFA has had difficulty providing effective leadership to the sector to adjust to the decentralization process.
- The DA has limited command of resources.
- Skilled personnel continue to be in short supply.

10. "The obvious strength of this process is that communities can have a greater say in the development activities in their districts — and that plans for national development can be more responsive to people's needs. But the process is far from complete." Comments from the UNDP Poverty Report 2000 on the Ghana decentralization process.

11. "Despite their rhetoric, central governments are often reluctant to introduce effective decentralization. This reluctance comes from politicians and bureaucrats, who both stand to lose power. There is also reluctance because mechanisms for accountability at the local level are often weak, and there is a genuine concern that the quality of public expenditure will go down yet more." UNDP 1998.

12. While agreeing with the OED report that the lack of genuine commitment from the central government to political and fiscal decentralization has stalled progress on the decentralization front, the Region credits MOFA with willingness to cede its district staff and budget to the DAs and notes that the DAs were not prepared to accept the offer as the Local Government Service Bill had not been enacted by Parliament.

13. "The decentralized departments (in Ghana) have ended up with a dual allegiance in this process to national and regional sector hierarchies still dominated by top down decision making structures and to DAs who have been given the mandate to coordinate their activities. Since budgets, salaries, promotion and conditions of service have been controlled by central ministries, district staff have often responded more to department command structures than the district and have shown an unwillingness to integrate themselves into decentralized district administration." (Amanor and Annan 1999).

- DA capacity (particularly administrative and technical) to prepare and implement plans is weak.
- Genuine involvement of the local people in the district planning process is often limited and sometimes not representative and there is still unresolved tension between District Plans and local preferences.¹⁴
- Infrastructure maintenance is a potential problem and an increasing burden not yet matched by command of resources.¹⁵

Section III. Direction of Past Government Expenditure and Audit Findings of Broad Sectoral Relevance

1.15 Has Past Investment Been Directed At the Poor? A regional analysis of the MOFA actual expenditure is given in Annex A, Table A4. When the poverty data by region (para 1.9) is combined with the regional average actual expenditure data, it becomes apparent that the direction of government agriculture expenditure has not been strongly related to the incidence of poverty by region (Annex A Figure A1). This finding probably applies to Bank lending also, although the mission did not have the resources to estimate the regional allocation of Bank expenditure in the sector. With respect to expenditure per person, the average MOFA regional expenditure per thousand rural population for the four poorest regions, Upper East, Upper West, Malone, and Central, is 670,000 cedis. The average for the remaining six less poor regions is 970,000 cedis. Given the differences in percentage of poor, the difference in expenditure per poor rural person would be much higher.

1.16 There Was Limited Direct Poverty Focus In The Five Audited Projects. The Bank's Agricultural Services Sub-sector Investment Project (AgSSIP) could correct this. Direct alleviation of rural poverty is important, but the key is broad-based growth in agriculture while exploiting all opportunities for pro-poor growth — the win-win solution. The mission looked particularly at the poverty focus of the five projects and found a number of pro-poor opportunities that could have been better exploited and should feature in future interventions. Some of these opportunities are outlined in this section. Equity could be more actively sought in several policy and investment areas without significantly threatening growth and perhaps even resulting in some growth gains. The following areas of intervention, classified by the three poverty directions of the Bank's World Development Report 2000/2001, may offer potential for win-win redirection within the government's AAGDS and associated Bank and donor support.

Empowerment

1.17 If the poor are to share the benefits of the growth process, they need to be empowered. Empowerment requires the building of alliances between local governments, poor communities,

14. "Some of the plans from districts are the creation of consultants or senior district officials, not the communities. Plans are often presented as completed documents to communities, which approve them without developing any real commitment to the outcome. Although this process is more participatory than formulating national plans, democratic decision making by communities is limited. This might change as communities become more aware of their rights and more active in articulating their needs." Ghana Country Assessment. UNDP Poverty Report 2000.

15. The Region in its comments notes the new government's commitment to fiscal and political decentralization and adds that ongoing donor supported programs to build capacity in DAs are likely to ensure significant progress on the decentralization front.

civil society, and donors in such a way that the interests of the poorest are identified and incorporated in the design of development programs.¹⁶ Options include the following:

- In the future AgSSIP, while support is to be provided for *Farmer-Based Organizations (FBOs)*, it will be important to ensure that existing informal organizations with the highest percentage of the poor are proactively sought out, that the poor are not unduly disadvantaged by the farmer-based, and therefore land-based, nature of the organizations, and that training for FBO members includes training on how to ensure the inclusion of the poorest and women. Significant power in the hands of the larger landowners may be difficult to avoid but there are tried and tested techniques in the participation literature that can help to increase the voice of the smaller farmer.
- In the support to be provided to *District Assemblies*, it will be important to ensure that the District Assemblies have capacity to coordinate the donor and NGO resources (see Box 1.1), that provision is made to support the Poverty Officers who now exist at the DA level through both training and operational support (including a poverty mapping database), and that NGOs are fully utilized to assist with participatory approaches.

Box 1.1. Urgent Need for Coordination at the District Level

The lack of coordination between donors, while not so obvious at the national level becomes a complex issue at the district level with the presence of numerous national and international NGOs and community-based organizations, especially in the poorer north of the country. The efforts of these organizations supporting a host of activities in the rural areas, either area- or service-based, appear largely uncoordinated and designed around individual agendas. This results in wastage of scarce resources. A visit to the field in the Northern Region found that a number of international donors and NGOs are involved in development activities in the area. It is common to find several NGOs and donors present in the same village each pursuing its own activity without apparent coordination with other organizations working in the same area and on similar issues. The audit mission's visit to three villages close to Tamale illustrates the problem.

The villages were under an extension agent who was also a livestock specialist under the Unified Extension Service (supported under the World Bank Extension Project). A Community Livestock Worker (CLW), trained under the Livestock Project, was also present in the area, but the presence of the extension agent hindered the ability of the CLW to charge for his services, as was envisioned under the Livestock Services Project. In addition, the Ghanaian Danish Community Project had also trained villagers in livestock activities and helped them form a Small Animal Association. The major constraint the farmers voiced was related to availability of credit to buy livestock and medicines. Yet, though the farmers were getting abundant medical advice (through three donor-supported projects) there was nothing available to solve their credit problem.

Source: Audit Mission field Visit

16. "The Challenge is to create and nurture local institutions that are sustainable and empower the poor rather than reflect local power structures." UNDP 1998.

Opportunity

1.18 As an umbrella for opportunity, supportive policies and legislation need to be maintained to back local interventions that target the poorest.¹⁷ Currently, policies are generally satisfactory but implementation and institutions are weak. Within the sub-sectors, the following will be important.

- *In setting policies related to agro-processing* a poverty stance is essential. In particular, policies relevant to the northern poorest areas warrant review, especially those related to cotton and sorghum. The development of a public/private partnership to improve the institutional structure, increase competition, reduce costs, and raise the exceptionally poor farmgate prices for cotton in the north would seem to be a priority for alleviating poverty.¹⁸
- The design of the *agricultural extension system* should ensure that extension staff are trained to help farmers analyze and seek solutions to their own unique problems (a number of NGOs have now shifted their training support in this direction). Technical staff from MOFA should work increasingly with private farm input suppliers to improve the quality of their advice and to release a larger share of extension resources for poorer households. Front-line extension staff should carry out a significant percentage of demonstrations on the plots of the poorer households, including low input packages. There should be an increasing content of artisanal training since non-farm income sources will be increasingly important. There should be further increases in the proportion of women in the extension service.
- Access to credit remains a major constraint in Ghana¹⁹. The design of the *rural finance system* will need to ensure that adequate attention is given to the formation of savings and loan groups in the poorer Northern Region and among the poorer households and villages.²⁰

17. "Local interventions cannot eradicate poverty unless they are backed by pro poor institutions and policies. Even the best local programmes are doomed to fail if macroeconomic policies promote a pattern of growth that replicates rather than reduces poverty. Government has a central role in placing the pro-poor agenda at the center of its development strategy, in allocating resources to sectors where poor people are concentrated and in decentralizing political power and transferring economic assets to poor communities." UNDP 1998.

18. A promising potential development of sorghum production under contract for brewing in the north appears to have foundered recently on policy and governance grounds. These policy constraints warrant attention.

19. A recent report by IFPRI "Rural Finance and Poverty Alleviation" by Manfred Zeller and Manohar Sharma, June 1998 draws three important implications for the relationship between shortage of rural finance and poverty. It notes a) "A significant number of poor households in developing countries experience real constraints in the financial market in the sense that they are unable to borrow as much as they would like at the prevailing transaction terms. Given that most of the poor attempt to borrow in order to finance consumption of food and other basic goods that enhance health and labor productivity, such constraints may force poor households to eat less food or cheaper food with lower nutritional value. Also, when consumption levels are already precariously low, they may be forced to cancel or postpone profitable investments or sell off assets—sometimes at a substantial loss—to meet irreducible consumption needs. This may lead to greater impoverishment in the long run. B) Because the cost of failure can be very high at extremely low incomes, poor households are likely to be particularly risk averse and sensitive about the kinds of projects that they choose for financing. Access to credit and saving options may enhance their capacity to bear risks and therefore indirectly foster technology adoption and asset accumulation. C) Poor households in Africa and Asia face complex, multiple constraints on earning opportunities. They often lack education, markets and other essential services. Hence, the impact of financial services on welfare is likely to vary with accessibility to complementary inputs such as irrigation, education, and market services. In some environments or for some socioeconomic groups, access to microfinance may do no good, while in other regions or for other groups, it can make an important difference.

- In setting *outgrower selection policy* in rubber, oil palm, etc., where public support is being provided for the expansion of outgrower schemes around nucleus estates, selection criteria should not simply favor the more-skilled farmer but, to the extent possible and without significantly affecting efficiency, should also accommodate selection of the poorer households. In crops like rubber, coffee, pineapple, etc. where the export potential is high, increased participation of the poorer households may be possible through the group approach.²¹
- Public expenditure in the *livestock sector* to support private breeding of small ruminants in substantial volume will be important for improving the conditions of the poorest. Data shows that the concentration of livestock per household is high in the poorest three regions Annex A Table A2). Current low volumes of output of improved stock will inevitably result in a substantial share of the improved animals finding their way to the less-poor households. In order to make poverty impact, volume is essential.
- In *rural institutions*, at the DA level, there is a need to coordinate agriculture, water, rural electrification, rural communications, rural roads, rural health, markets, and extension around a consciously directed broad poverty alleviation objective to improve livelihoods.²²
- Temporary migration with remittances and permanent shifts in population to surplus land areas *will* take place—the history of rural development in Africa clearly shows this. Therefore, making it efficient and sustainable becomes the challenge. Employment information, price information, communications, infrastructure, environmental assessments, and land reform, will become important elements in a pro-poor strategy.

Security

1.19 In the design of *agricultural research* interventions, it will be important to better address risk and household security through attention to low input, low risk technologies as well as the high input levels for both poverty *and* sound economic reasons. It will be important to analyze experiments with respect to profitability as well as simply yield increments²³ and to analyze experiments with respect to pattern of yield response on farmers fields over time with attention to the worst-year outcome.

1.20 **Bank Support Has Not Yet Tackled the Cotton Sub-sector in the North.** As noted earlier, and as suggested in the ASPR, cotton in the north appears to have been neglected. It is a crop with significant potential for poverty alleviation, particularly if the newer cotton/cowpea

20. "North Ghana (the poorer part of the country), for example has few financial institutions, and people there hold 92 percent of savings in real form—compared with 76 percent in the south, where financial institutions are more prevalent." UNDP 1998.

21. An example is the establishment of *Farmapine* (Box 2.2) which is an innovative pilot that has enabled small farmers involved in pineapple cultivation to come together to reap the benefits of economies of scale normally available to large organized companies.

22. The poverty reduction mandate often requires the establishment of new organizational forms that consciously represent the interests of the poor. If this is not done then even when proposed activities are for general community benefits, the benefits are often distributed in favor of the better off. ILO 1996.

23. Currently the majority of research findings still do not offer any financial analysis. Results should be analyzed assuming quite high private discount rates—the poor need high and very immediate returns—on an annual basis experience suggests at least a 2:1 Benefit: Cost ratio for strong adoption.

intercropping is adopted.²⁴ Annual production is only 45,000 tons, although DRC calculations suggest a significant comparative advantage for Ghana. The market is available, and, while not an easy policy and institutional reform task, there seems to be sufficient understanding of what should be done about the sub-sector to make a start. As noted in the ASPR, an integrated approach is needed. That approach needs to aim at better cotton seed quality, differentiated pricing, improved extension, improved industry organization, attention to industry standards and quality control, an industry credit mechanism appropriate for the new multiple-buyer structure, and improved acceptance by the industry processors of farm systems research findings. The crop warrants a comprehensive poverty-focused development program incorporating policy and institutional reforms. Whether this should be part of a northern areas-based program or a commodity-based program should probably be determined pragmatically as much by implementation simplicity as by broader economic and livelihood considerations. However, a broader, cross-sectoral approach incorporating other commodities such as sorghum and cowpeas, and addressing non-farm income sources and village organizations would be preferable.

1.21 Lack Of Counterpart Funding Weakened Performance And Remains An Issue For The Future. With a history of severe counterpart funding problems, fluctuating support by donors, and no clear phased donor or Bank exposure-reduction strategy, financial sustainability is a major concern. Counterpart funding has been a persistent problem and, although a difficult issue, the Bank's actions to solve the problem have been largely ineffective. Effective action at the project and program level might include firm pressure in the early stages at the responsible levels of government, and, subsequently, in the absence of progress, a planned reduction in the scale of the portfolio and/or projects to adjust to the budgetary constraints unless they are demonstrably temporary. The persistent excessive optimism by the Bank on counterpart funding, which existed well before the five projects audited, has resulted in inefficient fluctuation of support. The financial problems were expressed by many in the field. For example, one concern of NGOs was that agricultural research programs were not sustained to the end to adequately answer the research question asked. Staff at research institutes usually mentioned funding as the greatest constraint, even during the relatively well-funded project period, citing programs that could not be sustained.

1.22 The mission noted that the ASPR and other documents often refer to the counterpart funding problem as, "delayed release of budgeted resources." This is a euphemism. If releases were simply "delayed," there would be no funding problem. The real issue was that the borrower did not have enough resources for the scale of interventions planned. This issue connects with the macroeconomic situation. The extremely high interest rates have arisen because of excessive government borrowing, which suggests that, overall, the scale of public commitments needed to be cut back, including, perhaps, in agriculture. All donors interviewed were very concerned about the counterpart funding issue and what it implied. There would appear to be a case for looking again at cutting back activities in a number of areas, for example, further consolidating institutions in agricultural research and perhaps reducing extension agent/farmer ratios, although this now becomes a District Assembly issue. But there would be no incentive for MOFA to propose rationalizations unless there was assurance that reductions would not be penalized subsequently by pro-rata budget cuts, indicating that it would need to be a part of an economy-wide planned public expenditure rationalization program.

24. Research findings suggest no reduction in cotton yield when mixed with cowpea so that cowpea is a bonus and, probably, reduces risk. But, the ginning companies have shown no interest in cowpea systems since their processing interest is only in cotton.

1.23 The Bank response to the counterpart funding issue, evident from correspondence in the project files was disappointing, although there may have been more action than is evident in the files themselves. The Region notes that the counterpart funding crisis was a universal problem facing all Bank projects and that the attention of government was drawn to the problem at high levels. There is some evidence of a phased escalation of the issue with government, but given the long-standing nature of the issue, from even before the start of these projects, some prompt adjustment in project scale would have been the logical response²⁵. The strategy now is to bypass the issue by treating salaries of existing staff as the borrower's project contribution. Taken to the extreme, this accounting device could ensure a zero requirement for incremental counterpart funding.

1.24 **The Policy Coordination Mechanism Never Got Of The Ground. It Is A Priority For The Future.** Policy coordination remains weak. The Agriculture Policy Coordination Committee (APCC) never really functioned.. The AgSSIP does not appear to have picked up the rural strategy coordination issue, which is surprising given that its broad intent is to take the management of the sector to a higher plane. Without a policy coordination mechanism, and the necessary supporting analytical skills, the next phase of development in the agriculture sector will be difficult because it will increasingly call for cross-sectoral coordination in a new and challenging decentralized administrative structure. Creating a broader version of the APCC will require answering role, responsibility, and scope questions, planning capacity questions, leadership and ownership questions, donor coordination questions, and political questions. One approach would be to build cross-sectoral rural teams across relevant ministries.²⁶ In fact, the original APCC concept, notwithstanding the narrow agriculture title, did envisage broad sectoral representation. It encompassed the Ministries of Agriculture, Roads and Highways, Trade, Industry Science and Technology, Transport and Communication, Local Government and Finance and Economic Planning.

1.25 With respect to *policy*, while considerable policy reform has been achieved, and the bulk of the liberalization elements of rural policy reform have been completed, the policy reform stalled in several areas, in particular, cocoa marketing and privatization of veterinary services (see audit report for the National Livestock Services Project). Also, land policy remains a problematic issue, with the previously effective traditional forms of land authority increasingly incapable of handling rapidly emerging environmental externalities or improving the convertibility of land assets to allow investment flexibility and access to finance. These unfinished policy areas need to be addressed.²⁷

25. The Region argues that scaling down is not so simple since, in reality, it takes several years to appreciate that the counterpart funding situation is not likely to improve by which time tenders have been awarded, training has been started, and what suffers with a scaling back is the important operational aspect. OED appreciates the difficulty but argues that, given past problems, there should have been more preparedness for prompt action in implementation and more accommodation for this eventuality in project design.

26. As an example, in the Laos PDR, a recent Asian Development Bank Report notes the need for such a horizontal approach in executing programs that involve different aspects of environmental management. In that country though the thrust towards decentralization has given local officials greater authority in natural resource management, gaps remain in the local government's capacity and understanding and there is little coordination among agencies responsible for different aspects of environmental management. Asian Development Bank 2000.

27. The Region in its comments accepts the need to revive the APCC and notes that the unfinished policy agenda in cocoa marketing is being addressed. It further notes that the government has issued a land policy document and a Land Policy Administration Project in support of this policy is under preparation.

1.26 There Has Been Persistent Line Agency Weakness. The capacity of MOFA remains weak even after substantial and sustained support over a long period.^{28 29} The weakness is particularly in the area of policy analysis. This raises questions about the impact of past investments in institutional strengthening and whether the strengthening was of the right type or whether it was deep enough and fundamental enough to enable MOFA to respond to the changing economic environment. More radical options that address some of the fundamental civil service deficiencies warrant exploration, including substantial contracting out of knowledge-related services, going well beyond the veterinary services privatization. The lessons in the AgSSIP PAD insufficiently reflect the persistent need for institutional strengthening. Is it simply that the environment has changed substantially? Or have there been weaknesses in the design of earlier institutional strengthening—more patching holes than fundamental change? Answering this would be a study in itself.³⁰

1.27 The Technology-Related Projects Did Not Sufficiently Address the Intensification Versus Extensification Issue, And Profitability. As noted earlier, based on the history of land-use in other countries in Africa, there is little doubt that over the coming two decades a substantial portion of the unused agricultural land in Ghana will be cultivated. Investment priorities need to accommodate this inevitability. Currently it seems to be ignored by both the Bank and the borrower partly because it is seen as an environmental issue. Some of the questions that arise from this are the following. In what locations will this take place? In what locations should government encourage it or discourage it for growth, poverty, or environmental reasons? What are the implications of this for technology development and dissemination strategies? Does it have implications for land reform? What are the implications for the location of infrastructure and services? The mission found little evidence that this inevitable extension of cultivated land area—which may account for as much as one-third of agricultural growth over the next decade—has been a factor in any strategic decision-making. The Bank should have focused more on this issue.

1.28 The challenge for poverty alleviation through agriculture is to develop menu options requiring low external inputs, alongside more intensive options for the wealthier and more progressive farmers. The AgSSIP should re-emphasize the importance of analyzing all research findings from a profitability perspective, addressing returns to land, labor, and capital, and accommodating the resources of the poorer farmers. Our review of research program reports suggests excessive attention to yield maximization at quite high input levels, beyond the reach of

28. The Agricultural Services Rehabilitation Project approved in 1987 and supported by IDA, the African Development Bank and Germany provided support for the first slice of a long term process of institution building in the Ministry of Agriculture. The main objective of the project was to initiate a process of rehabilitation of the Ministry of Agriculture's human and physical resources so as to strengthen the institutional framework for the formulation and implementation of agricultural policies and programs, improve the capacity to deliver public sector services to agriculture and improve the capacity to procure and distribute agricultural inputs. Support for institutional strengthening of MOFA continues to be a part of ongoing donor efforts. A major component of the Bank's AgSSIP project is support for reform and strengthening of MOFA within the framework of the decentralization policy of the GOG. The central directorates of MOFA are to be strengthened and their staffing skills developed to enable them to perform their core functions and to provide the support services to the regional development officers and front line extension agents.

29. The Region in its comments explains that a major problem is the low level of salaries of government employees. Unless this problem is resolved through public sector reform, the government will remain the employer of last resort.

30. The Region argues that the AgSSIP envisages linking the policy, statistical analysis, and program impact evaluation with the country's think-tanks and private consultants so that these would be co-produced, leaving largely the budgeting and monitoring functions for line agency staff. This would be an important mechanism to help counteract line agency weakness.

many poor farmers.³¹ Fortunately, the mission found quite sensible adaptation to farm household resource capacities by extension staff. Such farm systems approaches are stronger at the Savannah Agricultural Research Station (SARI) but appeared quite weak elsewhere. Indeed, many researchers seemed unwilling to accept any criterion other than yield maximization.

Section IV. The Future - The Borrower's AGSSIP and Proposed Bank Support

The Borrower's AGSSIP Compared With The Bank's AgSSIP

1.29 The GOG's AGSSIP is divided into four thematic groups: agricultural support services, institutional and regulatory improvement in capacity building, public infrastructure and improved access to markets and development of the agricultural business sector. Lying within the boundaries of the above, the AgSSIP project, approved by the Board in August 2000 is the main World Bank vehicle for continued agriculture sector support in Ghana, but it is not yet effective. This Adaptable Program Loan (APL) has three 3-year phases with a total project cost for the first phase of \$123.7 million, \$67.0 million of which would be financed by IDA. Other donors include AfDB, CIDA, DANIDA, DFID, EU, and IFAD. Phase I includes:

- Reforming and strengthening agricultural technology generation and diffusion (\$78.0 million)
- Institutional reform and strengthening of MOFA (\$29.5 million)
- Development of farmer-based organizations (\$9.9 million)
- Strengthening agricultural education and training (\$5.7 million)

Arising mainly from the findings of the audits, the mission has a number of concerns about the AgSSIP related to choice of instrument, counterpart funding, complexity, consistency with the decentralization framework, and donor coordination. While these are significant, some would call more for redirection within the present design, others, such as choice of instrument, would be matters for consideration in the future given the stage of processing.

31. The Region in its comments acknowledges that much of the research analysis on the application of fertilizers is on yields per unit area. It however explains that there were also research experiments which evaluated effects on yield of different geometric permutations of two and three cropping systems (e.g. maize, cowpea, cassava), and crop relays without application of chemical fertilizer and manure. The data generated through the research programs can be used to perform profitability analysis. The Region notes that supervision missions and the mid-term review reports were replete with comments that socioeconomic analysis of the research system was a weak. It is expected that the returning trainees will be able to strengthen this type of analysis.

Box 1.2. The Borrower's AGSSIP and the Bank's AgSSIP

The AGSSIP is the borrower's program, the AgSSIP is the Bank's project. However, the documents reveal some lack of clarity about the differences and changes over time. The dilemma is reflected in the AgSSIP PAD. As its title indicates, it is referred to as a "project." However, in the same document, under the Abbreviations and Acronyms heading, AgSSIP is referred to as the "Agricultural Services Subsector Investment Program."^a The PAD text (page 3) says that the "Agricultural Services Subsector Investment Program" is one of the major instruments for implementing the AAGDS but that it deals mainly with two of the five elements of the strategy. It is thus by no means the whole of the program. In other words, the Bank's AgSSIP is a circle inside the government's AGSSIP. However, at one time the two exhibited much greater overlap. Due to Bank management concerns about complexity, the project was significantly cut back during internal Bank review. Thus, it no longer substantially coincides with the program, although it is consistent with it and remains a significant part of it. Based on discussions with donors, we believe this lack of conceptual clarity has caused some confusion.

a. The comments from the Region shed some light on the dilemma. The Region notes that attempt towards a program loan was fiercely resisted by other donors who were concerned by the failure of the complex Zambia agriculture sector investment program. Donors argued for a gradual change towards a program loan. Consequently the current AgSSIP is an intermediate step and the move towards the program loan is proposed to be adopted in the second or third phase of the AgSSIP APL.

The Bank's AgSSIP

1.30 **Choice of Instrument.** It is not entirely clear what the gains are to a large, complex, sector-encompassing, package at this stage and given the experiences with the previous package of five rural projects. The PAD argues that the previous project approach was spatially, temporally, and donor restricted. It is suggested that the AgSSIP program approach would achieve improved coordination, flexibility of donor and counterpart funding, improved prioritization in expenditure, reduced duplication of management, improved consistency of donor procedures, and reduction in the heavy hand of the donor agenda and thus improve ownership. While some of these are possible benefits, many would still seem attainable through discrete projects managed within the CDF framework. In the absence of a significant swing toward a true program loan, where there is limited definition of investments and where lending is tranching on the basis of a broadly agreed strategy and program, the AgSSIP risks falling between two stools. It is a large, complex, multi-component project, characteristics that, in the past, have resulted in poor performance, but with few of the gains of a programmatic credit.

1.31 **Sectoral Funding and Counterpart Funding.**³² Is there enough public funding going to the right places to meet the ambitious sectoral targets set? A 6 percent growth target is ambitious. Borrower strategy documents suggest that Ghana is seen as being where Thailand and Indonesia were in the 1960s with similar growth prospects. However, agricultural sector expenditure is less than 5 percent of total government expenditure in Ghana. In 1965 in Thailand, agriculture sector expenditure was more than 10 percent of total government expenditure.³³ The government's ambitious targets in Ghana are going to need to be matched by resources provided. Counterpart funding is not discussed in the AgSSIP PAD under the *Sustainability* heading. It is listed in the

32. This section should be read in the context of the audit findings elaborated in Section III (see paras 1.21 to 1.23).

33. Trade, Exchange Rate and Agricultural Pricing Policies in Thailand. World Bank Comparative Studies 1989.

table on *Critical Risks* but is rated N (Negligible). The risk minimization measures described are not very convincing given the long history of counterpart funding problems. The Letter of Agricultural Development Policy dated June 8, 2000, offers no detail on how the counterpart funding issue will be handled other than to ensure that GOG is committed to providing financial support. Annex 4 of the PAD contains a detailed analysis of the fiscal demands of the project both over the project life and after closure. Setting the required cash outflow for the project against the total agriculture GDP, as always, shows a comfortably small percentage. However, this would have been the case at the outset of the previous projects, yet counterpart funding still emerged as a serious problem. The same annex notes hopefully: "Clearly, AGSSIP would help the GOG reaffirm its commitment to supporting the agriculture sector."

1.32 **Complexity.** The investment components in the Bank-funded AgSSIP project are very similar in type and level of definition to those in the previous discrete projects. The complexity of such a large package is formidable. It is worth noting that the ongoing Village Infrastructure Project (VIP) has disbursed very little after just under three years of implementation. Yet, shortly, the AgSSIP project, with a much more complicated multi sub-sector design but a number of similar features, will be attempting to disburse \$67.0 million of Bank funding over three years, together with \$56.7 million of other donor and government funding. While the former VIP is a single project and the AgSSIP, in effect, is a group of projects, nevertheless the scale and phasing appears very optimistic. There is a need to be realistic about implementation rate given that capacity constraints may be temporarily even greater with the new challenge of decentralization³⁴.

1.33 **Decentralization and Rural Spatial Issues.** The AgSSIP appears to be designed largely for the current interim status of decentralization with responsibilities but not budgetary resources transferred to DAs (Annex B). The redirection that would take place once the new legislation is enacted is not discussed in the PAD. The switchover of staff from the central to the district budgets will be a significant change with respect to the location of incentives and is bound to have significant repercussions for how the project is managed. One might have expected to see more discussion of this transition challenge in the document. In addition, the project analysis and design falls short of accommodating the increasingly rural, as opposed to agricultural, needs of the sector. Moreover there appears to be little direct link between the Government's agricultural strategy, supported by AgSSIP and the Government's strategy for poverty reduction.³⁵ The elements of the poverty reduction strategy are commendable but for now that strategy appears to be running on somewhat separate tracks to the agriculture strategy. The two need to be brought together as a consistent whole. A broad, spatially differentiated, livelihoods approach is needed which accommodates the reality that the incomes of the rural poor are increasingly coming from non-farm sources.

Status of Donor Coordination

1.34 **Donor Coordination and Buy-in to AgSSIP.** The Bank's Comprehensive Development Framework (CDF) approach in Ghana is working toward strengthening the collaboration among

34. The Region argues that AgSSIP will be different, that there can be no sub-sector program without embracing all elements of the sub-sector, that, unlike VIP, under AgSSIP all the implementing agencies are in place with experience in managing projects, and that VIP faced serious management problems in the first two years.

35. The government has prepared a Development Strategy for Poverty Reduction that is the basis for further consultations with all social and development partners. The need to deepen access to basic social services (defined to include education, primary health care, rural water, rural housing, feeder roads, rural electrification, poverty focused agriculture social welfare and population management) and infrastructure available to the poor is recognized as essential. As a whole, poverty targeted expenditure is expected to increase from 16.7 percent of total expenditure in 1999 to 21.2 percent of total expenditure in 2001.

donors to enhance their impact on poverty reduction.³⁶ The mission found variable but somewhat equivocal support by donors for the AgSSIP itself. This is probably inevitable at the early stages of a CDF process. However, until donors and the borrower have reached the point where their strategies and interventions have been blended into a reasonably coherent whole, there may be an advantage in the Bank project (AgSSIP) remaining quite distinctly a circle within the government program (AGSSIP), leaving room for donors to park either inside the Bank-supported project inner circle or outside the perimeter but within the government program outer circle.³⁷

1.35 The World Bank initiated CDF, launched in Ghana in February 1999, and the United Nations' Development Assistance Framework (UNDAF) are intended to improve coordination. The aim of both efforts has been to put the government in the driver's seat so that the efforts of all donors can be coordinated and utilized to Ghana's maximum advantage. While this issue lies above and beyond the agriculture sector, it appears to be inefficient that both the UN and the Bank's efforts continue as separate though related exercises. It is not entirely clear how the UN framework meshes with the CDF. Either they are the same, in which case there is a duplication problem, or they are significantly different, in which case there is a strategy divergence problem. However, both efforts have activated a strong *process* in donor coordination in the country (see Box 1.3). This has had four positive effects. First, it has led the donors and the government to come together to identify major bottlenecks to the development effort. Second, it has enabled them to prioritize areas for urgent action. Third, it has brought pressure on the government to take immediate action in priority areas such as corruption, public sector reform, decentralization, and privatization. Fourth, it has created awareness among donors about each others' programs and helped in the identification of common implementation problems.

1.36 However, at the sectoral level the experience has been varied. In sectors like health, where there is more agreement on basic problems and their solutions, and perhaps less complexity, more progress has been achieved than in sectors like agriculture. There is consensus among the several donors active in the agriculture sector in Ghana³⁸ about the need to act within the Government's AGSSIP framework. However, donors differ first on which elements of the AGSSIP program they want to emphasize and second on the best strategy to follow. Different donors have different interests in areas or themes. The European Union (EU) has found it more appropriate to provide support for building rural infrastructure (rural electrification, feeder roads). CIDA has been keen to support rural water supply and initiatives that build food security and that work in the northern areas. The Germans prefer the Brong-Ahafo Region. The Japanese have been more active in the region around Accra. IFAD and the World Bank have been supporting projects all over the country. Many donors agree on the importance of extension but differ on what they consider is the right extension strategy for Ghana. Reasons for divergences are understandable. Each donor is present in a country with an agenda and a mission that backs its lending or grant program with a finite amount of resources. Thus, although many donors are co-financing some aspects of the Bank's AgSSIP project, they continue to support independent endeavors according to their individual priorities. As expressed by one donor, donor representatives at the country level are financially dependent on and controlled by their head offices. While those in the field may be convinced about the urgent need to act in coordination, it

36. "Until recently the Consultative group for Ghana primarily mobilized resources, providing a setting for government representatives to meet with donors in Paris. Now the process contributes to greater coordination of poverty reduction activities." UNDP 2000.

37. As the analysis in Part II shows, such a level of blending of donor activities has not been reached in Ghana.

38. The World Bank, the European Union, Germany, the Japanese, FAO, IFAD, CIDA, DFID, African Development Bank are all active in the agriculture sector.

may be difficult for them to persuade their head offices to agree to a substantial change in direction³⁹.

1.37 The CDF approach of allowing the donor with a comparative advantage to take the lead does not seem to have worked well so far for the agriculture sector. FAO is supposed to be the focal support for the government's AGSSIP, yet the World Bank, being the largest player financially, seems to have continued to lead. Overall, there is still some way to go to achieve real coordination.

Box 1.3. The Improved Donor Coordination Process

World Bank: In recent years, the Bank has taken the lead in promoting increasing donor coordination at the country level in Ghana. IDA has coordinated development assistance by chairing the biennial Consultative Group (CG) meetings and through the Special Program for Assistance for Africa. The government and the Bank co-chair quarterly "mini-CG meetings" attended by all major bilateral and multilateral agencies. The mini-CG follows up on issues raised at the CG meetings, briefs participants on recent developments, and addresses partner coordination issues. Under the CDF, which was launched through the mini-CG, the government, rather than IDA, is the central manager and coordinator of donor assistance. The CDF's focus is on bringing together Ghana's partners in support of well-articulated sector programs to implement Ghana's long-term development vision. The mini-CG retains the oversight for the CDF as it progresses. Fourteen government donor groups have been established to develop strategies and coordinate donor assistance in the sectors with leadership of the groups residing with government or various donors depending on comparative advantage. IDA is also working more with IFC and MIGA on advisory services and lending, especially to catalyze foreign direct investment. IDA staff are also working closely with the IMF.

The UN System: The Ghana UN team has prepared its first collaborative framework, 1998–2000 UNDAF. The most important outcomes of the process are a renewed shared vision of commitment and substantive collaboration within the entire UN system including the IMF and the World Bank. Program cycles of UNDP, UNICEF, and UNFPA are being harmonized effective January 2001. IDA is a signatory to the UNDAF. The Ghana UN team has taken active interest in and committed itself to ensuring that both the process and output of the UNDAF exercise, starting with the Common Country Assessment, are complementary to the CDF. UN agencies are actively supporting affiliated sector/theme partners groups along which the CDF is being shaped in Ghana.

Section V. Summary Findings and Recommendations

Summary Findings

1.38 Over the past decade, Ghanaian agriculture has performed quite well with respect to increasing productivity. While this has had some impact on poverty, it could have performed better on this score, and some regions have been neglected. Significant policy reforms have been achieved, although some unfinished business remains, particularly in cocoa. Ghana has set some very ambitious goals for agriculture sector growth. The strategy to meet those goals is now challenged by a deteriorating macroeconomic situation, including interest rates that make a private-sector role in that growth difficult, at least for the moment. The budgetary allocations for the sector have not been commensurate with the ambitious targets. This has been reflected in persistent and significant shortfalls in project counterpart funding. The possible need for rationalization of expenditure in the agriculture sector in response to this situation (but only as a

39. CIDA has been active in the water sector in the northern part of the country for 25 years. The CIDA document *Ghana Programming Framework 1999/00 to 2004/05* September 1999 notes that "Much of Canada's diplomatic leverage is derived from the moral authority and public support accrued through the northern water program."

part of an economy-wide rationalization) has been partly disguised by very high levels of donor funding. Meanwhile, decentralization, while a commendable institutional shift likely to give significant longer-term benefits, is stalled awaiting the passage of legislation, and faces some resistance from the center. The central ministries are feeling their way, somewhat reluctantly, toward this shift in power and resources. Decentralization also faces inevitable teething problems. While these changes have been taking place at the country and sector level, the Bank and other donors have embarked on a CDF program, alongside the UNDAF, to improve coordination. They have embraced the government's AGSSIP⁴⁰ to the extent possible within the donor's own strategic preferences.

Summary Recommendations

1.39 **Once the immediate macroeconomic crisis is resolved, the challenge will be to broaden strategy coordination cross-sectorally toward a rural rather than agricultural focus.** Although poverty in Ghana is overwhelmingly a rural phenomenon, tackling rural poverty would require much more than sharpening the focus of the agricultural lending portfolio. A broad-based rural strategy that incorporates a multi sectoral approach and helps build the capacity of the poor through the provision of basic services like education and health will be needed. To achieve this, the following will be needed: an improved rural policy coordination mechanism; completion of the policy reform unfinished business; resolution of the persistent counterpart funding problem through increased budgetary commitment and/or sector rationalization; a rural strategy that accommodates the reality of expansion of cultivated area; increased poverty targeting; increased attention to the north, in particular to resolving the institutional issues related to cotton; and greater attention to seed supply, marketing opportunities, and rural finance for the poor. In the interests of focus, we limit ourselves to four major generic recommendations which are intentionally forward-looking and follow from the sectoral overview. More evaluative project-specific lessons are contained in the individual project audits.

1.40 **The Agricultural Policy Coordinating Committee should be reactivated, but as a rural coordinating committee rather than an agricultural coordinating committee, to broaden the attention to rural spatial issues, strategy analysis, including cross-sectoral linkages and poverty alleviation.** It should have a small secretariat and policy analysis capacity. It should have four main objectives: (i) to coordinate rural policy reform and investment interventions ensuring cross-sectoral linkages (for example, with rural roads, external markets, small urban development) and ensuring rural support tailored to location and poverty status and accommodating non-farm income sources; (ii) to address rural development strategies in the light of emerging environmental issues (such as land policy); (iii) to adjust strategy and resource allocations to optimize central agriculture sector support for the decentralization process; and (iv) to coordinate with other ministries with rural roles and improve donor coordination across rural "space."

1.41 **Within the framework of the AgSSIP, the Bank should address the issue of the scale of local funding demand and possible rationalization.** However, any sector rationalization should be only within the framework of planned economy-wide public expenditure rationalization. On the donor funding side, with donor support now covering about two-thirds of the MOFA budget, the CDF process needs to be used to stabilize and, depending on long-term government capacity, possibly reduce the percentage of donor contributions by sub-sector to manageable and predictable levels to reduce the inefficiencies of the current high funding

40. The difference and the extent of overlap between the government's AGSSIP and the Bank's AgSSIP is discussed fully in Section IV under the heading *The Borrower's AGSSIP Compared With the Bank's AgSSIP*.

volatility. The AgSSIP should also be adjusted to accommodate greater realism on implementation rate and scale given the complexity. The relationship of the AgSSIP to the evolving decentralization process should be kept under review to enable rapid, flexible response, particularly after the legislation shifts field staff to the DA payroll.

1.42 The poverty-relevance of rural interventions should be enhanced in accordance with both the government and the Bank's stated poverty alleviation strategy. The rural strategy itself should incorporate more cross-sectoral linkages. The pressing investment and institutional reform needs of the northern areas in cotton, livestock, and dryland farming systems should be urgently addressed. Research and extension services should give priority to identifying the poverty target group and their resource capacities and should improve the relevance of technologies to the poor. The new extension direction aimed at farmer organizations should ensure that the poor and women have adequate voice through those organizations. At the DA level, priority should be given to strengthening rural poverty-related and community participation-related skills.

1.43 The Bank should revisit, and agree with the leading sectoral donors, on a consultation process mechanism, procedures, and leadership arrangement acceptable to all. This should be compatible with the CDF umbrella process. The main focus would be on identifying and resolving, with borrower participation, strategic differences between donors and agreeing on processes to resolve the differences and to accommodate the inevitable diversity of objectives within the donor sectoral support program.

Part II

PERFORMANCE AUDIT REPORTS

NATIONAL AGRICULTURAL RESEARCH PROJECT (CREDIT 2247 - GH)

NATIONAL AGRICULTURAL EXTENSION PROJECT (CREDIT 2346 - GH)

NATIONAL LIVESTOCK SERVICES PROJECT (CREDIT 2441 - GH)

AGRICULTURAL DIVERSIFICATION PROJECT (CREDIT 2180 - GH)

AGRICULTURAL SECTOR INVESTMENT PROJECT (CREDIT 2555 - GH)

This part of the report consists of the audits of the above mentioned projects. The ICRs for these projects were particularly weak and omitted some of the basic data.

National Agricultural Research Project (NARP)

SUMMARY AND OUTCOME

2.1 The objective of the project was to promote accelerated agricultural growth through improvements in productivity of crops and livestock and through diversification of farming systems. This was expected to increase agriculture's contribution to rural incomes, employment, food supply, exports, import substitution, and government revenues. The aim was technology improvement through the development of the research system, especially, through improving the planning, management, budgetary procedures, human resources, and donor coordination. A particular emphasis was on the development of processes for setting research priorities and on research-extension linkages. Investment components included: improvements in research system management, human resource development, rehabilitation facilities, and direct support for selected research programs. Outcome is rated *moderately satisfactory* versus the ICR rating of satisfactory. The main process and institutional changes, especially prioritization, collaboration between institutes, and research-extension linkages, have been quite fundamental to the research system. While difficult to quantify and attribute, the project appears to have contributed to a range of new technologies including new cultivars or husbandry practices in maize, cowpeas, soybeans, cassava, plantains, millet, sorghum, pineapples, and vegetables.⁴¹ The project is not rated fully satisfactory because there were a number of weaknesses including the implementation delays, the lack of transparent lines of management and accountability, and the problems created by delayed and inadequate release of funds which raise questions about the scale of the program.

FINDINGS AND LESSONS

2.2 Fundamental institutional areas of research prioritization, research coordination, and research/extension linkages were addressed with some success. Important physical infrastructure was rehabilitated and there were significant training achievements, although, due to delays, much of the skills development came too late to impact on the immediate project. For the first time, a Ghana Agricultural Research Information System was established and linked to libraries across the country which augurs well for future growth. A number of new technology recommendations have been released, or are coming up for release, covering new varieties and improved practices in maize, cowpeas, soybeans, cassava, plantain, millet, sorghum, pineapples and vegetables. While the research/extension feedback linkage through Research Extension Liaison Committees (RELCs) was a commendable innovation, its effectiveness was somewhat limited by the fact that nearly all available research funds were already allocated, so that were limited resources to initiate new priorities.

- **Lesson 1.** *Clarity of reporting relationships is important and, for a strongly applied and spatially scattered program of research such as agriculture, the cross-sectoral and cross-professional advantages of having a national scientific research organization implementing an agricultural research project do not outweigh the disadvantages of having the responsible line ministry institutionally disconnected from the project management.*

41. While it is difficult to link any of these innovations to overall agricultural production growth, the agricultural sector has been growing by nearly 4 percent per annum since 1996. During the 1993–98 period, maize production rose at 3.5 percent per annum, rice at 10.1 percent, cassava at 3.9 percent, cocoyam at 5.3 percent, and sorghum at 3.2 percent. While such growth rates are impressive if sustained, growth rates in the prior period from the mid-1980s to the mid-1990s were, in most cases, higher. However, this fact cannot be used to argue that the support for technology generation has not had an impact because the base from which the growth of the mid-1980s took off was exceptionally low, having followed a period of substantial productivity decline.

The roles of CSIR and MOAF represented a difficult coordination act. The midterm review noted that “the SAR sacrificed, to some extent, the principles of clear, transparent lines of management, responsibility and accountability. They also clouded existing statutory and ministerial responsibilities, particularly between policy and operational aspects.” The midterm review attempted to resolve this through changing the roles of policy and coordination committees, consolidating the role and capacity of the Technical Secretariat, and making the Deputy Director General (Agriculture) within CSIR the key direct line management position. While these changes resulted in some improvements, the fundamental institutional problem remained.

- **Lesson 2.** *Focusing research on returns to the most limiting resources and on the needs of the poorer household and expressing findings in terms of likely farm level profitability are essential for effective and efficient technology generation.*

One weakness in the research program was that, with the possible exception of SARI, the overwhelming focus has been on maximization of returns to land, rather than on maximization of returns to labor or capital. While there are substantial and growing areas of Ghana where increasing productivity per unit of land area is the optimal strategy, Ghana still has substantial surplus land, most of it in rainfall zones over 1000mm. The implication of this is that, for whole farm financial profitability, the maximization of returns to labor or cash may be more important than the maximization of returns per unit of land. Regardless of whether farm management strategies should be intensive or extensive, innovation profitability should always be carefully quantified in research findings.

- **Lesson 3.** *Because of its long-term nature, sustainability in research is particularly important. To ensure sustained efficiency it is important to tailor the scale of the research program to match projected funding capacity.*

As noted in the overview section, the financial problems under the five projects audited were clearly evident and expressed by many in the field and they were long-standing. Some NGOs expressed concerns that experimental programs were not sustained to the end to adequately answer the question asked.⁴² Staff at Research Institutes often mentioned instability of budgeted resources as the most important constraint.

PROJECT DESIGN AND IMPLEMENTATION

2.3 Implementation was very slow initially, but in the end, most of the main objectives were largely achieved, although there are serious questions about sustainability.

2.4 With respect to *research management*, the process elements for setting research priorities, collaborating across programs, and achieving some degree of research extension linkage were put in place and have worked reasonably successfully. Seventeen commodity and factor research programs, each with a national coordinating committee, were established. Program budgeting for each of these was introduced. A Technical Secretariat, under the Council for Scientific and Industrial Research (CSIR) coordinated the review of research proposals and has provided a degree of quality assurance. Three of the seven agricultural research institutes was subjected to external review. While the management processes and the new structure appear still somewhat fragile, being subject to the vagaries of uncertain financing, and while the system can

42. An example given was research on composting where high labor costs were revealed as a key factor in the technology yet an NGO felt that research had stopped short of adequately addressing the labor question.

certainly not yet be described as fully effective and efficient, what exists now with respect to institutions and processes represents a significant and quite fundamental advance on what existed before. This is reflected in research staff opinion surveys⁴³ and generally confirmed by mission discussions with researchers. The most common response in interviews and research team meetings was that the project had “brought scientists together across institutions”. The Regional Director of Agriculture at Kumasi felt that the Research Extension Liaison Committee had worked well with 30 to 40 farmers and NGOs attending the Planning Sessions. A design weakness in research management was that, since the funds for the whole program were not channeled through the coordinator, the coordinator had little control over performance incentives and, as a result, monitoring by the coordinators was generally poor. Furthermore, individual coordinators did not necessarily belong to the coordinating institution and therefore were often short of transport. Another weak area was that, within CSIR at the highest level, there was weak commitment to research/extension liaison, although that commitment substantially increased at the middle levels of the system where perhaps it mattered more.

2.5 A three-year delay in finalizing the National Agricultural Research Strategic Plan, a condition of further research program disbursement, had a serious effect on the rate of implementation. Both the Bank and the borrower should have been more realistic at appraisal about how long such an exercise would take. This was both a design weakness and an implementation problem. A Computerized Project Management (CPM) analysis at appraisal — a technique that should be used more often to ensure realism in project planning — would have demonstrated that the large number of steps required for completion of this research plan could not have been achieved within the time frame. This would have triggered rethinking of either the conditionality linkage to further research program funding, or the project timing and phasing, or both. However, this weakness was responded to adequately but too late by changes made at the Midterm Review.

2.6 With respect to *human resource development*, a Human Resource Development Plan was completed and by 1999, 38 fellowships were awarded for Ph.D. degrees and 62 for MSc. degrees. The project also supported a number of short courses for staff in National Agricultural Research Stations (NARS). Main weaknesses were that trained staff returned too late to impact on the project itself and the completion rate for studies at local universities was quite low. The impact of this component lies in the future⁴⁴.

2.7 With respect to the *rehabilitation of facilities*, a significant number of laboratories, equipment, and farm facilities have been rehabilitated, Internet and Intranet systems installed, and a Ghana Agricultural Research Information System (GAINS) established. By and large, those physical facilities seen by the mission were relevant, were being used, and were of adequate quality.

43. In a post-NARP survey of scientists, Deans and Directors rated “significant contributions of NARP” at their institutions in the following order of priority: improvement in research facilities and information systems; the fostering of collaborative research among sister institutions; improved research management practices; bringing the agriculture scientific community together for sharing ideas. It was found that 55 percent of the theoretical ideal for the number of Program Coordinating Committee (PCC) meetings had been held. The theoretical ideal for each program had been deemed to be three meetings per year, which may be excessive.

44. The Region notes that the human resource development program was longterm and that it was necessary to stagger the training program so as not to disrupt the research program. This is a valid point. The audit mentions it more as fact than criticism. But earlier arrangements for the initial training batches could have resulted in somewhat more overlap with the research investment program.

2.8 With respect to the *library and information system*, the above-mentioned GAINS has made it possible to make agriculture research information accessible to researchers to improve the efficiency of literature reviews and to minimize duplication of research. It also enables linkages with international institutions. Given the state of information technology before, it would be difficult to overstate the fundamental importance of this institutional improvement for research effectiveness and efficiency. It may stand as the most important contribution of this project.

2.9 With respect to *direct research program support*, from 1992 to 1995 the project supported a planned program of research for rice, pineapple, plantain, and soybean. These were selected based on an assessment of priorities and the priorities of other donors already supporting research. The selection appears to have been sound, a reasonable balance between growth and equity considerations. From 1996, 17 additional priority research programs in other areas were supported. An implementation weakness in support for research programs was that the vehicles arrived very late in the project due to slow procurement⁴⁵.

2.10 During the project period new cultivars and/or husbandry practices were released for maize, cowpeas, soybeans, cassava, plantains, millet, sorghum, pineapples, and vegetables. However, there is insufficient data to indicate adoption rates because the beneficiary survey did not differentiate by specific innovation.

2.11 Weaknesses included counterpart funding problems; seriously delayed implementation due to delay in the National Agricultural Research Plan, which was the trigger for a substantial amount of research funding; management difficulties related to the awkward juxtaposition of responsibilities between CSIR and MOFA; and some neglect of attention to innovation profitability relevant to the poorer farmers, although this was better in the research program for the north.

2.12 Prior to appraisal some discussion is evident from the project files on whether the project design should have been less focused on traditional commodity and thematic program areas and more focused on a zonally based integrated farm systems approach. Both views have merit. However, the mission's assessment is that, while there is a need for a much greater emphasis on a farm systems approach in agricultural research in Ghana, in practice it was probably realistic under the circumstances at the time to play safe and not go for such a radical departure. Within the project as designed the farm systems elements were introduced through the zonal committees. The extent to which it worked appears to have been variable, but the work at SARI is quite impressive and was commented on favorably by NGOs interviewed. For the future, however, the option of swinging towards a zonal farming systems based organizational structure should be very seriously considered. The time may now be right.

RELEVANCE

2.13 Relevance is rated *substantial*, although this rating is considered a marginal call. The project as a whole, focusing on a key engine of growth, was relevant to the borrower's agriculture sector strategy which had, and still has, a strong technology orientation. It was consistent also with the Bank's overall and country sector strategy. However, as noted earlier, the mission had

45. The region explains that the arrival of the vehicles did not affect the new commodity programs. It was rather that the vehicles had already been allocated to different research institutes before the midterm review. The additional vehicles that were ordered for the new research programs that could not access existing vehicles arrived late due to the long tendering proceedings. However, the audit argues that, whatever the reasons, lack of vehicles did present problems to the new research programs.

some concerns about the relevance of some elements of research at the experimental program level due to the limited attention to farm-level profitability, returns to labor, and farm systems issues.

EFFICACY

2.14 Efficacy — the extent to which the objectives were achieved — is rated *modest*. Major objectives were met but with significant shortcomings. As in most cases, there is little hard evidence directly linking research recommendations to production outcomes. Nevertheless, significant yield increases have been sustained. Areas of concern about efficacy — warranting the “modest” rating — relate to the implementation delays, including the delayed research plan, concerns about the attention to farm profitability at the experimental level, the problematic management structure with the two agencies — CSIR and MOFA, the management weaknesses related to the monitoring of subprojects by deans and directors, and the frequent late release of funds. Notwithstanding these weaknesses, and questions about sustainability addressed later, the main process areas of research, especially prioritization, collaboration, and research-extension linkages, achieved considerable progress and represent fundamental changes for the research service in the way of doing business.

EFFICIENCY

2.15 Efficiency is rated *substantial*. No overall project economic rate of return (ERR) was calculated. However, two case study analyses for maize, and cowpea, found IRRs of 50 percent plus, and 52 percent, respectively. (Another analysis of pineapple found that it was too early to assess the ERR but the limited available data suggest a fully adequate ERR would be likely.) Given that most ex-post ERR analyses of agricultural research in the past, including those in Ghana, have yielded high ERRs, and given that the two case studies confirm such ERR levels, the mission considers it very likely that the ERR, in aggregate, was well above the opportunity cost of capital. This is despite doubts about sustaining the project levels of research service support in the longer-term related to the counterpart funding issue because, at the research level, this would relate more to incremental future innovations rather than to sustaining existing innovations. The improvements in management systems do appear to have improved overall system efficiency, particularly the communications and information system improvements.

2.16 Two areas are of concern with respect to efficiency, one largely design, one largely implementation. First, given long-standing counterpart funding problems, it would probably have been more efficient to reduce the scale of the research system through station or program rationalization.⁴⁶ The high rates of return to individual research programs still justify a “substantial” rating for efficiency but this efficiency was reduced below what it could have been by the borrower’s inability to consistently sustain funding. Second, there are questions about the contribution to efficiency at the farm level. The mission was disappointed in the limited extent of financial analysis of experimental results. There were very few financial tabulations in the research experiment documentation provided to the mission. Discussions with staff, particularly at the Crops Research Institute (CRI), suggested a strongly technical orientation. Moreover, even in the North, at SARI, where there appeared to be a far greater focus on profitability and farm systems issues, the standard extension recommendation for maize fertilizer has remained the same for about 20 years, over a period in which input/output price ratios have been changing

46. Much research towards the adaptive end of the spectrum does not require offices, labs, and research station land, it requires good transport and farmers fields.

substantially. Fortunately, the mission found a considerable degree of flexibility among extension staff in interpreting recommendations in the field.

INSTITUTIONAL DEVELOPMENT IMPACT

2.17 Institutional development impact is rated *substantial* — being expected to make a significant contribution to Ghana's ability to effectively use human, financial, and natural resources although there were areas of weakness. The ICR also rates institutional development as substantial. At the Institute and program level, the setting up of research oversight structures, in particular the Program Coordinating Committees (PCCs) and the Research-Extension Linkage Committees (RELCs), was a significant institutional achievement. At the higher institutional levels, the Agricultural Research Policy Coordinating Committee (ARPCC) never functioned properly. Furthermore, the awkward organizational structure, with formal responsibility for research in the hands of the Council for Scientific and Industrial Research (CSIR) yet with responsibility for the agriculture sector in the hands of the Ministry of Food and Agriculture (MOFA), caused difficulties. The process of priority setting itself was a significant institutional achievement although there were initial difficulties with an unduly complex methodology.

2.18 Linkages with the CGIAR system appear to have been satisfactory. There have been a number of links in the area of crop breeding activities. For example, SARI collaborated with IITA with respect to soybean germplasm. CIMMYT has played a role in capacity building in the social science area. The project Midterm Review recommended some further strengthening of these CGIAR links by seeking additional professional support for specific programs. In fact, ICRISAT and IITA scientists participated in the Midterm Review.

SUSTAINABILITY

2.19 Sustainability — the resilience to risk of net benefits over time — is rated *unlikely* versus the ICR rating of likely. The finding is common to four of the projects that were audited in this package. The sustainability concern arises from three findings. First, typically counterpart funding was between 30 percent and 50 percent of what was both required and projected. This suggests that the borrower was either unwilling or unable to support the project at the scale designed. Second, in the post-project period, funding has indeed fallen substantially below what is needed to continue the research programs at the previous level, thus confirming the conclusion above. Third, donor funding as a whole now represents about two-thirds of total development and operating funding for agricultural research. Yet, there is no evident phased or graduated exit strategy. If Bank and donor funding were relatively stable over time, this would be less of a concern. But it has not been stable. For example, currently there is about a two-year period of zero funding from the Bank pending the next project. This is inevitable and it exposes the borrower to potentially very large variations in own budgetary demands, which the relative "stickiness" of government budgetary allocations cannot rapidly respond to⁴⁷.

BANK PERFORMANCE

2.20 Bank performance is rated *satisfactory*, same as the ICR. Preparation and appraisal were thorough. The Bank did a good job in pulling in international experience. However, it was unrealistic to expect the National Agricultural Research Plan to be completed within one year of

47. The region has explained that there are a number of plans being developed for raising funding for research including further levies, revenue from seed production, cost recovery for public services, and a competitive research grant scheme. These will, indeed, help sustainability but it is too early to assess the likely impact of such proposals.

effectiveness. The linkage of this to the approval of the later portion of project research program funding created a logjam from which the project was barely able to extricate itself. Supervision was satisfactory and continued the practice of feeding in international experience and offering the experience of the Bank Thematic Groups. However, a weak area of supervision appears to have been in the Bank's response to the counterpart funding issue, where the files do not suggest a sufficiently pro active stance. Letters routinely expressing concern about it were mostly directed to those managing the research program who had no control over the counterpart funding allocations and naturally wholeheartedly agreed with the Bank position. At some point, a restructuring should have been seriously considered to better match project scale with counterpart funding capacity.

BORROWER PERFORMANCE

2.21 Borrower performance is rated *satisfactory*, but is considered marginally so. The ICR rates it as satisfactory. The failure to provide adequate counterpart funding, while not a fault of the implementing agencies, was a significant handicap to the project, as indeed it was to the other projects. However, it is outweighed by the generally satisfactory implementation. In another area of implementation, the delay in developing the strategic plan was partly due to weaknesses in borrower management of the process. However, overall, and after considerable implementation delay, the borrower was able to implement most of the project.

National Agricultural Extension Project (NAEP)

SUMMARY AND OUTCOME

2.22 The objective of the project was to achieve sustained increase in agricultural production and improve the nutrition and incomes of smallholder households through enhanced adoption of technology. The project was to be one of the main vehicles for accelerating growth of the agricultural sector under the Medium Term Agriculture Development Plan. It was to significantly strengthen the services of the Ministry of Agriculture through logistic, infrastructure, and human resource development support and to contribute towards facilitating increased productivity of farmers, particularly smallholders. The main components included strengthening the extension service in all 10 regions with infrastructure, transport, equipment, and training; research/extension liaison; strengthening the technical departments of MOA; and, supporting human resource development. Outcome is rated *moderately satisfactory* versus the ICR rating of satisfactory—the project is expected to achieve most of its major relevant objectives efficiently, but with significant shortcomings.

2.23 Significant achievements were that a unified extension service was established within the new Ghana decentralization framework, links with research were improved through the Research Extension Liaison Committees (RELCs), extension agent training became more regular and institutionalized, adaptive on-farm trials were more systematically implemented, and extension test plots were established. However, in the absence of a baseline survey, it is very difficult to demonstrate impact or attribution. In the terminology of logical frameworks, evidence on outcomes has to be based largely on assumptions related to delivery of project inputs. The impact evaluation, within its limitations, suggests significant adoption and yield increments but finds that the nutrition objective was not achieved. As might be expected, it finds that the nutrition issue is more complicated than simply food supply. The mission had doubts about the extent to which extension was able to help the poorest, as also did some NGOs. As is frequently the case with extension projects, the mission itself during field visits was often directed towards the better farmers, and extension staff mobility constraints, and relatively high costs of recommended

technologies seemed likely to militate against a substantial focus on the poor. Nevertheless, what the mission observed was by no means total exclusion of the poor. A number of poorer farmers were present at focus group meetings and quite a few had had recent extension contact.

2.24 The size of the extension service is questionable given the persistent counterpart funding problem and therefore the capacity of government to sustain the extension agent/farmer ratio — an issue that will now revert to the District Assemblies. There are also questions about whether the recent shift towards greater use of farmer organizations should not have taken place earlier under this project given the quite widespread existence of farmer organizations and given weaknesses with the contact farmer approach and the long-standing financial sustainability issue.

FINDINGS AND LESSONS

2.25 With respect to *inputs*, as defined in logical frameworks, a unified extension service was established, links with research were improved, extension agent training became more regular and institutionalized, adaptive on-farm trials were implemented, and extension test plots were established. Agricultural Extension Agents are now less involved in the procurement and distribution of inputs following privatization of inputs supply. The project also contributed significantly towards the early stages of the decentralization of MOFA. With respect to *outputs*, the January 2000 Impact Evaluation of National Agricultural Extension Project (NAEP) provides some impact evidence but, because of the lack of a baseline survey and analysis of relationships, demonstrable attribution of adoption rate changes to the project or extension service inputs is problematic. With respect to the *production and income objectives*, crop cutting surveys were done measuring yields of 11 crops but the baseline yield on which the increments were calculated was taken from different sources of data — mainly national sample surveys. The incremental productivity found from the survey has not been correlated with number, frequency, or type of extension contact.⁴⁸

- **Lesson 1.** *Where public resources are severely limited for extension services, it is essential to develop, as early as possible, a phased strategy to increase the role of cost recovery, private sector, community groups, and NGOs in supporting extension services to enable concentration of public funds on the poorer farmers.*

The intent had existed for some time, even prior to this project, to shift in the direction of increased cost recovery to enable the focusing of extension where public expenditure is most needed and efficient. The fact that this project exhibits few achievements in this area is not a strong criticism since this is a particularly challenging shift in strategy to introduce. There are relatively few successful models. Nevertheless, a *phased implementation strategy* to shift in this direction, including intermediate steps, would have been much better than simply the loosely stated *intent*, which is still evident in the new AgSSIP project⁴⁹.

48. The yield data in the impact survey itself is certainly plausible, being fully consistent with the available aggregate national production data. As an example for a main crop, the incremental production of adopters over non-adopters found in maize over the years 1998 and 1999 was about 50 percent — on the face of it a significant increment, but it is not possible to calculate the cost benefit ratio, or how it changed over time and space, since what was defined as adoption in the survey covered a wide range of package elements.

49. The Region argues that the strategy to increase cost recovery is not a “loosely stated intent” but that there is a phased program for introducing the provision of extension through farmers organizations, private firms and NGOs. While we acknowledge that this is indeed the plan we still do not see a sufficiently detailed phased program in the AgSSIP document to guide action.

- **Lesson 2.** *To place the knowledge transfer process increasingly in farmers' own hands, redirection of extension is needed towards building farmers' capacity to make decisions and developing community learning processes. More support is needed on process and capacity building and less on traditional technology transfer.*

Both effectiveness and efficiency need to be pursued in the design of extension strategies. NGOs appear to be moving somewhat faster in the direction suggested under Lesson 2. It is not a major weakness that extension did not shift in this direction earlier since this is a new direction for a public extension service. Nevertheless, it is now important to develop skills and incentives for this shift and to carefully monitor progress.

- **Lesson 3.** *Incentives are needed to encourage extension agents to work with the poor. Rigid, target-based approaches to achieve rapid adoption tends to work against a pro-poor strategy. While the less poor should certainly not be abandoned, some shift in focus is warranted, including more attention to livestock, a key enterprise of the poor.*

Notwithstanding the stated poverty focus of government's strategy, the extent to which the extension service has directly addressed poverty is very limited, although, of course, there are many poor in rural areas. In the Sectoral Overview section of this report, opportunities for pro-poor strategies and project design are discussed. Many of these are areas related to shifting the future research and extension strategy in a more pro-poor direction.

- **Lesson 4.** *Careful projection of borrower financial capacity to sustain counterpart funding in the sector on the basis of past commitments and fiscally realistic increments is important for sustainability.*

Financial sustainability concerns are discussed more fully in the Sectoral Overview.

PROJECT DESIGN AND IMPLEMENTATION

2.26 Project design was satisfactory. The traditional training & visit system (T&V) was applied flexibly while introducing a number of institutional and process improvements into the Ghana extension service. In a number of other borrowing countries, OED has expressed concerns about the relevance of the T&V system, finding it too rigid, too top-down, of modest impact, and high cost. However, the mission was quite impressed with the flexibility of application of T&V in this case, and, based on individual and group discussions with farmers, did not find the approach to be excessively rigid or top-down. The technologies on the menu covered a wider range than many quite narrow T&V approaches seen elsewhere.

2.27 At the central ministry level, technical departments were strengthened through Subject Matter Specialist (SMS) training. Nine staff were sent on overseas Masters Degree training and 58 on short courses. 79 staff went on local degree training. A Management Information System was developed and the Information Services Unit was developed and became active in dissemination through radio and TV, although the mission found limited surviving evidence in the field of information leaflets.

2.28 With respect to project impact, the main *positive* features identified by the mission include the following:

- The Impact Evaluation showed the percentage of farmers contacted to be high — although we have doubts that nationally it reached as high as the nearly 90 percent annually found in

the survey. Mission observations from focus group discussions suggested contact rates over the previous year of around 40 percent,⁵⁰ but this percentage is itself probably biased upwards by the location of such meetings which, for logistical reasons, were not in the more remote locations. The 1997 Beneficiary Survey found that about 80 percent to 100 percent of farmers felt that output produced and output sold had gone up as a result of extension but that what they needed also were inputs and credit. They were not happy with the long time taken to respond to feedback on problems. RAEOs in the survey said that the new system was significantly better than the old where extension staff were debt collectors for inputs, where there was no regular training and no relationship with research.

- While this does not demonstrate what the project contributed, Ghana's food production increase index for 1996–98 over 1989 to 91 was the sixth highest in the world.⁵¹ However, the aggregate national data also show that the recent yield increments over about the last six years for most crops have been lower than the earlier yield increments over the previous six years. But, as noted earlier, given the low base in the earlier period, it would not be valid to conclude that there was no project response.
- The T&V system was adopted in a flexible manner as evidenced by the findings of the impact survey showing a range of on-farm, contact farmer, and group meetings.
- The mission observed a fairly wide range of technologies being offered and noted that a significant proportion of extension advice appeared to be on higher value vegetable crops,⁵² possibly implying greater flexibility than has been common in T&V systems. It observed that a significant proportion of farmers had seen a demonstration of some sort.⁵³
- There was closer research/extension liaison through the Research Extension Liaison Committees, even though it was clear that the functioning of RELCs still exhibited weaknesses and sustainability problems. For example, the 1997 Beneficiary Assessment found that Regional Agricultural Extension Officers thought RELCs effectiveness to have been mixed partly because, although problems were identified, they were often not actually tackled. One NGO interviewed, who was on the RELC, was quite positive about the benefits.
- The demonstration mini-plot program appears to have worked quite well. In 1993, there were 22,000 mini-plots. While the number of demonstrations in later years has been substantially lower, the mission came across quite significant numbers of farmers who had seen a demonstration plot and some claimed to have adopted the technology.

2.29 The main impact features generally on the *negative* side were:

- In the absence of better impact data, there remain significant uncertainties about the aggregate *quality* of the farmer contacts and some questions about quality arising from the 1997 Beneficiary Assessment.

50. For example, at a focus group meeting in Ejura 10 out of 27 farmers claimed to have had contact with an extension officer during the previous year. Similar proportions were found in the north. However, it is likely that such meetings of non-randomly selected farmers biases upwards the contacted percentage by omitting those in remoter locations and probably, therefore, the poorer households that extension agents (as well as missions) find it difficult, and costly, to visit given transport problems.

51. World Bank WDR 2000 p288.

52. For example, a farmer at Ejura with 2.5 acres listed rotations, and husbandry and variety on cowpea, eggplant and maize as four things that he had recently discussed with an extension agent. Elsewhere, crop diversification messages included: grain borer treatment, treatment of plantain suckers, split corm multiplication in plantain, miniset in yams, live stakes in yam and black pepper, vegetable husbandry, etc.

53. For example, at Ejura again, 20 percent of farmers had seen a "no till" demonstration and most of those had then tried "no till."

- The training elements of the T&V system were found, in the 1997 Beneficiary Assessment, to be pre-determined and therefore insufficiently flexible to respond to current problems.
- Some extension recommendations (e.g. fertilizer in the north) have stood for about 20 years. This cannot have been an optimal recommendation across the whole of that period and suggests continued weaknesses in research/extension interaction.
- Cotton in the north faces challenging institutional and policy issues with implications for poverty alleviation, which are discussed more extensively in the Sectoral Overview. With extension in the hands of the ginning companies, it has proved impossible to achieve a broader farm systems perspective.^{54 55}
- With respect to the explicit *nutrition objective* of the project, the surveys did not find improved nutritional status among adopters compared to non-adopters, suggesting that the nutrition problem may be more associated with poor knowledge than food availability per se.⁵⁶ This was an ambitious, and arguably unrealistic, objective within the time frame.
- The motorbikes procured were not durable and needed too much maintenance — hindering mobility. This raises questions about tender specifications⁵⁷.
- The human resource development component experienced significant delays in the early years. Ethnic conflict in the North affected project implementation in some locations. Progress on technologies particularly relevant to women appears to have been somewhat limited.
- While the unification of the extension service appears to have been beneficial, the professional backgrounds of staff is inevitably slow to change, even with the retraining provided, and a number of veterinary and livestock extension staff were finding it difficult to convert to a focus on crop husbandry and vice versa.
- Due to the rotation and optimization of extension staff distribution by zone, some staff end up in areas where they do not speak the local language. Here, they generally use a young villager to translate. This may have some advantage in leaving behind some knowledge, but overall is probably not very operationally efficient.

2.30 NGOs interviewed had mixed reactions on the quality of the extension service, some having quite favorable comments, others expressing concern about the quality of advice and about the mobility of staff, particularly with respect to reaching the poor and more fragile areas. But overall, we would characterize the reaction of NGOs to the quality of the extension service as satisfied to moderately satisfied. However, this reaction needs to be interpreted knowing that a

54. For example, in research experiments a cotton/cowpea mixture has been giving the same cotton yields as a pure cotton crop so that the cowpea is a bonus, but the companies are not interested in pursuing this.

55. The region explains that the Bank did not enter the cotton dialog since Agence Francais de Development was negotiating to support the cotton industry - a project that has now been appraised. We acknowledge this development but would note that the NAEP was being prepared and appraised about 10 years ago.

56. One finding of some significance in the impact study (although not noted there because, in a number of tables, percentages were tabulated across the less informative axis) is that the percentage of house ownership was substantially higher for adopters of purchased inputs compared to non-adopters, supporting the view that it is mainly the more wealthy who are able to buy purchased inputs. This reinforces the point made elsewhere about the importance of research and extension giving adequate attention to the lower-cost end of the production function.

57. The Region argues that the problem of motorbikes was awarding the bid to the lowest evaluated bidder rather than deficiencies in the specifications. We accept that specifications was a difficult challenge and that there was no Ghana experience with the brand supplied but we would still argue that this is essentially a specifications issue.

number of NGOs utilize the extension service themselves as a key element in their technical support system since they do not have adequate technical skills of their own.⁵⁸

RELEVANCE

2.31 Relevance is rated *substantial*, but with one significant area of reservation. Certainly, *improved technology applied at the farm level is highly relevant to growth and equity in Ghana*. The only doubt is whether sufficient resources have been directed towards the poorer farmers to ensure the pro-poor growth strategy that is the objective of both the government and the Bank. As noted above, the mission's observations were that, across both the Extension and Research Projects, there was some bias in technology dissemination towards the better-off farmers. Reversal of this bias needs to start with research at low input levels and financial analysis of treatments and recommendations.

EFFICACY

2.32 Efficacy is rated *substantial*, although the data on impact is weak and we are giving a significant benefit of the doubt on the grounds that production growth rates for important crops have been recently running (from 1993 to 1998) at reasonably healthy rates.⁵⁹ One objective that was not achieved was improved nutrition. As noted above, this was a commendable, but arguably unrealistic, objective in the short-term without careful analysis of the causes of malnutrition in the different regions and project design that addressed these. A weakness with respect to efficacy has been in the complementary areas to extension of seed supply and credit. With respect to improved seed supply, the mission encountered a number of complaints from researchers, extension managers, and NGOs about the performance of the Grain and Legumes Board with respect to its responsibility for supply of improved seed. The mission did not have the resources to follow this up further, but if the reports are correct, these problems represent a serious constraint both with respect to seed production capacity and the seed certification process itself. It seems likely that there are not only investment needs but policy and institutional reform challenges. This issue does not appear to be addressed in more than a peripheral way within the new AgSSIP. With respect to rural finance, notwithstanding some significant improvements supported under the Rural Finance Project, rural credit remains at extremely low coverage levels for a country aiming for a 6 percent growth rate in the agriculture sector. As with many of the Bank's borrowers, fixing the institutional issues in rural finance has been better for the institutions themselves than for rural producers, especially the poorer producers. There remains substantial unfinished business in this area. The Bank is aware of this and working toward an intervention to address this issue..

EFFICIENCY

2.33 Efficiency is rated *modest*. No economic analysis was done by the Implementation Completion Report. This could, and should, have been attempted. In the absence of this, and given the findings of modest farmer contact leverage through groups because Field Level Staff were working more with individuals, the evidence seems to point to only fair levels of operational

58. This does present some dilemmas. For example, an NGO with a strongly organic farming approach is working with, and helping to train, extension agents in one location on a predominantly artificial fertilizer avoiding strategy, while in a neighboring location artificial fertilizers are presumably being pushed strongly by an extension agent following the standard recommendations. The increasing use of menus and multiple treatment-demonstrations somewhat resolves such dilemmas.

59. For example: cassava 3.9 percent, cocoyam 5.3 percent, plantain 8.8 percent, maize 3.5 percent, rice 10.1 percent, sorghum 3.2 percent.

efficiency. The high cost and reported problems with transport is also a significant factor which would contribute to bringing down levels of economic efficiency as would the problems with input supply. In addition, the low pay for extension staff (omitting the provided house, they have hovered close to the \$1 per day global absolute poverty level) raises questions about the likelihood of operational efficiency, although very low costs alongside merely modest benefits still could be found economically efficient in some respects. With respect to the efficiency of reaching the poor, the fact that the mission found many of its own field visits to be biased towards displaying the better-off farmer's achievements probably reflects a similar bias in overall extension support. The finding that, in at least some cases, better-off farmers are rewarding extension staff with gifts of produce to keep servicing them also supports this impression. (This is not necessarily bad since it is an intermediate step to charging for extension, but it does have implications for reaching the poor.) This rating is a judgment call given the weak data, but, in the absence of better data, and against often disappointing ERRs of T&V-type systems elsewhere, we would be giving substantial benefit of the doubt to rate efficiency more than modest.

INSTITUTIONAL DEVELOPMENT IMPACT

2.34 Institutional development impact is rated *substantial*, as in the ICR. The decentralization and the unification of the extension service appear to be improving institutional performance, although this is difficult to demonstrate empirically, and there have been a number of teething problems. These include the fact that the decentralization has not yet undergone the final step, which is the planned legislation to switch responsibility for salaries to the District Assemblies.

2.35 In this respect, it is worth noting that giving District Assemblies control over extension carries with it the risk — or arguably even the benefit — that the DAs could decide that extension is a lower priority activity than, say, health clinics or schools, and they could unilaterally substantially reduce the number of extension staff. However, provided adequate local representation, this would have to be seen as an appropriate institutional development should such a set of priorities emanate from adequate local consultation and political processes. One cannot offer processes giving local responsiveness through decentralization without also accepting the consequences! But the mission did not come across any evidence that DAs were likely to reduce support for extension.

SUSTAINABILITY

2.36 Sustainability is rated *unlikely*, though the ICR rates it as *likely*. The finding is common to four of the projects that were audited in this package. It is discussed more fully under the section on the National Agricultural Research Project and will not be repeated here beyond noting that cost recovery in extension is an increasingly high priority but, with decentralization, this becomes more an issue between the District Assembly and the farmers than between MOFA and the farmers. The number of successful cases of significant cost recovery in extension globally are quite limited, but obviously, the area of specialist cash crop extension services is the place to start. In the Beneficiary Assessment, 30 percent to 90 percent of farmers said they would be willing to pay something for extension services. As noted above, the mission did find some evidence that a few farmers are, in fact, already giving produce to extension staff.

BANK PERFORMANCE

2.37 Bank performance is rated *satisfactory*, as in the ICR. However, the Bank over-estimated the capacity of the borrower to come up with counterpart funding and inadequately analyzed the issue of financial sustainability, raising questions about the scale of the project. However, on

balance, we agree with the Implementation Completion Report that most of the appraisal was thorough and the original objectives remained valid, clear, and realistic throughout project implementation. The composition and services provided by Bank missions during supervision were satisfactory and considerable flexibility was shown in supervision. However, greater pro-activity, possibly even including adjustment of project objectives and design, should have been shown with respect to the counterpart funding issue. The Midterm Review made a number of sound recommendations in areas related to: inter departmental cooperation, the RELC approach, planting material multiplication, the expansion of credit, the low numbers of livestock demonstrations, and crop-cutting surveys. Perhaps the most important positive aspect of Bank performance was the flexibility in the application of the T&V system, a flexibility which, in the environment of that time within the Bank, was not easy to uphold.

BORROWER PERFORMANCE

2.38 Borrower performance is rated *satisfactory*, but we would consider this marginally so. The ICR rates it satisfactory. The borrower demonstrated commitment at the ministry level in managing the project. However, as noted elsewhere, there were significant problems with counterpart funds, which resulted in delayed civil works and procurement of some of the local services. These were partly associated with changed macroeconomic circumstances. There were problems in some cases with local contractors. However, on this issue, by and large, the borrower reacted appropriately terminating and re-awarding contracts.

National Livestock Services Project (NLSP)

SUMMARY AND OUTCOME

2.39 The primary project objective was to increase meat, egg and milk production, raise producer incomes, particularly those of small holders, and reduce the financial burden on the government of services it provided to the livestock sub-sector. Considerable progress was achieved in implementing policy and institutional reforms under the project. However, no reliable statistics exist to show project impact on producer incomes. Though available data does show an increase in production of animal products, it is difficult to assess how much of that increase was due to NLSP, since no comprehensive performance indicators were established under the project. It is also not possible to reach a conclusive judgment on how much the project helped reduce the financial burden on the government. (See para. 2.46, below.)

2.40 Overall, the picture on achievement of results is mixed. Necessary infrastructure and capacity was put in place at the Open Nucleus Breeding Centers. Significant progress was achieved in development of improved breeds of livestock (sheep, goats, pigs, rabbits) and improved varieties of fodder, though dissemination of results to farmers was weak. Although full cost recovery of veterinary drugs sold to farmers was introduced, progress on privatization of veterinary services was insufficient (see Box 2.1). The central and five regional laboratories were rehabilitated and equipped to produce bacterial vaccines and analyze samples for disease control and treatment. However, the mass vaccination of livestock against epidemic diseases was carried out with varying degrees of success.⁶⁰ Database for control of trypanosomiasis and tsetse was established and the tsetse control program started in earnest in March 1995. Performance of the pilot dairy development scheme started in the Accra-Tema area and the stock water development

60. Back to office report, July 1995 notes that the vaccination program in 1994 was beset by the ethnic conflict in the North and lack of funds and vaccines. Consequently the vaccination cover was very low and the incidence of disease much higher in 1994 as compared with 1993.

schemes was however poor.⁶¹ Issues of control of guinea worm disease in stock water development schemes also remain to be resolved. The Meat Marketing Board, which was operating at a major loss, was closed and liquidated. On balance then, project outcome is rated *moderately satisfactory* versus the ICR rating of “partial.”

FINDINGS AND LESSONS

- **Lesson 1:** *Participatory extension approaches that emphasize technology dissemination and action learning on-farm can greatly increase productivity in the livestock sector. Government and non-government extension agents can serve as facilitators.*

Improving extension and education is the most urgent need of the livestock sector in Ghana for several reasons. First, a major gap exists between technology developed in the laboratory and available to the farmer. Improving animal production and forage development on-farm requires dissemination of the already developed health, breeding and feeding technologies. Second, customary and religious beliefs in rural Ghana have a major influence on husbandry practices. Farmers need to be educated to think of livestock rearing more as an enterprise and less as a way of life (footnote 64). Third, significant impact on the lives of the poorest is limited because currently the diffusion of improved breeds is predominantly done through the rich farmers. It may be argued that this is initially necessary because of the scarcity of genetic material.⁶² However, small and poorer farmers can be involved in breed improvement through the group approach promoted through extension. The audit further notes the challenge that the Borrower faces in improving extension since it would mean improving coordination between Animal production, Veterinary Services and Extension Services—departments which have in the past had little incentive to work together. Further as shown by the audit of the Agricultural Extension Project, the effectiveness of the unified agricultural extension service to deal with livestock issues may be limited for some time until skills are built.

- **Lesson 2:** *The short term impact of public sector services reforms may be negative on the poor and need to be forecast even where solutions are not easy. Intermediate safety net measures or cost-reducing mechanisms such as group purchase may be essential during the reform process when shifting from state supply to privatization in the provision of livestock services.*

Promoting privatization reforms along with pursuing the poverty alleviation objective can sometime be contradictory in the short run as seen from the experience of Ghana. Ideally, one way of raising the income level of the poorest would be to encourage them to undertake livestock farming, particularly of small ruminants (see para. 2.45). However, the wider reform objective of promoting privatization can make the situation difficult for the poorest. The experience of Ghana shows that privatization and the current macro economic situation have created problems with respect to availability of medicines and vaccines in Ghana. Field visits revealed that medicines are often not available. The large devaluation of the Cedi has also made them very expensive and put them beyond the reach of the poor. This has major implications for the ability and willingness of the poorest to go in for livestock farming.

61. The performance was poor because of two reasons. First, there was delay in starting the stock water development component because of the tribal conflict in the Northern Region. The program was scaled down considerably at the MTR because of the resulting cost escalation and the reduction in beneficiary contributions from 25 percent to 10 percent of total costs. Second, the construction of some of the ponds had technical problems.

62. The project recruited a number of participating breeders (mostly large farmers) into the livestock breeding program for multiplying the improved breeds and selling the progenies as breeding stock to other farmers.

PROJECT DESIGN AND IMPLEMENTATION

2.41 The design was complex and the project made an attempt to deal with sub-sector wide issues through a strategy that combined institutional and policy reforms with an investment program. Six project components supported this approach: animal health control, feed resource development, livestock water supply, breed improvement, pilot dairy development scheme, and institution building. Restructuring animal production and health services to develop and improve the capacity to provide animal production, health control and treatment services was a major part of institutional reforms undertaken under the project. The project also provided for the closing down of several government livestock farms not required for research or breeding to allow for a more efficient use of limited government budgetary resources.

2.42 Ex-post analysis reveals several weaknesses in project design. First, the Community Livestock Worker (CLW) program was introduced as one of the means of privatization of health services with little attention to its compatibility with other existing programs, particularly the unified extension service (Box 2.1).⁶³ Second, the constraint that customary and religious factors impose on the development of livestock rearing as an industry were not clearly responded to in project design. The long term impact of improved breeds is likely to be limited if cultural taboos against castration of animals do not change. Hence, a greater emphasis on extension and demonstration was required than was provided for in the project.⁶⁴ Third, the duration of the project was too short for a long gestation sub-sector like livestock.

2.43 The project was appraised in May 1992, became effective in April 1993, and closed in December 1999, one year behind schedule. The implementation experience was not smooth in part due to factors beyond the control of the implementing agencies: the outbreak of ethnic violence in the north during 1993–94, disease⁶⁵ and natural disasters, irregular and untimely release of counterpart funds from the Ministry of Finance.⁶⁶ The complexity of project design aggravated the implementation problems. The project's implementation required considerable coordination between various government agencies. It was to be managed by the MOFA and implemented by the Animal Production and Veterinary Services Departments working in

63. The Region in its comments notes that the CLW scheme was expected to complement the work of the extension agents as the number of these agents was limited. They further note that the CLWs were supposed to carry a stock of simple animal health first-aid veterinary supplies, which they were trained to apply. Living within the farming communities, they were to bring first aid livestock health services nearer to livestock producers and being non government workers, they could charge for the supplies and their services.

64. The audit mission findings are supported by a recent study which has shown that a major constraint in promoting a culture for livestock farming in Ghana are social and cultural factors. The study revealed that most farmers did not house male animals separately from female ones, weaning was largely not practiced, household refuse such as cassava, plantain, and yam peels instead of improved feed was generally fed to animals and feed processing and preservation in the form of hay, silage, or dried off-farm and on-farm crop residues was not practiced. Lack of knowledge of disease and lack of drugs ranked as the predominant causes of death among animals. Hence the need for education and adaptive trails in the form of interventions. *Study of Traditional Small Ruminant Production Systems in two districts of Central Region, Ghana Phase I: Diagnostic Survey. June 1995. Report Submitted by the Department of Animal Science, School of Agriculture, University of Cape Coast, Ghana to the National Agricultural Research Project (NARP), Accra.*

65. The World Bank provided emergency financial assistance under the NLSP to the tune of \$300,000 to contain the outbreak of African Swine Fever that occurred in the Greater Accra and Central Regions of Ghana in 1999. The disease can wipe whole populations of pigs if not controlled in its early stages by destroying all pigs located in the affected pockets.

66. Counterpart funding has posed a major problem, severely constraining project activities, particularly during the years 1994 and 1997–99. Only 50 percent of the counterpart funding for 1998 was provided by the government. This slowed project implementation particularly the recruitment of participating breeders and the dissemination of improved fodder production technology.

collaboration with the Ghana Irrigation Development Agency responsible for stock water development, Crop Services Department for seed production, and Animal Research Institute for range and forage development. The Project Coordinating Unit in MOFA was to arrange procurement and disbursement under the project, playing a service role. The fact that the implementing agencies were not conversant with Bank procedures for project implementation led to slow project start up.

2.44 Procurement performance of the project was unsatisfactory during some years (1996–97), though it is reported to have improved later. Some serious mishandling of procurement occurred in the project. An independent procurement review⁶⁷ confirmed that the project management had made “deliberate, sustained, and systematic efforts” to avoid competitive bidding by breaking down procurement contracts into small lots of less than \$20,000 in order to qualify for local shopping. Even under local shopping procedures, only a small circle of contractors was regularly approached for quotations. Accordingly, an amount equal to \$362,231.81 that was determined as mis-procured was canceled from the credit.

67. The World Bank Procurement Audit in Ghana Draft Audit Report. Crown Agents in Association with ANADAC, GOPA Consultants, Lloyd Register (Industrial Services), and PADCO. July 1998

Box 2.1. Privatization of Government Services: Can it Really Happen?

The effort towards privatization of government services did not begin with NLSP. The Agricultural Services Rehabilitation project, approved in 1987, attempted to privatize the import and sale of veterinary drugs and vaccines, but with little success. The experience of NLSP has been mixed. While full cost recovery of veterinary drugs sold to farmers has been introduced, progress towards privatization of government services has been limited.

Community Livestock Workers

NLSP provided for training of CLWs selected from among livestock owners to perform simple first-aid animal health-care services for a fee in their community. 1,104 CLWs were trained. A recent DFID report, while recognizing that the CLW program has the advantage of utilizing first hand knowledge of the local livestock production system and plays an important role in community mobilization for livestock census, immunization and educational campaigns, noted problems in its implementation. First, as the DFID report reveals, there is lack of clarity in the minds of the field level staff and the villagers as to the role to be played by the CLWs and some field level veterinary staff see them as a potential threat. In some communities, the misconception that this was another government job resulted in the selection of the chief's son as the CLW.⁶⁸ Second, CLWs are not adequately trained. The DFID study found that training received had been variable. Initial training for many trainees was less than 15 hours and for some only 3 to 4 hours. Refresher training was rare. Third, since government vets and extension agents are still available to provide the services free of costs, it is unlikely that an inadequately trained CLW is able to charge for the services provided. In several villages, CLWs are working as assistants to the extension agent. Fourth, CLWs' access to drugs and medicines is limited. In several cases, supplier kits were not provided and where they were, a large number of CLWs did not charge the community for the medicine provided. Several CLWs were found to have now exhausted their supplies with no means of renewing them.

Private Veterinarians

For a number of reasons, there have been no private veterinarians in Ghana. Instead, government veterinarians see private service to commercial livestock producers as an additional source of income. To encourage privatization, the European Union (EU) had agreed to provide ECU 200,000 under the Pan African Rinderpest Campaign program for lending to veterinarians who seek to go into private practice. This was changed later to make the amount a guarantee fund to secure loans that the Agricultural Development Bank would grant from its own resources. However, during the latter half of 1998, for various reasons the EU withdrew the support it had pledged. This stalled progress on the privatization of veterinary services, which has also been negatively affected by the unfavorable macro economic environment. The price instability and the high interest rate—as high as 43 percent per annum—have discouraged government veterinarians from going into private practice. There are only nine private veterinarians in Ghana (5 in the Accra Region, 2 in Ashanti, one in Western and one in Volta Region) Other incentives would have to be considered to induce government vets to take the risk of going private.

Is the Government Really Committed?⁶⁹

Recent events (October 1999) cast doubts on overall government commitment towards the privatization process. The five private vets working in the Greater Accra Region were stopped from working on a directive from the Minister of Food and Agriculture three days after they began their work. The Minister's directive resulted from a complaint that claimed that government resources were being privatized in a non-transparent manner. Ultimately the situation was resolved and an agreement was reached under which private vets could continue their work but would not be allowed to use government premises and the government was to close its clinics within an agreed radius to be established by the Veterinary Practice Establishment Committee.⁷⁰ However, the incident sent a negative signal about government commitment to those thinking of going private.⁷¹

Source: Various Bank PSRs, audit mission findings and communications with staff from the resident mission.

68. A Critical Analysis of the Selection and Support of Community Livestock Workers in Ghana. Produced as part of the Study Improved Methodologies for Community Animal Healthcare Services funded by the Department for International Development. DFID. October 1999.

69. The Region notes that since the new government is pro private sector, more progress towards privatization of veterinary services is likely in the future particularly since support is also provided for this under the AgSSIP.

70. The Veterinary Practice Establishment Committee was to be composed of representatives of the Ghana Veterinary Council, livestock producers' associations and the Government of Ghana.

71. The 2000 CAS had also noted "It is the Bank staff's view that the main factor which has limited the disengagement of the state is lack of commitment by the top level of the government to go very far. The lack of will is demonstrated by the slow progress and low proceeds from privatization and political interference in the process. The disengagement that has occurred has been piecemeal, not part of a clear, overall strategy."

RELEVANCE

2.45 Relevance is rated *substantial*. The project objectives were consistent with the country assistance strategy and were relevant to the development needs of the Ghanaian economy. The project was identified as part of Ghana's MTADS and was based on government's declared policy to disengage from direct production and marketing activities and concentrate on providing those services in which it had a comparative advantage. At the time of project preparation it was realized that the livestock sector makes a significant contribution to agricultural GDP (about 9 percent) and has the potential of reaching the poorest as it is a source of income for rural farm households especially in the northern part of the country. The Northern, Upper East and Upper West regions where the vegetation is Guinea and Sudan Savannah and where the majority of the poorest in the country live, accounts for about 77 percent of cattle production. Small ruminants particularly have a competitive advantage due to their low capital inputs and high reproductive rates and can effectively help increase incomes for the poorest. Hence, the potential of the project to contribute to poverty alleviation remains significant.

EFFICACY

2.46 Efficacy is rated *modest* as overall progress on achievement of objectives appears mixed. Moreover, there is little evidence to link increase in outputs of animal products to the project. Though the reduction in the number of government breeding farms (from 28 to 6) and institutional restructuring of MOFA undoubtedly contributed to greater efficiency, it is not possible to make a conclusive judgment on whether overall the project helped in reducing the financial burden on the government. This is mainly because little thought was given during appraisal to carefully selecting and prioritizing those activities which can be effectively supported by the government in the long run given the limited domestic resources available. Therefore, the project has begun several initiatives that the government may not be in a position to sustain even after years of donor support. In this sense, the project may have actually increased the long-term financial burden on the government.⁷²

EFFICIENCY

2.47 Project efficiency is rated *modest*. No ERR calculations were made at the ICR stage. The audit was also not able to undertake an economic analysis for the project due to lack of data. At appraisal the ERR was calculated to be 52 percent. The incremental livestock production estimates at this stage were made only for cattle and small ruminants derived from project interventions in animal health services and development in water and forage supplies. Benefits from village poultry vaccination and breed improvement were not taken into account. The audit concludes that the high ERR estimated at appraisal could not be achieved because of three reasons: First, production estimates for meat and milk at appraisal were too optimistic. This conclusion is supported by the data supplied by the Animal Production Directorate to the audit mission that shows incremental meat production (cattle and small ruminants) on project closure to be 27 percent short of the amount assumed for the ERR calculations. Second, the implementation experience of the project shows that dissemination of improved varieties of fodder to farmers was weak, the development of stock water schemes was poor and mass vaccination of livestock was

72. As an example, putting the tsetse survey and mapping program on course was an important project objective. However, given the scarcity of resources can the Government of Ghana actually support such sophisticated mapping activities in the long run given that the fly pattern changes overtime and maps developed today are likely to become outdated tomorrow? Government resources for tsetse control might be better utilized for control in limited already known high challenge areas at a coverage level that can clearly be sustained.

carried out with varying degrees of success. Third, the pilot dairy development scheme was a failure. In addition, the delay in and inadequate release of counterpart funds, the difficulties in implementation, the incidents of mis-procurement, also support a modest rating.

INSTITUTIONAL DEVELOPMENT IMPACT

2.48 Institutional development impact is rated *substantial* versus the ICR rating of “partial.” The restructuring of MOFA, the rehabilitation of the central and regional laboratories, the building of necessary infrastructure and capacity at the Open Nucleus Breeding Centers, introduction of full-cost pricing for veterinary drugs and vaccines sold to farmers, closing down of 18 government livestock farms that are not required for research or livestock breeding, establishing quality standards for manufactured feed, building capacity to monitor and control diseases, training of a number of CLWs, are substantial achievements. However, there is still a long way to go and a strong government commitment in terms of a continued flow of resources over a period of time is required to consolidate the gains.

SUSTAINABILITY

2.49 As with three other projects in this package, sustainability is rated *unlikely*. The ICR on the other hand rates it as likely. The audit notes that a large number of activities begun under the project will continue to require government support for some time to come. As in the other three, the shortage of counterpart funding suggests that the borrower was either unwilling or unable to support the project at the scale designed and therefore might be unable to do so in the future. In the post-project period, funding has indeed fallen substantially below what is needed to continue the activities in both the Animal Production and Veterinary Services Departments. Extension is a major need of the livestock sector but the Extension Services department also lacks the resources to function effectively.

BANK AND BORROWER PERFORMANCE

2.50 Both Bank and borrower performance is rated as *satisfactory*, but only marginally so because of the weaknesses in project design (para. 2.42) which were not corrected during the life of the project and the issue of inadequate counterpart funding which hindered project implementation. Incidents of mis-procurement also obstructed implementation. The ICR rates both Bank and Borrower Performance as satisfactory.⁷³ Though regular supervision missions were fielded during the earlier years, the number fell in the last two years of the project. There were several reasons: the constant interaction with the project implementing agencies as project supervision was moved to the field; the slow pace of implementation in 1998 and 1999 due to severe shortage of counterpart funding; and the heavy demand on the time of Bank and government staff because of their involvement in the preparation of the Agricultural Services Investment Program.⁷⁴

73. There is a discrepancy between the summary ratings in the ICR on Borrower Performance and the rating within the ICR. The summary rating rates it as unsatisfactory, whereas the write-up in the ICR suggests a satisfactory rating. The audit interprets the ICR rating for Borrower Performance as satisfactory.

74. Email communication with resident mission staff.

Agricultural Diversification Project (ADP)

SUMMARY AND OUTCOME

2.51 The primary project objective was to reduce the vulnerability of the Ghanaian economy from its excessive dependence on cocoa through encouraging production and expansion of other tree and horticultural crops like rubber, oil palm, coffee, and pineapple.⁷⁵ Even though the project design was complex, considerable progress was achieved in implementing several policy and institutional reforms and significant gains are reported from capacity building in human information technology and management systems.⁷⁶ However, since the gestation period for tree crops is long, it is too early to measure the overall production and income impact of the project.

2.52 Overall, the picture on achievement of results is mixed. Since project initiation, area under oil palm and rubber has increased, though further expansion of area under oil palm will be constrained by limited availability of hybrid planting material. The Intermediate Technology Small-Scale Oil Palm Mill (ITSPM) subcomponent was canceled after installation of 23 of the 60 mills. There has been significant increase in production and export of pineapples⁷⁷ and small pineapple farmers are likely to benefit from the innovative pilot which involved replication in Ghana of the Farmer Ownership Model (see Box 2.2). The performance of coffee and horticultural crops other than pineapple was however poor. Progress on all fronts has been stalled in the last two years because of the high cost of inputs, inadequate credit facilities and the abnormally high rates of interest. Overall, available data show an increase in value of non-cocoa agricultural exports, though it is difficult to judge how much of this was due to the project.⁷⁸ On balance, project outcome is rated as *satisfactory*, as in the ICR.

FINDINGS AND LESSONS

- **Lesson 1:** *Projects that are simple in institutional design, with a limited number of institutional players who have a clear role and a coordinating agency with strong capacity, are likely to have more effective and efficient implementation.*

The audit questions the advisability of incorporating investment proposals for a wide range of tree and horticultural crops with different requirements for research, extension, storage and marketing in a single operation given the institutional constraints and implementation

75. Cocoa cultivation was introduced in Ghana in 1885 and quickly became the mainstay of the Ghanaian economy. By 1911, Ghana had become the world's leading cocoa producer. Today, Ghana is the world's third largest producer of cocoa after Cote d'Ivoire and Brazil and at the time of project formulation cocoa accounted for about two thirds of the country's export earnings.

76. Some examples: GREL, GOPDC were divested; pricing policy revised for crops like oil palm, the Horticultural Development Unit was set up within the Dept of Crop Services that focused and developed improved production packages for pineapple; coffee marketing was privatized and a program to include private sector participation in production of improved coffee planting material was initiated; Ghana Agricultural Development Bank was computerized.

77. Exports of pineapples are reported to have increased from 10,000 Metric Tons in early 1990 peaking to 27,000 Metric Tons in 1997. The incremental exports are valued at \$7.1 million. In addition, increasing quantities are reportedly sold on the national market as fresh fruits and for processing into fruit juice. Data received from the Ministry of Agriculture shows that pineapple exports were 33,440 Metric Tons between January December 1999.

78. Data from the Ghana Export Promotion Council show that the value of non-traditional agricultural products increased from 33.9 million US dollars in 1991 to 57.4 million US dollars in 1997.

capacity in Ghana. In several countries in East Asia, even though such constraints were far less severe, no more than two or three crops had been included in investment type projects at any one time. The ADP project put tremendous pressure on the Ghana Export Promotion Council (GEPC) which was unable to play the management and coordination role envisaged for it. Given the fact that several implementing agencies (Ghana Oil Palm Development Corporation, Ghana Rubber Estates Limited, Cocoa research Institute of Ghana, Department of Crop Services, Ghana Cocoa Board) were involved, project coordination was not an easy task.⁷⁹ Poor internal management in GEPC made matters worse. A less complex operation, covering one or two crops, probably would have had a smoother implementation experience.

- **Lesson 2.** *Though the project was not directed towards the poorest, minor modifications in strategy could have significantly sharpened the poverty focus.*

The outgrower programs for tree and horticultural crops can contribute significantly to poverty reduction especially among small and marginal farmers. The challenge for the Bank and the government is to modify the project design in such projects so that it provides for increased participation of the poorer households through a group approach, as in the case of Farmapine (Box 2.2), and to improve the productivity on small farms through strengthened extension and increased access to inputs. The potential for returns to small and marginal farmers in horticulture cultivation can be further improved through simultaneous diversification into processing activities. Immediate processing after harvesting and before transportation can also reduce the risk of spoilage in horticultural crops and would further reduce the vulnerability of small farmers.

- **Lesson 3.** *With only about 19 million people,⁸⁰ internal markets are limited and agricultural growth must depend significantly on exports, either to neighboring countries or further a-field. Therefore roads, communications infrastructure, and support for product quality enhancement and marketing information will be particularly important. As a backward linkage, rural electrification will be important, not simply for the more traditional services but because of the information technology needs of export marketing and the potential for information that could have a significant impact on productivity.*

Further progress on the diversification front would require increased attention to alleviation of critical infrastructure and marketing bottlenecks which continue to be a severe constraint in rural Ghana. Though undoubtedly progress was made under the project, further improving extension advice, and storage, marketing and transport facilities and strengthening inspection for meeting export quality standards, will contribute substantially to improving production and export.

PROJECT DESIGN AND IMPLEMENTATION

2.53 The project adopted a two pronged strategy to achieve its diversification objective: *policy reforms* to promote privatization, liberalization and competition in domestic and external marketing and *direct investment* through rehabilitation and/or planting of coffee, rubber and oil palm. Private sector investment was to be promoted in small holder tree crop planting and low cost agro-processing in oil palm. Also included was the provision for the improvement of feeder roads in prime oil palm and rubber growing areas, strengthening of research and extension and

79. In addition, Technoserve, an NGO provided technical support for installation and management of the Intermediate Technology Small scale Oil Palm Mills sub component.

80. EIU estimates for mid 2000.

technical support for export of horticulture crops like pineapple and support activities that provided for training, studies and technical assistance. The project design was complex and demanding on the borrower. The project was to be implemented under the overall responsibility of a Project Implementation Committee (PIC) served by a Project Coordination Unit located in the GEPC. GEPC was made the coordinator for the project because of its role in the promotion of traditional and non-traditional export crops.

2.54 Some aspects of the coffee component as designed violated the Bank Group's Policy on Beverage Crops that was in place at that time.⁸¹ During the project period an area of 3000 hectares of coffee was to be planted and 1500 hectares rehabilitated. The area to be planted was to include new planting and replanting and one of the conditions of disbursement was that the Ghana Cocoa Board (COCOBOD) insert a statement in mass-circulating Ghanaian newspapers inviting organizations or individuals to register with it for engaging in the purchasing or hulling or export of coffee. While it may be argued that poor past performance had reduced Ghana's quota under the International Coffee Agreement and the current project would help Ghana recover previously lost ground, nevertheless, the design of the coffee component encouraged new plantings and exports and appears to have violated some aspects of the existing Bank Group's policy on Beverage crops (footnote 81).

81. The Bank Group introduced lending restrictions for coffee and cocoa in 1982. According to the policy, the Bank Group will not lend for coffee projects except for a) crop diversification, b) rehabilitation of plantings affected by sudden and recent damage by disease, c) quality improvements, c) new plantings that replace output from other areas. Further coffee projects could be supported only if they do not lead to increases in total production in the borrowing country in excess of projected increases in domestic consumption, International Coffee Organization quota exports and exports to non ICO countries.

Box 2.2. Farmapine Ghana Limited

The establishment of Farmapine (the replication in Ghana of the Farmer Ownership Model which was originally developed in Zambia), which was approved to be undertaken during the period of project extension, is an innovative pilot that has enabled small farmers to come together to reap the benefits of economies of scale normally available to large, organized companies. Under ADP, support was provided to five co-operatives involving 164 farmers (average area cultivated 1.9 acres per farmer) to buy 80 percent shares in a company which had specialized in the production, packaging and marketing of pineapples for both the local and export market. Farmapine Ghana Limited was formed in 1999 with the following core objectives: promoting the cultivation of pineapples to meet stringent standards of quality and size with minimal chemical residues in accordance with acceptable international standards; supporting member farmers with the required production inputs, financial assistance and recommended technology; and coordinating the purchase and marketing of pineapples with the prime aim of ensuring competitiveness in the international market. The company has gone into operation only very recently (September 1999) and hence it is too early to assess impact on farmer incomes. Since commencement of operations, the company has been faced with severe teething problems. To be viable in the long run there is need for the company to quickly increase the volume of its operations, cut back on its management costs and sort out the problem of compensation to the two former Export Companies who are members of Farmapine for the next three years. The more important and immediate challenge is to tide over the 14–18 month time period before the crop starts yielding returns. The massive devaluation of the Cedi since January 2000 has resulted in a very rapid shrinkage of the working capital provided under the loan to farmers. The loan is contracted in foreign currency and the purchases of the next round of imported inputs have to be paid at far more expensive prices than the previous rounds. The implication is that farmers' repayment of costs of inputs to Farmapine in Cedis, when their crops start yielding will barely cover 50 percent of the original value of inputs distributed to them. One way to tide over this problem would be to ensure further non-erodibility of the working capital asset of Farmapine through use of the replacement cost approach or pegging it to the US dollar at the time of delivery. However, this may require amendment of the working documents of the company, which did not provide for a way to cover the foreign exchange risk. It may also be worthwhile for Farmapine to explore other options like the possibility of introducing a credit union scheme for farmers to mobilize funds to finance a part of the working capital. There is a possibility of lessons being learnt from the Kuapa Kokoo cocoa cooperative in this regard.⁸²

2.55 The project became effective in March 1991, was implemented over eight years, and closed in December 1999, a year later than planned. Implementation was slow right from the beginning and ADP was rated a problem project and considered 'at risk' several times. Until the Mid term Review (MTR) in 1996 by when two thirds of the project period had elapsed, only a quarter of the credit had been disbursed. The project was restructured twice, to improve performance, once at MTR and again later in the process of extending its closing date by a year. At MTR, major changes were made to the oil palm, rubber, and coffee subcomponents to improve implementation and take account of ground level realities. Some of the changes made were as follows: transfer of project coordination to MOFA, extended support to the outgrower scheme under both oil palm and rubber, support for expansion of the GOPDC oil mill, upgrading of access roads to oil palm outgrowers, curtailing the ITSPM target to 30 of the 60 mills planned under the program, cancellation of the artisanal rubber processing component, redesign of the coffee component, extension of pineapple development. Though overall project implementation improved after the restructuring, implementation of the ITSPM sub component involving oil palm growers' cooperatives remained unsatisfactory due to problems associated with quality of mill equipment and inappropriate location of mills. Some new components were added at the time of the second restructuring, including the establishment of Farmapine. SDR 1.4 million that could not be used by the project during the extension phase was canceled.

82. A number of these ideas to tide over the crisis were proposed by Bank staff in the resident mission.

2.56 Several of the factors that hindered project implementation were exogenous to the project. Three examples can be given here. First, in the case of coffee, the original design provided for development and support for Robusta coffee, the demand for which declined tremendously. Consequently, there was no demand for coffee replanting or extension (farmers on the contrary were uprooting their trees). As a result, there was no activity under the coffee subcomponent to be implemented by COCOBOD and CRIG until it was redesigned after the MTR. Second, the continuous depreciation of the Ghana Cedi against major foreign currencies had a negative impact on project implementation. It resulted in a continuous increase in the price of inputs, which negatively affected the rate of adoption of improved techniques by farmers. The problem Farmapine has been facing in recent years is a challenge that may have to be met through possible amendment of the working documents of the company (see Box 2.2).⁸³ Third, lack of availability of adequate counterpart funding, was a problem throughout the project implementation period. There were other problems, however, which arose because of weak project management and were aggravated by the complexity of project design. In the case of rubber, there were long delays over arrangements for outgrower financing with the Ghana Rubber Estates Limited (GREL). Ultimately a suitable arrangement was worked out and the credit agreement was amended in April 1994.

2.57 A major challenge is the current highly unstable macro environment, a crisis that could not have been predicted at project appraisal. There are serious problems with the financial viability of most enterprises supported under the project due to high interest rates. This raises questions about the role of the Bank in such situations. Given the unforeseen nature of the economic situation, the Bank may need to monitor the situation with government who might then deal with the tiding-over needs of the project beneficiaries under another government program. Alternatively, the Bank itself may consider providing some further financial assistance as it did in the case of the livestock project to deal with the outbreak of African Swine Fever (footnote 65).

RELEVANCE

2.58 The project relevance is rated *substantial*. It was relevant to the development needs of the Ghanaian economy when it was identified and continues to be relevant today. The project was also in keeping with the GOG's long-term agricultural development strategy that focuses on self-sufficiency in food and raw materials, higher employment and income in rural areas, food security, regional balanced growth and greater contribution of Ghana's agricultural sector to value added, foreign exchange earnings, and government revenue. Diversification into areas in which Ghana had a comparative advantage was considered a major part of this strategy. In the early 1980s, an analysis of comparative advantage of Ghana in major tradable crops using different techniques of production and an analysis of the incentive framework was undertaken.

83. The rising interest rates have created another implementation problem. The Technical Review of the Oil Palm and Rubber Components carried out in mid 1997 showed a lack of uniformity in credit terms to outgrowers under GREL, GOPDC and BOPP (Benso Oil Palm Plantation). Since the programs were established at different periods and under varying macro economic and policy conditions, differences occur in the terms of the credit. Further GOPDC outgrowers are operating under different interest rates depending on which of the three phases of the outgrower schemes they joined. This has generated dissatisfaction among farmers who are paying the higher rates of interest. The review notes the need to reeducate farmers on the rationale for the varying rates and work towards rationalizing credit schemes for outgrower programs.

DRC coefficients produced showed Ghana's strong comparative advantage in tree crops, i.e. cocoa, oil palm, rubber, and coconut.⁸⁴

EFFICACY

2.59 Though efficacy in achieving relevant objectives seems to have been quite high in some crops and low in others, on balance overall efficacy is rated as *substantial*. A significant increase in pineapple exports is reported and the area under outgrower cultivation in oil palm and rubber has significantly increased. Though there is still a long way to go (indeed roads and transportation, rural credit, processing remain major constraints), and the currently unstable macro environment has hindered progress, the policy and institutional reforms achieved under the project have contributed substantially towards building an enabling environment for promotion of production and export of non-cocoa tree and horticulture crops.

EFFICIENCY

2.60 The efficiency of the project is rated *substantial*. No ERR calculations were made at the ICR stage. The audit was not able to undertake an economic analysis for the project due to lack of data. An ERR of 23 percent was calculated for the project at the time of appraisal. The justifications leading to the ERR calculations are credible. It seems unrealistic to expect that the financial analysis done at the SAR stage could have projected the currently exceptionally high real interest rates.⁸⁵ Though, the current interest rate crisis has created serious financial viability problems for most enterprises begun under the project, we give the considerable progress in implementing policy and institutional reforms a high enough weight to support a substantial rating.

INSTITUTIONAL DEVELOPMENT IMPACT

2.61 Institutional development is rated *substantial* versus the ICR rating of "partial." The fact that GREL and GOPDC were divested, Farmapine was established, there was significant expansion of small scale outgrower oil palm and rubber cultivation, coffee marketing was privatized are all significant achievements.

SUSTAINABILITY

2.62 Unlike the other four projects that were audited in this package of five, sustainability for ADP is rated as *non-evaluable* versus the ICR rating of likely. Currently some evidence supports a likely rating, other evidence supports an unlikely rating, and there is insufficient information to make a conclusive judgment. Unlike the other four projects, a continued flow of resources from the government is not required under ADP to sustain activities begun under the project. Most of the outgrowers schemes in rubber and oil palm and the pineapple growers can be viable, but for the current economic crisis. This is the strongest evidence to support a likely rating. However, the current economic crisis has put the very survival of the enterprises begun under the project in

84. The DRC coefficients for tree crops remained favorable in a variety of scenarios, including the declines in world prices in real terms for cocoa, oil palm and copra. The DRCs for the crops relevant to this project were as follows: rubber rehabilitated 0.18; oil palm (outgrowers) 0.14; cocoa replanted 0.19, rehabilitated 0.22. (Ghana Agricultural Sector Review August 1985).

85. Lending rates in 1998 ranged between 36 and 42 percent and 30 and 35 percent in 1999. From A First draft Comprehensive Development Framework Towards Ghana Vision 2020. Tenth Consultative Group (CG) Meeting November 23–24, 1999, Accra. Ministry of Finance. November 1999.

question. If the government (or the Bank) take intermediate steps to tide over the current difficult situation then it would make activities begun under the project viable. The information on how the current situation is being or going to be handled was not available to the OED mission. Hence, at this point, the audit rates sustainability as non-evaluable.

BANK AND BORROWER PERFORMANCE

2.63 On balance, both Bank and Borrower Performance are rated *satisfactory* but only marginally so. The ICR rates both as satisfactory. The project design was complex in comparison to implementation capacity and inadequate counterpart funding created significant implementation problem. Against a total budgeted amount of \$4.3, the GOG contribution was only \$0.17 million or less than 4 percent of the proposed amount. In addition, some aspects of the coffee component were designed in violation of the Bank Group's Policy on Beverage Crops.

Agricultural Sector Investment Project (ASIP)

SUMMARY AND OUTCOME

2.64 The major purpose of ASIP was to build small rural infrastructure, lack of which had been identified as a major constraining factor for agriculture sector development in Ghana. The project had two components: an investment component—to build small-scale water schemes, marketing infrastructure, feeder roads, storage and food processing facilities—and a studies and technical assistance component. By closing, though the project had created a number of physical structures, the quality of construction was variable and their usefulness limited. Several structures were poorly designed and were constructed in locations where they could not be effectively utilized.⁸⁶ Few of them were actually constructed in response to identified community needs. A poor and unrealistic project design that over-estimated the capacity of grass-roots institutions led to an inefficient use of resources. It resulted in a target driven implementation schedule, and did not allow for development of capacity among the communities at their own pace to manage, implement and maintain their investments. The achievements under the studies and technical assistance component were also unsatisfactory. On balance therefore, overall project outcome is rated *unsatisfactory* versus the ICR rating of satisfactory.

FINDINGS AND LESSONS

- **Lesson 1:** *In any small infrastructure investment project, underestimation of the importance of, the demands of, and the feasible rate of, social change can lead to poorly targeted and ineffective infrastructure. Adaptable Program Loans (APLs) may allow more flexibility to give the social processes time to work.*

The ASIP project was largely treated as an engineering project by both the Bank and the Borrower and the challenge of the social change processes underlying it were underestimated. Time-bound projects with disbursement targets dependent on grass root community efforts risk emphasizing capital and technical inputs rather than the social transition to decentralized management. The audit concludes that the strategic approach taken by the project of working with the people in building community level rural infrastructure was the right direction. Domestic funds for building such assets were few and projects like ASIP can help bridge an important resource gap. However, the process of involving communities was too rushed and

86. The Region in its comments notes that political pressure at the time of the 1996 elections had a big impact on the location of physical structures.

did not allow time to build community capacity.⁸⁷ This and other shortcomings in design and the weak implementation did not allow for an efficient utilization of resources. The Bank could do better by using instruments like the APLs for such operations as they take the target pressure off the Task Managers and allow for time to build consensus and institutional capacity before major physical investments are undertaken.

- **Lesson 2:** *Approaches that specifically target the poor, rather than merely meet local demand, are essential if a community driven program is to really contribute to poverty alleviation.*

The project was to contribute towards poverty alleviation. This was based on the assumption that since a large percentage of the poorest in Ghana are in the rural areas, the project would automatically benefit them. Experience suggests that a demand driven project like the ASIP is not likely to be pro-poor within the selected area because the poor are generally the least organized and least likely to be able to articulate their demands. To really reach the poor, some element of pro-active seeking out the poor is essential.

PROJECT DESIGN AND IMPLEMENTATION

2.65 The major project objective was framed unclearly in the following words: “to increase the flow of technical and financial resources for rural development in response to perceived needs at the village and district levels.” The very presence of a Bank project which disburses resources for construction of rural infrastructure was likely to increase the flow of financial and technical resources unless implementation failed—the challenge was not to increase the flow of resources but to get effective results.⁸⁸ Related project objectives were cited to be: increasing agricultural productivity and access to markets; strengthening the communities’ capacity to develop, manage and maintain their investments using the resources of NGOs, local consultants and public institutions and poverty alleviation.

2.66 Ex-post analysis shows that the project design was unrealistic and had several inherent contradictions⁸⁹. First, it was unrealistic because the project was dependent for implementation on grass root institutions, but failed to recognize that capacity at the community and district levels was limited. The DAs were only beginning to get involved in decentralized management. There was little staff capacity to select and evaluate subprojects identified by communities. Few districts had development plans or budgets or qualified technical staff to interact meaningfully with the Technical Support Agencies (TSAs).⁹⁰ No district level maps were available to help the DAs prioritize subprojects according to needs. Further, the project did not allow for time or resources to build capacity to implement at the grass root level. Project beneficiaries were to be local communities, not individuals. But the implementation plan did not allow for time for individuals to come together to plan for community needs. Second, the design was contradictory because it depended for implementation on grass root institutions yet de facto left control in the hands of the

87. The Region in its comments notes that including a community capacity building component for beneficiaries would not have helped much. According to them ASIP was a learning-by-doing project and it will take many more years to build capacity since real capacity building is by “doing.” The Region further notes that what was really lacking was imagination in ASIP to adjust project implementation and rules to the needs of the DAs and communities.

88. The Region argues that increasing resource flow to rural areas was a challenge and remains a challenge. According to them once the flow problems are overcome, then the issue of results comes up.

89. The Region notes that this project would have been more suited to a LIL if this product had existed at that time.

90. TSAs were to provide technical inputs into group organization, training, planning and designing subprojects.

Project Unit (PU).⁹¹ The fledgling DAs were given no control over ASIP financial resources—neither was any provision made to fund DAs to monitor ASIP subprojects. The DAs also lacked control on the choice of consultants and contractors for subproject execution. This also hindered development of a sense of ownership for the subprojects being constructed. It may be argued that since there was no capacity at the district level, it was unrealistic to provide DAs with such authority. But given the ground level reality, the project design ideally should have provided for more resources in terms of time and training to build capacity at the local level in a first phase which could have been utilized for actual investments in a second phase. Third, the project required the communities to articulate their demands for subprojects, but it did not require that these demands for subprojects be coordinated in an overall development plan for the area. As a result, isolated subprojects were created that often had no relationship with each other. In some places, market structures were created without an access road leading to them. Fourth, no attempt was made to distinguish between public (roads, markets) and private good (agro-processing units) subprojects which further undermined ownership and responsibility. Fifth, in the absence of genuine community participation, a large number of sub projects created did not meet the priority needs of the rural community. There was a greater demand for and eventual construction of market structures, not because the community wanted them, but because the DAs were interested in them because of their revenue earning capacity. Finally, the requirement of beneficiary contribution for group training for maintenance of assets was unrealistic. It was one of the reasons why eventually training did not materialize.

2.67 ASIP was approved in December 1993, became effective in April 1994, and was implemented over a six-year period, closing four months behind schedule. The MTR took place in February March 1997, almost a year later than planned. ASIP was a slow disbursing project. Disbursement lagged significantly, especially in the first year, when a lot of time was spent in identifying potential investments and preparing them for possible financing. Though the pace picked up later, half way through the project cycle (December 1996) only 24 percent of the total credit had been disbursed. Eventually the ASIP was merged with the VIP, which was launched in November 1999. The eligibility criteria and operational procedures of the ASIP were harmonized with those of VIP and its pipeline of subprojects was absorbed. The idea was to cause minimum disruption in the provision of infrastructure services. An attempt was made under the VIP project to correct for the inherent design problems of ASIP through mainstreaming implementation through the DAs.

2.68 Theoretically the idea behind the ASIP project was simple—construction of basic infrastructure according to the needs of the rural community. In reality, the unrealistic design, the complexity of subproject approval procedures, lack of capacity at the grass root level, and the scattered and isolated location of the subprojects made actual implementation a complex and difficult exercise. The PU was meant to only provide overall monitoring and coordination. In practice the whole task of evaluating, prioritizing, supervising, monitoring of subprojects and recruiting TSAs fell on it. The design of the project required that a certain number of applications be processed and prepared and sub projects be constructed in the course of each year. Under conditions of shortage of staff and resources, the PU adopted a target-oriented approach to cope with the pressure to meet pre set criteria. More attention was given to the physical aspects of establishing units and facilities. A much larger number of initial requests were taken on and

91. MOFA was responsible for overall project implementation. Management and coordination of the various project activities was delegated to a project unit (PU) with two offices, one in Accra and the other in north of the country at Tamale. The local communities and the 110 newly created DAs were to identify the subprojects, participate in their design and implementation, contribute between 10 and 25 percent of the capital costs in cash or kind, and be responsible for all operation, maintenance and management of investments.

pushed through to the various implementation stages so that disbursement targets could be met. Pressure to disburse, led to less attention to the critical issues of sustainability which had more to do with building capacity in the beneficiaries for operation and management. The pressure to achieve results also drove the PU to de-link construction from the training phase. The idea was to concentrate first on construction and then group beneficiaries of like investments together for training.⁹² This approach again did not recognize that beneficiary involvement from the beginning is crucial to building a sense of ownership and that training can be tailored to before and after construction needs. Ultimately even the group training did not materialize.

2.69 Project implementation also suffered for a variety of reasons: variable performance of the contractors, inability of the communities to make their contributions in time to meet contractor requirements (which led to construction delays with subsequent cost implications),⁹³ inadequate counterpart funds,⁹⁴ and the Bank procurement procedures (which were too complex for the beneficiaries and TSAs to understand and handle).

Box 2.3. ASIP: A Lost Opportunity?

A realistic assessment of what can and cannot work under given circumstances in a country is crucial to project design. Had strong grass root institutions been present in rural Ghana, the ASIP story would have been totally different. This is obvious from the experience of the few established groups that could turn the financial opportunities offered by the project to their advantage. The Nangbanyini Nyagsa Womens' Group, Savelugu Nanton District, Northern Region is an example. The group of 24 members (2 men and 22 women) had come into existence 10 years before the project and was then known as the Tiyum Taba Womens' Group. It had started its activity with an agro-forestry unit for which the group members were allotted 5 acres of land by the village chief. The group is now considered a success story under the project, which provided the group with an agro-processing unit. However, the success of this subproject has less to do with the project and more with the existing group capacity and the dynamic personality of the group leader. Indeed through her own efforts the group leader is helping other less effective subgroups in nearby villages. The agro-processing unit run by the group now consists of a grain mill, a shea nut crusher, and a rice huller. When the group heard that funds were being provided under the ASIP project for income-generating activities, it contacted the local DAs with a request for an agro-processing unit. The shea nut crusher was provided in 1995, the rice huller in 1999. This subproject experience emphasizes the point that had the project given greater attention to group formation and dynamics a lot more could have been achieved. But elsewhere, since the grass-roots human capital had not been built and little effort was made to build it, a target-oriented approach had to be adopted for project implementation. Hence, the physical structures were created, not according to the priority needs of the community but, rather, according to what was politically desirable or what the DAs thought was important. The ASIP project is reported to have attracted continuous press coverage since its implementation period coincided with an election year in Ghana.

92. The Region in its comments explains that de-linking training from construction was a conscious decision taken when it was realized that most of the NGOs and others who were coming forward for design and construction supervision, had no ability at all to impart training on crucial issues such as operation and maintenance and business management. They further note that it was considered more practicable to group a number of say market managers together from markets scattered over some distance and supported by a number of design NGOs and train them in a batch using a more proficient organization such as Technoserve.

93. In several cases, DAs had to mobilize the resources on behalf of the community to allow subprojects to become eligible for selection.

94. Actual Government of Ghana funds released were 55 percent of the total budgeted amount for the project.

RELEVANCE

2.70 Relevance is rated *substantial*. The project was consistent with the Bank's overall and country assistance strategy. It was identified as part of Ghana's MTADS that focused on meeting rural institutional and infrastructure needs to catalyze rapid growth in agriculture.

EFFICACY

2.71 Efficacy is rated *negligible* for several reasons. First, the main objective was poorly framed and not specific enough to facilitate measurement.⁹⁵ Second, since the project did not allow for effective community participation, it made little contribution towards strengthening the communities' capacity to develop, manage and maintain their investments. Third, isolated physical structures were constructed with little attention to the development needs of the whole area (para 2.66). Hence, their impact on increasing agricultural productivity and access to markets was at best limited.⁹⁶

EFFICIENCY

2.72 Efficiency is rated *modest*. The SAR calculated the ERR for the project to be 23.3 percent. No ERR calculations were made at the ICR stage. Neither was any other measure of efficiency provided. However, the performance of several contractors was poor and the quality of construction was variable. 36 sub projects had to be terminated. Since the subprojects were created with little community participation a number of investments resulted in structures and equipment of limited value to the community and therefore of low efficiency. In addition, the achievements under the studies and technical assistance component were unsatisfactory.

SUSTAINABILITY

2.73 Project sustainability is rated *unlikely* (the ICR rates it as likely) for several reasons. First, though some of the ASIP subprojects that were brought under the VIP project may be sustainable, the project's design undermined sustainability. It is doubtful whether resources will be available to continue maintenance of structures erected under the ASIP project, particularly those structures that were constructed with little regard to the priority needs of the community. Second, the shortage of counter part funding suggests that the borrower was either unwilling or unable to support the project at the scale designed and therefore might be unable to do so in the future. Third, training to equip the beneficiaries to operate, manage, and maintain the investments was not provided.

INSTITUTIONAL DEVELOPMENT IMPACT

2.74 The institutional development impact of the project is rated *negligible* versus the ICR rating of "unsatisfactory." The project was not well integrated into mainstream MOFA activity, although the transfer of ASIP staff to VIP did make effective use of the experience gained. Since

95. Absence of baseline measures and monitoring data make quantitative assessment of project impact on increased agricultural productivity and market access impossible, though field visits by the audit mission certainly show that the project has contributed to improvement in existing marketing facilities. The Policy, Planning, Monitoring and Evaluation Department (PPMED) was to monitor project performance and impact but was unable to fulfill this role.

96. "Overall, the length of feeder roads tackled under the project was too small to make a significant impact on market accessibility in general." (ASIP Project Implementation Completion Review prepared by Seth Doe Vordzorgbe Devcourt Ltd. Accra.)

there was little community participation and no beneficiary training the project did little to strengthen the capacity of the community or the DAs to develop and manage investments.

BANK AND BORROWER PERFORMANCE

2.75 On balance, both Bank and borrower performance are rated *unsatisfactory*, though the ICR rates them both as satisfactory. Both need to share the blame for the poor and unrealistic design of ASIP. Bank supervision missions, did not stress the need to build capacity in the community, nor did the Borrower bring the issue to the attention of the Bank. The Bank should have put greater emphasis on providing training to beneficiaries. The pressure to lend created an unrealistic disbursement schedule⁹⁷ and it was apparent that the Bank had again failed to learn from past experience. At the time of project appraisal, the 1991 Agricultural Portfolio Review noted inadequate implementation capacity, project complexity, inadequate counterpart funds as the main shortcomings in Bank project implementation: These problems continued to plague the ASIP project. Lack of provision of counterpart funds and inadequate monitoring on the part of the Borrower created major implementation problems. In addition, the VIP project with similar objectives began much before ASIP closed resulted in waning commitment from the government towards ASIP during its closing years. Moreover, an early start for VIP meant that adequate time for learning from the lessons of the ASIP project had not been provided.⁹⁸

97. The planned project disbursement schedule was even more rapid than the historical disbursement profile for Ghana's agricultural projects.

98. The VIP project was appraised in July–August 1996, well before the MTR of the ASIP project. Though the project does have a component for institution building and several of the design errors in ASIP have been corrected it is not clear whether all the lessons from ASIP were clearly taken on board. Thus, inadequate counterpart funds negatively affected the implementation of ASIP. In VIP again the Government of Ghana is expected to provide more than 12 percent of the total project cost. However, there is no indication that the project design of VIP has taken the possibility of the funds not coming through from the borrower into account.

Basic Data Sheets

The five ICRs, which were rated unsatisfactory partly for this reason, failed to provide data for full completion of these sheets.

NATIONAL AGRICULTURAL RESEARCH PROJECT (CR. 2247-GH)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as percent of appraisal estimate</i>
Total project costs	29.5		
Credit amount	22.0	22.6	
Cofinancing	1.8		
Cancellation (SDR)		179,362.88	
Date physical components completed			
Economic rate of return			

Project Dates

	<i>Original</i>	<i>Actual</i>
Identification	09/91	
Preparation	09/91	
Appraisal	10/92	
Negotiations	10/92	
Board Presentation		
Signing		
Effectiveness		
Project Completion		
Project Closing	3/97	12/99

Staff Inputs (staff weeks)

<i>Total</i>
Up to Appraisal
Appraisal to Board
Board to Effectiveness
Supervision
Completion
Total

Mission Data

<i>Stage of Project Cycle</i>	<i>No. of Persons and Specialty</i>		<i>Performance</i>	<i>Rating</i>
<i>Month/Year</i>	<i>Number</i>	<i>Specialty</i>	<i>Implementation Progress</i>	<i>Development Objective</i>
Identification/Preparation:				
09/30/- 10/01/1991	2	A, RS		
Appraisal/Negotiations:				
10/17 - 10/24/1992	3	A, AE, ES.		
Supervision				
01/25/- 02/06/1993	2	A, ES	S	S
08/23 - 09/03/1993	5	AE, A, A, AE, ES	S	S
04/18 - 04/26/1994	4	A, ES, E, E	S	S
02/13 - 02/24/1995	6	AE, A, ES, EN, RS, IN	S	S
01/11/- 01/29/1995 MTR	11	AE, I, AE, RS, DA, A, A, A, A, A, S/E	S	S
07/08 - 07/19/1996	3	AE, A, ES	S	S
01/13 - 01/24/1993	6	AE, AE, A, ES, FN, P	S	S
10/13 - 10/24/1997	6	AE, AE, ES, FN, P, A	S	S
ICR				

A = Agriculturalist Specialist; AF = Agroforestry Specialist; E = Economist; EN = Environmental Specialist; RS = Research Specialist; ES = Extension Specialist; GS = Gender Specialist; F = Forestry Specialist; FN = Financial Analyst; I = Institutional Specialist; IN = Information Specialist; SF = Social Forester; MTR = Mid-Term Review; ETS = Extension Training Specialist; P= Procurement; P&G = Planning & GIS; R = Rural Sociologist; S = Social Scientist; AE = Agricultural Economist; DA = Dev. Anthropologist

Other Project Data

Borrower/Executing Agency:

Follow-on Operations			
<i>Operation</i>	<i>Credit no.</i>	<i>Amount</i> <i>(US\$ million)</i>	<i>Board date</i>

NATIONAL AGRICULTURAL EXTENSION PROJECT (CR. 2346-GH)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as percent of appraisal estimate</i>
Total project costs	41.11		
Credit amount	30.4	28.76	
Cofinancing			
Cancellation (SDR)		1,511,621.26	
Date physical components completed			
Economic rate of return			

Project Dates

	<i>Original</i>	<i>Actual</i>
PCD	09/89	09/89
Appraisal	05/91	10/91
Approval	03/92	04/92
Effectiveness	07/92	05/92
MTR	03/95	05/95 – 07/95
Project Closing	11/97	03/00

Staff Inputs (staff weeks)

<i>Total</i>
Up to Appraisal
Appraisal to Board
Board to Effectiveness
Supervision
Completion
Total

Mission Data

<i>Stage of Project Cycle</i>	<i>No. of Persons and Specialty</i>		<i>Performance</i>	<i>Rating</i>
<i>Month/Year</i>	<i>Number</i>	<i>Specialty</i>	<i>Implementation Progress</i>	<i>Development Objective</i>
Identification/Preparation:				
Appraisal/Negotiations:				
Supervision				
10/05 – 10/20/1992	6	AE, ES, ES, A, ES, P	S	S
01/04 – 02/18/1993	4	AE, ES, ES, A	S	S
06/11 – 06/25/1993	5	AE, ES, ES, ES, ES	S	S
01/18 – 01/28/1994	5	AE, A, ES, ES, ES, ES	S	S
10/31 – 11/04/1994	2	AE, ES	S	S
07/10 – 07/28/1995 MTR	6	AE, ES, P, FN, ES, GS	S	S
03/11 – 03/26/2000	4	AE, ES, P, FN	S	S
10/13 – 10/31/1997	6	AE, ES, P, FN, ES, GS	S	S
02/01 – 02/15/1999	5	A, AE, P, FN, RS	S	S
06/14 – 06/22/1999	4	A, AE, P, FN	S	S
ICR				

A = Agriculturalist Specialist; AF = Agroforestry Specialist; E = Economist; EN = Environmental Specialist; RS = Research Specialist; ES = Extension Specialist; GS = Gender Specialist; F = Forestry Specialist; FN = Financial Analyst; I = Institutional Specialist; IN = Information Specialist; SF = Social Forester; MTR = Mid-Term Review; ETS = Extension Training Specialist; P= Procurement; P&G = Planning & GIS; R = Rural Sociologist; S = Social Scientist; AE = Agricultural Economist; DA = Dev. Anthropologist

Other Project Data

<i>Borrower/Executing Agency:</i>			
Follow-on Operations			
<i>Operation</i>	<i>Credit no.</i>	<i>Amount (US\$ million)</i>	<i>Board date</i>

NATIONAL LIVESTOCK SERVICES PROJECT (CR. 2441-GH)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as percent of appraisal estimate</i>
Total project costs	29.06		
Credit amount	22.45	21.29	
Cofinancing			
Cancellation (SDR)		412,598.80	
Date physical components completed			
Economic rate of return	52		

Project Dates

	<i>Original</i>	<i>Actual</i>
PCD	02/89	02/89
Appraisal	05/92	05/92
Approval	12/92	12/92
Effectiveness	03/93	04/93
MTR	11/96	11/96
Project Closing	12/98	12/99

Staff Inputs (staff weeks)

<i>Total</i>
Up to Appraisal
Appraisal to Board
Board to Effectiveness
Supervision
Completion
Total

Mission Data

<i>Stage of Project Cycle</i>	<i>No. of Persons and Specialty</i>		<i>Performance</i>	<i>Rating</i>
<i>Month/Year</i>	<i>Number</i>	<i>Specialty</i>	<i>Implementation Progress</i>	<i>Development Objective</i>
Identification/Preparation:				
03/1991	3	AE, DS, DS, AF, DS, WS		
Appraisal/Negotiations:				
05/09 – 05/21/1992	5	AE, DS, EP, AG, P		
Supervision				
09/28 – 10/11/1993	2	AE, ES	S	S
05/14 – 06/10/1994	3	AE, ES, DS	S	S
04/25 – 05/05/1995	2	AE, DS	S	S
06/10 – 06/28/1996	4	AE, DS, ES, P	S	S
11/11 – 11/30/1996 MTR	6	AE, DS, DS, ES, P, FN	S	S
02/27 – 03/13/1998	6	AE, DS, DS, A, P, FN	S	S
06/07 – 06/11/1999	4	AE, A, P FN	S	S
			S	S
ICR				

A = Agriculturalist Specialist; AF = Agroforestry Specialist; E = Economist; EN = Environmental Specialist; DS = Dairy Specialist; RS = Research Specialist; AG = Agronomist; ES = Extension Specialist; GS = Gender Specialist; F = Forestry Specialist; FN = Financial Analyst; I = Institutional Specialist; IN = Information Specialist; SF = Social Forester; MTR = Mid-Term Review; ETS = Extension Training Specialist; P= Procurement; P&G = Planning & GIS; R = Rural Sociologist; S = Social Scientist; AE = Agricultural Economist; DA = Dev. Anthropologist; WS = Water Resources Specialist; EP = Epidemiologist

Other Project Data

Borrower/Executing Agency:

Follow-on Operations			
<i>Operation</i>	<i>Credit no.</i>	<i>Amount</i> <i>(US\$ million)</i>	<i>Board date</i>
None yet, although follow-on under consideration			

AGRICULTURAL SECTOR INVESTMENT PROJECT (CR. 2555-GH)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as percent of appraisal estimate</i>
Total project costs	25.4		
Credit amount	21.5	20.93	
Cofinancing			
Cancellation (SDR)		177,853.57	
Date physical components completed			
Economic rate of return	23.3		

Project Dates

	<i>Original</i>	<i>Actual</i>
PCD	04/1992	04/1992
Appraisal	11/1993	11/1993
Approval	12/1993	12/1993
Effectiveness	04/1994	04/1994
MTR	02/1996	02/1995 – 03/1995
Project Closing	11/1999	03/2000

Staff Inputs (staff weeks)

<i>Total</i>
Up to Appraisal
Appraisal to Board
Board to Effectiveness
Supervision
Completion
Total

Mission Data

<i>Stage of Project Cycle</i>	<i>No. of Persons and Specialty</i>		<i>Performance</i>	<i>Rating</i>
<i>Month/Year</i>	<i>Number</i>	<i>Specialty</i>	<i>Implementation Progress</i>	<i>Development Objective</i>

Identification/Preparation:

Appraisal/Negotiations:

Supervision

02/1994	3	AE, AE, IS	S	S
04/11 – 04/28/1993	4	AE, AE, IS, A	S	S
09/18 – 10/14/1994	3	R, A, AE	S	S
10/01 – 10/14/1996	1	R		
02/17 – 03/05/1997	6	A, R, P, FN, E, AE	S	S
01/04 – 01/22/1998	3	E, FN, P		
07/26 – 08/06/1999	3	E, FN, P	S	S

ICR

A = Agriculturalist Specialist; AF = Agroforestry Specialist; E = Economist; EN = Environmental Specialist; RS = Research Specialist; ES = Extension Specialist; GS = Gender Specialist; F = Forestry Specialist; FN = Financial Analyst; I = Institutional Specialist; IN = Information Specialist; SF = Social Forester; MTR = Mid-Term Review; ETS = Extension Training Specialist; P= Procurement; P&G = Planning & GIS; R = Rural Sociologist; S = Social Scientist; AE = Agricultural Economist; DA = Dev. Anthropologist

Other Project Data

Borrower/Executing Agency:

Follow-on Operations			
<i>Operation</i>	<i>Credit no.</i>	<i>Amount (US\$ million)</i>	<i>Board date</i>

AGRICULTURAL DIVERSIFICATION PROJECT (CR. 2180-GH)

Key Project Data *(amounts in US\$ million)*

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as percent of appraisal estimate</i>
Total project costs	22.4		
Credit amount	16.5	14.27	
Cofinancing			
Cancellation (SDR)		2,298,514.94	
Date physical components completed			
Economic rate of return	23		

Project Dates

	<i>Original</i>	<i>Actual</i>
PCD	03/87	03/87
Appraisal	06/98	06/89
Approval	10/90	10/90
Effectiveness	03/91	03/91
MTR	12/95	11/95
Project Closing	12/98	12/99

Staff Inputs *(staff weeks)*

<i>Total</i>
Up to Appraisal
Appraisal to Board
Board to Effectiveness
Supervision
Completion
Total

Mission Data

<i>Stage of Project Cycle</i>	<i>No. of Persons and Specialty</i>		<i>Performance</i>	<i>Rating</i>
<i>Month/Year</i>	<i>Number</i>	<i>Specialty</i>	<i>Implementation Progress</i>	<i>Development Objective</i>
Identification/Preparation:				
Appraisal/Negotiations:				
07/1989	3	A, AE, TS.		
Supervision				
05/16 – 05/24/90	1	A	S	S
09/05 – 09/15/1990	2	A, TS	S	S
03/05/1992	1	A	S	S
02/08 – 02/19/1993	2	TS, AE	S	S
11/29 – 12/17/1993	3	A, TS, AE	U	S
09/01 – 09/15/1995 MTR	2	A, AE	S	S
04/02 – 04/07/1997	3	A, P, FN	S	S
09/10 – 09/17/1997	4	AE, P, FN, A	S	S
11/20 – 12/17/1998	5	AE, AE, FN, P, TS		

ICR

A = Agriculturalist Specialist; AF = Agroforestry Specialist; E = Economist; EN = Environmental Specialist; RS = Research Specialist; ES = Extension Specialist; GS = Gender Specialist; F = Forestry Specialist; FN = Financial Analyst; I = Institutional Specialist; IN = Information Specialist; SF = Social Forester; MTR = Mid-Term Review; ETS = Extension Training Specialist; P= Procurement; P&G = Planning & GIS; R = Rural Sociologist; S = Social Scientist; AE = Agricultural Economist; DA = Dev. Anthropologist; TS = Tree Crops Specialist

Other Project Data

Borrower/Executing Agency:

Follow-on Operations			
<i>Operation</i>	<i>Credit no.</i>	<i>Amount (US\$ million)</i>	<i>Board date</i>

Annex B. Rural Poverty in Ghana: Where Is the Poverty? Where Are the Pro-poor Opportunities?

BACKGROUND

1. The GOG clearly recognizes the considerable challenge of poverty reduction. The Bank's CDF approach in Ghana is working toward strengthening the collaboration among donors to enhance their impact on poverty reduction.⁹⁹ The government has prepared a Development Strategy for Poverty Reduction that is the basis for further consultations with all social and development partners. The government's poverty reduction agenda for 2000–2002 promotes accelerated growth in agriculture as a priority and a critical component of the overall poverty reduction strategy. The need to deepen access to basic social services¹⁰⁰ and infrastructure available to the poor is recognized as essential. The support to basic education is to be increased. The poverty strategy also gives particular attention to the establishment of food security programs and improvement in access to markets through the provision of infrastructure. As a whole, poverty targeted expenditure is expected to increase from 16.7 percent of total expenditure in 1999 to 21.2 percent of total expenditure in 2001.

2. As noted in the Bank's ASPR, there is little evidence in any of the five projects audited of a concerted effort to directly address rural poverty. There is also little in the new AgSSIP that indicates a targeted poverty focus, although, given the high percentage of poverty in rural areas, most agricultural interventions are likely to have substantial poverty impact. While it would have been better if more explicit poverty directions had been designed into the AgSSIP project, it is not too late to reorient a number of components in this direction.

3. Reliable statistics that monitor poverty and the impact of various development policies, programs, and projects on living standards are crucial to countries embarking on economic reform and poverty alleviation programs. Ghana has been a leader in this area. In 1987, the government, with the assistance of donors, launched the Ghana Living Standards Measurement Surveys (GLSSs) to provide time-series data for measuring the living standards of the population. To date, four rounds of GLSS have been conducted. It obtains information on traditional impact indicators for measuring change in welfare status (such as, percentage of the population below the poverty line, income, and expenditure data) and is conducted at intervals of about five years. In addition in 1996, the Ghana Statistical Service (GSS), in collaboration with the World Bank, launched the Ghana Core Welfare Indicators Questionnaires (CWIQ) survey that complements the GLSS in being a poverty monitoring survey instrument but with a shorter turnaround time. The CWIQ focuses on the collection of indicators that measure access, utilization, and satisfaction for a select number of social and economic services. Together the GLSS and CWIQ provide substantial information on both the *income*¹⁰¹ and human¹⁰² aspects of poverty. Results from the various

99. "Until recently the Consultative group for Ghana primarily mobilized resources, providing a setting for government representatives to meet with donors in Paris. Now the process contributes to greater coordination of poverty reduction activities." UNDP 2000.

100. Within the poverty strategy the social sector is defined to include education, primary health care, rural water, rural housing, feeder roads, rural electrification, poverty focused agriculture social welfare and population management.

101. Income poverty can be seen to have two dimensions: Extreme Poverty: Lack of Income necessary to satisfy basic food needs—usually defined on the basis of minimum calorie requirements (often called absolute poverty). Overall Poverty: lack of income necessary to satisfy essential nonfood needs—such as for clothing, energy and shelter—as well as food needs (often called relative poverty). UNDP 2000.

rounds of GLSS and CWIQ, in addition to information obtained during the field visit for the audits of agricultural projects and from the literature inform this brief poverty assessment.

4. Ghana's *Interim Poverty Reduction Strategy* builds on the long-term vision of Ghana *Vision 2020*. Within the CDF framework, UNDP is providing focal support on both poverty and governance issues. Ghana's National Development Planning Commission (NDPC) is the designated coordinator of the poverty reduction activities in the country. UNDP supported the establishment of a Poverty Coordinating Unit within the commission. The government has also formed an inter-ministerial committee on poverty.

WHO ARE THE POOR?¹⁰³

5. The overall trend in poverty since 1988 has been broadly favorable in Ghana. From 1988 to 1992, poverty incidence and the level of inequality (measured by the Gini coefficient) declined. There was a further decline in poverty levels between 1992 and 1998. GDP is estimated to have grown, on average, by 4.3 percent over the period 1992–98. Based on the upper poverty line of 900,000 cedis, the percentage of the Ghanaian population defined as poor has fallen from 52 percent to about 39 percent, whereas the percentage of the Ghanaian population that is extremely poor (lower poverty line 700,000 cedis) has fallen from about 36 percent to about 27 percent.¹⁰⁴ The decline was not evenly distributed geographically, however. The significant reductions in poverty at the national level have been concentrated in four regions: Western, Accra, Volta, and Brong-Ahafo. The Central, Northern, and Upper East regions have actually experienced increases in poverty between these two years. Statistics show that poverty is lowest in Greater Accra and highest in the Upper East Region. The three poorest regions in the country are the Upper West, Upper East, and Northern. A modest decline in poverty incidence is reported in the Upper West Region from 88 percent to 84 percent. The Upper East Region, on the other hand, reports the greatest increase in the incidence of poverty. The document *Poverty Trends in Ghana in the 1990s* also reports that the depth¹⁰⁵ of poverty for those who remain poor has remained stable between the two periods.

102. Human poverty is the lack of basic human capabilities: illiteracy, malnutrition, abbreviated life span, poor maternal health, illness from preventable diseases. Indirect measures are lack of access to goods, services and infrastructure—energy, sanitation, education, communication, drinking water—necessary to sustain basic human capabilities. UNDP Poverty Report 2000.

103. This section is based on the documents *Poverty Trends in Ghana in the 1990s* produced by the Ghana Statistical Service in October 2000 and the Core Welfare Indicators Questionnaire Survey Main Report 1997 also produced by the Statistical Service. It is interesting to note that there is a difference in numbers on poverty trends and some basic conclusions between the document *Poverty Trends in Ghana in the 1990s*, produced in October 2000, and the document *Development Strategy for Poverty Reduction*, produced by the Ministry of Finance March 2000, both of which make an estimate of trends on the basis of two rounds of GLSS—3 and 4. For details see Box 3.

104. As is often the case, perceptions of NGOs at the field level differ from the data. The audit mission for the five agricultural sector projects met with NGOs who felt that the conditions of the poor had worsened over the years.

105. The depth of poverty is a measure of its intensity. It is measured by the income gap ratio, which gives the proportion by which the average consumption level of poor households falls below the poverty line.

Table B1. Incidence of Poverty by Administrative Region (percent; poverty line 900,000 cedis)

	1991-92	1998-99
Western	60	27
Central	44	48
Greater Accra	26	5
Eastern	48	44
Volta	57	38
Ashanti	41	28
Brong-Ahafo	65	36
Northern	63	69
Upper West	88	84
Upper East	67	88
Ghana	52	40

Source: *Poverty Trends in Ghana in the 1990s*.

6. At the national level, almost 58 percent of those identified as poor are from households for which food crop cultivation is the main activity. This has implications for the future of research and extension suggesting that the staples cannot be ignored. In both periods in Table B1, poverty is substantially higher in rural areas than in urban ones. With the upper poverty line, the incidence of poverty was 64 percent in the rural areas and 28 percent in the urban areas in 1991/92. During 1998/99, the incidence was 50 percent in the rural areas and 19 percent in the urban areas. Poverty is highest among food crop farmers, whose contribution to the national incidence of poverty, as indicated in the GLSS4 report, was far in excess of their population share. Export farmers and wage employees in the private formal sector have experienced the largest reduction in poverty in the period 1991/92-1998/99.

7. The inadequate access of the poor to such important social services as education and health is evident in Table B2. The rural areas of the Upper West and Upper East lag behind other regions on access to primary education and health facilities. Hence, it is not surprising that literacy levels are lower in the three poorest regions. The majority of household heads in the poorest quintile in both rural (53 percent) and urban areas (61 percent) are females. The data on levels of education show that among the poorest quintiles in both rural and urban areas, almost no female household head had a post-secondary education. About a quarter of children under 5 years in the country are underweight. Underweight again is more of a rural phenomenon (29 percent) than urban (18 percent) and is more prevalent in the three poorest regions in the north.

8. While the government has made attempts to improve access to safe water throughout the country, rural urban disaggregation of the CWIQ data indicates that 80 percent of the urban and 18 percent of rural households have access to piped water. About half the rural households rely on natural sources (unprotected well, lakes, or rivers) for their water supply.

Table B2. National, Rural National, and Rural Areas in Upper West, Upper East, and Northern Regions (selected statistics)

	<i>National</i>	<i>Rural National</i>	<i>Upper West</i>	<i>Upper West (rural)</i>	<i>Upper East</i>	<i>Upper East (rural)</i>	<i>Northern</i>	<i>Northern (rural)</i>
Agriculture/Forestry/Fishing (Industry of employment % (CWIQ))	55.9	72.3		84.4		79.2		80.9
Population % rural		68	89		87		75	
Land area	100		7.8		3.7		29.5	
Density (pers/sq km)	79.2		39.9		132.6		25.5	
Land ownership by household (CWIQ)	37.0	46.0		91.5		89.9		28.5
Households in poorest poverty quintile % (GLSS 4)	14.7		47		65		40.7	
Components of Income (agricultural income) GLSS 4	35.5	54	46.6		63.6		58.6	
Education % (CWIQ)	47.9	39.9		15.2		12.4		8.9
Cattle owned per household (CWIQ) No.	0.6	0.8		2.9		2.5		2.5
Sheep and goats per household (CWIQ) No.	2.7	3.5		7.1		6.3		5.0
Nutritional Status of children (CWIQ)								
Stunted	29.7	32.8		48.8		53.0		42.4
Wasted	6.5	6.2		11.4		11.5		9.8
Underweight	26.0	28.8		43.2		48.8		44.0
Time to fetch water (% > than 10 minutes) (CWIQ)	32.2	40.3		35.0		35.9		58.6
Time to nearest food market (% greater than 20 minutes) (CWIQ)	39.3	46.6		74.8		82.6		80.5
Time to nearest public transport % greater than 10 minutes (CWIQ)	51.4	61.9		87.5		91.4		79.5
Time to reach nearest health facility (% greater than 30 minutes) (CWIQ)	47.1	61.4		86.1		84.0		83.6
Time to reach nearest primary school (% greater than 30 minutes) (CWIQ)	7.9	10.4		32.8		34.9		16.8
Main source of drinking water: unprotected wells, rivers and lakes	34.2	47.9		17.8		22.4		73.8

Source: CWIQ 1997, GLSS 4, and other national data sources

9. The cattle, sheep, and goat ownership in the three poorest regions shows the dependence of those regions' populations on livestock. As elsewhere in Africa, the poor tend to own sheep and goats.

Box B1. Quantification of Poverty and Differences in Interpretation: Do the Numbers Capture the Real Picture?

Both *Poverty Trends in Ghana in the 1990s* (PTG) (October 2000) and *Development Strategy for Poverty Reduction* (DSPR) (March 2000) interpret the results of the third and fourth rounds of GLSS and give their estimates of the trend of poverty for the period 1991/92–1998/99. While both documents report a decline in poverty, PTG reports a greater decline. According to the document, the **incidence** of poverty based on the upper poverty line (900,000 cedis) declined from 51.7 in 1991/92 to 39.5 in 1998/99, whereas on the basis of a lower poverty line (700,000 cedis) the decline was from 36.5 to 26.8. The DSPR on the other hand reports that the incidence of poverty based on the upper poverty line declined from 50.8 in 1991/92 to 42.6 in 1998/99. On the basis of the lower poverty line, this decline was from 35.7 in 1991/92 to 29.4 in 1998/99.

There is a significant difference in the two documents on the reported **depth** of poverty. PTG reports that the depth of poverty has remained relatively stable over 1991/92–1998/99. According to the report, the average consumption among the poor in Ghana is around 36 percent below the upper poverty line and has decreased marginally since 1992/99. The corresponding shortfall for extreme poverty is about 30 percent and has increased marginally over the period. The depth of poverty is reported to be greater at the standard poverty line than at the extreme line. The DSPR, on the other hand, notes that average consumption among the poor is around 30 percent below the upper poverty line. This figure has increased marginally from 1991/92 and the corresponding shortfall for the extreme poor is about 35 percent. This figure has also increased marginally over the period. Hence, the depth of poverty is greater at the extreme poverty line than at the standard poverty line. While analysts may argue that such changes in results can easily follow from refinements in the measurement of poverty, it does raise questions about the reliability of measures that quantify poverty and can have important implications for the design of future government programs. If the poorest are getting poorer notwithstanding the tremendous change in government policies and despite the decline in poverty incidence, then it may call for increase in safety net measures. Moreover, it raises serious doubts about comparisons with poverty levels prior to 1991/92 when the methodology used for measuring poverty (GLSS I and II) was also different.

ARE PUBLIC EXPENDITURES IN THE AGRICULTURE SECTOR GOING TO THE POOR?

10. A review of government agriculture sector expenditures between 1995 and 1999 (Table 3) shows that real expenditures increased between 1995 and 1997 and declined thereafter.¹⁰⁶ Real *recurrent* agriculture sector expenditures (dominated by wages and salaries) have increased since 1995 and, in 1999, accounted for 68 percent of real agriculture sector expenditures. Between 1995 and 1997, government contribution to total MOFA expenditure averaged 33 percent, while donors contributed approximately 67 percent. The donor contribution has steadily increased since 1995 and by 1997 had reached 73 percent.

106. This section is based on information contained in an Agricultural Sector Expenditure Review (covering the period 1995–97) undertaken by the Ministry of Food and Agriculture in 1998 and information obtained from other documents including the PAD for the Bank's AGGSIP project.

Table B3. Government Expenditures in the Agricultural Sector

	1995	1996	1997	1998	1999
Agriculture sector expenditure (nominal in million cedis)	94447	13575	180799	167303	179334
Real agriculture sector expenditure (1995 prices in million cedis)	94447	102305	112787	90205	84967
Real agriculture sector recurrent expenditure (1995 prices in million cedis)	53045	54478	53302	55724	57804
Real agriculture sector recurrent expenditure as a percentage of real agriculture sector expenditure	56	53	47	61	68
Agriculture sector expenditure as a percentage of GDP	1.2	1.2	1.3	1.0	0.9

11. A regional analysis of the MOFA actual expenditure is given in Table B4. When the poverty data by region is combined with the regional average actual expenditure data, it becomes apparent that the direction of government agriculture expenditure has not been related to the incidence of poverty by region (Figure 1). This finding probably applies to Bank lending also, although the mission did not have the resources to estimate the allocation of Bank expenditure in the sector. With respect to expenditure per person, the average MOFA regional expenditure per thousand rural population for the four poorest regions, Upper East, Upper West, Malone, and Central, is 670,000 cedis. The average for the remaining six less poor regions is 970,000 cedis. Given the differences in percentage of poor, the difference in expenditure per poor rural person would be much higher.

Table B4. Regional Breakdown of MOFA Regional Agricultural Development Unit Actual Expenditures 1995–97

	<i>MOFA average actual regional expenditure in real terms over the period 1995–97 in million cedis</i>	<i>MOFA average regional actual exp. per 1000 rural population in million cedis</i>
Western	728	0.53
Central	771	0.62
Greater Accra	848	2.27
Eastern	1069	0.58
Volta	1018	0.69
Ashanti	1188	1.03
Brong-Ahafo	950	0.71
Northern	1118	0.83
Upper West	869	1.32
Upper East	930	0.91

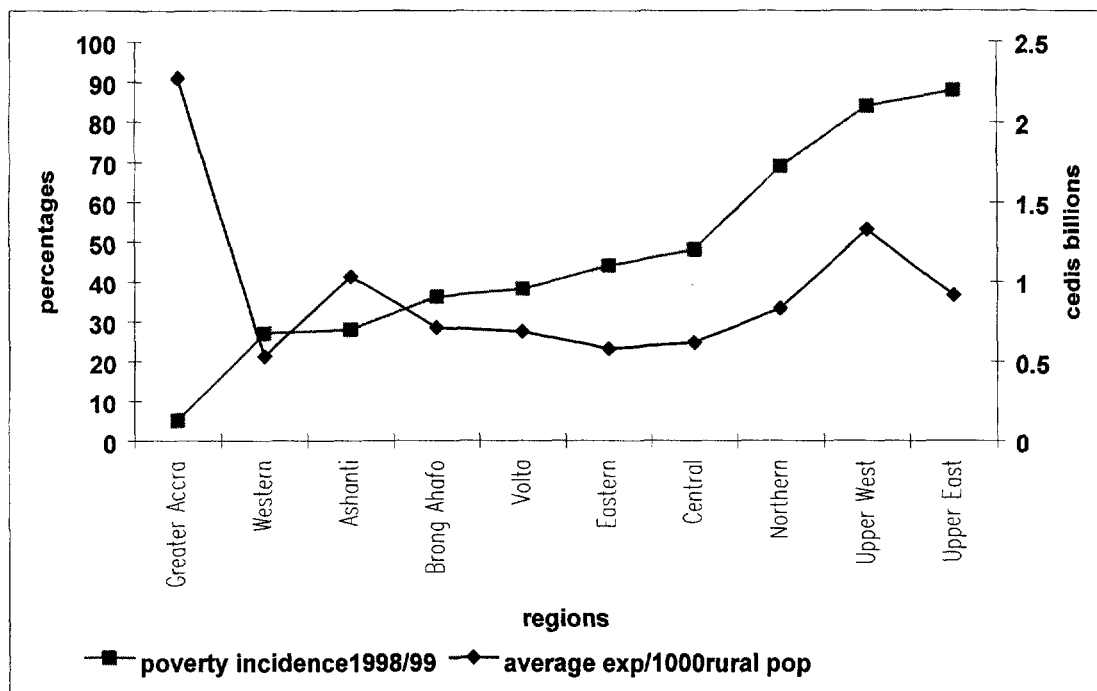


Figure B1. Incidence of Poverty
 (percentages and average actual Ministry of Food and Agriculture regional expenditure flows per 1000 rural population)

Annex C. Institutional Capacity at the Central and District Level

1. Over the period of the five projects, the institutional environment has changed fundamentally although the final stages of this change are still to be accomplished. District Assemblies (DAs) now implement much of the strategy at the district level following the shift to decentralization, but significant capacity problems are taking time to resolve. Several studies¹⁰⁷ have explored the potential of decentralization in Ghana to contribute to poverty alleviation. Once a decentralization framework is properly in place it should ensure effective coordination between the national vision and local planning and implementation — a challenging balancing act. Today, however, Ghana continues to be in transition from centralized to decentralized planning and control. Some argue that the transition has taken so long because there is lack of genuine commitment from the center to give up the control.¹⁰⁸ Successful implementation of the AAGDS within a decentralization framework now requires that central government provide a supportive macroeconomic environment, clear sectoral strategic direction and leadership, and effective and efficient support and knowledge transfer. This will enable district institutions to prepare and implement local plans that are consistent with both local needs and a national *rural* vision. Does the center have the capacity to play this role? Are the district institutions equipped to plan and implement district strategies? Is there effective coordination across the central ministries supporting decentralization, in particular, MOFA and Ministry of Local Government and Rural Development (MLGRD)? The mission's findings suggest that the answer to these questions is, "Not yet."¹⁰⁹

107. "The obvious strength of this process is that communities can have a greater say in the development activities in their districts — and that plans for national development can be more responsive to people's needs. But the process is far from complete." Comments from the UNDP Poverty Report 2000 on the Ghana decentralization process.

108. "Despite their rhetoric, central governments are often reluctant to introduce effective decentralization. This reluctance comes from politicians and bureaucrats, who both stand to lose power. There is also reluctance because mechanisms for accountability at the local level are often weak, and there is a genuine concern that the quality of public expenditure will go down yet more." UNDP 1998.

109. "The decentralized departments (in Ghana) have ended up with a dual allegiance in this process to national and regional sector hierarchies still dominated by top down decision making structures and to DAs who have been given the mandate to coordinate their activities. Since budgets, salaries, promotion and conditions of service have been controlled by central ministries, district staff have often responded more to department command structures than the district and have shown an unwillingness to integrate themselves into decentralized district administration." (Amanor and Annan 1999).

Box C1 How Decentralization in Ghana Is Intended To Function

The decentralization framework for Ghana envisages a participatory, bottom-up approach to planning and program formulation. It divides responsibility between central, local, and regional levels of government. The objective is to improve service delivery by promoting peoples' participation in the government machinery and by devolving power, competence, and resources to the districts. Ghana began decentralization of its public sector in 1988 with the enactment of the Local Government Law (PNDC Law 207). Central government functions were to be devolved to 110 districts within a three-tier structure of Regional Coordinating Councils, District Assemblies, and Town Area Councils. The MLGRD has oversight of the implementation of the decentralization process. DAs¹¹⁰ are to be primarily responsible for the implementation of development policies and programs. Government agencies in any district are to be fused into one administrative unit through institutional integration and placed under the DAs to serve as the technical/professional arm of the local government. Eventually, with the passing of the Local Government Service Bill, all the employees of the DAs are to be brought into the public service.

To ensure that local governments have adequate revenues and the authority to make expenditure decisions, financial decentralization is also envisaged. The major source of funds for the DAs is Common Funds which have been established by law, the Common Fund Act of 1993, Act 455, which provides that not less than 5 percent of all national government revenue be allotted to the DAs by parliament. These revenues are shared among the DAs based on a formula approved annually by parliament.¹¹¹ This provides 70 to 90 percent of DA's total fund. In addition, the DAs generate their own resources through property taxes, market tolls, crop levies, and licenses on a variety of items.

In accordance with the guidelines and objectives of *Vision 2020*, a Medium-Term Development Plan has been prepared for the period 1997–2000. This reflects the individual District Development Plans of all 110 DAs as well as Sector Plans by the ministries and sector agencies. The Regional Coordinating Units are responsible for coordinating the plans of various districts and integrating them with national development policies. Budgets to finance the district development plans are to be submitted to the Regional Coordinating Councils for harmonization, coordination, and collation and for the approval of the Ministry of Finance.

2. Several weaknesses are apparent in the currently stalled decentralization reform process:

- At the central level, the MOFA has had difficulty providing effective leadership to the sector to adjust to the decentralization process. The decentralization process requires rearranging responsibilities and functions between different layers of government. Government officials at various levels of MOFA seem uncertain about what the shifts in power, functions, and resources really mean and how to manage them. The fact that the Local Service Government Bill has not yet become law prolongs the uncertainty. Partly as a result, the local institutional capacity in agriculture continues to be weak.
- The DA has limited command of resources. The 5 percent of central tax funds plus what is collected at district level appear insufficient to carry out the responsibilities expected of the

110. A DA consists of both elected and appointed members. Two-thirds of the members are elected every four years and one-third is appointed by the President in consultation with traditional authorities and other interest groups. The rationale for appointing the 30 percent of the members is to ensure that technically/professionally qualified persons from the local areas are encouraged to participate in the local development process. The DA is headed by a Chief Executive who is appointed by the President with the prior approval of two thirds of the members of the DA. The Chief Executive can also be removed from office by a vote of no confidence passed by two thirds of the members of the Assembly. In principle, this is meant to ensure accountability of the Chief Executive to the DA.

111. The formula uses service pressure, population density, local revenue improvement efforts and district per capita income as weighted factors for sharing the DAs Common Fund.

DAs.¹¹² Most of the resources at the local level are used to meet recurrent expenditures and there is little left over for development activities.¹¹³

- Skilled personnel are in short supply.¹¹⁴ Shortages have been exacerbated during the decentralization process because responsibilities have been divided into smaller jurisdictions.
- DA capacity (particularly administrative and technical) to prepare and implement plans is weak. This is despite the fact that millions of dollars of donor support have been directed at building and strengthening grass-roots capacity.¹¹⁵ Reasons include the weak supportive capacity of the center and the overall shortage of skilled personnel partly due to unattractive working conditions.
- Genuine involvement of the local people in the district planning process is often limited and sometimes not representative and there is still unresolved tension between District Plans and local preferences.¹¹⁶
- However, DAs will need to develop computerized project management programs and databases to improve the efficiency of this coordination. District-level maps, databases, and economic profiles are not developed sufficiently to facilitate planning and implementation.
- The mission observed cases where coordination between NGOs and government appeared weak. The same service was sometimes provided by an NGO, a government institution, and donors, with considerable potential for duplication of support services. (See Box B2.)
- Infrastructure maintenance is a potential problem and an increasing burden not yet matched by command of resources. The mission was not convinced that the DAs have a strategy for handling the infrastructure maintenance burden. They will need to match their capital

112. "To ensure accountability, revenue means should be matched as closely as possible at the margin to revenue needs (that is expenditure responsibility)." Litvack and Seddon 2000.

113. Amanor and Annan 1999 also note that in 1998 new measures were introduced that earmark 35 percent of the Common Fund for specific purposes. Twenty percent has been earmarked to support productivity, income-generation, and provision of employment; 10 percent to support and sustain community development initiatives; and 5 percent for poverty reduction and rural housing improvement. According to the authors, this should contribute to improvement in the interventions of DAs in rural development.

114. The Agricultural Services Rehabilitation Project approved in 1987 and supported by IDA, the African Development Bank and Germany provided support for the first slice of a long term process of institution building in the Ministry of Agriculture. The main objective of the project was to initiate a process of rehabilitation of the Ministry of Agriculture's human and physical resources so as to strengthen the institutional framework for the formulation and implementation of agricultural policies and programs, improve the capacity to deliver public sector services to agriculture and improve the capacity to procure and distribute agricultural inputs. Support for institutional strengthening of MOFA continues to be a part of ongoing donor efforts. A major component of the Bank's AgSSIP project is support for reform and strengthening of MOFA within the framework of the decentralization policy of the GOG. The central directorates of MOFA are to be strengthened and their staffing skills developed to enable them to perform their core functions and to provide the support services to the regional development officers and front line extension agents.

115. Some of the donors that have provided considerable resources for building and strengthening capacity at the grass root level are the European Union, UNDP, DANIDA, DFID, GTZ and the World Bank.

116. "Some of the plans from districts are the creation of consultants or senior district officials, not the communities. Plans are often presented as completed documents to communities, which approve them without developing any real commitment to the outcome. Although this process is more participatory than formulating national plans, democratic decision making by communities is limited. This might change as communities become more aware of their rights and more active in articulating their needs." Ghana Country Assessment. UNDP Poverty Report 2000.

expenditure to their capacity to handle operations and maintenance (O&M), assuming a realistic level of community contribution to maintenance. (For example, the mission had concerns about the possibility of maintenance of a road that had been built recently under the Bank supported Village Infrastructure Project (VIP). The road already needed maintenance work that seemed to be beyond the capacity of the villages served and, with escalating other demands, beyond the capacity of the DA).

Box C2. Meeting the Institutional Challenges in the Decentralization Process

At the National Level

- Enacting legislation to clarify the functions and related powers to be exercised by ministries, departments and agencies at the various levels of the decentralized system
- Developing capacity in MOFA to effect the transfer of power and functions
- Building consensus on ministerial restructuring
- Ensuring adequate funding through clarifying mechanisms for adjusting the DAs Common Fund and the formula

At the District Level

- Ensuring the development of maps for the purposes of planning, revenue mobilization, and harnessing of development resources
- Promoting the development of district capitals into vibrant service centers
- Ensuring adequate funding through strengthening local revenue generation and the capacity to collect and distribute revenue
- Management of public private partnership in decentralized development would include clarifying government policy relating to NGOs and civil society organizations

At the National and District Level

- Ensuring a supply of adequately trained personnel through defining performance standards toward which training and capacity building should be directed and streamlining the procedures for recruitment and training and strengthening the Institute for Local Government Studies to offer and coordinate training
- Addressing uncertainty among civil servants through streamlining conditions of employment
- Coordinating donor support and national initiatives on decentralization
- Ensuring adequate funding through reallocating the operation and maintenance funds still locked up within the ministries to the local level and ensuring resource allocation to correspond with decentralized functions at various levels

Source: Adapted from the Issues paper on Decentralization in The Ghana CDF Pilot: The First Steps: A Progress Report to the World Bank's Executive Directors. Ministry of Local Government and Rural Development 1999.

ATTACHMENT 1: SUPPLEMENTARY PROJECT BACKGROUND

National Agricultural Research Project

The five-year project had the following components.

- Research management, including the improvement of research system management, establishment of a National Agricultural Research Committee and Secretariat, and development of a National Agricultural Research Plan.
- Human resource development, through the provision of postgraduate and technical training and twinning research/training arrangements with other institutions.
- Rehabilitation of facilities, including the rehabilitation of buildings, provision of equipment and transport.
- Library and information systems, including the establishment of a Ghana Agricultural Information Network System.
- Direct research program support, including provision of research facilities and operational funding; specific support for pineapple, plantain, soybean, cotton, and rice research programs, with additional research programs to be defined after the development of the research plan; the establishment of a research grant scheme; and the development of linkages between research and extension.

National Agricultural Extension Project

The five-year project had the following components.

- Strengthening the extension service in all 10 regions through provision of infrastructure, transport, equipment, consultancy services, in-service training, and incremental recurrent costs support.
- Forging closer links between extension and research.
- Strengthening the technical departments of MOA to expand sectoral capacity to test the relevance of technologies under farmers' conditions through provision of transport, equipment, technical assistance, and incremental recurrent costs support for subject matter specialists and for monitoring and evaluation.
- Supporting human resource development through improved facilities, teaching materials, equipment, transport, and upgrading teaching staff at colleges and provision of textbooks to the faculties of agriculture.

National Livestock Services Project

The six-year project had the following components.

Institutional and Policy Reforms components to cover:

- Out-contracting of vaccination and meat inspection services and the withdrawal of government services in these areas
- Introducing a phased program of full cost recovery prices for all non-mandatory vaccinations, clinical services, drugs, vaccines and breeding stock
- Closing down 18 government livestock farms
- Establishing and monitoring quality standards for manufactured feed
- Restructuring animal production and health services to improve the quality and standards of animal production and treatment services

Project Investment components consisting of:

- Strengthening the capacity of MOA to control diseases and improve livestock extension services
- Developing livestock water supplies, particularly in the semi-arid north
- Developing forage production on range and farm lands to intensify cattle and small ruminant production
- Improving livestock breeds
- Introducing a pilot dairy scheme in the peri-urban areas of Accra and Tema
- Institution building through in service training and technical assistance.

Agricultural Diversification Project

The seven-year project had the following components.

- *Oil Palm Development*—under which provision was made for technical and management assistance for the planting of 3,500 hectares of high-yielding oil palms by outgrowers through GOPDC, resurfacing and constructing of feeder roads, management and technical assistance for the establishment of about 60 ITSPMs by individuals and village cooperatives.
- *Coffee Development*—under which improved planting material and extension advice for the rehabilitation of 1,500 hectares and replanting or new planting of 3,000 hectares of small private coffee farms was to be provided through COCOBOD and support was to be provided for equipment, materials, and technical assistance for coffee research by CRIG in areas of plant breeding, agronomy, pests, diseases, and processing.
- *Rubber Development*—under which support was to be provided for the design and implementation of an outgrower scheme for 1,200 hectares of rubber through GREL, for the design and construction of a small-scale model of artisanal, smoked sheet rubber processing unit for training private processors.
- *Horticultural Development*—under which technical assistance was to be provided for the production and development of export pineapples and other horticultural crops and export markets; and for resurfacing of 100 kilometers of feeder roads in pineapple production areas.
- *Support Activities*—under which support was to be provided for various studies, vehicles, equipment, and technical support for ADB, for project coordination through a project coordination unit and for training of local staff.

In addition, *policy reforms were to be undertaken to support purchase of outgrower and other non-estate oil palm and rubber at market prices by GOPDC and GREL respectively; COCOBOD to pay a minimum coffee bean producer price and implement a program to sell planting material at full cost by a certain date.*

Agricultural Sector Investment Project

The six-year project had two main components.

- The investment component was to support the construction of small-scale water schemes for agriculture and potable water supply for humans and animals; construction and rehabilitation of marketing infrastructure to promote trade and generate revenues for district assemblies; building of roads to improve access to markets; building of storage and food processing facilities for village and on-farm storage.
- The studies and technical assistance component was to finance feasibility studies, management services, training in irrigation, rural businesses and market management and food processing as well as monitoring, evaluation, social, economic and environmental impact studies.

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