X D-ABM-227-A

DRAFT

EVALUATION OF THE GHANA FOOD FOR DEVELOPMENT PROGRAM

(FY 1992-94 PL 480 TITLE III) program

(MULTI-YEAR)

REPORT SUBMITTED TO USAID/GHANA

BY

Seth D. Vordzorgbe, Team Leader
Tom Marchione, USAID/BHR/PPE, Washington
Robert ~~Bob~~ Sears, USAID/REDSO/WCA, Abidjan
Martina Odonkor, Consultant, Accra
Solomon Atiase, USAID/REDSO/WCA, Abidjan

Accra July 1994

TABLE OF CONTENTS

page

List of Tables.....

List of Annexes.....

Acronyms and Abbreviations.....

1. Executive Summary.....

2. The Ghana Food for Development Program - Program Description.....

3. Title III Commodity Management Process.....

4. Program Accomplishments: Outputs.....

5. Impacts of the Program.....

6. Lessons Learned and Recommendations.....

LIST OF TABLES

page

1. Planned Levels of Assistance: FY 1992 Title III Program.....
2. Disbursements from FY 1992 Title III Program Receipts.....
3. Disbursements from FY 1993 Title III Program Receipts.....
4. Funding Sources and Levels for the ATAG Program.....
5. FY 1992-94 Title III Program - Summary of Vessel Arrivals.....
6. FY 1992-94 Title III Program - Summary of Sales of Title III Rice.....
7. The Distribution of Bids During the First Six Auctions in Relation to Numbers of Lots.....
8. Summary of Bids Received.....
9. Extent of Competitiveness in the Auction System.....
10. Funding Plan for the NFRRMP.....
11. Status of Feeder Road Rehabilitation - First Year.....
12. Feeder Roads Component: Project Status Report As of December 31, 1993.....
13. Status of Two Contracts for the Koforidua School.....
14. Status of Feeder Road Rehabilitation - Second Year.....
15. Feeder Roads Component: Project Status Report As of 30 April, 1993.....
16. Progress on Purpose and Outputs of the Technoserve Program.....
17. Progress on Main Assistance Provided by Technoserve.....
18. Progress on Purpose, Outputs and Inputs of the ATAG Program.....
19. Income and Own-Price Elasticities of Demand.....

20. Cross-Price Elasticities of Demand.....

21. Non-Traditional Exports from Ghana.....

22. Roads Visited for the Economic/Social
Evaluation of the Title III Program.....

23. Roads Visited for the Technical
Evaluation of the Title III Program.....

LIST OF ANNEXES

A. Scope of Work for the Evaluation

B. PL 480 Title III and Food Security in Ghana

C. List of Persons Contacted

D. Literature Referenced

ACRONYMS AND ABBREVIATIONS

ACBF	African Capacity Building Foundation
ADRA	Adventist Relief Agency
API	Assessment of Program Impact
APPP	Agricultural Productivity Promotion Program
AMC	
APDF	African Project Development Facility
ATAG	Aid to Artisans, Ghana
BH	Bureau of Humanitarian Relief ?
CEPA	Centre for Economic Policy Analysis
CIF	Cost, insurance and freight
CPSP	Country Program Strategic Plan
CRS	Catholic Relief Services
CTA	Chief Technical Advisor
DANIDA	Danish International Development Agency
DFR	Department of Feeder Roads
DRC	Domestic resource cost
EOPS	End-of-project status
ERP	Economic Recovery Program
FAS	Free along ship
FDB	Field Database (Techoserve)
FDP	Food for Developmenr Program
FY	Financial Year
GEPC	Ghana Export Promotion Council
GHA	Ghana Highway Authority
GNPA	Ghana National Procurement Agency
GOG	Government of Ghana
HRDA	Human Resource and Development Activity
IBRD	International Bank for Reconstruction and Development (the World Bank)
IERD	International Economic Relations Department
kcal	Kilo calories
MFEP	Ministry of Finance and Economic Planning
MOFA	Ministry of Food and Agriculture
MORMAT	Mobile recurrent maintenance team
MOS	Marine Overseas Service, Inc
MIT	Ministry of Industry and Trade
MTADS	Medium-Term Agricultural Development Strategy
NEESP	Non-traditional Export Extension and Support Program
NFRRMP	National Feeder Roads Rehabilitation and Maintenance Project
NGO	Non-governmental organization
NPA	Non-project assistance
NTE	Non-traditional export
OSA	Omnibus Services Authority
PAAD	Program Approval and Authorization Document
PAD	Policy Analysis Department
PD&S	Project Development and Support
PL 480	Public Law 480
PPE	Policy, Planning and Evaluation ?

PTC	Program Technical Committee
REDSO	Regional Development Service Office
RFP	Request for proposals
RIG	Regional Inspector-General
SIAM	Spot improvement and maintenance
TIP	Trade and Investment Program
TNS	Technoserve, Ghana
UMR	Usual Marketing Requirement
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WCA	West and Coastal Africa

SECTION 1: EXECUTIVE SUMMARY

1.1 Introduction

The Food for Development Program (FDP) multi-year P. L. 480 Title III agreement between the Republic of Ghana and the U.S. Government was signed on July 14, 1992. The rationale of the FY 1992-94 Title III program is to support the development of the capacity to increase export earnings to help finance food imports to address food security needs. The program was designed to support a long-term strategy for alleviating this growing food deficit by promoting an increase in non-traditional exports (NTEs), which ultimately should generate foreign exchange that will allow Ghana to meet its needs for food imports.

FDP is an non-project assistance (NPA) intervention under which commodities donated by USAID are auctioned to yield local currency proceeds which support the overall GOG development budget. In turn, the GOG agrees to allocate programmed budgetary resources to support activities contained in annual Letters of Intent. The actions listed in the Letters of Intent serve as program conditions precedent to subsequent commodity call forwards. The FDP is linked to the Mission's Trade and Investment Program (TIP), which together with the Human Resources Development Activity (HRDA), addresses the Missions's strategic objective of increasing private sector-led export growth as contained in USAID/Ghana's FY 1991-1996 Country Program Strategic Plan (CPSP).

Under the FY 1992-94 Title III program, the Mission planned to provide rice valued at $ 30 million, of which $ 9.8 million was to be the cost of transporting the commodity to Ghana. Out of this planned length-of-program (LOP) funding, $28.3 million was authorised and $20 million obligated. The first consignment of rice arrived on July 15, 1992.

The outputs of the program are contained in the Letters of Intent. Program funds support activities in three main categories aimed at achieving purpose-level targets: export-promoting infrastructure, mainly feeder roads; export promotion by NGOs; and, development of the capability to undertake economic analysis of policy issues in trade, investment and private sector development. The major implementing agencies of local currency-funded activities are the Department of Feeder Roads, the Centre for Economic Policy Analysis, Technoserve and Aid to Artisans (Ghana).

Given the focus of the program, the end-of-program indicators of achievement of the program purpose are those that demonstrate and measure the ability of the GOG to promote, increase and diversify exports, especially agricultural-related exports. In sum, the FY 1992-94 Title III program is expected to enhance Ghana's food security and export competitiveness through improved rural road infrastructure, improved the capability of NGOs to provide export

support and development services to micro and small scale exporters, and, enhance the national capability to undertake policy analyses in the areas of food security, trade and investment.

1.2 Overall rate of progress

About 93 percent of funds from the first year of the program and 47 percent from the second year have been allocated to private and public implementing institutions as at the time of this evaluation. However, due to the delayed arrival of the program commodities in the first year, allocations from the receipts of the sale of first-year commodities were disbursed in January of 1993, a lag of 6 months after the signing of the Agreement. Combined with other delays in start-up, the program is roughly one year behind in reaching expected targets. Given this lag, however, the program implementation, is on track and steady progress is being made in achieving output targets in a timely fashion. Considering that the final consignment of commodities will arrive later in 1994 and disbursements and program work will continue into 1995, the findings of this evaluation should be judged in terms of the fact that the program started only 18 months ago.

1.3 Main findings on output performance

A. Commodity management under the program has been excellent. Handling losses have been within acceptable levels and the auction system has functioned excellently. The system for auctioning program rice, which is the only private sector auction in West Africa, was judged to be transparent, fair, effective and competitive; this was achieved at a cost of 1.6 percent of the gross sales receipts. Clearly, this is a model for other African Bureau Title III programs to follow as an example of effectively privatizing food aid transactions. However, the smoothness of the operation should not make the Mission less vigilant regarding ~~possible commodity losses~~.
monitoring and evaluation of the program.

B. Based on data supplied by the Department of Feeder Roads (DFR), it has made reasonable progress in meeting targets set by the GOG in the Letters of Intent. Contracts have been signed for 745 KM of feeder roads or 78 percent of the target set in the first two letters of intent. To date, 82 percent of DFR-contracted roads in year one and 52 percent in year two have been completed. The largest portion of the overall shortfall falls within the Volta Region.

The DFR has also completely complied with the requirement to prepare an acceptable maintenance plan, but expansion of the labor-based (road construction) training school at Koforidua has been temporarily suspended, awaiting funding from DANIDA, the Danish aid agency.

C. The NGO Export Support Services programs of Technoserve and

Aid to Artisans are in the early stages of implementation. The program planned to support 10 NGOs with funding per year. To date, only 2 NGOs have qualified for support. The inclusion of more NGOs in the program has been hampered to some extent by the low number of acceptable proposals received for review. However, 3 more NGOs will be supported from funds provided under the second Letter of Intent.

The two NGOs have made significant progress towards achievement of program output benchmarks, in terms of meeting year-one targets contained in agreements signed in July 1993. For example ATAG, has surpassed its Year 1 export sales target of $75,000 and has developed 24 new lines of artisanal items against its target of ten. ATAG has however, lagged behind in developing the marketing and business training programs. These outputs have been achieved in spite of certain institutional difficulties.

Technoserve has also made significant progress towards achieving its target of increasing the value of products exported by smallholder groups already in the export chain by 25 percent per annum, by successfully negotiating with a major buyer a 25 percent increase in the market price of cashew. Technoserve is also on track in meeting its target for organizing producer groups.

D. The liberalization of the wheat market was to be completed in the second year of the program (1993), but was accomplished in the first year.

E. The Center for Economic Policy Analysis (CEPA) has been established but has not yet ~~established~~ a program for its activities, ~~although~~ it is in the process of recruiting research staff.

F. A major impediment to the tracking and measurement of performance is the present delay in implementing a full monitoring evaluation plan by the MFEP. Consequently, plans to develop a work plan with more precise targets and benchmarks called for by the 1993 Regional Inspector General (RIG) audit are proceeding too slowly.

1.4 Main findings on program impact

A. P.L 480 rice imports: The food itself was judged to have a small impact at the national level on national food availability (20 kcal per person per day) primarily for the largely urban middle income groups in the southern zone of the country who patronize imported American rice. Disincentive effects on production, pricing or commercial importation of rice or other basic food commodities to the country are negligible.

B. Non-traditional export (NTE) earnings: It is probably too early to attribute improvements in NTEs from Ghana to the program.

(It would be even more difficult to attribute increases in food imports to the program). In fact, the dramatic rate of growth of NTEs in the late 1980s has slowed in the early 1990, raising questions regarding the feasibility of realizing the $ 60-70 million increase required by 1995 to achieve the stated program target of $ 150 million. Nevertheless, recent positive trends in foreign investment in the NTE sector bodes well for the achievement of set program targets regarding NTE earnings growth.

C. Feeder roads rehabilitation: The short duration of the evaluation and the relatively brief time since roads were rehabilitated did not allow computation of quantitative changes in road corridors regarding food production, agricultural productivity and domestic resource costs of crop production, income, employment, and economic rates of return to the investment in road rehabilitation. Nevertheless, inhabitants of villages along affected road corridors indicated during field interviews that there have been unmistakable improvements in transport conditions, including changes in the mode of transport and travel time; agricultural production levels and incomes; marketing, including marketing methods and patterns; access by agricultural extension staff; and accessibility of some income groups within the villages to food. However, direct impacts on employment generation could not be discerned, although farm labor use has been reported to have increased in some of the villages visited. The Mission should carefully assess the results of its 1994 feeder road monitoring study being conducted by Ghanaexim for precise information on economic impacts; the 1993 road impact study proved to be too early to show positive impact over the 1992 baseline status.

Social impacts of feeder roads are more difficult to assess but some effects could be discerned along the eight roads visited, including marked reduction (commonly over 50 percent) in transit time to hospitals and better access to communities by public health nurses. No clear impact on school attendance or enrolment was observed overall or for girl students but teachers were more readily accepting assignments to some of the communities.

D. Impact of the NGO export support services program: Indicators so far suggest that the programs of Technoserve and Aid to Artisans (Ghana) have had a positive effect on beneficiaries and are on the right path towards fulfilling Title III objectives. Program impacts identified based on field visits undertaken during this evaluation included: provision of new cashew sales outlets which may lead to increased production and eventually to increased income levels for small-scale producers; dissemination of NGO training given to beneficiaries (e.g., brass casters) among fellow trades people; indirect generation of employment among local communities (eg. ATAG producers calling in extra workers to fulfil large orders, or Technoserve cashew farmers hiring labor for harvest or for the expansion of their farms.)

E. Impact on women: Qualitative observations along feeder roads indicate that the program appears to be having some beneficial impacts on women engaged in marketing and the development of other off-farm enterprises. A decrease in head loading by women also appears to be occurring as loads are more readily carried by motor vehicles. Also, the impact on pre-natal and post-natal health care access has improved.

Judging from program impacts so far, there is more scope for the involvement of women in the programs of both NGOs. ATAG is behind target in women's involvement, and although women are represented within Technoserve's cashew groups they expressed the wish to have more power in the policy-making process. In the case of artisan export promotion the program actually has a potentially negative impact on women because it cuts them out of the sales process, which is traditionally their domain.

1.5 Key lessons learned

A. Program monitoring indicators need to measure relevant variables; the indicators of the food security purpose of the program are inadequate in this regard. The program purpose states that increased food imports will result from increased NTE exports. However, all the indicators proposed for measuring the overall food security goal relate to export activities not to import activities, i.e., export value of NTE, or they refer to outputs of the program at lower levels of aggregation, e.g., reduction in the DRC of crop production along affected road corridors and improved economic rates of return to road rehabilitation.

B. Interest in enhancing program impacts at lower levels of aggregation need to be fulfilled by developing appropriate indicators. Although the program is clearly interested in "people level impacts" the program has not established a baseline and monitoring procedures for measuring them. However, collection of data on measures of social conditions, including gender disaggregated data, is about to begin. Household food security indicators have not been developed hindering the ability to assess program impact on local food security since the program focuses on the macro level.

C. It is very difficult to select roads that target NTE export crops very precisely or exclusively. However, assistance to emerging traditional agricultural commodities as NTEs, such as yams, cocoyams and cassava, via feeder road rehabilitation will serve the dual purpose of improving NTEs and food security along some of the corridors.

D. Monitoring and evaluation can be hampered by inconsistent targets and some of the wording in various program documentation such as the Agreement, PAAD, GOG Letters of Intent, and the Assessment of Program Impact reports (API). It is not clear which

targets apply in some cases while the target length of roads to be rehabilitated is not precisely defined.

E. Regarding feeder roads rehabilitation, perhaps the major lessons are that there is no substitute for regular monitoring of performance and periodic maintenance in maintaining good road conditions. The DFR has prepared a plan for maintain the roads being rehabilitated under the Title III program, but there is no funding provision under the program to support actual road maintenance. Effective maintenance can be facilitated by the development of a line item in the Title III budget that funds regular DFR monitoring activities. Also, community participation in the planning of the rehabilitation works helps to ensure the development or sustenance of community efforts to help maintain the roads.

F. One key lesson learned from the Technoserve experience is that an institution involved in providing market development services needs to keep its original role in perspective: efforts to help secure increased producer prices of non-traditional export crops can lead to conflict with established exporters. For example, Technoserve came into conflict with a major buyer when it negotiated a higher market price for cashew on behalf of producers.

G. Regarding the ATAG program, the major lessons learned were that lack of communication between the management and field levels of such an organisation weakens the institutional development of the organisation and interferes with the achievement of its aims. Pre-financing of export orders is an important part of providing assistance to artisans/entrepreneurs and limited production capacity of artisans can be a major hindrance to establishing export market links. Moreover, the development of export support programs can actually have a negative impact on womens' role in artisan sales, if women are displaced from their traditional marketing role in the artisanal enterprise.

H. CEPA was created to undertake policy research. However, institutions exist that also perform policy analysis. In order not to negatively affect the activities of these existing institutions it is important for CEPA to involve them in collaborative and outreach program. Regarding the overall management of CEPA, one key lesson learnt was that membership of the Council should have been made more transparent and less restrictive and should have included more distinguished professional economists. Another lesson learned was that in an environment of low salaries, the strategy of offering internationally competitive compensation to professional staff of CEPA needs to be carefully designed and implemented to avoid misconceptions of excessive compensation for staff.

1.6 Constraints

Overall, the design, implementation and management of the program has proceeded smoothly, hampered by no major constraints. Nevertheless, the following problems have affected implementation and achievement of planned outputs and impacts.

A. Slowness of start-up and implementation due to the shift from wheat to rice which led to the subsequent late arrival of the commodity and disbursement of local currency funds to recipient organizations. This caused the late start of local currency-funded activities.

B. Some external factors that affect the achievement of program output targets include fluctuations in international market conditions regarding NTE exports and food imports. Also, the falling exchange rate of the Cedi and rising domestic inflation negatively affect budgets for road rehabilitation.

C. Lack of capacity within indigenous NGOs to prepare acceptable proposals for participation in the program. Also, the limited production capacity of artisans and limited resources to finance procurement of inputs hamper progress in implementing the artisanal program.

1.7 Recommendations

Overall Title III program

A. Review targets of purpose and output indicators to ensure consistency in various program documentation and resolve the ambiguities in the wording of expected outputs from the DFR.

B. For the FY 1992-94 program, develop and adopt indicators for national food security linked to increased food financed with increasing export earnings. This will allow assessment of the direct impact of growth of NTE earnings on food imports and provide a measure of the direct impact of the program on aggregate food availability. Examples of this type of indictors include the relative proportions of food needs being met by commercial imports, food aid, and domestic production, or the proportion of marginal increases in foreign exchange spent for imports of basic staple foods versus non-foods and high cost, luxury foods. To facilitate the development of these indicators, it is recommended that the Mission seeks expert input from AID/W and elsewhere.

C. Develop appropriate indicators for monitoring the food security impact on households along the road corridors. This could be integrated in the Ghanexim monitoring scheme which has begun to integrate social and gender indicators on its monitoring roads.

D. Conduct a baseline survey or compile data on the baseline

status of indicators of purpose, outputs and impacts prior to the disbursement of funds from the FY 1994 sale of commodities.

E. Finalize the monitoring and evaluation plan being developed with the MFEP. Include periodic monitoring reports, especially DFR reports on monitoring of maintenance of the road already rehabilitated, as part of documentation required to fulfil actions specified in the Letters of Intent.

F. For the proposed FY 1994-94 Title III program, consider modifying the export-driven national food security purpose of the program to also address increased food security as a result of increasing food production nationally or reductions in food insecurity in selected food insecure regions or groups in Ghana. In the design of the next Title III program, link the program more directly to the distribution of food security and poverty by region, among household types and by gender.

Commodity management

A. The auction system has functioned efficiently. However, one modification of the rules was introduced to halt the submission of speculative high bids. We recognize the risks involved in speculative bidding but question whether this is advisable and recommend that the use of administrative rules to combat speculative bidding be minimized to allow the effect of market forces, and the penalty for non-collection by winners, to price speculative bidders out of the market.

B. The management contract specifies that the Management company, currently Meridian bank, is responsible for all good commodities discharged from the vessel but does not say how this responsibility will be discharged if there is a loss while the commodities are in their care. We suggest that each ton be valued at the CIF value of the commodity as it is landed in Tema and the Management company be required to pay to the Government that value for each ton lost at the exchange rate prevailing at the time of the loss.

C. The commodity management contract with Meridien BIAO is unclear as to when the contract is completed. Paragraph 0.1 stated that "...Meridian shall provide services as set out below for the management and marketing of 38,422 metric tonnes of American Rice...". Paragraph 2 states the agreement "...shall remain in force for a period of nine (9) Calendar months until 30th June 1994. It is recommended that this ambiguity be removed.

D. The USAID office does not have the responsibility to track the commodities through the distribution system under the Title III program. None the less, it is recommended that USAID staff visit the warehouses periodically, especially when stocks are low so that they can be counted easily and compared with the Management company's register.

E. Given the relatively large amounts involved in the sales of program commodities, any delays by the bank in transferring the proceeds to the GOG result in significant revenue shortfall to GOG. We recommend that the contract should specify that sales proceeds are transferred not later that one day after payments are made by traders.

Feeder road rehabilitation

A. The Mission should review the criteria and process of road selection with the Department of Feeder Roads to be sure that roads are being selected that will maximize the purposes of the program which is to increase NTE earnings.

B. The roads being rehabilitated are likely to have some direct impacts on household and community food security; the program is advised to include these as objectives of the program, define indicators for these objectives and set up baselines and monitoring systems to gauge the impact of the roads on food security.

C. The DFR should develop a monitoring budget, keyed to its monitoring plan, for funding under the program to facilitate effective monitoring of its maintenance program.

D. We recommend that the Mission requires that communities along road corridors are consulted by contractors and the DFR in undertaking rehabilitation works, especially with the view to stimulating and sustaining maintenance work through community social mobilization.

E. The evaluation recommends that the DFR should explicitly put into the contract documents the obligation to undertake the restoration of gravel borrow pits. Provisional acceptance of completed contract by DFR should be linked to the adequate restoration of the borrow pits. To avoid any contractual complications, the contractors should build in the price for gravel supply, the required cost to restore top soil to the borrow pit, thus minimizing soil-erosion effect. In addition, it will be worthwhile if some environmental training would be organized for the professional staff of DFR.

F. The traditional notion of re-gravelling of rural roads needs to be reviewed. Because of low traffic usually on some of the roads, some bed materials are sufficient to carry those traffic loads. Systematic re-gravelling may not be necessary. Gravelling is expensive and also contributes to environmental degradation. Spot improvement with sectional gravelling is likely to be more cost effective and with less degradation effect on the environment.

NGO support for NTE development

A. Technoserve should encourage the groups it deals with to

recruit more women and to have more women on their executives.

B. Regarding ATAG, it is recommended that steps are taken to address the situation of the lack of communication between different levels of the organisation.

C. To enhance institutional performance, the team recommends that ATAG should review the performance of its field staff and take steps to fill in any gaps in their training/orientation which have hindered their work so far.

D. We recommend that ATAG should review the business training element of its program to make it more efficient. It is also recommended that the indicators used to assess the performance of the business training element be revised.

E. There should be more efforts to involve women in the NGO programs. ATAG's gender-specific targets could include a higher female participation rate, say 30 percent while it is recommended that Technoserve incorporates more explicit women-related targets in its future workplans.

F. In the next letter of intent a mechanism should be established and funded for assisting NGOs to prepare proposals in the effort to increase the number of viable projects eligible for funding through the program.

<u>The Centre for Economic Policy Analysis</u> (CEPA)

A. Expedite preparation of the program of work and recruitment of senior staff and ensure that the Centre starts activities within the next few months.

B. Tension appears to be the emerging within the membership of the Council; this needs to be nipped in the bud to allow the development of a more collegial atmosphere. Also, membership of the Council should include more professional economists, as is the practice in other countries.

C. Review the proposed compensation package of staff, taking into consideration changes in renumeration practices since the original proposal for staff compensation was prepared.

SECTION 2 THE GHANA FOOD FOR DEVELOPMENT PROGRAM - PROGRAM DESCRIPTION

2.1 Background

The Mission has implemented the PL 480 Title I and Title II programs in Ghana for several years. In response to the changing economic situation in the country, the Mission proposed to implement the PL 480 Title III program at the beginning of the 1990s. Under the GOG's Economic Recovery Program (ERP), initiated in 1983, the GOG is committed to achieving broad-based sustainable development by: assuring Ghanaians of food security, reducing unemployment through raising labor productivity, promoting increased and more diversified exports and integrating agriculture and manufacturing. The GOG has pursued the strategy of providing adequate food security by implementing several measures including: liberalizing output prices; promoting private sector entry into production, processing and marketing; decontrolling input marketing which has seen state withdrawal from the market, thus allowing private sector participation; increasing the capacity to generate and deliver technological interventions for improved production; continuing to privatize agriculture parastatals; liberalizing trade in agricultural commodities; and continuing the rehabilitation and expansion of rural infrastructure. The agriculture sector, in response to the improved policy environment engendered by the ERP, has grown by an average annual rate of 2 percent. Nevertheless, the food deficit has persisted and is widening. In response, the GOG has intensified efforts to address the constraints to increased agricultural growth as a major input in the battle to achieve food security for all. However, these measures are targeted at enhancing domestic production. The other prong in the attack against food insecurity is the ability to generate foreign resource required to meet a rising food import bill. This requires increased export earnings. Within the context of the criteria for a Title II program, Ghana had a growing food deficit to fill, has shown commitment to policies that reduce hunger and malnutrition, has demonstrated that donated food resources would be utilized effectively and is pursuing a long-term plan for sustainable broad-based growth. Hence, the Mission's decision to implement Title III programs.

On July 14, 1992, the Government of the United States (USG) and the Government of Ghana (GOG) signed an agreement for the donation of rice during the period FY 1992-1994 to address developmental needs relating to Ghana's food security needs. The commodities are to be supplied under Title III, Section 301 of the Agriculture Development and Trade Act of 1990 of the USG. However, the program will have a life of four years because the arrival of the first tranche and the subsequent auction and disbursement of local currencies delayed the start date by roughly one year, and the local currencies from the final tranche will not be exhausted until mid-1995 calendar year.

2.2 Rationale and Major Problems Addressed

As stated in the program design document, "despite significant reforms in its agricultural sector, Ghana has not been able to increase food production at a rate that keeps pace with population growth (3.2 percent per annum). Indeed, its food deficit is increasing." The rationale of the FY 1992-94 Title III program is to support the development of the capacity to increase export earnings to help finance food imports to address food security needs. The program is designed to support a long-term strategy for alleviating this growing food deficit by promoting an increase in non-traditional exports (NTE's), which ultimately should generate foreign exchange that will allow Ghana to meet its needs for food imports. The program addresses the GOG Medium Term Agricultural Development Strategy established in 1990, to increase the competitiveness of the private sector to produce and market for domestic consumption and for export growth.

The GOG's strategy to increase export earnings focuses on promoting increased production of non-traditional export commodities [export commodities other than cocoa, gold, timber and electricity]. The performance of NTEs has been dramatic and potential for future growth significant: NTE receipts have increased from approximately $ 1 million in 1983 to $ 60 million by 1990 and to $72 million in 1993. The potential exists to further increase level of NTEs, as pursued under the GOG's 1991-1996 Medium -Term NTE Development Program. Hence, expansion of NTE earnings offers tremendous potential for enhancing total export receipts.

The major problems identified by both the GOG and USAID as key constraints to increasing NTE growth are: finance, marketing, infrastructure and technical support. The Mission's Title III program addresses all these key constraints to NTE expansion.

2.3 Program Purpose

The goal of the program is the same as that the USAID/Ghana overall country program, which is to assist Ghana to achieve broad-based, sustainable and market-oriented growth. The Title III program is an integral part of the Mission's portfolio targeted at addressing the strategic objective of increasing private sector-led export growth, as specified in the Mission's FY 92-96 Country Program Strategic Plan (CPSP). The two other mission programs that address this strategic objective are the Trade and Investment Program (TIP, a 5-year $80 million NPA) and the HRDA program. According to the Mission's latest Assessment of Program Impact (API), the target for this objective of increasing private sector NTEs is to increase NTEs from 62.3 million and 6.3 percent of exports in 1990 to $130 million and 10 percent of all exports by 1995. Along with achievement of targets in reduction in fertility and improvement in the quality of primary education, Title III program targets are intended to promote sustainable, market-oriented growth in Ghana.

The program purpose is to contribute to enhancing food security by increasing and diversifying foreign exchange earnings to enable Ghana meet food import needs to supplement domestic production. In the Mission's Title III design document, "Ghana Title III Food for Development Program" published in December 1991, the program purpose was stated as: "To enhance food security by increasing and diversifying foreign exchange earnings. Since Ghana can not meet its food needs by production alone, it will require foreign exchange to pay for imports." Indicators and targets outlined for measuring progress in achieving the purpose of the program, as spelled out in the Title III agreement are:

1. Non-traditional exports will be increased. The indicator is: export value of non traditional exports. The target is: NTEs will have been raised $150 million annually. As discussed above, this target has been revised downward from $150 million in the Program Agreement of July 14, 1992 to $130 million and 10 percent of exports in the FY 93 Assessment of Program Impact.

2. Export crops will become more competitive internationally. The indicator is: domestic resource cost (DRC) of exports. The target is: 10 percent decline by 1995 in the domestic resource costs at the wholesale level for major crops in the affected areas. Note that the Ghana PL 480 Title III Food for Development Program Workplan for 1993-1994 prepared by the Mission stated a 20 percent decline in the DRC.

3. Improved infrastructure. The indicator is: increasing GOG budgetary support for export-related infrastructure improvements. The target is: GOG will have funded $4 million in export related infrastructure as part of its Public Investment Program (PIP).

4. Improved technical assistance in the trade area. The target is: Ghana will have an independent Trade and Economic Policy Institute recognized by peer review for its quality of research on trade and economic policy.

Given the focus of the program, the end-of-program indicators of achievement of the program purpose are those that demonstrate and measure to the ability of the GOG to promote, increase and diversify exports, especially agricultural-related exports. In sum, the FY 1992-94 Title III program is expected to enhance Ghana food security and export competitiveness through improved rural road infrastructure, improve the capability of NGOs to provide export support and development services to micro and small scale exporters, and, enhance the capability to provide policy analysis in the areas of food security, trade and investment.

2.4 Program Outputs

End-of-program status (EOPS) of purpose-level indicators for the FY 1992-94 Title III program are specified in the program approval

document and the agreement. These EOPs are to be achieved by measuring progress in completing benchmarks agreed between the GOG and USAID. These outputs have been articulated in letters of intent from the Ministry of Finance and Economic Planning. These letters in effect define the conditions precedent for release of the second and third year tranches of the multi-year program. To date two letters of intent have been received relating to the 1992 tranche and the 1993 tranche covering the three component of the program: (a) Infrastructure development; (b) Export extension and support services; (c) Establishment of an economic policy analysis institution.

The following outputs were specified in the 1992 letter of intent signed on July 15, 1992 and were to be completed in year one.

1. Rehabilitate, re-gravel and provide spot improvement to 480 KM of feeder roads that are of importance to increasing NTEs, and provide resources as needed for the rehabilitation of the Koforidua Labor Based training school and for equipment for labor-based Contractors. Note that the training school for labor based public works was added in an amendment letter on April 2, 1993. Also, the Government is to make Cedis 2.1 billion available for this work.

2. Complete a long-term plan for to finance a national feeder road maintenance program. The plan should specify implementation arrangements and insure adequate resources are available.

3. Select NGOs to assist small and micro-scale producers interested in exporting, and increase indigenous NGOs and cooperatives to assist such producers, prepare with the primary NGOs a workplan (Government is to make 96 million cedis available for this).

4. Consider making a contribution to support an independent and autonomous Economic Policy Institute and undertake a study to determine its structure, administrative requirements, procedures for establishment, financing, timing.

5. Provide 10.5 million cedis for preparing required reports and for undertaking monitoring and evaluation of the program. Complete an audit plan for the life of the program, covering commodities, local currencies, timing, identification of independent auditors,and assurances that audit reports will conform to USAID Inspector General audit standards.

The following outputs were specified in the second, 1993 letter of intent signed on July 7, 1993:

1. Provide USAID with evidence that the wheat market in Ghana has been deregulated and private importers are free to import wheat and flour.

2. Specify and rehabilitate, re-gravel and provide spot improvement

for up to 480 Km of feeder roads important to NTEs. (The Government is to make available 3 billion cedis for the work).

3. Specify and complete the construction of selected export related infrastructure and developmental activities that are identified by Government as a priority for increasing NTEs. Show technical and economic feasibility and make funds available as necessary through the Public Investment Program (PIP).

4. Identify NGOs activities that will be undertaken for enhancement of export; make 400 million cedis available for the work.

5. Make a contribution of cedi equivalent of $3 million dollars to the Center for Policy Analysis.

6. Complete selected studies, monitoring and evaluation as well as audits as agreed to between the Government and USAID. Make 60 million cedis available for the work.

The third letter on intent has not yet been agreed, but is planned to include at a minimum an additional 480 km of road rehabilitation, continued NGO assistance, financing of export related infrastructure, and selected monitoring and evaluation.

2.5 Program Resources

The Mission planned to provide rice valued at $30 million over the three-year period, of which $ 9.8 million was to be the cost of transporting the rice to Ghana. Out of this planned LOP funding of $ 30.0 million, $28.3 million was authorized of which $20.0 million was obligated. The planned levels of assistance under the program are as in Table 1.

Table 1

Planned Levels of Assistance: FY 1992-94 Title III Program

Supply period (U.S. FY)	Approx. market value of rice ($ million)	Total assistance ($ million)
1992	4.9	7.0
1993	8.6	13.0
1994	6.2	8.3

As of the time of the evaluation, the six auctions have provided a total of Cedis 12.2 billion to the MFEP, comprising Cedis 3.2 billion from the first call forward auctions, Cedis 3.8 billion from the second and Cedis 5.2 bilion from the third. The last lot of the FY 1992 commodities were auctioned in May 1993. Consequently, local currency disbursements from the Title III account for the first year were made in July 1993. Thus, as noted, the implementation of activities under the program has been delayed by about one year. Under the FY 1992 program, a total of Cedis

4.069 billion was received by the GOG as proceeds from the auction of program rice. As at the time of this evaluation, 85.5 percent of this was allocated to the beneficiary institutions. In relation to programmed disbursements, 92.9 percent of planned allocations from the first-year proceeds have been made. The breakdown of allocations from the proceeds of the first year of the program is given in Table 2. Given the timing of the auctions and the evaluation, 46.8 percent of planned disbursements from the proceeds of the second-year commodities at the time of the evaluation has been allocated to user-agencies. The breakdown is given in Table 3.

The levels of allocations for each user-agency was determined by planned investments under the PIP for the Department of Feeder Roads and through negotiation between USAID and GOG for the other beneficiaries. However, the allocation to the NGOs was conditioned by the U.S. legislative requirement that 10 percent of the proceeds from Title III commodities should be allocated to support the development of NGO activities. The budget of the two-year Technoserve Smallholder Export Program, approved in late July 1993, is $1,498,166. This is funded by both the PL 480 Title III Program and Trade and Investment Program, as follows:

A. Title III: Local currency component of $834,338 covering all local currency expenses;

B. TIP: Foreign currency component of $663,828 covering all dollar expenses (such as expatriate salaries and consultants' fees.

Regarding ATAG, its four-year program was to be funded by the TIP and the PL 480 Title III program, with the former funding dollar expenses and the latter covering cedi expenses as in Table 4.

4.069 billion was received by the GOG as proceeds from the auction of program rice. As at the time of this evaluation, 85.5 percent of this was allocated to the beneficiary institutions. In relation to programmed disbursements, 92.9 percent of planned allocations from the first-year proceeds have been made. The breakdown of allocations from the proceeds of the first year of the program is given in Table 2. Given the timing of the auctions and the evaluation, 46.8 percent of planned disbursements from the proceeds of the second-year commodities at the time of the evaluation has been allocated to user-agencies. The breakdown is given in Table 3.

The levels of allocations for each user-agency was determined by planned investments under the PIP for the Department of Feeder Roads and through negotiation between USAID and GOG for the other beneficiaries. However, the allocation to the NGOs was conditioned by the U.S. legislative requirement that 10 percent of the proceeds from Title III commodities should be allocated to support the development of NGO activities. The budget of the two-year Technoserve Smallholder Export Program, approved in late July 1993, is $1,498,166. This is funded by both the PL 480 Title III Program and Trade and Investment Program, as follows:

A. Title III: Local currency component of $834,338 covering all local currency expenses;
B. TIP: Foreign currency component of $663,828 covering all dollar expenses (such as expatriate salaries and consultants' fees.

Regarding ATAG, its four-year program was to be funded by the TIP and the PL 480 Title III program, with the former funding dollar expenses and the latter covering cedi expenses as in Table 4.

Table 2

Disbursements from FY 1992 Title III Receipts

Actions in Letter of Intent	Planned (cedis billion)	Actual (cedis billion)	Comments/Remarks
Total	2.1	2.1	
1. (a) Rehabilitate, regravel and provide spot improvement for up to 480 km of feeder roads.	0.402	0.202	Cedis 0.120 billion finally disbursed April 1994.
(b) Provide resources as needed for the rehabilitation of the Koforidua labor-based Training School.	0.198	0.198	This represents USAID contribution to school repair costs
(c) Provide 12 sets of equipment for labor-based contractors.	1.500	1.700	DFR held 0.200 as inflation hedge.
2. Complete a long-term plan to finance a national feeder road maintenance program.....	0.200	0.200	Non-Title III resources allocated through GOG annual budget.
3. Select NGOs to assist small and micro scale exporters and increasing indigenous NGOs capability.....	0.096	0.096	TNS: 0.046 billion; ATAG: 0.050 billion
4. Consider making a contribution to support an independent autonomous economic policy institute....	0.514	1.274	CEPA funded in 2 tranches: 1991 (single-year): 0.760 billion; 1992: 0.514 billion.

5. Provide 0.010 for monitoring, evaluations and audits	0.010	0.009	Local audit completed 10/93
TOTAL	3.784	3.479*	

*This does not include Cedis 200 million expended from GOG's non-Title III resources.

Table 3
Disbursements from FY 1993 Title III Receipts

Actions in Letter of Intent	Planned (cedis billion)	Actual (cedis billion)	Comments/Remarks
1. Rehabilitate, regravel and provide spot improvement for up to 480 km of feeder roads.	3.00	1.60	Balance of 1.4 billion to be expended by end of 1994.
2. Specify and complete construction of export related infrastructure.....	0.00	0.020	
3. Select NGOs to assist small and micro scale exporters and increasing indigenous NGOs capability.....	0.400	0.00	4 new NGOs selected, budget being reviewed, expect disbursement in Sept. 1994
4. Consider making a contribution to support an independent autonomous economic policy institute....	0.00	0.00	New level to be determined
5. Provide 0.010 for monitoring, evaluations and audits	0.060	0.00	Price Waterhouse selected to conduct audit in August 1994.
TOTAL	3.460	1.620	

Table 4

Funding Sources and Levels for the ATAG Program

Funding Source	Level of Funding
PL 480 Title III	Cedis 257,538,441
PL 480 Title III	Cedis 87,587,400 (ATA)
Trade and Investment Program	$ 660,306 (ATA dollar costs)

Actual ATAG project costs such as training workshop expenses, raw materials bank expenses and so on, all come from the Title III funding component, thus one could say that the running of the program is funded with Title III money. It should however be taken into consideration that remuneration for training given to artisan groups by the Chief Technical Advisor, a vital part of project activities and a fairly significant expense, comes from the TIP dollar component.

2.6 Program Management: USAID and GOG

The lead GOG unit responsible for negotiating, implementing and monitoring the program is the Ministry of Finance and Economic Planning (MFEP). The International Economic Relations Department (IERD) and the Policy and Analysis Department (PAD) of MFEP are the two Departments that are in charge of day-to-day oversight responsibilities within the MFEP. Other GOG ministries involved in implementing the program are the Ministry of Food and Agriculture (MOFA), DFR, Ministry of Industry and Trade (MIT) and both the Accountant General's Department and the Auditor-General's Department. The Meridien BIAO bank issues checks covering the proceeds from the auctions, less deductions for their services, to the MFEP which passes on the checks to the Accountant-General's office to be deposited in the Title III Account from which the MFEP authorizes disbursements to recipients. Within USAID, the program is managed by the TAPS office. To facilitate decision making in program implementation and promote coordination, there exists a Program Technical Committee (PTC), composed of representation from MFEP, MOFA, DFR, USAID and ex-officio membership of the Ghana Export Promotion Council (GEPC) which participates in an advisory capacity. The private sector, represented by the Ghana Seed Growers Association, was to be members of the Program Technical Committee but the Association has been unable to provide that representation. The PTC is the highest program management structure for program implementation whose decisions, once approved by the Minister of Finance and Economic Planning and the Director of USAID, becomes effective. The PTC has oversight responsibility for the auction and is currently preparing to meet to review proposals from additional NGOs to participate in providing

technical support services to producers of NTEs. The Mission management utilizes informal consultation, periodic memoranda to MFEP, regular scheduled meetings and monitoring exercises to interact with GOG officials in implementing the program. There appears to be a cordial and supportive interaction between USAID and GOG officials in managing the program.

2.7 Program Design Issues

2.7.1 Title III Policy Context

Ghana's Title III program is mandated under the Agricultural Development and Trade Act of 1990 or otherwise known as the Mickey Leland Food for Peace Act. The reformulation of Public Law 480 stated the overall USG policy that food assistance was to be used to enhance the food security of the developing world though the use of agricultural commodities and local currencies accruing under the Act (see Section 2 in the preamble to the legislation). The act defines food security to mean access by all people at all times to sufficient food and nutrition for a healthy and productive life." (section 402 (5)). Under Title III of the Act commodities are made available for economic development activities to least developed countries. Such countries are below the IBRD national per capita income level for Civil Works Preference or have calorie consumption per person below 2300 calories, food security requirements due to shortfall in production and foreign exchange and have child mortality rates greater that 100 per 1000 live births. Ghana has qualified for Title III under the Civil Works preference. For example in 1994 it was one of 61 qualifying countries, and was one of 16 countries with approved Title III programs.

USAID/Washington policy guidance issued on July 24, 1991 (See State 410815) stressed that Title III resources were available for broad-based, equitable, and sustainable economic development, including agriculture. But the guidance pointed to the stress in the legislation on food security, the privatization of food and agricultural distribution systems, and the support of nutrition interventions -- including child survival.

Because of controversy related to the meaning of the food security concept in the practical application of Title III programs, the Agency elaborated the broad definition of food security to include components of availability, access, and utilization of food which allowed for integration and rationalization of food resources in the more focused and concentrated USAID mission sustainable development strategies emerging at that time. (See Policy Determination 19 issued on April 13, 1992 and Appendix.... of this report). During AID/Washington review of the Ghana FY 1992-94 Title III program, issues were raised regarding micro-level food security impact and monitoring (see Office of Food for Peace memorandum of January 26, 1993). Nevertheless, the program was approved by AID/Washington on the basis of the Mission's

articulation of a macro approach to alleviating food insecurity through the pursuit of a strategy of private sector-led export growth specified in its FY 1992-96 Country Program Strategic Plan under which the Title III program will contribute to achieving food security by promoting growth of non-traditional export earnings which, in turn, is expected to result in increased food imports to augment domestic production.

Presently, as a result of the difficulties in measuring and evaluating the impact on food security of A.I.D. Title III program, reported by the General Accounting Office and Congressional challenges to the A.I.D. Title III budget, a narrower subset of activities focused on food consumption, food production and nutritional impacts are being presented in an Agency policy paper for probably use in future guidance on Title III programs (see Annex B). Consequently, where possible this evaluation report attempts to show where the future Title III program could be re-articulated, strengthened or reoriented to fit into both the Mission strategy and the emerging Agency framework on food aid and food security.

However, any perceived dichotomy between food crops and NTE crops is mainly definitional and contextual: exports of traditional food commodities such as yams, cocoyams and cassava are emerging as agricultural NTEs according to information from the Export Promotion Council. Yam exports accounted for 9.6 percent of horticultural exports in 1992 and 7.8 percent in 1993. Hence, support for food crop production directly promotes both food security and growth of agricultural NTEs.

2.7.2 The Nature of the Program

The design of the program followed involved preparation of analytical studies, preparation of a program approval document (PAAD) and review of the PAAD in AID/Washington. The activity was designed as non-project assistance (NPA) under which the USG makes the commodities available (to be monetized to yield local currency budget resources). In turn, the GOG agrees to allocate agreed levels of budgetary resources to implement specific development activities planned in the development budget. Under the NPA, the Mission is not required to track the end-uses of local currency flowing from the program, but monitors GOG disbursements against programmed levels; so long as the GOG makes those resource available for the intended uses, it has met the letter of Intent. The activities in the annual Letters constitute the conditionality framework of the program.

2.7.3 Monitoring and evaluation

2.7.3.A Overall approach to monitoring and evaluation

Monitoring the Title III program is the joint responsibility of

contain plans for monitoring the program. Performance indicators and targets, strongly implied in the statement of outputs, are spelled out in the agreement's monitoring and evaluation plan , e.g. number of kilometres of road improved, number of kilometres maintained, number of PIP projects undertaken, number of exporters trained and assisted, examining the status of wheat market reforms.

In the USAID program document, several baseline studies were to be done by the USAID Trade and Public Sector Office, or the GOG in early 1992. These were: (1) a baseline study for rehabilitation of feeder roads establishing an economic rate of return for the roads; (2) a baseline study on the DRCs of producing the export crops serviced by the roads; (3) a baseline study on micro- and small scale export-related enterprises; (4) a baseline study on private sector investment in NT export activities. The studies were also required for the monitoring of the Trade and Investment Program (TIP). In addition to these baseline studies, the PIP was to establish a line item and process for public sector infrastructure investment to address export bottlenecks so the GOG financial support for this activity could be easily monitored. The Ministry of Finance was to have responsibility for this data collection. Data on the value of non-traditional exports was to be monitored by the Ghana Export Promotion Council. As contained in program documentation, USAID will evaluate the whole FY 1992-94 Title III program yearly with a final evaluation planned for year 4. Within USAID, the Mission's Monitoring and Evaluation Unit assists the TAPS office in monitoring the program.

2.7.3.B Accomplishments to Date

The Mission, utilizing its PD&S budget, is fulfilling the monitoring and evaluation plans as contained in Annex K in the Food for Development Proposal.

Baseline Studies
All of the following baseline studies have been completed in a timely fashion, namely:

(1) a baseline study for rehabilitation of feeder roads establishing an economic rate of return for the roads (see Ghanaexim 1992 study). The economic baseline studies were very thorough efforts done along nine roads intended for rehabilitation. The methodology for calculating economic rates of return and domestic resource costs were according to standard World Bank models. These studies also gathered information on production and markets of crops and farm size, access by agricultural extension and accessibility to markets.

(2) a baseline study on the DRCs of the export crops services by the roads (see also Ghanaexim 1992 study);

(3) a baseline study on micro- and small scale export-related enterprises;

(4) baseline study on private sector investment in non-traditional export activities done by Technoserve. Technoserve's study of export potential was also very thorough, was financed with TIP funds, and included trips to Costa Rica and El Salvador to study non-traditional export activities.

Monitoring

1. As planned, the value of non-traditional exports is being routinely monitored by the Ghana Export Promotion Council.

2. Ghanaexim has completed its first follow-up study of the impact of the roads in 1993, and is completing another study shortly. Clearly, the economic impact of the roads is being carefully monitored by observations of 2 roads each in the Ashanti, Brong Ahafo, Central, and Eastern regions in the southern zone of the country.

3. Technoserve has established a database for tracking its activities with export producer groups. This database includes socioeconomic data on all members, and financial information on export activity. This data base appears to be a very thorough tool for following the activities in providing support services, and the impact of these services of exports and producer gross incomes.

4. The monitoring system utilized by Technoserve appears to be more thorough than the monitoring being conducted by Aid to Artisans.

Evaluation

1. USAID will evaluate the program yearly with a final evaluation planned in year 4. This evaluation (in year two) is the first overall evaluation of the program.

2. To evaluate the performance of the Center of Policy Analysis a survey of peer reviewers will be conducted in years 3 and 4.

2.7.4 Gender Considerations

The PAAD of the FY 1992-94 Title III program noted the importance of women in agricultural and artisanal production and in employment. The document noted that " the feeder roads alone will relieve women of the burden of head-loading produce from the farm to the village market". In addition, the PAAD stated that "increased transport alternatives will improve the price women receive for their harvests and increase their availability of productive time".

Despite the concern of the PAAD with gender issues, there were no explicit interventions directed specifically at women in the activities being implemented in the Letters of Intent. In

particular, the Title III program design placed less emphasis on specific gender issues for the NGO program. However, targets in proposals submitted by ATAG addressed gender concerns to a certain extent. ATAG targets included a 25 percent female participation component: for example, one of the Year 1 targets is the technical training of 200 artisans including 50 women. In contrast, Proposal targets for Technoserve, the other NGO, do not include such gender-disaggregated targets.

The monitoring and evaluation plan of the program (Annex K) indicated that "to meet women in development objectives, data will be collected to allow disaggregation by gender". The baseline survey and follow-up surveys so far conducted on the impact of the rehabilitation of feeder roads, disaggregated data by gender to an extent. However there is room for further gender disaggregation in the next survey.

SECTION 3 TITLE III COMMODITY MANAGEMENT PROCESS

3.1. Program Commodities

3.1.1 Commodity Selection

The Mission's Strategic Objective of promoting growth of NTEs is supported by Development Fund of Africa financing of the Trade and Investment Program (TIP) and local currency receipts from the auction of PL 480 commodities, Title III, at first wheat, and then rice. Under the later agreement, rice was to be combined with wheat with the former being publicly auctioned while the latter was sold under contract to the region's three private milling companies. Wheat was originally selected as it represented a product that Ghana does not produce and therefore would offer no disincentive to local production. It was the commodity imported under the first one-year Title III agreement. A wheat and rice marketing study by Sigma One Corporation dated Oct. 3, 1991, noted that there existed a market absorptive capacity of about 100,000 mt a year over and above the UMR level of 100,000 mt. However, the USDA also at that time signed an Export Enhancement Program with the same millers allowing them to import wheat at preferential terms thus making the U.S. product competitive in the world market. Because there is no subsidy involved in grant wheat, PL 480 wheat then became more expensive in absolute terms although by paying for it in local currency, the Mills were relieved of the necessity of finding foreign exchange. It should be noted that the Title III program was not the only importer of wheat. Ghana's two U.S. Voluntary Organizations, Catholic Relief Service (CRS) and Adventist Relief and Development Agency (ADRA), also have monetization contracts with the same flour mills. In the face of all this grant wheat, USDA maintained that the PL 480 imports were impeding commercial sales and, under their pressure, the Mission agreed to forego wheat and utilize all rice. Program value, of course, remained unchanged. The same study by Sigma Corp. showed that rice, unlike wheat, was imported in a free and open market although a small number of traders did most of the importing. It appeared that smaller traders could not gain access to local foreign exchange nor short term offshore financing as could the large traders. Secondly, although rice is produced locally, the Sigma One report demonstrated that indeed there was a significant demand for the quality of rice represented by PL 480 types which, if filled, would not affect domestic prices or production.

As it turned out, rice has proved more manageable than wheat, the reverse of what was originally thought. At the time of the first agreement, wheat imports were controlled by a parastatal, the Ghana National Procurement Agency (GNPA), which controlled all imports and rationed them among the country's four flour mills. In the first program agreement with GNPA, the wheat was requested to arrive at a certain period when the mills' commercial supply would be minimal. The PL 480 supply would then make up a component of

their production schedule. Due to circumstances beyond the control of the Mission, wheat shipments where delayed leaving the millers in extremely straightened circumstances. Rice, on the other hand, while also demanding good timing so as to not interfere with the marketing of domestic crops, can be held in stock and sold at whatever time is considered most appropriate. An additional incentive for using rice was the opportunity to strengthen the competitiveness of the domestic market in rice. While wheat was handled through a parastatal, rice was freely imported although The Sigma One Corp. study noted that nine private traders accounted for 88 percent of the total rice imported, i.e., both commercial and aid, in 1991, and 100% of all commercial imports. Of those nine importers, four accounted for 86% of the total. (Sigma One report, page 35). It appeared then that there was an opportunity for Title III imports to widen the market to smaller traders.

3.1.2 Commodity arrivals

The schedule of discharges of program rice is shown in Table 5 below:

Table 5

FY 1992-94 Title III Program
Summary of Vessel Arrivals
(As of June 13, 1994)

Call F'ward Date	Arrv Date	Vessel	Q'ty (MT)	Value ($) (000)	FAS $/MT	CIF $/MT	Qty Sound (MT) (Survey Report)
July 15, 1992	Oct. 3, 1992	Solomon	20,591	6,980	276	339	19,952 (96.9%)
Aug. 4, 1993	Oct. 19, 1993	Platte	29,195	9,991	244	343	29,063 (99.5%)
	Nov. 14, 1993	Csokonai	9,222	2,951	251	320	8,947 (97.0%)
		TOTAL	59,008	19,922			57,962

From Table 5, a total of 59,008 MT of program rice was imported over three deliveries during the period July 1992 to August 1993. Out of this total, only 0.8 percent (464 MT) was delivered in bad condition. The average FAS and CIF prices for the deliveries were $ 257/MT and $ 334/MT, respectively. Thus, the average CIF

price/MT was 30 percent higher than the FAS price.

3.1.2 Commodity handling

The program rice is consigned to the Ministry of Finance under "full berth" terms. To do otherwise, i.e., "free out" terms, would require that the Port of Tema be able to discharge 1,000 mt. a day. If for any reason this is not possible the vessel risks incurring heavy demurrage charges. We have been advised by Panalpina, the freight forwarder hired by the Bank, that the port target for discharge from one hatch is 500 mt. a day. Even if two hatches were being worked in one day, this is clearly too narrow a window. On receipt of the Bill of Lading (B/L) the Ministry sends it to Panalpina. They clear the cargo and arrange to have the trucking company, Global Hauling, load it on to trucks from the end of ship's tackle and deliver the commodities to the warehouses in Accra leased by the Bank. There is no storage in the Port or outside it. Panalpina has reported there has been no trouble at the port in terms of labor, clearance, or security.

The contents of each truck are tallied by representatives of the Bank, of Panalpina, and the Survey Agent and the total entered on a standard truckers way-bill. One copy is retained by Panalpina, and three copies are taken by the driver. On arrival at the warehouse, one copy is retained by the driver and two are given to the receiving warehouse officer. The receiver notes on the way-bill if there are any damages or losses and sends one copy to the Bank to support collection from the trucker. The warehouse enters the commodity on its stock cards. Marine damages and sweepings are delivered to Accra. The total discharge of good and damaged commodities is noted on a Survey Report that is submitted to USAID Accra and the Ministry of Finance. It is not clear, however, if these survey reports are submitted to the Commodity Credit Corporation in the U.S. so that the U.S. Government can recoup the value of any marine damage.

Meridien Bank has leased three warehouses of sufficient size to accommodate the large quantities that are received in each shipment (See chart above.) These warehouses are quite distant from each other but it is not clear if the specific warehouse where the stocks are to be delivered is noted in the invitations for bid. There would obviously be a difference in transport costs depending on the location of the warehouse which might affect bid decisions. The warehouses themselves are old and need some repair, especially to the gaps under the eves which are presently not meshed and allow access to the interior by birds and insects. When there is commodity in the warehouse, the bank provides armed guards. While the vessel is discharging, commodities are delivered to the warehouses 24 hours a day. During this period armed guards are hired to patrol the roads leading to and from the port to discourage hijacking or diversions.

Warehouse inventories are maintained by a series of stock cards

which reflect all arrivals from the port. These entries can be cross checked by the truckers way-bills. Deliveries are made under the authority of a letter issued by the bank to all successful bidders who pay in the full auction price. One copy of this letter is sent to the warehouse and the other is carried by the receiver when he goes to take delivery. Each winning bidder may take delivery in a number of tranches in which case a tally sheet is kept of all deliveries made against the authorization letter. Naturally, each time a vehicle is loaded, the warehouse inventory is debited and the quantity issued entered on a corresponding waybill. Before loading, however, each driver must present his divers license and his insurance form to the warehouse authorities. His name and plate number are entered on the waybill that is kept by the warehouse. This extra security precaution was thought necessary to prevent drivers from presenting themselves with false number plates and identification and then diverting the commodities once outside the warehouse.

3.2 Monetizing Program Commodities - The Auction System

3.2.1 The Design of the Auction

Once the decision for a new program in '92 was made, a consultant, Marine Overseas Ltd., was contracted to design the sales mechanism. In his report of August 1, 1992, (The Design of A Tender Auction Sale System For the Monetization of PL 480 Title III Rice, A Report of Consultancy, by Marine Overseas Services, Inc.) the contractor selected the stop-out auction system in which commodities are offered in minimum size lots and the final price is determined by the lowest bid which exhausts the stock offered, or until the minimum acceptable bid is reached. For example, if 5,000 mt are offered in lots of x tons, the bid at which all 5,000 tons are sold becomes the price for all bidders who bid at that level or higher. This technique fosters participation by small and medium traders as it allows bids for small quantities at realistic terms. Other methods such as pay-as-bid in which the commodity is awarded to the highest bidder was thought to lend itself to monopolization by the large traders as only they would have access to enough capital to make large purchases at a relatively higher price. This stop-out technique was incorporated in the agreement signed subsequently between the management agency and the Minister of Finance and Economic Planning (MFEP).

The second major policy decision was to contract with a private firm to manage the handling and sale of the commodities once they arrived in country. Consultations with the MFEP and USAID indicated that neither party had the expertise to conduct the auctions and that MOS should explore contracting an agent to undertake the day-to-day management and implementation of the sale. Some 17 institutions thought suitable were given a Request for Proposal (RFP) and asked to submit proposals with cost estimates. The winning bidder, Meridian BIAO Bank (Gh), Ltd., was awarded the

contract the terms of which made Meridian responsible for clearing the commodities from the port, forwarding the commodities to its warehouses in Accra, and marketing the commodity through a series of six sales over a period of six to nine months beginning November, 1993. This marketing was to include advertising the sale, distribution of tender bid forms, registration of bids, the public opening of all bids, and serving as a member of the Tender Selection Panel comprising representatives of the MFEP, USAID, and a co-opted members from the Ministries of Trade and Agriculture. The contractor collects all payments from the winning bidders and pays the proceeds of each sale to the Bank of Ghana for the account of MFEP. (See attachment X.) Recompense for these services were in the form of a flat fee for warehousing, insurance, and advertising of about $411,111 for the FY 1992 program and from thence, a fee for marketing and consultancy services set at 1.5% of the gross sales proceeds to be deducted at source on a pro-rata basis. (The actual agreement signed in Feb., 1994, called for C634,020,425 for specific services plus the 1.5% of the value of some $30,000,000 over the life of the program. This should total approximately $1.13 million or less than 6% of the total sales value. The consultant deemed this reasonable and acceptable. The agreement also requires that Meridian be "...liable for all losses of the commodity placed in their charge, ~~from tackle-end~~ to final delivery ex-tack to buyers, and shall provide adequate insurance coverage against such risk as per the schedule except non-insurable losses and unsold stocks at the end of the contract period." However, it does not specify how this liability is to be met in the event of a loss, i.e., at what price would Meridian have to reimburse the GOG for losses, i.e., the most recent FAS, CIF, or stop-out price.

3.2.2 The Performance of the Auction System

The quantity of rice sold under the auction system, the stop-out prices and other relevant information on the seven auctions held under the program are give in Table 6. To date, 44,980 MT of rice was sold under the first six auctions through 301 successful bids. The average bid was for 149 MT. In all, ... traders participated in the auctions, ~~including both individual and~~ institutional bidders. The distribution of bids over the course of the first six auctions is analyzed in Table 7. Note that the number of bids of from one to 10 lots were more than six times the total of bids for 100 or more tons.

from all
walks of life

Table 6

FY 1992-94 Title III Program

Summary of Sales of Title III Rice
(As of June 13, 1994)

Date	Qty. Sold (MT)	Value Recd. ($ 000)	Price/Bag (Cedi 000)	Price ($/MT)
23/11/92	5,300	2,284	10,400	421
01/02/93	4,640	1,731	10,600	373
09/03/93	2,918	1,030	10,600	353
06/05/93	6,950	2,544	11,000	366
29/11/93*	13,900	5,296	14,000	381
28/02/94	11,455	3,723	15,000	325
30/05/94	13,000	4,730	22,000	473
TOTAL	55,163	21,388		Ave: 387

*Second call forward.

Table 7
The Distribution of Bids During the First Six Auctions

No of lots bid*	Call 1 ('93)	Call 2 ('93)	Call 3 ('94)	Call 4 ('93)	Call 1 ('94)	Call 2 ('94)	Tot. bids	Tot. MT
1	1	1	9	3	8	11	33	165
2	2	2	1	4	11	19	39	390
3		3	1	3	4	9	20	300
4		2	2		4	2	10	200
5	1		2	5	11	4	23	575
6		1	3		3	1	8	240
7					1		1	35
8			1		1		2	80
10	4	2	6	7	17	14	50	2500
11				1			1	55
13						1	1	65
14				1			1	70
15				2	2	4	8	600
17						1	1	85
20	3	2	3	10	14	6	38	3800
24				1			1	120
25			1		2	1	4	500
30		2	1	2		3	8	1200
50	3	1	1	4	5	4	18	4500
60				1	2	1	4	1200
80				1	1		2	800
100	2	3		1	3	3	12	6000
150						1	1	750
200	3	2		1	1	1	8	8000
250						1	1	1250
300			1	1	1	1	4	6000

500						1	1	2500
600					1		1	3000
Tot.	19	21	34	49	93	85	301	44980

*Note: 1 lot equals 5 metric tons.

The information in Table 7 is further summarized in Table 8.

Table 8

Summary of Bids Received

Size of Bid	Number of Bids	Percent of Bids	Quantity (MT)	Percent of Quantity
1 to 10 lots	186	62	4,485	10
11 to 99 lots	87	29	12,995	29
100 and more lots	28	9	27,500	61

From Table 7 and Table 8, it is evident that the larger bids accounted for the most tonnage sold. Bids for 11 or more lots totalled 115, representing about 38 percent of the total number of bids and 90 percent of the quantity sold. At the low end of the spectrum, some 186 bids, about 62 percent of the total bids, accounted for 4,485 MT, representing about 10 percent of the total quantity auctioned.

A total of six auctions have been held so far. The degree of competitive element introduced by the auction system is exemplified by the analysis of the outcomes of the first four auctions conducted to sell the rice delivered in July 1992 presented in Table 9.

Table 9

Extent of Competitiveness in the Auction System

Ist Call: 21 Successful Bids
2nd Call: 20 Successful Bidders of which 10 also won in 1st Call.
3rd Call: 32 Successful Bidders of which 16 also won in 1st or 2nd call.

4th Call: 48 Successful Bidders of which 26 also won in 1st, 2nd, or 3rd call.

The results of the first four auctions held showed that a large number of bidders who succeeded in one auction also succeeded in one or more of the others although of the 22 winning bidders of the 1st call, only two bid successfully in all four and they were small traders, bidding on only five or ten lots. Ten of the first 22 winners did not win in any of the succeeding auctions. Eighty-three successful bidder won one or more times which testifies to the attractiveness of the auction system to small traders and is also evidence of the competitive nature of the market.

In sum, the commodity handling system must be judged on what it is designed to do; one, yield an appropriate level of local currency with which to carry out the goals of the program, and two, develop to the degree possible the competitiveness of rice market in Ghana. On both counts the system appears to be highly successful, more successful in fact that in almost any other activity of its kind. In the first instance a review of the chart above will shows that the yield of local currency is actually greater than the CIF value. This is the product of extremely good luck in having all three shipments arrive under world freight rates rather than under those of American liners. It is unlikely to continue. Secondly, the efficient and transparent manner in which the auctions were carried out has bred confidence in the integrity of the program. This confidence is reflected in the fact that no winning bidder refused to make his full payment or pick up his commodities. Third is the exemplary manner in which the commodity handling has been undertaken by the Meridian Bank. Their management and extra staffing (retired staff from Unilever, Inc. who have had considerable experience with warehouse operations) has resulted in a commodity flow that appears flawless. It should be born in mind, however, that the GOG is responsible for every kilo of sound commodity that is off-loaded in Tema. While this does not appear to be a problem, losses are collected by the bank from the trucking company and appear to be minimal anyway, it is nonetheless something that should be followed up on. Total losses will not be known until the last auction for '93 commodities is completed. At that point the Bank should provide an accounting on the proceeds for the complete tonnage received at the end of ships tackle regardless of the price received for any part of the total.

SECTION 4 PROGRAM ACCOMPLISHMENTS: OUTPUTS

4.1 Status of Feeder Road Rehabilitation

4.1.1 Background

The Ministry of Finance and Economic Planning has formally agreed to disburse 5.1 billion cedis in local currency, under the first two years of the three year Title III program, to support the Republic of Ghana National Feeder Roads Rehabilitation and Maintenance Project (NFRRMP).

The NFRRMP was developed by the Ministry of Roads and Highway, Department of Feeder Roads (DFR) in collaboration with World Bank Staff in 1991. According to the World Bank staff appraisal report, the aim of the project is to support economic development in rural areas by removing physical constraints in feeder road infrastructure, reducing rural transportation costs for goods and passengers, and supporting farm production and marketing. The project was to support the Government's Economic Recovery Program and the Medium Term Agricultural Development Strategy (MTADS). In MTADS, transportation infrastructure was considered one of six constraints on agricultural production.

The World Bank project appraisal shows planned multi-donor support for the project to be $106 million over 1992 to 1996. Levels of support for the project from various sources are given in Table 10. Support from USAID constitutes 20 percent of the total funding for the project.

Table 10
Funding Plan for the NFRRMP
(US $ million)

Source	Local	Foreign	Total
IDA	27.3	27.7	55.0
GOG (Road Fund)	8.4	0.0	8.4
USAID	20.0	1.0	21.0
DANIDA	0.0	15.0	15.0
OPEC	0.0	5.0	5.0
Japanese Grant Fund	0.0	1.6	1.6
TOTAL	55.7	50.3	106.0

Source: World Bank Staff Appraisal Report, 1991

Over the life of the project, the DFR intends to rehabilitate over 1000 kilometres of feeder roads per year resulting in 8400 km of fully rehabilitated roads by 1999, nearly 40% of Ghana's 21,300 KM of feeder roads. (According to the Principal Engiineer of the Department of Feeder Roads, they intend to rehabilitate 6,650 KM out of 22,700 km of roads by the end of 1996, excluding 1200 KM of cocoa roads supported under another IDA loan.)

USAID/Ghana began its support to the feeder road effort from local currencies gained through the auction of grant dollars under the Agricultural Productivity Promotion Program (APPP) and from the sale of Title III wheat in its one year FY 91 Title III program. The Mission continues its support to DFR through the multi-year Title III program. To date two Letters of Intent have been received.

4.1.2 First Year Targets and Accomplishments

The following outputs were specified in the FY 1992 Letter of Intent signed on July 15, 1992 and were to be completed in year one.

Target 1: Rehabilitate, regravel and provide spot improvement up to 480 KM of feeder roads that are of importance to increasing non-traditional exports (NTEs).

Status: Satisfactory progress has been made. Work toward this objective was delayed as a result of delays in food aid shipments during 1992. Consequently, first disbursements were received by DFR in January of 1993.

The DFR has provided a report on the status of progress on feeder road rehabilitation supported under the first year of the program by region as at the end of 1993. This is shown in Table 11.

Table 11
Status of Feeder Road Rehabilitation - First Year
(As of December 1993)

	Target	Performance	Percent Completed
Length made accessible	338.5 KM	278 KM*	82
Culvert construction	226 no.	178 no.	77
Contracts (million cedis)	765	663	87

*Note: There was an addition error in the December 1993 DFR Status Report. Nevertheless, figures analyzed in this evaluation were from the December Report, rather that the October Report, because of the late start of activities.

The target of rehabilitating 480 KM of feeder roads contained in the letter of intent was not met nearly 12 months after local currencies were received by DFR, and the second letter of intent was agreed. The language "up to 480 km" leaves somewhat unclear the precise performance standard for the target.

A report from DFR showing the regional breakdown is presented in Table 12.

It is notable from Table 12 that completion rates for all regions are close to DFR targets - or even slightly above in the case of Greater Accra - but lag considerably in Volta Region. In fact the Volta region represents 79 percent of the shortfall in culvert construction, and 74 percent of the shortfall in length of road made accessible. It is also notable that the Western region is under represented in road selection and that no roads in the northern zone of Ghana were selected. The reason given is that Danish assistance (DANIDA) and other donors have been focusing on the north.

The DFR cites weather, equipment breakdown, and the depreciation of the cedi due to delays in (local currency) disbursement as the principal problems in implementation.

DFR criteria for selecting roads is based on the agricultural potential of the road corridor, degree of accessibility, and estimated economic rates of return. Non-traditional export potential is applied to road selection only as a secondary-criterion by the Department of Feeder Roads. However, the DFR suggests that it makes a conscious attempt to select roads that will benefit both non-tradition export producers, such as food export or even tourism, and farmers who produce traditional food crops. The analysis relied upon for selection remains those conducted for the previous USAID-financed Agriculture Productivity Promotion Program (APPP) which was more focused on food crop productivity.

Target 2: Provide resources as needed for the rehabilitation of the Koforidua Labor Based training school and for equipment for labor-based contractors. This output was added as an amendment to the first year letter of intent on April 2, 1992. This requirement was added without revising the amount made available for the road construction. (Note that the total funding to be made available for year one roads works and the school was 2.1 billion cedis). The school trains private construction contractors to manage labor intensive road work. To date this school has trained 70 contractors, including 4 women. Graduates receive loans for

Table 13

USAID PL 480 TITLE III MULTI YEAR PROGRAMME (YEAR 1)
FEEDER ROADS COMPONENT
PROJECT STATUS REPORT
AS OF DECEMBER 31, 1993

SUMMARY RESULTS BY REGION

REGION	Length To Be Made Accessible	No. of Culverts To Be Constructed	Contract Sum ¢ M	Exp. As At 31/12/93 ¢M	Length Made Accessible	No. Of Culverts Completed
Gt. Accra	45	22	111.12	94.46	47.3	23
Volta	62.2	39	122.92	74.55	17.6	1
Central	85.6	79	206.96	122.38	63.6	67
Western	20.9	19	64.83	84.21	20.9	19
Ashanti	55.3	24	79.56	97.48	55.3	26
Eastern	44	18	111.84	126.47	48	17
Brong Ahafo	25.5	25	67.93	63.35	25.5	25
TOTAL	338.5	226	765.62	662.9	308.1	178

PROBLEMS/DELAYS: The Major problems which affected the progress of works were:

i) Inclemental Weather
ii) Equipment Breakdown
iii) Delays and time lag in disbursement lead to depreciation of the cedi and increase in cost of projects. These affect the targets.

equipment which is repaid from their contract proceeds. Local currency allocated under the first year of the Title III were used for supplying 12 contractors with equipment through this program.

Status: Mostly unachieved. The DFR reported on the status of the training school in its latest status report, (April 1994) regarding two construction contracts for completion and maintenance of the Training School as follows in Table 13.

Table 13

Status of Two Contracts for the Koforidua School

Contract number	Target Completion Date	Percent Complete
Contract no. 1	12/17/94	2
Contract no. 2	1/18/95	2.5

The delay was due to time required to construct internal roads. The October 1993 -- March 1994 project status report from the DFR states that the project is on hold awaiting DANIDA complementary funding. So far of the total of 425 million cedis for these contracts 12 percent has been expended; this includes 30,822 cedis as a mobilization advance (to start the work).

Target 3: Complete a long-term plan to finance a national feeder road maintenance program. The plan should specify implementation arrangements and insure adequate resources are available.

Status: Completely met. In a memorandum to USAID on June 13, 1993, DFR submitted a report "Department of Feeder roads Organization and Management of Routine/Recurrent Maintenance of Feeder Roads (1992 - 1999)." That report specifies the policy and responsibilities for maintenance. The report also describes strategies for maintenance through direct public sector programming, mobile recurrent maintenance teams (MORMAT) and spot improvement and maintenance (SIAM)) and through the use of private contractors. DFR released funds immediately to the districts for maintenance in 1992, and showed a PIP budget for 1992-1995 rising from 1.1 to 2.1 billion cedis for annual routine and recurrent maintenance of feeder roads. However, there is no provision as yet to monitor actual implementation of the maintenance plan. This could be of critical importance in sustaining the quality of the roads.

Target 4: Provide 10.5 million cedis for preparing required reports and for undertaking monitoring and evaluation of the program. Complete an audit plan for the life of the program, covering

commodities, local currencies, timing, identification of independent auditors, and assurances that audit reports will conform to USAID Inspector General audit standards.

Status: An acceptable audit plan has been received by the program manager at USAID. However, the first audit external audit carried out by Pannel, Kerr, and Forster, Chartered Accountants did not meet USAID RIG standards.

The evaluation noted that the amount contracted for year-one orad works is roughly 1 billion cedis short of the 2.1 billion disbursed by the MFEP for this work.

4.1.3 Second Year Targets and Accomplishments

The following outputs pertaining to feeder roads were specified in the second Letter of Intent signed on July 7, 1993:

Target 1: Specify and rehabilitate, regravel and provide spot improvement for up to 480 Km of feeder roads important to NTEs. (The GOG is to make available 3 billion cedis for the work.)

Status: Partially met as of April 30, 1994, although progress appears to be slower than anticipated if one marks the beginning of the year from the date of the Letter of Intent. The status of completion of feeder road rehabilitation under the second year of the program as at the time of the evaluation is given in Table 14.

Table 14

Status of Feeder Road Rehabilitation - Second Year

	Target (31/12/94)	Performance (30/04/94)	Percent Completed
Length made accessible	406 KM	220 KM	52
Culvert Construction	374 no.	219 no.	59
Contracts (million cedis)	2,969	1,081	36

$\frac{219}{374} \times 100$

A report from DFR showing the regional breakdown is presented in Table 15.

Table 14

USAID PL 480 TITLE III MULTIYEAR (YEAR 2) PROGRAMME
FEEDER ROAD COMPONENT
PROJECT STATUS REPORT AS AT 30TH APRIL 1994

Table 1.0: Summary of Result by Region

REGION	Length to be Accessible	No of culverts to be constructed	Contract Sum ¢M	Expenditure to date	Length made Accessible	No of Culverts completed.
Gt. Accra	15.2	16	92.242	-	-	-
# Volta	66.3	74	376.896	37.60	17.8	21
Eastern	29.2	32	149.939	44.270	-	3
# Central	86.0	90	535.050	283.490	78.6	91
Western	17.4	25	529.88	119.125	1.2	5
Ashanti	48.2	6	205.262	88.450	39.7	6
Brong Ahafo	20.0	23	286.790	178.886	12.9	18
Northern	17.4	14	225.183	213.270	17.4	14
@ Upper East	8.93	17	243.631	Nil	6.0	10
Upper West	87.9	59	266.999	115.465	40.0	51
Grand Total	406.23	374	2,911.87	* 1,080.56	213.60	219

Includes projects transferred from the Multiyear (Year1) Programme.

@ Includes a project transferred from the Single Year Programme.

* Actual payments made from this year's (FY '93) release is ¢903million leaving a balance of ¢817million.

Table 15 shows a notable shift in regional focus. A few roads in the Northern and Upper regions have been included, and there has been a very heavy emphasis on culvert construction in the Central Region. Volta region again represents a disproportionate share of the shortfall in progress to date. In fact, the progress in Volta is even less than it appears because some year one roads have been transferred to year two. In year two the number of roads contracted constitute nearly 85 percent of the USAID target of 480 KM.

If all the contracts are completed as planned for both year one and year two, the project will reach 745 accessible kilometres of road, 78 percent of the target of 960 KM specified in the two Letters of Intent. The ability of the DFR to meet its targets has improved in the second year of the program, compared to performance in the first year. One caveat to this conclusion is that a certain amount of double counting is taking place since some of the uncompleted roads in year one were transferred to year two. Assuming half of the Volta targets distance was transferred from year one, would reduce the DFR planned target to 712 km or 74 percent of the 960 KM mentioned in the Letters of Intent.

Target 2: Complete selected studies, monitoring and evaluation as well as audits as agreed to between the Government and USAID. Make 60 million cedis available for the work.

Status: Unachieved. At the time of this evaluation, the Ministry of Finance and Economic Planning had not called forward the amount allotted for this work because in its view it lacked the capacity to carry-out effective monitoring of the program. The Mission's Office for Trade and Private Sector is attempting to assist MFEP in preparing a plan for monitoring the program.

With regard to the technical aspects of the program, overall, the rehabilitated roads were constructed well, according to the standards of the DFR, providing all-weather access. However, gravel-pit rehabilitation and maintenance operation on several roads have been delayed.

4.2 Status of Activities: Other export-related infrastructure

The program planned to support the development of export-related infrastructure in the cold chain. The Ghana Trade Fair Authority (GTFA) applied for funding of Cedis 200 million, but upon justification, was granted a small allocation of Cedis 20 million to be used for some road and building infrastructure maintenance at the Trade Fair Site. As a result of the timely release of this amount, the GTFA was able to accomodate 350 participants in a fair held immediadely afterwards. The allocation for this sub-set of activities has not been drawn-down because funds are also available under the Mission's Trade and Investment Program (TIP) to support the same set of activities. Hence, the MFEP has been inclined to

utilize TIP, rather than Title III receipts, those activities. Future allocations under this category from Title III resources are, therefore, likely to remain small.

4.3 Status of the Technoserve Program

4.3.1 Introduction

Technoserve provides technical assistance to small producer associations of NTE products in Ghana under USAID's PL 480 Title III program. The principal objective of Technoserve's Export Program as stated in the Program Description is to provide professional structured managerial, technical and financial assistance directly to existing and potential small scale producers of non-traditional exports. By November 93, after an in-depth market analysis, three crops were short-listed for priority long-term attention under the export Program: cashew, shea nuts (& butter) and kola nuts. Other crops projected to be included in the program include pineapple, pepper and possibly cassava.

4.3.2 Technoserve Program Purpose and Outputs

The status of indictors of the purpose and outputs of the Technoserve program is given in Table 16.

4.3.3 Technoserve Program Inputs: Main assistance to be provided

Under the program, TNS planned to:

1. Establish a loan guarantee fund for producer groups or co-operatives;
2. Provide long-term assistance to export-oriented producer groups;
3. Provide short-term assistance to export-oriented producer groups;
4. Identify additional co-operatives and associations for assistance using eligibility criteria established for involvement in the project;
5. Undertake other major activities.

These areas of main assistance provided will be used as the main framework for assessing TNS performance regarding the delivery of export support and development services in Table 17.

4.3.4 Summary of performance

Achievements measured against the project purpose indicators are well on track, as are most of the elements of main assistance provided. Areas which are somewhat behind target are the number of loans leveraged for producer groups through the loan guarantee fund, the development of export enterprise profiles and the

Table 16

2. Assessment of project purpose and project outputs by project end against related indicators

PROJECT PURPOSE		
PURPOSE	**INDICATOR**	**ACHIEVEMENTS TO DATE**
increase in the value of products directly/indirectly exported by those producer groups already involved in non-traditional export	value of products exported by 18 project-assisted producer groups already in the export chain will have increased by 25% per annum	**25% increase in market price of cashew nuts for 12 cashew groups assisted and for all cashew sellers in the Brong Ahafo region.**
an increased number of smallholder rural producers participating in the non-traditional export sector	at least 6 new producer groups will be participating in the NTE sector as a direct result of project assistance	**The export team has contacted 6 cashew groups harvesting limited quantities and 2 groups who plan to harvest in the next two years. Currently all 8 groups are being assessed for TNS assistance.**
improvement in producer groups' capabilities	at least 24 rural producer groups will have improved their organisational, production, management and marketing capabilities	**ongoing**
PROJECT OUTPUTS		
PURPOSE	**INDICATOR**	**ACHIEVEMENTS TO DATE**
increase in product value through improvement in the quality of rural products destined for export	50% increase in export-quality produce deriving from producers organised into groups such as associations and/or cooperatives	25% increase in value of price of cashew nuts from TNS-assisted groups
improved linkages between rural producers and exporters in the sale of primary products	50% increase in the number of supply agreements signed between assisted producer groups and local exporters	no agreements to date
Enhanced ability of rural producers to capture value-added through possible primary/secondary processing of exportable products	25% increase in value-added by those producers dealing in products with viable means for locally-managed primary/secondary processing	work with groups producing processed goods not yet begun, but shea-butter and cashew-fruit processing projected
Improved management and technical skills resident in assisted producer groups	Appropriate and fully transparent financial management (including bank accounts, annual business plans, monthly accounts) and technical management (including production, maintenance and marketing plans) in place and in use in all assisted groups.	20 groups have improved their management and financial systems (including bank accounts, monthly accounts), technical management (including production, maintenance and marketing plans.)

Table 17

3. Assessment of main assistance provided against proposal targets

TARGET	ACTUAL TO DATE
1. LOAN GUARANTEE FUND	
establish loan guarantee fund capitalised at the cedi equiv. of $100,000 which will enable TNS to leverage loans totalling from $150,000 to about $200,000 for 10 producer groups/co-operatives	Loan fund established but no loans leveraged to date
2. LONG-TERM ASSISTANCE TO EXPORT-ORIENTED PRODUCER GROUPS	
management and financial management assistance	• 9 out of 12 cashew grps visited during export-potential evaluating field-trip had executives in place, mostly as a direct result of contact with TNS • at least 4 cashew grps have started capital mobilisation
production assistance	• training of local agric. extension staff in cashew production in order to improve on their assistance to producer groups • selection of 15 pilot farms to test improved farm husbandry practices and to serve for demonstration purposes. • collaboration with UST on pest control • research underway on cashew planting
marketing assistance (identifying buyers and linking buyers and sellers)	• identification of 4 major shea-nut buyers • investigating possibility of linking small-scale pineapple producers to ASTEK and Adikopa dehydrated pineapple exporters
assistance with product pricing, distribution and promotion	• cashew groups have received training in costing • through TNS mediation, Agrotrade introduced new price to cashew grps which was 25% higher than the current mkt price. As a result, market price for cashews has risen to this level for all sellers in B-Ahafo region
loans for necessary capital and inventory needs	TNS has requested ADB to provide inventory credit to shea-nut groups to enable them store their produce so they can sell at higher prices.
3. SHORT-TERM ASSISTANCE TO EXPORT-ORIENTED PRODUCER GROUPS	
feasibility analysis, including assistance to obtain loans	• Bamboi Chilli Farmers: assistance given by TNS to organise them to raise the money needed for installing irrigation equipment • feasibility analysis carried out for an exporting company, for the establishment of a cassava processing unit.
production planning	Dawhenya Rice Co-operative: advice given by TNS on how to diversify into other crops

4. IDENTIFICATION OF ADDITIONAL GROUPS FOR ASSISTANCE	
Identify additional co-operatives and associations for assistance using eligibility criteria established for involvement in the project	initial contact has been made with 21 potential groups: 12 cashew, 3 shea-nut, 3 shea butter and 3 kola nut groups. Assesment and identification of groups according to 10-step criteria established has begun, initially with the cashew groups
5. OTHER MAJOR ACTIVITIES	
carry out market supply and demand analysis	in-depth supply and demand analysis completed by export team in late 1993, including visits to UK, US, and Ivory Coast importers. Result: choice of cashew, shea-nuts, shea-butter and kola for long-term assistance
develop export enterprise profiles	figures have been gathered and export team is in the process of developing profiles for the 4 chosen export products
organise observational tours to successful TNS projects to enable staff and beneficiaries learn about the operations of small-scale producers, processors and exporters of NTEs	visit to TNS/El Salvador and Costa Rica to absorb lessons learned in promoting non-traditional export production among small-scale farmers
establish a project office in Accra, recruit long-term project staff and procure needed capital equipment	project office established. Still looking for full-time agro-processing engineer. In the interim, National Service personnel is working in collaboration with external local consultant. 4 project vehicles and computers procured
initiate enterprise monitoring at all levels of project implementation	draft questionnaire has been developed for conduction of baseline survey on producer groups. Once management agreements have been signed groups will be covered by Field Operations Database. Also database structure has been designed and put into use to catalogue requests for assistance
develop criteria for the selection of individual producer grps and NGOs to receive assistance under the programme	necessary criteria has been developed
develop criteria for determining client fees, in keeping with client producer's capacity	criteria not yet developed for groups under export programme, however it will follow usual criteria for TNS-assisted groups

initiation of enterprise monitoring. However, overall performance has been good which suggests the satisfactory achievement of planned outputs within the program time-frame.

4.4 Status of Outputs of the ATAG Program

4.4.1. Introduction

Over the past few years the revenue generated by handicraft exports has been increasing. Export earnings increased from $1.471 million in 1992 to $2.576 million in 1993, an increase of 75.14 percent. Some of the prominent handicrafts generating this revenue are kente, basketware, rattan/cane furniture, wood carvings, batik/tie & dye, pottery and beads. Earnings from kente increased by 179 percent from 1992 to 1993, from basketware by 45.5 percent and from assorted handicrafts by 177 percent.

In 1991 a pilot project funded by USAID was carried out by ATAG in collaboration with ATA in order to assess the potential of Ghanaian artisanal exports. The outcome of the project was the proposal of a four-year artisanal export development program with the aim of increasing exports and employment in the Ghanaian handicraft sector. ATAG's selection criteria for the artisan groups they choose for training is entirely export-market oriented: artisans are chosen on the premise that the products they make are in high demand on the export market. The final target for export sales was US $400,000, to be generated annually by assisted artisans at the conclusion of the program.

The project elements for each of which performance indicators were set, are as follows:

1. Product development program
2. A US-oriented marketing Program
3. Technical training program for artisans
4. Business training program for entrepreneurs
5. Institutional development of ATAG
6. Monitoring and Evaluation.

This evaluation will use the first five of these project elements as the main framework within which performance can be assessed. The monitoring and evaluation element will not be applicable until during the second year of the program.

4.4.2 The status of achievements against proposal purpose and output targets in the first year of the ATAG program is given in Table 18.

From the table, ATAG performance has exceeded two of its program purpose broad targets by the following margins: 21.3 percent for export sales and 46 percent for crafts targeted. Regarding regions targeted, achievement as at the time of the evaluation was 83.3 percent.

Table 18

2. Evaluation of achievements against proposal targets in Year 1

2.1. Broad targets

area	target	actual to date
Export sales	$75,000	$90,982
Regions targeted	6 regions	5 regions
Crafts targeted	13 types of crafts	19 types of crafts

2.2. Project elements - outputs

AREA	OUTPUTS	
	target	actual to date
1. PRODUCT DEVELOPMENT PROGRAMME	10 new lines of artisanal items	24 new lines of artisanal items (some of which have subsequently been adopted by artisans all over the country)
2. MARKETING PROGRAMME	5 US firms engaged in contractual arrangements with Ghanaian artists	4 firms - 3 US and 1 European
3. TECHNICAL TRAINING OF ARTISANS	200 artisans trained, incl. 50 women	225 artisans trained including 54 women
4. BUSINESS TRAINING OF ARTISANS/ ENTREPRENEURS	200 artisans trained including 50 women	60 artisans including 31 women
	other beneficiaries: Ghanaian entrepreneurs	19 local producer/ exporters assisted through Trade Network

2.3. Project elements - inputs

AREA	INPUTS	
	target	actual to date
1. PRODUCT DEVELOPMENT PROGRAMME	13 wks hire design consultant	14 weeks hire design consultant
	invite 3 US buyers to Ghana to develop market-driven products	3 buyers came to Ghana
2. MARKETING PROGRAMME	US markting specialist for 4 weeks.....	US marketing specialist for 5 weeks.....
	.....to participate in US 5 gift shows	.....participated in 5 US gift shows
	2 local exhibitions organised by ATAG	2 exhibitions organised
	4 ATAG marketing previews attended by 50 buyers	1 marketing preview for a particular firm - now permanent showroom
	promotional materials and public relations activities	some
	Ghanaian market surveys and analysis by ATAG	none
	US market surveys and analysis by ATA	business analysis by Yale students Aug. 1993
3. TECHNICAL TRAINING OF ARTISANS	2 production/ export coordinators for 4 weeks	part of CTAs 14 weeks
	15 intensive workshops at field sites	23 workshops
4. BUSINESS TRAINING OF ARTISANS/ ENTREPRENEURS	Local consultants in production and business: training for 17.5 weeks	local consultants in production and business: training for 16.5 person weeks
5. INSTITUTIONAL DEVPT OF ATAG	NGO management specialist for 14 weeks	NGO management specialist for 13 weeks
	6 NGO management workshops given by ATA mgement consultant	9 workshops given
	13 ATAG staff hired and trained	14 ATAG staff hired and trained
	headquarters, buyers' showroom, gallery, field office and training centre constructed	field office badly equipped, and training centre not functioning. All else constructed and functioning incl.ATAG shop
6. MONITORING & EVALUATION	ongoing monitoring/ assistance from ATA staff	visits by 2 ATA staff
	routine gathering of data by ATAG on project trainees, export orders, growth of artisan enterprises etc.	gathering of such data for 2 artisan groups so far.
Artisan support (long-term target)	establishment of raw materials bank to provide 9 main categories of raw materials	provision of 2 categories of raw materials, and tools
	research in raw materials procurement	research in procurement of straw, dyes for glass beads etc, taking environmtl considerations.into account

4.4.2.A Product development/technical training of artisans

These areas of the program are interlinked and are the ones which have so far performed best. Most targets have been met and some have been surpassed. The fact that the export sales figure for year one is even higher than the target set indicates that the products developed have been of a high quality and have been popular among buyers.

4.4.2.B Marketing program

Inputs for this program have in most cases met set targets, however output is slightly behind target, especially if it is taken into consideration that one of the US buyers included in the output figure (Bamboula) was already buying from artisans currently assisted by the program *before* they came into contact with ATAG.

At present, it appears that there are some constraints on ATAG's capacity to respond speedily and adequately to large-scale buyers. In early 1994 a representative of Pier 1 who came to Ghana during ATAG's exhibition indicated that Pier 1 would be interested in placing a large order for ATAG products. Such an order would likely have been worth something in the region of $900,000. Ultimately the order was not placed through ATAG and there seemed to be some lack of clarification between ATAG and ATA as to who was supposed to be following up the order. Samples were not sent by ATAG to Pier 1 and it is not clear whether the order was finally placed without going through ATAG or whether it was not placed at all.

An important and beneficial part of the marketing program has been the establishment of a Trade Network for local artisans/exporters/entrepreneurs and foreign buyers. Under this Network:
- artisans are able to meet with visiting buyers and designers with whom they could establish business relationships;
- foreign buyers benefit from the data bank on local exporters and producers established for the Network;
- artisans can arrange to collaborate with each other in producing for particular orders thus adding value to products.

4.4.2.C Business training of artisans/entrepreneurs

Performance in business training of artisans/entrepreneurs has been notably poorer than in the other areas of the programme: achievements are very much behind target. This is due to two main factors:

1. Formal business training sessions as an integral part of artisan training only began in May/June this year and there have only been two such sessions so far. None of the permanent ATAG

field staff have formal business background and, thus, all formal business training so far has been given by hired consultants. The amount budgeted for business training is meant to cover consultancy fees for business and production combined, thus the distinction between production training and business training has not been clear cut, making it difficult to ascertain exactly how much business training had been given to date. Indeed this particular aspect of the program was the most problematic to evaluate. The business training situation should improve however when a Peace Corps volunteer who has business/export experience and who took part in the business training element of the Kpandu pottery workshop this year, joins the field team in August/September this year.

2. The assessment of the business training element needs to be re-conceptualised as it is a complex issue. It has been the experience of field staff that a formalised approach to business training is in many cases inadequate. The differing levels of education of artisans/entrepreneurs must be taken into consideration. In some cases business training may be superfluous because enterprises are already run in a professional manner, and in other cases producers may not be sufficiently educated to gain anything from a formalised business training session. Field staff indicated that giving the less educated artisans/entrepreneurs instruction on business is not necessarily a cut and dried process which occurs at a scheduled time in formal surroundings. Advice on production systems, costing analysis and so on is often provided during product development sessions, order-specific training sessions and other occasions for interacting with artisans. Such advice may have to be given in simplified terms, conceptualising the rationale for instruction given in a manner that will be meaningful to the producer. Consequently, while the producer will be aware of having learned something new, he/she will not necessarily categorise it as any type of formal training. The success of the business training element is, thus, not only difficult to quantify in terms of performance indicators, but is also difficult to categorise, as it is inextricably linked with other aspects of training given to artisans.

4.5 Status of Establishment of Center for Economic Policy Analysis

One of the major outputs of the Title III program is the establishment of an autonomous private sector-based institute for the independent economic analysis of policy issues in trade and investment. The Centre for Economic Policy Analysis (CEPA) was legally established as a non-profit, autonomous institution, independent of government and incorporated as a limited guarantee company on January 4, 1993. Following the incorporation, a consultancy assignment prepared the terms of operations, compensation, structure and other operational parameters of the

Centre. In the proposal document, CEPA is mandated to conduct analyses of a broad range of policy issues in macroeconomics, sectoral issues and private sector development. The areas of initial focus of research effort are fiscal policy, money and credit, and trade and payments. The Centre will be independent of government but will make available professional economic policy advice and research outcomes to government. The Center is headed by Dr. J. S. Abbey as Executive Director, with Mr. J. S. Addo as Chairman of the Council. Other members of the Council include Mr. Ishmael Yamson and Prof. G. Benneh. In addition to Title III funding, CEPA also concluded a grant agreement for support from the African Capacity Building Foundation (ACBF) on July 23, 1993 for $ 3.5 million to be disbursed during the period 1994-1997. Grants disbursed to CEPA have been invested in government Treasury bills to generate interest.

The Executive Director and the Council are reviewing responses to international advertisements for professional staff made in January 1994 and have rented premises for offices. No procurements have yet been made. Despite incorporation 18 months ago and receipt of GOG funding one year ago, the program of activities has not yet been prepared. The delayed preparation of the program was, in part, because of the late arrival of the Executive Director, who had to disengage from national diplomatic duties. Nevertheless, the Executive Director is proceeding with the development of the program of activities based on the approach of initially utilizing (mainly local) contract research staff while finalizing arrangements for the appointment of the senior professional staff. Some of the Fellows are likely to be foreign professionals who are likely to arrive in country at the beginning of next year. The newly acquired office premises will be prepared for utilization and project staff, including a financial manager, appointed for a formal take-off of CEPA operations within the next two months.

To facilitate the orientation of the program of activities, a GOG team, including the Executive Director, undertook a Mission-sponsored trip to South East Asia to visit similar institutions and learn from their experiences. The Centre also co-sponsored a lecture on NTE growth in Ghana in June 1994 and has planned to initiate projects jointly with Sigma One corporation in the area of the relationships between fiscal policy and money and credit.

SECTION 5 IMPACTS OF THE PROGRAM

5.1 Macro Impacts

The Mission's FY 1992-94 Food for Development Program was rationalized on the basis of its expected contribution to the long-term achievement of food security of Ghana via its anticipated impacts on food imports. Hence, the program has both macroeconomic and micro-level impacts. At the macro level, the program has implications for government revenue through the local currency derived from the sale of program commodities and the expenditure of local currency by the GOG to support agreed development activities from its development budget. The program commodities, in themselves, have implications for overall food security at the national level through the augmentation of available supplies of a major cereal to help reduce the food supply deficit. The extent of the contribution of program commodities to food security depends on the functioning of the food market; the program promoted reforms in the cereal market that contribute to enhancing the potential for program commodities to meet national food security needs and minimize any potential disincentive effects. These macro effects of the program are discussed in this section. Other macro impacts such as the income and employment generated from trading in the commodities by traders in the whole rice marketing chain are difficult to quantify and are, therefore, not discussed, despite their importance.

5.1.1 Macroeconomic effects

The macroeconomic impacts of the program are derived from two effects: (a) the impact of the food imported on the agriculture sector and its influence on the macro economy; (b) the fiscal, monetary, inflation and external balance effects of the local currency derived from the monetization of the commodities.

The need to examine macroeconomic fiscal and monetary effects is engendered by the principle of additionality: the requirement that resources programmed by the GOG to support activities in the Letters of Intent do not replace, but are additional to, planned expenditures. The direct total revenue from the commodities to the GOG comprises the sales revenues, net of expenditures, and the import/sales/excise taxes on the imports. Of course, the GOG also derives secondary or indirect revenues from the taxes paid by traders in the chain, albeit minor compared to the direct revenue. A key consideration is the level of the local currency receipts derived from the sale of program commodities provided to the GOG. The local currency proceeds made available from the FY 1992 commodities to the GOG (Cedis 4.069 billion) as development budget support in 1993 constituted only 3.4 percent of the total GOG development budget expenditure of Cedis 121.3 billion in 1993.

In the case of the Ghana Food for Development program, the levels of revenues accruing from the sale of program commodities are relatively small, compared to the levels of fiscal expenditures and the money supply. Hence, the contribution to deficit generation and inflation are expected to be minimal. Therefore, it can be concluded that the potential macroeconomic effects of the program are not negative.

5.1.2 Title III program policy reforms

The GOG agreed to further implement measures to promote further liberalization of the wheat market. Although wheat was eventually not included in the commodity mix, it was essential to seek further liberalization of the wheat market because of the signals that the controlled market sends to other markets. -Since July 1991, the importation of wheat and wheat flour was completely liberalized and there are no controls on the price or distribution of wheat and flour. Prior to this the Ghana National Procurement Agency (GNPA) controlled the importation and distribution of wheat due to its role in pre-financing imports. With this liberalization, the last controls to cereal marketing and pricing in Ghana have been eliminated.

5.1.3 Disincentive issues

Domestic rice consumption is growing; the demand for rice has increased from 113,000 MT in 1989 to 122,0000 MT in 1992. However, domestic production is lagging: during 1991 and 1992 the total national deficit averaged 47076 MT. Consequently, total foreign inflows (comprising commercial imports and aid supplies) rose from 117000 MT in 1989 to 203,000 MT in 1992. Clearly, imports play a very significant role in meeting domestic consumption needs. The supply of rice under the program augments national supplies, thus contributing directly to enhancing food security. However, the potential effects on domestic production and prices need to be considered. The relevant issues to consider in a disincentive analysis relate to the impact of the quantity, quality, timing, marketing and pricing of external inflows of concessionary or commercial imports on domestic production, marketing, pricing and consumption of the imported commodity and its substitutes or complements.

The impact on the domestic prices depends on whether imports are additional to or substitute for private sector imports. Commercial imports of rice have increased from 80,000 MT in 1989 to 180,000 MT in 1992, an average annual rate of 41.6 percent. Thus, the evidence strongly suggests that aid imports under the Title III program do not replace commercial imports. This is partly due to the segmented nature of the internal rice market.

The extent of any disincentive effects of Title III rice imports is determined by levels of price and income elasticities of

demand for rice and related food commodities. Estimates of these own-price elasticities are available from various sources, including recent Mission-sponsored studies of the rice market in Ghana. These studies indicate that the demand for rice is nearly elastic in Ghana; the income elasticity of demand was estimated as 0.98. This estimate, which is similar to that from other studies, shows that the consumption of rice in the Ghanaian diet is highly responsive to the level of income, albeit not as much as the demand for meats and wheat. In contrast, the demand for the tubers and maize show relatively low response to income changes. The values of the income elasticity of demand for other food commodities are produced in Table 19.

Table 19

Income and Own-Price Elasticities of Demand

Commodity	Income elasticity	Price elasticity
Rice	0.98	1.17
Maize	0.19	0.77
Wheat	1.15	1.15
Tubers	0.07	0.46
Meats	1.44	1.07

Source: Ariza-Nino (1991),

The demand for rice is elastic with respect to price, as shown by the value of the own price elasticity of 1.17 in Table 19. Likewise the demand for wheat and meats is price elastic. In contrast, the demand for tubers is highly price inelastic.

Given the role of both cereals and the starchy staples in the Ghanaian diet, the discussion of any impacts of program rice on the domestic food market also needs to consider the effects on other food commodities. The values of cross price elasticities of demand are shown in Table 20. From Table 20, a 1 percent increase in the price of rice results in a 4 percent increase in the demand for maize and a 5 percent increase in the consumption of tubers. Thus, rice is relatively poor substitute for the basic staples of maize and tubers.

Using production, consumption and price relations in 1991-1992, a recent Mission analysis of the possible effects of rice imports has shown that importing 26,000 MT of rice under the Title III program would depress domestic production by about 5,000 MT and reduce the market wholesale price by 7 percent.

Table 20

Cross-Price Elasticities of Demand

Commodities	Cross-Price Elasticity
Wheat and rice	0.00
Rice and maize	0.04
Rice and tubers	0.05
Rice and meats	-0.05
Tubers and maize	0.31

Source: Ariza-Nino (1991).

These levels of effects are low and are corroborated by results from other studies. For example, a University of Ghana study on food aid found that for all cereals, the domestic market price is inelastic with respect to food aid supplies; for rice, a 10 percent increase in aid imports depresses the domestic market price by 2.8 percent and reduces domestic rice production by 7.4 percent.

The disincentive effects of the rice supplied so far and programmed to be supplied under the Title III program depend crucially on the share of these supplies in national production and consumption. In particular, the low substitutability of rice for the major staples is a reflection of its low share in total food consumption. The share of rice in total national cereal consumption is low: according to estimates by the Ministry of Food and Agriculture, rice accounted for 10.3 percent of the annual national demand for grains in 1992. Considering the small size of the food aid rice compared to the commercial and produced grain and other staples, the contribution of the program rice to Ghana's food availability is quite small. The caloric contribution of 30,000 MT of rice is not more than about 20 calories per person per day for Ghana's 16 million people who need on average about 2300 kcals per person per day to meet minimum needs. That quantity of imported rice could only satisfy about 10 percent of Ghana's shortfall of 207 kcal per day.

The nature of the effects of aid rice depends on the structure of the domestic rice market. The consumer market for rice in Ghana is segmented according to quality parameters and differentiated by price. There are more grades of rice in the market than of maize or the other staples; a recent study identified nearly 40 different grades. The segmentation of the rice market is also

due to transport costs: the market in northern Ghana, where the consumption of local rice is high due to dietary and production reasons, is effectively segmented from the southern market, where the consumption of imported rice is highest. Studies of the cereal markets in Ghana suggest that the rice markets are less efficient than those for maize, millet and sorghum due to weak price transmittal. Since the rice markets are not integrated, it seems that the effect of imported rice is felt mostly in southern markets, close to the points of imports, than in the northern half of the country.

A major factor that determines the impact of imported rice on the domestic rice market is how the imported rice is marketed. Most rice aid is monetized commercially on the free market; under the Title III program, USAID has adopted the mechanism of competitive open auctioning. Thus, the price of the imported aid rice is responsive to international market prices, not to the price of domestic rice. During any year, the market price of rice fluctuates seasonally, with the lowest price in January, when the harvest from local production in Northern Ghana becomes available; the highest prices occur in August. The price variability of rice is lower than that of maize but the marketing margins are higher; marketing margins in rice trading have been estimated to be as high as 40%. One study showed that, apart from Accra, the marketing margin of rice is a constant percentage of the retail price. However, a study by Cornell University showed that, the marketing margin as a ratio of the retail price is higher for local rice than for imported rice. When marketing margins are high, both producers and consumers suffer: producers receive lower prices than otherwise would be the case, while consumers pay more. Hence, perceived negative effects of imported rice on the price of domestic rice could be confounded with the effects of high marketing margins.

The contribution of the program rice to alleviating food insecurity also depends on which income class of consumers have access to the rice. The argument could be made that Title III rice is consumed mainly by higher-income consumers. The rice is sold in the open market and all consumers have access to it. However, given the segmentation of the market, local and imported rices sell in different target market segments, with US long grain, number 5 rice probably mostly sold in urban markets to middle and upper income groups. U.S. rice enjoys a quality preference of 30% above southeast Asian and Chinese rice, and locally produced rice. The program rice is positioned in the middle of the quality and price range, between the low-priced supply of local rice and the higher-quality perfumed rice imported from .....

The level of food security achieved depends also on the extent of fluctuations in consumption. In terms of food security, one other impact of foreign rice inflows derives from the lower

variability of foreign supplies, compared to domestic production. A 1991 study of the impact of foreign inflows of rice on domestic production in Ghana estimated that the percentage coefficients of variation of aid inflows, commercial imports and domestic production have been estimated as 5, 9 and 19, respectively. Hence, the inflow of rice from foreign, especially aid sources, has the potential to reduce the variability of domestic food consumption, thereby contributing to the achievement of greater food security.

The supply of rice under the program has beneficial effects on the consumer or market price of rice, in so far as it contributes to increased availability. It may also exert a positive influence on domestic production; food aid (if it is additional to normal imports) helps to create additional domestic demand for rice which could be met from increased domestic production. In summary, the consumption of rice is significantly responsive to price and income but, given the small share of rice in the total food budget, the effects of higher imports on the domestic food market is relatively small compared to the effects of changes in the price and supply parameters for the major staples, maize and tubers.

5.1.4 Achieving NTE earning targets

At present, the Title III program together with the TIP and HRDA are intended to increase foreign exchange earnings through non-traditional exports. NTEs have been rising in recent years and in 1992 were 6.3 percent of all exports, as shown in Table 21. At present, the Mission's target is to raise NTE value to US$ 150 million in 1995. If it does, given production level do not falter and other exports keep pace and food prices do not rise and all or most of the newly generated foreign exchange is spent for basic cereal grains at a price of about $250/ton, then the imports finance by the incremental NTE earnings would fill current gap in Ghana's food energy supply. However, the Mission's target for NTE growth is highly ambitious in the short to medium term for a number of reasons. First, achieving the Mission's target of NTE earning will be increasingly difficult: an increase in NTE earnings from $71.7 million in 1993 to $150 million by 1995 requires a 110 percent increase in 1994 and 1995, an average annual increase of 55 percent, compared to the 4.8 percent increased recorded in 1993 over the 1992 level. Secondly, the particular exports focused upon by the Title III program with direct support by NGOs either currently make a very small contribution to total NTE receipts and where attributions to the program are clear, the effects are likely to be small. For example, Technoserve, presently focuses on shea nuts, kola nuts, and cashew nuts which have contributed not more than 3 percent to Non-traditional exports (0.1 percent of all exports, in a good year, 1992 (see table). Again given the types and levels of support being provided under the Title III program, the

contribution of these product lines to total NTE earnings will increase. Further, the feeder road rehabilitation is likely to affect general crop production which is likely to positively impact agricultural NTE crop production.

However, it is likely that future rates of growth in NTE earnings will accelerate given the support being provided by TIP, HRDA and other elements of the Title III program as well as support from the World Bank, other donors and the GOG. Within the last six months, there has been a significant increase in foreign investment in the NTE sector that augurs well for achieving this target; it is estimated that recent investments in food processing and textiles and those promoted by the African Project Development Facility (APDF) alone will yield at least $ 55 million in NTE earnings in 1995.

Table 21

Non-Traditional Exports From Ghana

	EXPORTS VALUE BY YEAR ($US MILLIONS)				
	1989	1990	1991	1992	1993
All NTEs	34.71	62.34	62.55	68.42	71.70
% of All Exports		6.3	6.9	6.3	
Agricultural NTEs	21.17	28.78	33.04	22.06	26.13
Selected Products:					
Cashews	0.0	0.01	0.017	0.028	0.0
Kola Nuts	1.47	1.03	0.09	1.43	1.02
Shea Nuts	n.d.	n.d	n.d	0.51	0.34
Yams	1.65	0.97	3.05	2.11	2.03
Fish & Seafoods	13.27	21.52	20.05	11.09	14.75
Pineapples	7.95	3.83	5.07	4.39	5.18

Sources: Ghana Export Promotion Council, and USAID/Ghana API.

5.2. Impact of Feeder Roads Rehabilitation

5.2.1 Introduction

The investigation of feeder road impact was based on:

1. A review of studies of the impact of roads rehabilitated under the USAID funded Agricultural Productivity Promotion Project done for the Government of Ghana and USAID by Ghanaexim, and Comtran Engineering and Planning Associates.

2. Documentation provided by the Ministry of Roads and Highways, Department of Feeder Roads (DFR) on the feeder road activities undertaken with USAID Title III funding and interviews with regional engineering staff, and the Principal Engineer in the DFR.

3. Observations and group interviews were conducted in a sample of eight villages along completed feeder roads in five of the ten administrative regions as shown in Table 22. In addition to the above visits, another trip was undertaken to assess the technical aspects of feeder road rehabilitation as indicated in Table 23. The groups interviewed during the field trips included community leadership, farmers, teachers, health workers and transport providers, with special efforts made to include women. Given time limitations, the sample interviewed was small but their locations are reasonably representative of the different regions of the country. However, the information obtained from interviews was more qualitative than quantitative, and without baseline information the team had to elicit recall information and data on a range of economic and social variables. Answers were often a subject of debate and discussion, and clearly, the variation in impact on different types of households and producers could only be roughly approximated. Also without reference to control roads impact of general economic conditions could not be precisely known. Given these limitations, the team feels that the information obtained was sufficiently reliable and would complement findings from other road impact studies to make judgements on the program at the present and to point a way to further more precise impact studies in the future.

Table 22

Roads Visited for the Economic/Social Evaluation of Title III Program
(June 1994)

ROAD	COMMUNITY (REGION)	LENGTH(km) CULVERTS (no.)	COMPLETION DATES	CONTRACT SUM (Million cedis)	REMARKS
Nassia-Janga	Janga (Northern)	25.3 (18)	29/11/93	78.3	1991 Title III support
Kusawgu-Yiape-Tawule	Kpingipe (Northern)	17.4 (31)	15/6/94	255.2	Access to Yapei port on Volta Lake.
Chiraa-Tanom	Tanom (Brong Ahafo)	6.5 (12)	3/9/92	26.7	Road in excellent condition
Japekrom-Kwameseikrom	Kwameseikrom (Brong Ahafo)	18 (14)	30/11/92	34.7	Poor condition/ maintenance
Ahenkron-Kyekewere	Tetrem (Ashanti)	34.9 (1)	5/6/90 27/5/93	48.9	3X3 meter box culvert
Apapam-Akropong	Larbikrom (Eastern)	18 (12)	8/9/93	63.7	Escarpment village, road has very steep
Akropong-Tumfa	Tumfa (Eastern)	6 (3)	1994	40.6	Small town/ road in good cond.
Agyemra(jnc) -Agyemra	Agyemra (Western)	14 (17)	23/6/93	35.5	Coastal fishing village. good road.

Table 23

Roads Visited for the Technical Evaluation of the DFR Program
(June 1994)

ROAD	COMMUNITY (REGION)	LENGTH (km) CULVERTS (no.)	COMPLETION DATES	CONTRACT SUM (M. cedis)	REMARKS
Kissi-Hemang	Hemang (Central)	9.15 (6)	-	29.92	All weather access road in good condition
Logba Alakpeti-Logba Tota	Logba Tota (Volta)	6.7	10/22/94	85.03	Satisfactory progress on tarring
Saviefe Agbokpo Jn.-Nyagbosroe	Nyagbosroe (Volta)	2.01	1/27/94	58.06	Satisfactory progress of work
Sheaga-Pelengu-Mangodi	Mangodi (Upper East)	6.6	2/8/93	30.93	Road in satisfactory condition
Bolgatanga airstrip access road	Bolgatanga (Upper East)	3.23	9/17/94	86.56	Work progressing satisfactorily
Jirepa-Sigri-Karui and Daffiama-Onlofian	Daffiama (Upper West)	17 (11)	11/18/94	40.69	Satisfactory quality and progress of work
Jirapa-Ping	Ping (Upper West)	25.7 (14)	11/18/94	61.11	Quality of work and progress satisfactory

5.2.2 General Impacts

In many of the study areas, the rehabilitation of roads were only completed a short while ago. Roads programmed for completion in year one of the multi-year Title III program were completed not more that 12 months before the interview, although in some cases the roads have become accessible early in the construction period or were improved previously under other DRF projects. Road rehabilitation works are still too recent to enable a meaningful quantification of increased incomes, employment and consumption. But, despite the very recent completion, community residents reported overwhelmingly positive benefits of the rehabilitated roads. The findings of this evaluation affirm the conclusions of other studies (such as for the APPP) in that benefits of feeder roads improvement may take time to be manifested fully. In particular, household income and farm agricultural productivity gains take much more time to show, while improvements in availability of transport services of both persons and commodity movements, food marketing activities, access to agricultural extension as well as farmers access to social infrastructure line health and education facilities are evident relatively more rapidly. Furthermore, the interviews in the villages revealed that non-farm income opportunities for women have increased. However, the impacts of roads on general welfare have been limited by such factors as the influences of general price increases, especially for fuel and farm inputs, and in the case of the poorest household, the price of food. Social improvements are limited by the shortages of teachers and other service personnel.

5.2.3 Impact on Access and Transport Services

Consistent with findings from other road impact studies, in all the villages visited there has been a significant improvement in access to transportation services since the roads were rehabilitated. This has resulted in increased mobility of the inhabitants along the road corridors, thereby beginning to help in reducing transaction costs in the local economy. This impact on transport services is the most direct and immediate impact of the rehabilitation program. The impacts of the rehabilitation works have been expressed in three categories: (a) switches in the mode of transportation from head-loading to the use of motor vehicles and an increase in the volume and type of vehicular traffic, as seen in Janga, Tanom and Larbikrom; (b) reduced time to travel transport cost and time to travel; and (c) reduced transport operating costs and increased returns to transport operators. These effects are exemplified by the case of Tanom village near Sunyani. Before the rehabilitation in 1992, there were no vehicles on the 7 KM road to Chira, apart from farm tractors whose operators charged Cedis 1,200.00 per 100 KG bag of maize. Head-loading took 2 hours and cost about Cedis 700 per

bag of fertilizer from Tanom to Chira. Now, there are six vehicles plying the road, a bag of maize cost Cedis 500.00 to transport while the transport charge for a bag of fertilizer is Cedis 400 from Sunyani. Operators of mini bus vehicles now use at least 25 percent less fuel than before while their net income has increased from about Cedis 4,000 to Cedis 10,000.00 per day. Along the road to Larbikrom, the rehabilitated road has reduced the distance between Akropong and Kibi by about 50 kilometres. Feeder road rehabilitation can also result in access to public urban transit transportation: in Tumfa village inhabitants now have the services of an Omnibus Services Authority (OSA) bus which comes from Accra through Akropong; there was no such service prior to the rehabilitation of the road. However, these nascent gains may not be improved in some of the areas where the roads were beginning to show signs of erosion and encroaching grass cover. The importance of maintenance in maintaining road conditions was underscored by the road from Japekrom to the Cote Ivoire border (actually a trunk road) on which recent rehabilitation and improvements have deteriorated for lack of maintenance such that access has again fallen to previous levels.

5.2.4 Impact on Agricultural Production and Incomes

One of the key effects of decreased transport costs has been the enhanced incentive for producers to produce more. Also, producers now suffer less crop losses and can market more. Farmers in all the villages visited indicated that they have expanded or planned to increase their acreage under cultivation to key crops in response to improved accessibility and marketing. However, it was not clear to what extent this has been due to the improvement of the roads. As pointed out in APPP impact studies, without baselines and controls, it is difficult to discern the impact of the road from the impact of overall market conditions and routine increases in acreage. In those studies comparable "baseline" villages along unimproved roads showed parallel but somewhat smaller increases in land planted. The farmers also stated reduced post-harvest crop losses because of quicker access to markets and traders: in Tumfa it was claimed that post-harvest losses were cut in half but it was not possible to obtain village-level data to verify these claims.

In some instances, villagers pointed out that market women were certainly making greater incomes; for example, the fish mongers in Agyamra and Janga, kola nut sellers, and charcoal producers. In one village it was claimed that 30 percent of the women were "market women". When pressed, respondents reported that the standard of living for whole villages might have increased slightly due to the road, but that poorer households may not be doing so well. However, it was pointed out in almost all the villages that general price escalation was eroding income gains; in Tanom the group claimed that despite the road the standard of

living had deteriorated in recent years.

5.2.5 Impact on Traditional versus Non-Traditional Export Crop Production

Improved roads offer incetives for increased production and productivity of most goods and services. Hence, road improvements appear to be a diffuse instrument for increasing non-traditional export crops. Although all areas visited produce some form of export crop, the impact on production appears to be as much for food stuffs marketed and consumed domestically as on food destined for export. Some evidence was found that prices for shea nuts, cola nuts, and tiger nuts have been positively impacted by the roads and are clearly destined for export, but most of the production focus was on staple crops such as maize, millet and yam in the North, and plantain, cassava, maize in the forest region, and fish and charcoal production in the western coastal village of Agyemra. In addition, cocoa cultivation is a major activity along several road corridors visited, especially those in the Ashanti and Eastern Regions.

This result is not surprising since it appears that the criteria for selecting roads for rehabilitation has not changed from that used in the APPP which sought to improve general crop production. In fact the DFR has listed plantain, maize, sorghum and millet in the category of non-traditional exports on the roads they have identified for the program (see MFEP letter of intent July 7, 1993,Annex 1, Attachment B). Consequently, the roads rehabilitation would probably result in more direct improvement domestic food availability, thus contributing to improved food security through increased food for consumption, than in targeting the purpose of stimulating non-traditional exports.

5.2.6 Impact on Agricultural Productivity

Clearly, bad road conditions would be expected to have affected input use but gains in agricultural productivity that could be directly and attributable feeder road rehabilitation were not readily evident during our visits; any such improvements will only be noticeable much later. In some of the more fertile and major crop producing areas in southern Ghana, the key constraint to increased utilization of improved inputs did not seem to have been the deteriorated conditions of the roads; thus fertilizer usage appears not to have been affected by the rehabilitation works. Also, farmers in some communities, especially in the north were not able to afford fertilizer or other inputs limiting their production and productivity despite road improvement. In Tumfa farmers said that the distance of supply points and the high cost of fertiliser discouraged them from using it but the improvement of the road did not make any difference to this situation. Utilization of improved farming inputs can be affected by other factors; for example, villagers in Janga said

that although it was now easier for them to procure fertiliser due to the improved road but the Ministry of Agriculture had discouraged them from using fertiliser and was advising them to use compost and cow dung instead.

However, in two-thirds of the villages, the access and frequency of exposure to agricultural extension agents had improved. For example, in Kpingipe, a Northern village, the village received its first visit ever from agricultural extension staff this year. Also, groundnuts have been introduced as a result of recent advice from the regional agricultural extension agent. These developments can likely be attributed to the improvement of the road. In contrast, villagers in Janga, also in northern Ghana, indicated that the frequency of visit by the nearest agricultural extension officer had not increased after the rehabilitation of the road.

5.2.7 Impact on Marketing of Agricultural Produce

Feeder road rehabilitation has resulted in improved road access for marketing. All the communities generally reported improved access to markets; the rehabilitation has greatly facilitated the sale of food crops. The improvement in marketing has been generally due to increased numbers of traders now visiting producing areas to source produce, reduced need for producers to perform the marketing function and improvements in the mode of marketing. In some villages, headloading or carriage by bicycle of produce to markets has given way to vehicular conveyance. Also, market women can take faster and more frequent trips to regional markets: in Tumfa women now trade in markets in Accra, Nkawkaw, Koforidua and Tema on a weekly basis; formerly they only went once a month. Some of the villages reported that this mobility has increased their ability to bargain for better prices if they had to sell within the village, where formerly they were forced to take the price offered by outsiders who risked the journey. In Larbikrom, there have been changes in the system of marketing: for example, traders now buy the standing cassava crop and do the harvesting themselves, instead of buying the harvested crop as previously done. Unfortunately, the increases in fuel prices, and thus transport costs, have undermined some of wholesale cost savings resulting from the improvement of the roads.

5.2.8 Impact on Employment

It was difficult in this survey to accurately determine improvement in standard of living, as indicated by increased employment, incomes and expenditure. Little direct employment was generated by the rehabilitation since all the contracts involved equipment-intensive, rather than labor-intensive, methods; generally, only about three or four local persons were employed for very short periods on the road construction works.

However, in Agymra, about 15-20 people were employed for about three months on the project. Direct employment of the Title III feeder road rehabilitation program will increase significantly when labor-based rehabilitation works begin.

Despite the low direct labor impact, the improvement in transport conditions has the potential to induce increased on-farm labor use. In Janga, farmers indicated that they are now able to hire wage labourers from other villages during the farming season; previously, wage labourers could not make the trip by bicycle during the rainy season. In Tumfa farmers are now also better able to procure wage labour; the level of temporary migration to their village for purposes of seasonal wage labour has increased since the road was improved. Non-farm income sources for men were not as yet impacted by feeder road rehabilitation whereas non-farm income generation opportunities for women have expanded and diversified. The improved transport conditions are more likely to induce increased non-farm enterprise in locations along commercial routes, such as Tetrem where proximity to Kumasi has contributed to increased diversity and increase in small scale trading and other vocations, albeit not large. Overall, increase in non-farm enterprise were not yet very evident during the survey.

5.2.9 Impact on Household Food Security and Dietary Changes

In general, villagers were reluctant to identify the extent of any food shortage problems. In the surplus foodcrop producing villages in southern Ghana, such as Tanom and Larbikrom, it was claimed that there was no food shortages in their communities but some villages, such as Tetrem admitted that some households become food insecure during the lean season. In general, it was not clear how increased food marketing impacted on families that were not large surplus producers or were in deficit at some time in the year. This is because increasing real producer prices for surplus producers could either mean that village consumer prices are correspondingly higher or that competition from external food supplies could reduce local prices. Without a more detailed analysis and baseline and control villages, the direction and extent of household food security improvements between and within villages could not be ascertained during this evaluation. Nevertheless, women indicated increased availability of a more diversified commodity range for enhancing nutrition and to the extent that women do gain increasing income shares due to their expanding marketing activities, it could have a positive food security impact on the households.

5.2.10 Impact on Health services

As indicated in previous studies on the impact of feeder roads in Ghana, villages tend to report a strong impact on their access to non-traditional health services. Although four of the villages

visited had health clinics, local health personnel did not report any improvement in attendance at those facilities by residents. However, several villages indicated that access to hospitals by seriously ill people along the road corridor has increased significantly due mainly to increased availability of transport and improvement in travel time. For example, in Tumfa where there is no village clinic, pregnant women visit clinics in other towns for check-ups more regularly since the road was rehabilitated. Significantly, in four of the eight villages Public Health Nurses have begun to visit the villages more frequently than before the roads were rehabilitated. In two villages, mothers reported learning to use new higher protein weaning foods which could have an impact on the incidence of kwashiorkor, or child protein deficiency.

5.2.11 Impact on Basic Education

As found in other more extensive studies, the short term impact on education is positive but less dramatic than the impact on health, and may be a longer term impact. Most of the villages had local schools available and most students walked to school, thus the road was not a major factor. In one northern village there was no school and -- for cultural and perhaps financial reasons -- children were not sent to school. Although some increases in school enrolment were reported, it was very difficult to determine the magnitude and causes for the changes. Impact may have been due to the increase in staff at schools. In two villages teachers have more readily accepted transfer to the local schools; in Larbikrom there were four teachers in the village schools, since the road was complete the number has increase to six. In Agyemra, more frequent visited from District Director of Education was claimed to be made possible by the road resulting in the school getting additional books and other teaching materials. In Tumfa there has been a slight rise in the number of pupils from surrounding areas who attend the village schools. Punctuality of such pupils has also improved since the rehabilitation of the road.

In the Northern Region villages visited, it was estimated that girls attended school more that boys while in the other regions boys only slightly outnumber girls in attendance. Local inhabitants indicated that the improvement of the road had not made any difference to girls' school attendance. Only in one village was the direct impact of the improved road on female school attendance apparent: in one Eastern region village market women reported that because they could get to market and back more quickly and easily, their female children did not have to accompany them to market and could go to school.

5.2.12 Benefits to Women

The team identified four main benefits to women:

(a) easier access to sales outlets for farm produce due to (1) improved transport opportunities which also means less head-loading of produce, and (2) the influx or more frequent visits of middlewomen who purchase farm produce on site. Easier access to sales had the effects of giving women more bargaining power for foodstuff prices, and of reducing the time spent on transporting foodstuffs to market, thus giving women more time to engage in other activities such as off-farm income-generating activities. For example, in Janga women are now able to go to the Techiman market every week to sell smoked fish and bring back pepper and other commodities for retail.

(b) improved access to sales outlets providing increased opportunities for women to receive 'commission' on sales made. (When women sell farm produce for their husbands and other male kin, they often receive a small portion of the proceeds from sales)

(c) improved sales outlets for the products of women's off-farm income-generating activities, e.g. snail collection, local soap making, petty trading and so on, leading to enhanced profit from such activities. In both Janga and Kpingipe woman who sell shea nuts and shea butter find it easier to transport their goods to market and shea nut dealers who purchase for export have better access to the villages.

(d) improved access to pre and post-natal healthcare. In one village the number of women giving birth in hospitals since the improvement of the road had increased. In terms of child care, inquiries into the possible negative effects on child care of increased travel and mobility of women showed no apparent affects as yet: breast-feeding children are taken on trips, and relatives in extended families take care of older children.

4.2.13 Impact on Social Mobilization

Many villages organized to undertake communal labor to maintain the roads prior to rehabilitation. This communal participation encouraged several of the communities to exert pressure on the DFR to include roads in their areas in the priority list. However, the full extent to which this pressure influenced the roads selected could for rehabilitation under the FY 1992-94 Title III program not be determined; DFR officials claimed that any influence was minimized because the selection of roads involved local input via consultations with the district assemblies. However, in several of these villages, there was some indication that the motivation for continuing road maintenance tended to cease once the DFR contractor took responsibility for road rehabilitation. All roads showed the need for regular bush clearing while some showed significant erosion on inclines. Almost all the DFR contractors who worked on the roads visited did not consult with the communities

regarding the execution of the projects, although their vital interests were involved. In one village, Janga, the community was clearly confused and unhappy that the contractor did not complete the work according to their expectations, because they were unaware that the work completed was only the first phase of the planned rehabilitation program. Along the Kyebi-Apapam-Akropong road corridor where the road climbs sharply up the steep escarpment, the community expressed concern about the dangers of using the steep, hill-side road and questioned future plans for tarring the road without investing in guard-rails and protection from falling rocks and trees. Nevertheless, in some villages, such as Tanom and Agyemra, the communities appeared organized and willing to contribute to road maintenance.

4.3 Impacts of NGOs: Export Extension and Support Services

4.3.1 The Technoserve smallholder export program

4.3.1.A Brief background to groups visited

Only cashew farming groups were visited, as the shea-nut and kola nut groups are still in the preliminary stages of identification and assessment. Two cashew groups were interviewed at Wenchi and Banda Ahenkro. The Wenchi group came together through Technoserve while the Banda group had formed spontaneously in 1990. Both groups had some contact with the GEPC in 1990-91. The Wenchi group has 61 members of whom 10 are women while the Banda group has 100 members of whom 30 are women. The Wenchi group received training from TNS in production management while the Banda group received additional training in marketing, group equity mobilization and development of bye-laws. The groups perceived that the following aspects of TNS assistance as most important: linking them with new markets, support in securing a higher producer price, the group equity mobilization program and bookkeeping training.

4.3.1.B Achievements of program to date

Impacts on production and income

Groups are now selling directly to two traders for export, Agrotrade and Cashpro, instead of through intermediaries, resulting in increased profit levels for producers. In addition, the price of cashew has increased from ¢100/kg to ¢250/kg as a result of Technoserve's intervention. Increased sales have motivated cashew farmers to expand their farms which can be expected to lead to increased production. However, the program is too recent to evince any induced drastic increase in income.

Benefits to the community

During the cashew harvest season group members employ wage labour

on their farms, encourage other members of the community to start farming cashew and to join the group and disseminate training information received from TNS.

Women involvement in producer groups

The Wenchi group has a membership of 61 of whom only 10 are women; they plan to have 2 or 3 seats on their executive for women. The Banda group has two women on their 9-member executive. Female group members felt that as a result of the gender imbalance of the groups they have less decision-making power, although they are anxious to have a say in policy-making. In the case of the shea-nut groups Technoserve has a policy to ensure that women dominate at the executive level, as the picking and processing of shea-nuts is carried out mainly by women.

Women interviewed did not feel that their involvement in the group and their cashew farming activities interferes with their performance of their household duties. They see their involvement in the group as a potential source of extra income, although those interviewed said that it was as yet too early for them to have experienced an increase in income levels through their involvement in the program.

The addressing of gender concerns with regard to the implementation of the NESSP was not entirely satisfactory. In the case of Technoserve, maximum female representation in smallholder cashew-producing groups is 30 percent, and women's role in policy-making is limited. There are plans however, to ensure that the executives of shea-nut producer groups (which are still in the identification stages) are dominated by women, as shea-nut picking and processing are predominantly women's activities. Overall however, it appears that there is room in the NGO program implementation for the increased involvement of women.

Institutional development of beneficiary groups

It is too early in the program to assess properly the institutional development of these groups as the main part of their training for institutional strengthening will take place next year. In the case of shea-nut groups, Technoserve plans to target groups which have already received assistance from them under the cereal-producing inventory credit programme funded by the PL 480 Title II program. This will ensure strong institutional capability of those groups when they diversify into shea-nut production, as well as providing group members with the opportunity to re-invest increased incomes in shea-nut production.

4.3.2 Impacts of Aid to Artisans program

4.3.2.A Brief background to groups visited

The evaluation team visited the following groups of artisans in Ashanti and Greater-Accra regions: woodcarvers at the Afrikan Dream Studios in Kumasi, brass casters at Krofofrom, Adinkra printers at Ntonso and bead makers at the Teranja bead works enterprise in Agormenya and a terra cotta producer/exporter. These groups received training from ATAG in the following areas: product development, quality control, bookkeeping, costing and management.

4.3.2.B Benefits of the program

Benefits as perceived by artisans

The following aspects of ATAG assistance was perceived as most helpful:
(a) brass casters: quality improvement (introduction of polishing greatly enhanced quality);
(b) adinkra printers: bookkeeping and linking with new markets;
(c) bead-makers: help with gas kilns; contact with new buyers;
(d) Terra cotta: contact with new buyers.

Production and income effects

The program has resulted in enhancement and diversification of artisan skills: several woodcarvers at the cultural centre in Kumasi have started carving, instead of painting finished prices and their masters have begun to pass orders, mainly from Bamboula and ATAG. Gaining access to orders on a contract basis has led to an increase in income levels for ATAG-assisted woodcarvers at the cultural centre in Kumasi. This is a direct result of the training they received through the ATAG workshop, it is not possible to quantify the extent level of income gains. Also, brass casters at Krofofrom indicated that as a result of the training they received in quality control they are now able to charge more for their goods, and as a result, production levels have increased.

4.2.3. Employment generation

Employment-generation opportunities have been created due to the program. For example, bead-makers at Agormenya employ external workers (mainly men) when they have large orders to fulfil. They also employ children to help in crushing the glass. Brass-casters train several apprentices and also call in other non ATAG-assisted brass workers when they are given large orders.

Program impact on women

ATAG's agenda has included giving assistance to women in female-oriented artisan production as in the case of doll makers in Kumasi, textile producers in Tema and Accra, and handbag & accessory producers in Accra. There is however little provision for trying to involve women more in the production of male-oriented handicrafts. There are problems getting women involved in the production of handicrafts which are traditionally produced by men, such as woodcarving and brass casting. In many areas there is the belief that women who engage in such work will become barren. This belief is a serious obstacle to involving women in male-dominated artisanal activities. When women are involved in such crafts they are usually very much in the minority. Bead-making is not even quite as male-oriented a craft as woodcarving and brass casting, nevertheless there are only two women out of twelve members in the Agormenya bead-making group. However, women can freely participate in the sale of finished products.

Gender concerns were not addressed satisfactorily in the implementation of the NGO program. In the case of ATAG, the target for female artisans/entrepreneurs receiving training was not reached, although it should be added that this was due to the under-achievement of that particular target for both female and male artisans. In addition to this, little effort has been made to increase the involvement of women in traditionally male-dominated handicrafts.

The artisan component of the NTE support program has one negative effect on women which concerns their exclusion from the sales process. Particularly in the case of male-oriented crafts such as woodcarving, the sale of products is traditionally the only aspect of craft-related activities in which women can be involved. The ordering of artisan goods on a large scale for export however, cuts the woman out of the sales process, as exporters purchase directly from the artisans. Due to this negative impact on women, the program should seek to compensate in other ways, such as by involving women more in the production process of male-oriented crafts, as recommended above.

Regarding the entire NGO program, fieldwork results indicate that the implementation of program activities is still too recent to assess such long-term issues as the effect of women's integration on the sustainability of program outcomes. Moreover, in the case of the NGO program it would probably require a greater involvement of women in program activities to be able to judge with any accuracy, their impact on the sustainability of the program. However, judging from what Technoserve and ATAG intimated they might be doing in the next phases, the outlook for greater female participation looks bright: for example, Technoserve intends to make women dominate the policy-making process in shea-nut groups.

5.2.4 Institutional Capability Improvement

Any impacts of the NGO program on the beneficiaries depends on the institutional capability of Technoserve and ATAG to affectively and efficiently deliver support services to producers of NTEs. In the case of Aid to Artisans, this is extremely important because it is a new institution that only began operations in Ghana under the Title III and TIP programs.

5.2.4.A Institutional strengthening of TNS

Technoserve has a well established and functioning institutional structure to support its activities. As part of their staff development program, all TNS staff receive training under the 'Technoserve University' scheme to enhance their technical, operational and managerial efficiency. One strength of the operations is their monitoring system. Technoserve have developed and patented a computerized cost-effectiveness analysis methodology and taken copyright on their quarterly Field Operations Database (FDB) analysis. To help TNS effectively provide management training to groups it assists, they plan to develop a sectoral management manual.

Funding received by Technoserve under the Title III program has enabled it to attain a critical mass in expertise and outreach. Technoserve has been able to hire several high-caliber new staff while participation in the export development program has broadened the niche and effectiveness of Technoserve.

5.2.4.B Institutional strengthening of ATAG

Training of ATAG staff

The management and administrative staff - the executive director, the financial controller and the administrative assistant have received training through orientation sessions with the ATA management consultant. There appear to have been some problems with the orientation/training of field staff because there is a certain lack of continuity in field activities: the Chief Technical Advisor (CTA) pointed out that the workplans he leaves behind at the end of each of his consulting trips are not properly followed up. There were also indications of lack of coordination between the field director and the field staff, under-utilisation of the field staff members' capacity due to lack of direction, and inadequate mediation between the field team and the board, on the part of the field director. Staff meetings for field staff only started to take place in April/May 1994 while they should have been taking place since the beginning of the program.

Training of the ATAG management

The ATA management consultant has conducted training for the board of directors and of senior staff members. As a result, the functioning of the board has become more formalized. A board survey was conducted in November 1993 to assess the strengths and weaknesses of the board. Following this, working subcommittees were created and board members assigned to these committees taking into account where their strengths lay. New board members were also brought in. Further developments have included the revision of the bye-laws and the development of a code of ethics. As a result of these structural changes, the roles of members are more clearly defined and meetings function more smoothly and efficiently.

Ensuring long-term financial sustainability

ATAG is implementing a program of securing support additional to USAID support under the Title III program. In the third quarter of year 1 the Marketing Committee began implementing a three year fund-raising plan based on the short and long-term financial needs of ATAG. Under this program, the Konrad Adenauer Foundation has provided funding and training for women potters at Kpandu, and is interested in further collaboration for other women's handicrafts. Also, ATAG has established a shop in its office premises, selling mainly items below export quality standards, to generate income; since beginning operations in March 1994, sales have totalled ¢534,514 by April.

Female representation

Women's interests are represented at a fairly high l evel and extensively within the institution. There are four women on the board of directors out of a total of twelve members, one of whom is also the Executive Director of ATAG, and two women out of the four permanent ATAG administrative staff. The management consultant is also female, as are the three volunteers for the shop. The Project Manager for the Export Program, who comes into direct contact with program beneficiaries during field trips, is a woman but women are not represented among the five field staff. This is unsatisfactory as it is important that womens' concern are addressed at the level of the artisans and entrepreneurs themselves.

Institutional weaknesses

The greatest setback to the institutional development of ATAG appears to be a lack of communication from the board level to the administrative/field staff level, a situation which has been exacerbated by the absence of the Executive Director (on maternity leave) over the past four months. Consequently, field staff feel excluded from the policy-making process. Although the

field director is supposed to attend board meetings he is not formally invited to these meetings and only began attending them two months ago. Also, the different roles of people within the organisation are not clear to all parties concerned,it is not clear to ATAG personnel at different levels of the organisation whether they are all working towards the same goal; some feel that the organisation has deviated from its original objectives.

Monitoring and evaluation

Although actual evaluations for ATAG are scheduled for Years 2 and 4 of their program, there is a significant amount of preparatory work to be done to provide baseline data for subsequent evaluations; they only started collecting some form of baseline data in May/June this year.

4.2.4.C. Effects on institutional capability of DFR

Institutional Structure

DFR's role as the focal point for feeder road policies and operations calls for consumerate institutional capacity to improve the condition of the 22,000 km of feeder road in the country. GOG and donors have been contributing to its institutional strengthening since its creation in 1983. Presently, DFR operates at four levels in (i) the head office in Accra, (ii) 10 regional offices in the regional capitals, (iii) 17 out of 32 area offices and (iv) 110 political districts. The current staffing level of DFR is 635, of which 45 (equivalent to 7 percent) are engineers and quantity surveyors.

DFR management in the head office are qualified, experienced and apparently motivated. However, they complain of the need for assistants to the deputy directors who appear to be overstretched. In the regions, the regional engineers are more comfortable with current staffing and are coping well with work load. Some regions complain of under utilization of their capacity due to the reduction in cocoa road activities or reduced government funding for rehabilitation work.

Institutional Strategy

In coping with its workload, the DFR involves private consultants in design and supervision to some rehabilitation work and periodic maintenance. DFR takes care of simple rehabilitation work, recurrent maintenance and routine maintenance.

At the regional level, the regional engineers serve as advisors to the regional ministers and coordinate the distribution of resources among area offices. They are also in charge of distributing the services of Mobile Repair and Maintenance (MOREMAT) Units among the area offices in the region. Most of

the graders used for MOREMAT are require substantial down time for repairs. Since DFR does not have regional repair shops, the graders are serviced in private repair shops; these charges constitute a significant portion of the regional maintenance budget. DFR is therefore planning to privatize most of the MOREMAT operation. The assistant to the regional engineer is responsible for overseeing labor-base contractors in every political area as these contractors are ideal for routine maintenance in particular.

Contracting for rehabilitation and maintenance work.

After selection of a road for rehabilitation through participation of district secretaries, regional secretaries and Ministry of Agriculture and Ghana Export Promotion Council, the regional engineer or a consultant prepares the bid package which is taken to open tender for about 6 weeks. When offers are received, the regional engineer undertakes the analysis of the offers and sends it to the head office for scrutiny. It is then presented to the Regional Tender Board for selection of the winner. The system has been working well with the in-house capacity built. The same process can be extended to road maintenance contracts.

Payment for contract work

When payment is due, the contractor first submits his/her bill to the regional engineer who checks it first and then submits to the regional economic officer and regional administrative offer for their scrutiny. It is then sent to the DFR head office when the contractor can be paid in a day or two. This minimal delay in reimbursing contractor make AID funded contracts very competitive.

DFR management of PL-480 Title 111 feeder roads component

While the deputy director for maintenance has the overall management responsibility over the feeder roads component, a principal engineer of DFR is assigned for the day to day activities of the program. One finds the staff always ready to undertake any actions that will facilitate the implementation of the program. Despite the staffing problem at the head office, DFR always tried to present the quarterly reports on the progress of implementation as much as they could. The principal engineer or the deputy director for maintenance is always available to join in the quarterly monitoring visits of REDSO/WCA engineer and the Project Assistant for Monitoring and Evaluation in USAID/Ghana. This monitoring visits has enabled the resolution of technical problems that may develop during the execution of the road works.

DFR's contract management of the road activities has been so

successful that many contractors keenly compete for contracts in the program. In the regions, effective supervision has been provided by the staff of the DFR regional offices. With the number of trained DFR staff over the years, a substantial institutional capacity has been built in the system to cope with current work requirement. However, if DFR's status is changed from civil service to the status enjoyed by GHA, DFR would have enough flexibility to respond better to the task of feeder road management. Without the change of status, DFR will be finding it difficult to attract qualified professionals in order to take on more responsibility.

5.2.5 Environmental Effects of the Title III Program

Environmental issues were not stressed in the design of the Title III program because of the expected limited environmental impacts of local currency-financed activities. The activity that could have noteworthy environmental effects are the crop production activities of Technoserve groups and the rehabilitation of feeder roads. Under the present system of cultivating or collecting and assembling kolanut, cashew nut and sheanuts, any existing environmental impacts have not been exacerbated.

Regarding roads, impacts of the rehabilitation work on the environment is taken into consideration by DFR in planning its rehabilitation program. Clearing of roadway and gravel borrow pit that exposes the soil to soil erosion is the main environmental concern on the feeder road. On the roadway, heavy equipment operation often leaves more loose soil than strictly needed; the loose soil stands the risk of wash-out into streams. The soil erosion due to run-off finally ends as sediments in streams and rivers, endangering fish life and silting water course or covering farm land. Soil erosion is most severe on step slopes of the roadway and drains.
Heavy construction equipment tends to cause more soil disturbance; in labor base method there is more control of the soil, thus minimizing the effect of soil erosion.

On most of the rehabilitated roads, gravel burrow pits have often been left bare without restoring its top soil to help in regeneration of plant life. Some of these pits have retained pools of water which may serve as breeding ground for mosquitos and other water-borne health hazards. Regarding the restoration of gravel burrow pits, although, there is a provision in the standard contract requiring contractors to rehabilitate gravel pit after winning gravel, it is mostly not adequately adhered to.

5.3 Problems and Constraints

5.3.1 The overall Title III program

Overall, the design, implementation and management of the program has proceeded smoothly, hampered by no major constraints. The key problems relate to monitoring and evaluation. These are discussed below:

1. The effective monitoring of effects and impacts is hampered by the inconsistent targets of output indicators related to the levels of NTE receipts and reduction in DRC of production along specific feeder-road corridor contained in different program documentation. The target of increasing NTE earnings was reduced from $150 million in the Program Agreement of July 14, 1992 to $130 million and 10% of exports in the FY 93 Assessment of Program Impact. In addition, the domestic resource costs (DRC) at the wholesale level for major crops produced in areas benefitting from FDR activities was targeted to decline by 10 percent by 1995 in the Program Agreement. In contrast, the Ghana PL 480 Title III Food for Development Program Workplan for 1993-1994 prepared by the Mission stated a 20 percent decline in the DRC.

2. Another deficiency in the ability to monitor is the lack of people-level impacts benchmarks in the monitoring plan. The Title III Monitoring and Evaluation Plan contained in Annex J of the Program Document merely stated that "The people level impact monitoring will include the tracking of those private sector exporters and their employees who benefit from a well-funded, planned and staffed GEPC, from private sector support organizations and NGOs, and from the GOG funded export-related infrastructure." These beneficiaries include vulnerable groups, micro and small scale producers and women producers and exporters. That one-page "plan" in Annex J was, however, revised in more comprehensive plan, added as Annex K. Unfortunately, the revised plan did not also specify targets and benchmarks for monitoring people-level impacts. Although the people level impacts (social outcomes and impacts on women) are included in the logical framework, survey information on these aspects are only now being planned. However the revised M&E plan (Annex K) attempted to integrate the monitoring of the Title III program within the Mission's overall monitoring and evaluation plan which is keyed to the CPSP.

3. The indicators of the food security purpose of the program are inappropriate, they relate to lower level outputs not food security per se. (See appendix on food security).

4. The targets used of the program are defined in the letters of intent to the DFR are not specific enough, e.g. complete "up to 480 km" of road in year one of the program. In this regard,

it is unclear to what extent the mission has progressed on establishing a workplan with quantifiable benchmarks and timeframes for implementing planned activities (See RIG Audit of July 16, 1993).

5. The extent to which changes that may be happening on roads not selected for rehabilitation does not appear to be systematically monitored in the studies. Consequently, the Ghanaexim study of the impact of feeder roads has not built in control groups to its monitoring study.

6. Based on a review of the letters of intent and interviews with GOG staff, it is evident that the GOG has not yet assumed its intended role in monitoring and evaluating the program. This is partly due to staff and logistics constraints.

5.3.2 Feeder road rehabilitation

1. Availability of funds from the Ministry of Finance and Planning is often late, resulting in the late start of some contracts, especially contracts that need to be executed before the rainy season. An example of this is the late start of Manso-Amatin-Benso feeder road in the Western Region due to about four months delay in contract approval; presently frequent rainfall is disrupting the work.

2. With the continuous depreciation of the cedi, prices have changed significantly and without any price adjustments, contractors have could it difficult to complete their contracts and earn reasonable profit. Also, sharp increases in the price of fuel, as occurred in 1992, have affected DFR's budget projections of the contract activities.

3. In most regions, DFR's recurrent maintenance activities involving graders have been hampered by frequent breakdown of the graders which have been responsible for delays in keeping pace with maintenance with some rehabilitated roads.

5.3.3 Technoserve export development program

The program was approved for funding in late July 1992, but the grant agreement was not signed with USAID until late October 1993, resulting in delayed start-up of activities. Regarding the groups, the key constraints indicated by project beneficiaries are financial constraints in purchasing production inputs, the fact that the requirement to pay membership fees has limited new membership of the groups. In terms of attracting new members, other members of the community are still waiting to see how the groups will perform before they commit themselves - people still remember promises made by GEPC which were not fulfilled. In general, there does not appear to be any major systemic constraints to the implementation of the Technoserve export

development program.

5.3.4 The ATAG program

A. Delayed program start-up

The 4-year artisanal export programme was originally scheduled to begin in 1992, but was delayed because the pilot programme went on for longer than its scheduled time resulting in about one year's delay to the beginning of the main program. Furthermore, staff were appointed after four months. Consequently, activities only began in earnest around December 1993. Artisan entrepreneurs who have only come into contact with ATAG since the beginning of the multi-year program felt that it was too early to indicate long-term impacts such as significant increases in income arising from their involvement with ATAG.

B. Financial and resource constraints

Expansion of activities has been hampered by limited access to capital for financing large orders. In the third quarter of Year ATAG's finance committee, faced with losing an AMC sample order worth $11,817 if pre-financing could not be found, held discussions on how to approach this problem. The conclusion of discussions was that ATAG would request ¢25 million from the MFEP in order to establish a loan guarantee fund. It would also request permission from the MFEP to use its own operating funds to pre-finance funds for the AMC order. The AMC order was in effect partially pre-financed by ATAG. The request for money to establish a loan guarantee fund has however received no response as yet.

C. Limited production capacity of artisan groups

The production capacity of artisan groups currently lags behind demand for their products especially in the case of large buyers who have a numerous sales outlets abroad. This poses an obstacle to ATAG's market outreach efforts. It is important that marketing plans do not exaggerate production capacity otherwise there is the risk of alienating buyers.

D. Constraints perceived by beneficiaries of the program

Artisans generally indicated the lack of material inputs as a constraint to their work. Another constraint indicated was a lack of continuity in ATAG,s activities with artisans/ entrepreneurs. It was felt that there was a tendency for the pace to slacken in the absence of the Chief Technical Advisor (CTA), and it was suggested that having a full-time design specialist might improve this problem. This indicates perhaps a necessity for the field team to provide a better follow-up to the CTA's activities. It was also mentioned that contact with other

artisans/entrepreneurs and buyers through Trade Network meetings was sporadic rather than regular and sustained.

SECTION 6 LESSONS LEARNED AND RECOMMENDATIONS

6.1 Lessons Learned

1. A clearly defined people-level impact and monitoring plan with agreed indicators is essential to assessment of the impacts of the program. Once established, the baseline status of these indicators need to be established. The lack of such a clear set of indicators and baseline status levels for the program limits impact assessment. In addition, the determination of effects is hampered by inconsistent targets, as noted for the program purpose target for the increase to be achieved in NTE earnings by 1995.

2. Regarding feeder roads rehabilitation, perhaps the major lessons are that there is no substitute for regular monitoring of performance and periodic maintenance in maintaining good road conditions. This can be facilitated by the development of line item in the Tile III budget that funds regular DFR monitoring activities. Also, community participation in the planning of the rehabilitation works helps to ensure the development or sustenance of community efforts to help maintain the roads.

3. One key lesson learned from the Technoserve experience is that an institution involved in providing market development services need to keep its original role in perspective: efforts to help secure increased producer prices of non-traditional export crops can lead to conflict with established exporters. For example, Technoserve came into conflict with Cashpro when it negotiated a higher market price for cashew on behalf of producers.

4. Regarding the ATAG program, the major lessons learned were as follows: The lack of communication between board/administrative/field levels of the organisation weakens the institutional development of the organisation and interferes with the achievement of its aims. Inadequate orientation/training of field staff has led to problems in the execution of field staff duties. Pre-financing of export orders is an important part of assistance to artisans/entrepreneurs and lack of proper follow-up of buyers' interest can lead to large orders being lost e.g. the Pier 1 case. Limited production capacity of artisans is a hindrance to establishing export market links. There is scope for the creation of employment in the artisanal sector through the program but there are difficulties in involving women in artisan production. Moreover, the export program can actually have a negative impact on womens' role in artisan sales.

5. CEPA was created to undertake policy research. However, institutions exist that also perform policy analysis. In order not to negatively affect the activities of these existing institutions it is important for CEPA to involve them in

collaborative and outreach program. Regarding the overall management of CEPA, one key lesson learnt was that membership of the Council should have been made more transparent and less restrictive and should have included more distinguished professional economists. Another lesson learned was that in an environment of low salaries, the strategy of offering internationally competitive compensation to professional staff of CEPA needs to be carefully designed and implemented to avoid misconceptions of excessive compensation for staff.

6.2 Recommendations

6.2.1 Overall Title III program

1. Review targets of purpose and output indicators to ensure consistency in various program documentation and resolve the ambiguities in the wording of expected outputs from the DFR.

2. For the FY 1992-94 program, develop and adopt indicators for national food security linked to increased food financed with increasing export earnings. This will allow assessment of the direct impact of growth of NTE earnings on food imports and provide a measure of the direct impact of the program on aggregate food availability. Examples of this type of indictors include the relative proportions of food needs being met by commercial imports, food aid, and domestic production, or the proportion of marginal increases in foreign exchange spent for imports of basic staple foods versus non-foods and high cost, luxury foods. To facilitate the development of these indicators, it is recommended that the Mission seeks expert input from AID/W and elsewhere.

3. Develop appropriate indicators for monitoring the food security impact on households along the road corridors. This could be integrated in the Ghanexim monitoring scheme which has begun to integrate social and gender indicators on its monitoring roads.

4. Conduct a baseline survey or compile data on the baseline status of indicators of purpose, outputs and impacts prior to the disbursement of funds from the FY 1994 sale of commodities.

5. Finalize the monitoring and evaluation plan being developed with the MFEP. Include periodic monitoring reports, especially DFR reports on monitoring of maintenance of the road already rehabilitated, as part of documentation required to fulfil actions specified in the Letters of Intent.

6. For the proposed FY 1994-94 Title III program, consider modifying the export-driven national food security purpose of the program to also address increased food security as a result of increasing food production nationally or reductions in food

insecurity in selected food insecure regions or groups in Ghana. In the design of the next Title III program, link the program more directly to the distribution of food security and poverty by region, among household types and by gender.

7. The management of the program by the Ministry of Finance and Economic Planning needs to be reviewed in the design of the next Title III program to ensure timely and adequate preparation of program reporting. It is recommended that other relevant divisions in the MFEP, such as the Policy and Analysis Division and the Budget Division play a more hightened roles in program oversight. Also, the structure for managing the program should comprise a Program Commiittee (composed of the USAID Directorate and the Minister of Finance, or his representative) and a Technical Commiittee (composed of technical level staff from USAID, MFEP, Ministry of Agriculture, Accountant-General's Department and other representatives of program beneficiaries). The MFEP should provide staff to partake fully in the design of the new program.

6.2.2 Commodity management

1. During our discussions with officers of the management company, Meridian Bank, it was learned that one modification of the rules was introduced to halt the submission of speculative high bids. Apparently, there was an upper limit placed on bids, some Cedi 1,000 a ton over the market price. We question whether this is advisable. It appears that if there are many speculative bids, the cut out price will be significantly higher. If the bids are allowed to fall where they may, there will come a time when the speculative bidders are forced to pay more than they can afford, i.e, more than market value. If they refuse to take delivery, they will lose their bid bonds. That bidder can then be stricken from the list and his tonnage awarded to the next name below the cut out point. In short, speculative bidding poses some risks. We might note that the Committee also has the right to cut off bidding when they so please. If there are a number of unreasonable speculative bids, the committee could terminate the bidding and demand payment of the bidders.

2. The management contract specifies that the Management company, currently Meridian bank, is responsible for all good commodities discharged from the vessel but does not say how this responsibility will be discharged if there is a loss while the commodities are in their care. We suggest that each ton be valued at the CIF value of the commodity as it is landed in Tema and the Management company be required to pay to the Government that value for each ton lost at the exchange rate prevailing at the time of the loss.

3. The commodity management contract with Meridien BIAO is unclear as to when the contract is completed. Paragraph 0.1

stated that "...Meridian shall provide services as set out below for the management and marketing of 38,422 metric tonnes of American Rice...". Paragraph 2 states the agreement "...shall remain in force for a period of nine (9) Calendar months until 30th June 1994. It is recommended that this ambiguity be removed.

4. The USAID office does not have the responsibility to track the commodities through the distribution system under the Title III program. None the less, it is recommended that USAID staff visit the warehouses periodically, especially when stocks are low so that they can be counted easily and compared with the Management company's register.

5. Given the relatively large amounts involved in the sales of program commodities, any delays by the bank in transferring the proceeds to the GOG result in significant revenue shortfall to GOG. We recommend that the contract should specify that sales proceeds are transferred not later that one day after payments are made by traders.

6.2.3 Feeder Roads rehabilitation

1. Although the DFR is enthusiastic and doing a good job, the head office professional staff appears over-stretched. In line with GOG decentralization, DFR would need effective presence down to the political districts. This call for a semi-autonomy for the department to be able to be more efficient and recruit suitable professional when needed. It is recommended that the GOG proceeds expeditiously with the proposed program to turn the DFR into a semi-autonomous organization.

2. The release of funds to the DFR has not been regular, thereby disrupting the road rehabilitation schedule. The Mission should review the procedure for the release of funds with the Ministry of Finance and Economic Planning (MFEP) to minimize the effect on work schedules.

3. Criteria for selection of roads should be more closely focused on NTE production, to increase the impact of the program on its purpose.

4. The roads may be having some impact on household and community food security; the program is advised to include these as objectives of the program, define indicators for these objectives and set up baselines and monitoring systems to gauge the impact of the roads on food security.

5. The DFR should develop a monitoring budget, keyed to its monitoring plan, for funding under the program to facilitate effective monitoring of its maintenance program. Presently, the DFR finances the monitoring of roads improved under the program

with funds from the Road Fund.

6. Progress reports of feeder road activities from the DFR have been difficult to follow; at times they come with inconsistencies. This evaluation recommends that the DFR should be assisted to computerize the contract management system so as to reduce the present heavy paper work load.

7. Soil erosion in the roadway can be reduced by installation of devices that will minimize the soil erosion phenomena, such as scour checks, drainage dips, open box culvert etc. Scour checks were installed on many of the rehabilitated roads but there is a lot more to be done. As taught to the labor-base contractors, capital-base contractor personnel need also to be trained for the installation these special drainage structure and environment protection.

8. Restoration of gravel borrow pits has not been respected on practically all roads inspected. This being detrimental to the environment, DFR should explicitly put into the contract documents the obligation to undertake the restoration. Provisional acceptance of completed contract by DFR should be linked to the adequate restoration of the borrow pits. To avoid any contractual complications, the contractors should build in the price for gravel supply, the required cost to restore top soil to the borrow pit, thus minimizing soil-erosion effect. In addition, it will be worthwhile if some environmental training would be organized for the professionals of DFR.

9. The traditional re-gravelling notion of rural roads needs to be reviewed. Because of low traffic usually on some of the roads, some bed materials are sufficient to carry those traffic loads. Systematic re-gravelling may not be necessary. Gravelling is expensive and also contributes to environmental degradation. Spot improvement with sectional gravelling should be more cost effective and with less degradation effect on the environment.

10. The Mission should continue supporting the activities of labor-based activities of DFR. Whenever any road work is within the competence of labor-based method, preference should be given to the labor-based contractor. The labor-base approach has demonstrated many advantages. It is therefore, recommended that the future Title III programs should assist with further training of such contractors and their equipment acquisition.

11. Communities within road corridors where rehabilitation work was carried out were informed of the impending road work, however they were not given the chance to have any input in the process. It is recommended that there is more communication between the DFR and the local communities - there could be a discussion between members of the department and the chief and elders of the

villages affected by the rehabilitation work.

6.2.4 Export-Related Infrastructure

1. Progress in implementing this activity has been extremely slow partly because end-users were not identified as the GOG did not specify any targets in the Letters of Intent. Also, there is lack of coordination between GOG various agencies involved in developing the export cold chain. Furthermore, funding exists for similar activities under the TIP. The team recommends that USAID and MFEP should review this set of activities to either facilitate disbursements under the program or eliminate it from activities to be supported in the Letters of Intent.

6.2.5 NGO support for NTE development

1. Technoserve should encourage the groups it deals with to recruit more women and to have more women on their executives.

2. Regarding ATAG, there is lack of communication between different levels of the organisation. It is recommended that steps are taken to address this situation, including ensuring that the appropriate representatives of the administrative staff and the field staff are formally invited to board meetings.

3. ATAG should review the performance of its field staff and take steps to fill in any gaps in their training/orientation which have hindered their work so far. Special attention should be given to clarifying the roles of each member of the field staff, including the CTA, formalizing field team reporting activities and ensuring adequate follow-up of workplans drawn up by the CTA.

4. ATAG should review the business training element of its program to make it more efficient. It is also recommended that the indicators used to assess the performance of the business training element be revised.

5. ATAG should also explore the possibility of establishing a component of the loan guarantee fund to leverage loans for artisans to procure material inputs.

6. ATAG should review its role in actual exporting and make recommendations to USAID and MFE regarding the development of this vital missing link in the export chain.

6.2.6 The Centre for Economic Policy Analysis (CEPA)

1. Given the dispute over whether the actual amount of grants due the Centre under the Single-Year (FY 1991) and the Multi-Year Title programs should be $ 3.0 million or $ 5.0 million, the team recommends that the issue is resolved expeditiously between USAID

and the MFEP.

3. The Management should expedite preparation of the program of work and recruitment of senior staff an ensure that the Centre starts activities within the next few months.

3. Tension appears to be the emerging within the membership of the Council; this needs to be nipped in the bud to allow the development of a more collegial atmosphere. The roles of the Council and the Executive Director in the management of the Centre specified in the project proposal needs to be adhered to. Also, membership of the Council should include more professional economists, as is the practice in other countries.

4. It is recommended that the Council of CEPA should regularize the continued involvement of the consultancy firm that prepared the project proposal for establishing CEPA in the administration of its affairs.

5. Review the proposed compensation package of staff, taking into consideration changes in renumeration practices since the original proposal for staff compensation was prepared.

6. The management of the Centre's accounts and finances should follow procedures specified in the project proposal and large disbursements should not be made until a financial manager has been appointed.

7. The Centre should develop a plan for investing its grants within the format of an endowment fund, as planned in the project proposal, using the services of private sector professional investment advisory and management institutions.

6.2.7 Gender Considerations

1. The program being implemented by ATAG contains targets related to women participation while the Technoserve program excluded such targets, although women participate in its activities. It is recommended that targets for the next phases of the NGO program be modified to place greater emphasis on gender concerns. ATAG's gender-specific targets could include a higher female participation rate, say 30 percent while it is recommended that Technoserve incorporates more explicit women-related targets in its future workplans.

2. The team recommends improvement of gender-disaggregated data collection in program monitoring to provide a more detailed picture of program impacts on women. Some issues to be covered include the impacts of feeder road rehabilitation on women's off-farm income-generating activities and women's access to pre- and post-natal healthcare.