



Millennium Challenge Account Ghana Program

COMPACT COMPLETION REPORT

- MAIN REPORT
- APPENDICES



Duration:

FEBRUARY 2007 to FEBRUARY 2012



**Millennium
Development
Authority**

Economic Growth and Poverty Reduction

July 15, 2013



**Millennium
Development
Authority**

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COMPACT COMPLETION REPORT

MAIN REPORT



Millennium Challenge Compact

"A Compact is a multi-year agreement between the Millennium Challenge Corporation (MCC) and an eligible country to fund specific Programs targeted at reducing poverty and stimulating economic growth."



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Economic Growth and Poverty Reduction

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ACRONYMS

AADT	Annualized Average Daily Traffic
ABZ	Afram Basin Zone
ABCs	Agricultural Business Centre
ACH	Automated Clearing House
ACP	Agric Credit Programme
ACPC	Agric Credit Programme Consultant
ADB	Agricultural Development Bank
ADR	Alternative Dispute Resolution
ADRA	Adventist Development and Relief Agency
AGRA	Alliance for Green Revolution in Africa
AMA	Accra Metropolitan Assembly
BOG	Bank of Ghana
BOQ	Bill of Quantities
BPA	Blanket Purchase Agreement
CAPM	Commercialisation of Agriculture Project Manager
CCC	Cheque Codeline Clearing
CCR	Compact Completion Report
CBC	Concord Business College
CDFO	Commercial Development of Farmer-Based Organizations
CDP	Community Development Planner
CEO	Chief Executive Officer
CERSGIS	Centre for Remote Sensing and Geographic Information Systems
CIF	Compact Implementation Fund
CKP	Charles Kendall and Partners
CMC	Central Management Consultant
COO	Chief Operating Officer
CORS	Continuously Operating Reference Station
CP	Conditions Precedent
CPPRS	Contractor Past Performance Reporting System
CPR	Conditions Precedent Report
CPS	Common Payment System
CBRDP	Community-Based Rural Development Project
CSA	Community Services Activity
CSOs	Civil Society Organisations
CSPM	Community Services Project Manager
CSWA	Community Water and Sanitation Agency
DAs	District Assemblies
DAC	District Advisory Committee
DAI	Development Alternatives Incorporated
DFID	UK Department for International Development
DFPs	Detailed Financial Plans
DFR	Department of Feeder Roads
DNP	Defects Notification Period
DUR	Department of Urban Roads
DVLA	Driver and Vehicle Licensing Authority
EBS	Environmental Baseline Survey
ECG	Electricity Company of Ghana

EDAIF	Export Development and Agricultural Investment Fund
EIA	Environmental Impact Assessment
EIF	Entry-Into-Force
EMP	Environmental Management Plan
EOT	Extension of Time
EPA	Environmental Protection Agency
ERR	Economic Rate of Return
ESID	Environmental and Social Impact Directorate
ESMP	Environmental and Social Management Plans
ESOC	Environment and Social Oversight Consultant
EU	European Union
FA	Fiscal Agent
FAP	Fiscal Accountability Plan
FBOs	Farmer-Based Organizations
FESMP	Framework Environmental and Social Management Plan
FNGOs	Financial Non-Governmental Organizations
FSA	Financial Services Activity
GCAA	Ghana Civil Aviation Authority
GACL	Ghana Airports Company Limited
GAPVOD	Ghana Association of Private Voluntary Organizations in Development
GDP	Gross Domestic Product
GES	Ghana Education Service
GHA	Ghana Highway Authority
GHAMFIN	Ghana Microfinance Institutions Network
GHIPSS	Ghana Interbank Payments and Settlement Systems
GIDA	Ghana Irrigation Development Authority
GIMPA	Ghana Institute of Management and Public Administration
GIS	Geographical Information Systems
GLSS5+	Ghana Living Standards Survey Round Five Plus
GOG	Government of Ghana
GOEs	Government-Owned Enterprises
GRBCIP	Ghana Rural Banks Computerisation and Interconnectivity Project
GPRS	Ghana Poverty Reduction Strategy
GSA	Ghana Standards Authority
GSS	Ghana Statistical Service
GWCL	Ghana Water Company Limited
GWEP	Guinea Worm Eradication Project
HND	Higher National Diploma
GTUC	Ghana Telecom University College
H&SP	Health & Safety Plan
IDIQ (Contract)	Indefinite delivery/indefinite quantity (Contract)
ICT	Information Communication Technology
IE	Implementing Entity
IEA	Implementing Entity Agreement
IESC	International Executive Services Corps
IFDC	International Fertilizer Development Centre
IRI	International Roughness Index
ISSER	Institute of Statistical, Social and Economic Research
ITFC	Integrated Tamale Fruits Company
ITT	Indicator Tracking Table

IPC	Interim Payment Certificate
IPPC	International Plant Protection Convention
JS	Judicial Service
KIA	Kotoka International Airport
KLBIP	Kpong Left Bank Irrigation Project
KNUST	Kwame Nkrumah University of Science and Technology
KPIWS	Kpong Piped Irrigation Water Scheme
LAN	Local Area Network
LAP	Land Administration Project
LTR	Land Title Registration
MTDP	Medium Term Development Plan
M&E	Monitoring and Evaluation
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MDAs	Ministries, Departments and Agencies
MDPI	Management Development and Productivity Institute
MiDA	Millennium Development Authority
MLGRD	Ministry of Local Government and Rural Development
MLNR	Ministry of Land and Natural Resources
MM	Maintenance Manual
MMDAs	Metropolitan, Municipal and District Assemblies
MoE	Ministry of Education
MoEn	Ministry of Energy
MOFA	Ministry of Food and Agriculture
MOFEP	Ministry of Finance and Economic Planning
MOT	Ministry of Transport
MOTI	Ministry of Trade and Industry
MWRWH	Ministry of Water Resources, Works and Housing
MYFP	Multi-Year Financial Plan
NAB	National Accreditation Board
N-1 Highway	National Route 1 Highway
NAB	National Accreditation Board
NAZ	Northern Agricultural Zone
NED	Northern Electrification Department
NGOs	Non Governmental Organizations
NDPC	National Development Planning Commission
NORC	National Opinion Research Centre, University of Chicago
NRSC	National Road Safety Commission
PA	Procurement Agent
PAP	Project Affected Person
PAR	Portfolio-At-Risk
PPMS	Project and Procurement Management Services
PA	Procurement Agent
PC	Project Coordinator
PCA	Procurement Capacity Activity
PCC	Perishable Cargo Centre
PCE	Passenger Car Equivalents
PEF	Private Enterprise Foundation
PFI	Participating Financial Institutions
PIRS	Performance Indicator Reference Sheets

PPH	Public Pack House
PCP	Program Closure Plan
PCR	Program Completion Report
PFI	Participating Financial Institutions
PPR	Procurement Performance Reports
PIP	Procurement Implementation Plan
PIRS	Performance Indicator Reference Sheets
PLTR	Pilot Land Title Registration
PM&E	Performance Monitoring and Evaluation
PMSC	Project Management Support Consultant
PPA	Public Procurement Authority
PPHs	Public Pack Houses
PPMS	Project and Procurement Management Services
PEP	Project Evaluation Panel
PPP	Public Private Partnership
PPR	Procurement Performance Report
MRH	Ministry of Roads and Highways
MOU	Memorandum of Understanding
PPRSD	Plant Protection Regulatory Services Division
PRD	Pilot Registration District
PSC	Public Services Commission
PSCs	Project Support Consultants
PTA	Parent Teacher Associations
QDR	Quarterly Disbursement Request
QFR	Quarterly Financial Report
QPR	Quarterly Performance Report
RAP	Resettlement Action Plan
RBs	Rural Banks
RCBs	Rural and Community Banks
RFB	Road Fund Board
RFP	Request for Proposals
RICs	Regional Implementation Consultants
RICU	Rural Infrastructure Coordinating Unit
ROW	Right of Way
SBDs	Standard Bidding Documents
SEA	Strategic Environmental Assessment
SHZ	Southern Horticultural Zone
SMCs	School Management Committees
SPEG	Sea-freight Pineapple Exporters of Ghana
SMEs	Small and Medium Scale Enterprises
SRID	Statistics, Research and Information Directorate of MOFA
STWS	Small Towns Water System
TAIPM	Transportation and Agric Infrastructure Project Manager
TIPs	Trafficking in Persons
TOR	Terms of Reference
TQM	Tetteh Quarshie Interchange to the Mallam Junction
TTSPs	Training and Technical Service Providers
TWEP	Tamale Water Extension Project
USAID	United States Agency for International Development
VLTC	Volta Lake Transport Company Ltd

VOs	Variation Orders
VRA	Volta River Authority
WAN	Wide Area Network
WATSAN	Water and Sanitation Committee
WOCs	Works Order Contracts
WRI	Water Research Institute
WSDB	Water and Sanitation Development Boards
YKMFA	Yilo Krobo Mango Farmers Association
ZAC	Zonal Advisory Committee

ACKNOWLEDGEMENTS

The Compact Completion Report (CCR) compiled by the Management of the Millennium Development Authority (MiDA), gives an account of the progress of work and outputs of all the Project Activities undertaken by MiDA, in connection with Ghana's 5-Year Millennium Challenge Account (MCA) Program, which ended on 15th February, 2012.

We thank the Almighty God for the successful completion of this challenging Compact Program, which fully utilised all the grant funds on approved projects within the Compact term.

Our gratitude also goes to the J.A. Kufuor-led Administration for leading the country to access the MCC funding and for setting up MiDA as the independent and accountable entity for the implementation of the Compact Program. Sincere thanks also go to the succeeding J.E. Atta Mills/John D. Mahama Administration, for providing the much needed support towards the timely completion of all activities under the Program.

The success of the Program equally depended on the guidelines, clearly defined controls, the very large measures of understanding and encouragement that many others provided to MiDA throughout the 5-year Compact term. We are particularly grateful to the leadership of the Millennium Challenge Corporation (MCC), the successive Resident Country Directors¹ and our technical counterparts in Washington, D.C., for providing the mechanisms that ensured that the funds were promptly released and fully utilized for the selected projects and appropriately accounted for.

We highly appreciate the conscientious oversight roles played by the succession of Chairmen and Members of MiDA's Board of Directors², the Government Members, Representatives of NGOs and representatives of the three Intervention Zones, who served as Observers.

We gratefully acknowledge the contributions and roles played by various officials of the Ministries, Departments, Agencies and other Institutions, in particular MOFA, BoG, ARB Apex Bank, EPA, MRH, GHA, MWRWH, PPA, GSS, Lands Commission, MoEn, and MoE³, with whom we concluded Implementing Entity Agreements towards the smooth implementation of the Projects. Government officials in the 30 beneficiary Districts, Traditional Authorities who cooperated with us and the many private consultants and contractors, whose contributions ensured the success of the Program are also hereby duly recognised and appreciated.

We are also thankful to the Management and Staff of Messrs Charles Kendall and Partners (CKP), our Fiscal and Procurement Agents, for the invaluable contributions to the governance of the Program and the many professional colleagues in the public service, who supported the evaluation of MiDA's Contracts and ensured their acceptance by all Bidders.

Special thanks go to MiDA's Management Team, whose loyalty and dedication to their assignments ensured the success of the Program. The cooperation and support received from all other members of staff, that ensured the Team's success, are also appreciated and hereby acknowledged.

¹ Robert Hindle, James Bednar, Katerina Ntep and Gigi Goodhart.

² Refer to Table 1.3 in Appendix 1 for complete list of Board Members.

³ See Complete List of Implementing Entities in Table 1.16 in Appendix 1.

We are also grateful to Sam Otchere-Tenkorang, the CEO's Personal Assistant, who provided invaluable services towards the compilation of the Report.

Finally, we remain grateful to the Government and the tax-payers of the United States of America, working through the Millennium Challenge Corporation, for providing the very generous financial assistance, in the form of the \$547.009 million grant funds to Ghana and for supporting the country's efforts at reducing rural poverty.

PREFACE

If the decentralization of governance institutions, education and training of the people, the provision of social services, infrastructural development and investments into the industrial sector are essentials for the sustained growth of our rural economy, then why does Ghana's Compact Program isolate agricultural transformation as a vehicle for accelerated poverty reduction?

In 2003, Ghana was invited by the Government of the United States of America to present a Proposal for the use of the innovative Millennium Challenge Account (MCA) assistance to facilitate activities that will support economic growth and poverty reduction. The MCA Program is a result-oriented and time-bound arrangement, instituted by the Government of the USA to distribute development aid to beneficiary countries. Ghana qualified to participate in the Program, as the Government met the major eligibility requirements which focussed on democratic governance, ruling justly, investing in the people and driving economic freedom and empowerment.

Ghana's Proposal, submitted to MCC in October 2005, focused on applying the assistance to activities that will modernise the agricultural sector, increase farmer incomes; develop transportation infrastructure and enhance rural services. These interventions will dismantle obstacles that inhibit the realisation of the agricultural sector's role as an engine of economic growth. The focus of MCC's assistance was therefore consistent with the goal of the Ghana Poverty Reduction Strategy, 1 (GPRS I -2003-2005) and complemented other existing donor and GoG-funded programmes, directed at poverty reduction.

Agriculture, a predominantly rural-based industry, is the backbone of Ghana's economy, employing over 60% of the labour force and accounting for some 40% of Ghana's GDP⁴. While so many Ghanaians are directly or indirectly dependent on agriculture for their livelihood, the incidence of poverty is highest among the majority of these persons on whom the country relies for higher productivity in food and cash crops, for food security and for competitive export products.

The generally low income levels and the poor living standards associated with rural farmers are a reflection of the low levels of applied technology and the quality and adequacy of the technical skills employed within the sector, the lack of training in modern agricultural practices, low, unstructured and disparate investments, poor access to credit and the poorly developed marketing systems that support farm produce.

A great potential exists in farming communities, in terms of their capacity to optimise their net contribution to Ghana's GDP and support economic growth. For this reason, the Compact supports specific but integrated arrangements aimed at facilitating and transforming the form and practice of agriculture by smallholder farmers and enhancing their skills, with a view to increasing the productivity of their assets and enlarging their production bases, improving food security, reducing the very high poverty incidence and improving livelihoods. The outcome of the Compact's activities will therefore ensure a very competitive agriculture sector that will accelerate Ghana's march towards a middle-income economy.

Various public-funded interventions in the agriculture sector have tended to be implemented independently of each other and have therefore not provided solutions to such goals as defined in the GPRS I. Our inability to apply a multi-sectoral and integrated approach to investments that respond to sector policies and strategies and allow for sustainable contributions to national development plans, continue to make the agricultural sector and the operators in it, poor and vulnerable.

⁴Ghana's MCA Compact Proposal, 2005

To address the challenges in Ghana's agricultural sector and realise the goal and objectives of the Compact, the MCA Program provided resources and facilities which would work together to create a level playing field for all operators in the sector, reduce risks associated with farming and provide an enabling environment that empowers farmers to efficiently prosecute business in agriculture and maximize gains from their efforts and resources.

The Program involved 12 vital Project Activities, designed to work in an integrated and systematic manner to remove risks and impediments in the agribusiness value chain that constrain the efforts of many local farmers. It identified the challenges of working with a large number of entities and stakeholders on a complex, ambitious and time-bound Program and recommended arrangements which facilitated the attainment of results within prescribed budgets and the strict timelines.

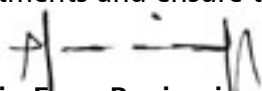
The Report presents the results of the first country-designed and country-owned MCA Compact Program. It highlights the necessity for building and effectively using large professional project management capacities as that which was contained within MiDA in order to deliver time-bound Projects. It demonstrates the import of strict adherence to Program-related rules and guidelines, the need for very strict focus on work plans and timelines; and underscores the essence of effective cooperation and collaboration with Implementing Entities; and the significant values derived from minimal controls from Government.

The Report also draws attention to the significance of effective work planning, efficient procurement processes, team-effort and commitment that sustained the integrity of the pro-poor Program. Additionally, it demonstrates the importance of the rigid application of fiscal, social and environmental accountability interventions in the delivery of the innovative agricultural development model.

The US\$ 547.009m MCA Compact has provided opportunities for trying and testing a large variety of concepts which could serve as a veritable blueprint for the transformation of Ghana's agricultural sector. The many lessons learnt and numerous recommendations provided in this Report, add a significant body of knowledge to other existing policies and ideas available to MoFA and farmer groups, which aim at improving the effective delivery Ghana's agricultural produce.

In order to attract capital investments into agriculture, improve entrepreneurial and technical skills of farmers, enlarge household incomes, ensure food security, increase job creation opportunities and reduce poverty levels in our rural farming communities, this MCA Model for agricultural transformation, is worthy of replication across the country.

It is MiDA's prayer that all Projects benefit from the continued and full support of the Implementing Entities to whom they have been entrusted. This is the only way to safeguard the investments and ensure their sustainability.



Martin Eson-Benjamin
Chief Executive Officer
Millennium Development Authority



Prof. Samuel Kofi Sefa-Dedeh
Chairman
Millennium Development Authority

Date...13th July, 2013.....

Date...13th July, 2013.....

EXECUTIVE SUMMARY

Background

The 5-Year Millennium Challenge Compact (the “Compact”) for Millennium Challenge Account assistance, was signed between the United States of America, acting through the Millennium Challenge Corporation (MCC) and the Government of Ghana; (“the Government” or “GoG”). The Compact Program (the “Program”), was country-developed and country-owned and utilised approximately US\$547.009m grant funds (“MCC Funding”) to support the implementation of various Projects, which will facilitate the attainment of the goal of the Compact; namely poverty reduction through economic growth in Ghana.

This Report covers all the Activities implemented under the Program, which started on 16th February 2007 and ended on 15th February, 2012.

Ghana’s Proposal for Millennium Challenge Account (MCA) assistance, was prepared by a Core Compact Development Team (“Core Team”), comprising sector experts. In developing the Proposal, an extensive consultative process was initiated throughout Ghana, involving private and public stakeholders, both individually and collectively. The Proposal took into consideration, the objectives of the country’s development agenda, as defined in the Ghana Poverty Reduction Strategy Document (GPRS I, 2003-2005)⁵. To ensure that the final Proposal was consistent with MCA’s core principles and investments criteria and therefore acceptable for funding, the Core Team engaged with their MCC technical counterparts (Transaction Team) responsible for Compact development throughout the Proposal development process.

The Compact Program targets results that are measured in terms of poverty reduction and economic growth. These results are to be achieved through the two-fold objective of increased production and productivity of high-value food and staple crops and enhanced competitiveness in local, regional and international markets. The Program therefore focused on increasing farmer incomes through the modernization and transformation of the agricultural sector.

The implementation process involved direct investments that will transform and build capacity in agriculture. Consequently, the three key Projects that underpin the Compact Program, viz: - the Agriculture, Transportation and Rural Development Projects, complement each other, with a view to effectively removing risks and obstacles that hinder the attainment of the full potential of the agricultural sector as an engine of economic growth. In the process, the value chains for various agricultural products would be strengthened, in order to facilitate the achievement of Compact targets.

The agricultural sector is the backbone of Ghana’s economy, accounting for approximately 40% of the country’s gross domestic product (GDP); generating more than 55% of the country’s foreign exchange earnings and employing directly over 60% of the labour force. Any improvements in the sector were expected to have a significant impact on the total economy⁶.

⁵ GPRS 1 targets economic growth and structural transformation of society based on accelerated development of agriculture

⁶ Source: Ghana Millennium Challenge Compact Document.

The Compact's project-level activities were carried out in three Intervention Zones that encompassed the original twenty three (23) Districts⁷. The Intervention Zones were: - the Northern Agricultural Zone, the Afram Basin Zone and the Southern Horticultural Zone.

The Program's elaborate Monitoring and Evaluation (M&E) Plan, formulated by MiDA and approved by the Board and MCC in fulfilment of a Condition Precedent (CP) to certain MCC disbursements, had a wide range of defined indicators that were tracked as part of the process for measuring progress towards the attainment of the Compact Goal and Objectives. Ex-ante analysis to estimate the Economic Rates of Return (ERR) at Program and Project Activity levels were made to guide the selection of funding options. The overall ERR target was set at an average annualised rate of 20%.

The **Millennium Development Authority (MiDA)**, the permitted designee and the accountable entity, with responsibility for managing the implementation of the Program, was created by the Government of Ghana through an Act of Parliament; (Act 702 and Act 709 (Amended), in 2006⁸ and reports to the Office of the President.

MiDA is governed by a Board of Directors, comprising some members of the Cabinet, the private sector and the NGO Community.

The MiDA Board provided oversight for the Program, ensuring that Government's responsibilities under the Compact⁹ were all carried out. Their interventions took the form of Meetings and participation in various project-related field events. In addition, at the onset of the Program, MiDA's Management held briefing sessions with the Board and His Excellency the President of Ghana and the Cabinet, to apprise them of the progress of work.

As a public sector organisation and an organ of Government, MiDA was subjected to numerous statutory and MCC initiated audits.

Conditions Precedent (CP) to Disbursement of Compact Funds

To ensure the sustainability of the Project Activities, certain CPs including among others, the hiring of specific staff, passage of legislation, preparation and approval of Strategic Environmental Assessments (SEAs), Environmental Impact Assessments (EIAs) and Resettlement Action Plans (RAPs), were to be fulfilled prior to any disbursements. In all, there were thirty-eight (38) Conditions Precedent.

At the end of the Compact, all CPs were fulfilled with the exception of one Condition, which related to the engagement of a Fiduciary or Liquidation Agent to manage Program Assets under the Agricultural Credit Activity.

The process towards fulfilling some of the CPs, especially those that entailed the passage of legislation to ensure a policy change, proved challenging, as their implementation resided with other organizations outside MiDA's control. As a result, on a few occasions, deferrals and waivers were sought and obtained from MCC.

⁷ These Districts were later expanded to thirty (30), through the Government's re-districting activities, but covered the footprints of the original twenty-three (23). (See Table 1.1 in the Appendices). In addition, three adjoining Districts were added because of the Transportation Project and the Irrigation and Post-Harvest Activities, which were implemented in parts of these Districts.

⁸ MiDA was established by an Act of Parliament, Act 702 and 709 (Amended) of 2006,

⁹ Refer to Appendix for full details.

A Report, known as the Conditions Precedent Report (CPR) was generated and updated quarterly. (Refer to Appendix 4.)

Implementation of the Program

When the Compact ended in February 2012, almost all aspects of the 12 Project Activities, specified under the three components of the Program; namely: Agriculture, Transportation and Rural Development, had been completed. The only exceptions were some projects under the Irrigation and Ferry Activities, which were at various levels of completion; viz:

- Irrigation: the Kpong Left Bank Irrigation Project (KLBIP), which was 75% completed;
- Ferry: the two Landing Stages for the Ferry Activity, (95% completed);
- RoRo Ferry (70% completed) and the Akosombo Floating Dock (90% completed).

These were all to be completed post-Compact, with GoG funding, as stipulated in the Compact.

A. Implementation Status: Agriculture Project

The Agriculture Project was designed to achieve the following objectives:

- i. enhance the profitability of high value staple foods like rice, maize, yam and high value horticulture crops, viz: pineapple, mango and vegetables;
- ii. improve the delivery of business and technical services that support the expansion of commercial agriculture among Farmer-Based Organizations (FBOs), which are groups of eligible farmers, input suppliers selling to such farmers, or output processors buying from such farmers.

To address constraints to farming and support the expansion of commercial agriculture, six (6) mutually reinforcing Project Activities, three of which group together to form the Commercial Development of Farmer-Based Organisations (CDFOs)¹⁰, were identified.

Under the Agriculture Project, MCC Funding was directed at the following activities:-

- i. **Farmer and Enterprise Training in Commercial Agriculture (“Commercial Training Activity”)**: 1,242 FBOs, comprising 66,930 smallholder farmers¹¹ were trained to accelerate the development of their commercial skills. An estimated 59,060 farmers adopted new technologies and farming methods, representing a 39% increase over the projected target of 42,500 farmers.
- ii. **The Irrigation Development (“Irrigation Activity”)**: To minimize crop failures and frequent food shortages attributable to variations in the amount and intensity of rainfall, four (4) large Irrigation Schemes were rehabilitated or constructed under this Activity; namely the Bontanga and Golinga Schemes in the Northern Zone (which were

¹⁰ The CDFO, (involving i, ii, iv), specifically addresses the challenges of preparing FBOs for commercialization and value added activity through business planning and improved practices as well as provision of access, where warranted, to post-harvest and irrigation technical and financial support.

¹¹ This number represents FBO members who completed the training and qualified by the criteria. However, overall, 75,472 farmers (involving 1,549 FBOs), participated in the training.

rehabilitated) and the Kpong Left Bank Schemes, which comprised of the Kpong Piped Irrigation Water Supply (KPIWS) and the Kpong Left Bank Irrigation Project (KLBIP), (both greenfield works) located in the Southern Zone. These Schemes will irrigate a total of 2,435 hectares.

With the exception of the Kpong Left Bank Scheme, which had achieved 75% physical progress at the end of the Compact, all the others were completed within the Compact period.

- iii. **The Land Tenure Facilitation (“Land Activity”)**: This Activity¹² was intended to improve tenure security for existing land users, ensure efficient land use and facilitate access by investors to land for commercial crops in nine (9) Pilot Registration Districts (PRDs) within the Intervention Zones. MiDA targeted 4,800 land parcels to be surveyed, out of which 3,500 parcels were to be registered and titles issued to the beneficiaries. At the end of the Compact, 5,729 land parcels had been surveyed, out of which 1,481 had their titles registered.

MiDA also assisted the Judicial Service to clear a backlog of land-related Cases in 10 refurbished Circuit Courts. At the end of the Compact, 95% of the identified backlog of Cases had been cleared by the Judicial Service.

- iv. **Improvement of Post-Harvest Handling and Value-Chain Services (“Post-Harvest Activity”)**:- This Activity targeted improvements to a number of post-harvest handling facilities that would enable Ghana’s horticulture export industry to add value through quality improvements; thereby making Ghana a significant supplier of fruits and vegetables to the EU and other export markets.

Ten (10) Agricultural Business Centres (ABCs)¹³ were constructed. In addition, three (3) Public Pack Houses (PPH) were also constructed to serve the needs of disadvantaged smallholder farmers growing mango and pineapple. These were complemented by investments into a Perishable Cargo Centre (PCC) at the Kotoka International Airport (KIA), Accra.

The Sea-freight Pineapple Exporters of Ghana (SPEG) were also given a revolving grant of US\$ 2.1 million for on-lending to its members to equip and modernize their packing facilities through the installation of generators, cooling facilities and packing lines.

The laboratories of three public organizations; namely, Plant Protection and Regulatory Services Directorate (PPRS), Water Research Institute (WRI) and Ghana Standards Authority (GSA) were fully refurbished to meet the International Plant Protection Convention’s (IPPC) Standards in respect of PPRS and ISO 9000, in the case of Standards Authority. This is to enhance their capacity to support improvements in the quality of farm produce.

¹² This Pilot activity was intended to demonstrate that a carefully planned and systematic process could be adopted to achieve rural land titling. The absence of this arrangement accounts for the high levels of insecurity with rural land tenure and the lack of freer access to land for sustainable investments.

¹³ In the Compact, the ABCs were originally designated as small scale investments for grain storage.

The Program successfully supported the process towards the enactment of the Plants and Fertilizer Act, Act 803 of June, 2010, which replaced Act 307 of 1965 and brought Ghana into conformity with the International Plants Protection Convention's Standards.

- v. **Improvement in Credit Services for On-farm and Value-Chain Investments (“Credit Activity”)**: This Project facilitated and increased access of value chain actors in the agricultural sector to credit through commercial, rural banks and other non-traditional financing channels that participated in the Agricultural Credit Program (ACP). Loans worth US\$19,642,194.38 were disbursed to 298 FBOs and SMEs engaged in the agricultural value chain.¹⁴

In addition, funds from repaid loans, totalling US\$3,485,730.12 were added to the ACP Fund and disbursed as loans to Clients. Recipients, farmers and their SME clientele totalled 10,506. As at 31st January 2012, an amount of \$5,773,734.20¹⁵ (Principal and Interest), was outstanding at the ACP level. MCC has since demanded and received from GoG, a refund of US\$ 6.9m, representing unpaid loans.

- vi. **Rehabilitation of Feeder Roads (“Feeder Roads Activity”)**: To improve transportation linkages and to reduce transportation costs and travelling time to domestic and international markets and social service networks, the Feeder Roads Activity targeted the rehabilitation or upgrading of about 950 kilometres (km) of feeder roads in ten (10) Districts in the Intervention Zones. Out of the 950 km, 687km were considered viable for engineering studies and design. A total of 357.54km, 62.9% of which was bituminous-sealed, were eventually rehabilitated in the three Zones.

B. Implementation Status: Transportation Project

The development of the agricultural sector is critically dependent on good transport networks, including road linkages that provide easy access to inputs, markets and social service delivery points.

In response to these vital requirements, the **Transportation Project** has facilitated access and unlocked the potential of the beneficiary Districts, more reliable transport systems which have optimised the value chains for various crops, reduce transportation costs, ensure that products reached markets faster and enhanced supply and distribution chain efficiencies for exporters.

The major achievements under the Transportation Activity, which involved 2 models - roads and maritime, were as follows:

- i. The **N-1 Activity** involved the complete upgrading of the 13.644km Section of the National Highway (N-1), a vital corridor located between the Tetteh Quarshie Interchange and the Mallam Junction in Accra, work on which had remained on the drawing board since the completion of the Accra-Tema Motorway in 1965.

¹⁴ The Project hit a snag with the poor repayment of loans by beneficiary farmers and further disbursements were discontinued under MCC's recommendation.

¹⁵ January 2012 ACPC Monthly Report Schedule 9; (*multiplied by 1.64485 representing BoG USD Midrate as at 31st January 2012*)

- ii. The **Trunk Roads Activity** was originally planned to cover the construction of five (5) segments of vital trunk roads in the Afram Basin Zone, measuring 230 km. Out of these, two (2) segments, encompassing the 75.21 km Agogo-Dome Road, were constructed.
- iii. The **Ferry Activity** is intended to improve VLTC's services on the Volta Lake, between the Adawso and Ekye-Aman from crossing points. For this reason, two new double-ended ferries, (each with 98-ton payload)¹⁶, were constructed, the ferry landing and passenger terminal facilities were rehabilitated and tree stumps in the navigation path removed.

The rehabilitation of an old Floating Dock at the Akosombo Port was also undertaken to improve VLTC's vessel maintenance capacity.

C. Implementation Status: Rural Development Project

The objective of the Rural Development Project was to support the development of agriculture and agri-businesses, expand the availability of basic community services and strengthen rural institutions that provide complementary services to rural farming communities.

Achievements in the implementation of the Rural Development Component of the Program are summarized as follows:

i. The Procurement Capacity Building Activity

The Activity involved placing tertiary students in public institutions to undertake procurement-related internships; the development of curricula and training modules for procurement majors, diploma holders and in-service public procurement professionals.

Training Modules and Curricula were also developed for Degree and Short Courses and 20 lecturers were trained in the use of these Curricula and Modules.

At the end of the Compact, nine (9) tertiary institutions had fully adopted the Modules and Curricula and had subsequently trained 175 procurement personnel under the 3-6 months Short Course in procurement. 278 and 119 tertiary level students had completed one year and two years of Course work respectively, based on the Modules and Curricula.

538 public sector Institutions agreed to the placements of Interns in their establishments as part of the Internship Component. By the end of the Compact, 1,274 students had completed their Internships. Out of these, 202 have also done their National Service in procurement-related employments.

ii. The Community Services Activity

This included three major Sub-Activities, namely: *the Education Sub-Activity, Water and Sanitation Sub-Activity and Rural Electrification Sub-Activity.*

¹⁶ The 120 tons payload envisaged in the Contract, was revised to 98 tons during construction to take account of additional weight of the materials used.

Under the **Education Sub-Activity**, MiDA rehabilitated 44 School blocks and constructed 206 new basic school blocks in 204 communities. Each of the school blocks was equipped with furniture for teachers and students, rain catchment systems and handicapped ramps. In addition, MiDA provided ancillary facilities, which comprised 178 gender-friendly sanitation facilities (for teachers and students) and a three-unit accommodation for teaching staff.

The **Water and Sanitation Sub-Activity** comprised of 12 pipe extensions, out of 15 originally planned, 11 small town water systems out of 13 planned and 87 standalone boreholes fitted with hand pumps, out of 162 planned, as a result of a reduced budget. Twenty six (26) Communities benefitted from Small Town Water Systems (STWS), with 85 km of pipes laid under the Tamale Water Extension Project (TWEP), to provide potable water to Communities in the Savelugu-Nanton and Tolon-Kumbungu Districts and the southern part of the Tamale Metropolis.

The Program planned to make potable water accessible (i.e. within internationally acceptable times and distances), through 377 water points in 159 Communities. At the end of the Compact, it had constructed and reactivated 394 water points discharging potable water in 135 Communities, representing 85% of the target.

The **Rural Electrification Sub-Activity** extended electricity from the national grid to 13 rural agricultural facilities; comprising farms and pack houses owned by 11 Nucleus Farmers, working with small-holder farmers in the Northern and Southern Zones, by installing a total of 20.6km of low voltage and 93.475 km of high voltage electric lines and 14 transformers.

iii. The Financial Services Activity

To increase the geographical coverage and enhance the value of financial services provided to rural populations; and to secure their integration into the cash economy, the Activity targeted staff training and the installation of a Cheque Codeline Clearing (CCC) System, together with an Automated Clearing House (ACH) Facility for the National Clearing House, involving all Banks in Ghana; the development of a satellite-based Wide Area Network (WAN) and the deployment of the e-Merge, a standard banking application software in 121 Rural and Community Banks (RCBs), which were operational at the start of the Activity.

At the end of the Compact, the following milestones had been achieved:

- a Stable National Go Live for the Cheque Codeline Clearing System, involving all Banks in Ghana,
- a satellite-based WAN to 134 Rural Banks, with branch networks in 547 locations, (comprising Head Offices and Branches),
- provision of generators, Local Area Networks (LAN), computers and other accessories.

These arrangements prepared the ground for the deployment and installation of the Standard Banking Application Software to 134 RCBs, with total branch network now reaching 743 locations nationwide, to complete the computerization and automation of all RCBs in Ghana.

D. Financial Performance of the Program

(i) Distribution of MCC Funding

At the end of the Compact Program, the entire Budget had been fully committed and disbursed, thereby enabling the Program to achieve its objectives and meet the profile of an integrated Program. To achieve this, MiDA fully complied with the Disbursement Agreement entered into as of 16 February, 2007 with MCC, MiDA and GoG. The Agreement covered payment arrangements for approved Project Activities.

Actual disbursements stood at 99.31%. The unspent funds represent outstanding M&E and Audit costs which will be disbursed by MCC on behalf of MiDA.

The distribution of the US\$547.009m MCC Funding by Project, as against the original Multi-Year Financial Plan (MYFP), was as follows:

Project Name	Original Budget Us\$	Revised Budget Us\$	% Change
Agriculture Project	240,984,000	197,726,609	-18.0
Transportation Project	143,104,000	224,170,279	56.6
Rural Dev Project	101,288,000	78,312,596	-22.7
Program Admin/Audits	46,633,000	36,422,677	-21.9
Monitoring and Evaluation	15,000,000	10,376,840	-30.8

A Summary of the Financial Performance of the Program can be found in Table 1.1 of Appendix 1.

MCC Funding: Disbursements over the 5-Year Period - Actual Payments

Projects	Compact Year 1	Compact Year 2	Compact Year 3	Compact Year 4	Compact Year 5	Total
Agriculture	2,595,490	17,673,299	40,741,752	51,126,908	83,512,960	195,650,409
Transportation	43,734	1,776,328	23,925,789	54,443,538	147,522,397	227,711,786
Rural Development	21,146	2,306,030	9,012,809	24,973,491	39,717,091	76,030,567
Monitoring and Evaluation	67,256	2,226,049	539,468	1,731,026	5,813,312	10,377,111
Program Admin and Audits	2,535,166	6,969,081	6,514,491	7,612,907	13,607,482	37,239,127
TOTAL:	5,262,792	30,950,787	80,734,309	139,887,870	290,173,242	547,009,000

Spend Profile (Actual)	0.96%	5.66%	14.76%	25.57%	53.05%	
Cumulative (Actual)	-	6.62%	21.38%	46.95%	100%	
Multi-Year Budget	74,811,000	100,033,000	149,242,000	155,611,000	67,312,000	547,009,000
Spend Profile (Planned)	13.68%	18.29%	27.28%	28.45%	12.30%	
Cumulative (Planned)	-	31.97	59.25%	87.70%	100%	

Funds were disbursed in quarterly tranches, in response to MiDA's Quarterly Disbursement Requests (QDRs), as approved by the MiDA Board.

The disbursement of the funds or the draw-down pattern envisaged under the MYFP could not be adhered to as planned. There was a marked deviation from the original disbursement profile, in terms of when disbursements were planned to be made and when they were actually achieved.

In the Original Plan, the Program should have utilised 59% of MCC Funding by the end of Year 3. However, at the end of Year 3, only 21.4% of planned disbursements had been achieved. Cumulatively, by Year 4, 47% instead of the 88% planned, had been spent. Indeed, more than 53% of the funds were disbursed in Year 5.

Reasons for the time lag between project implementation and payments for Certificates and Invoices, varied from Project to Project. Generally, delayed disbursements were due to the late commencement of implementation of some Projects, following the rather long procurement processes and the late completion of the mandatory environmental studies and compliance requirements. These factors, coupled with cost over-runs due to out-of-date budgets¹⁷, resulted in major re-scoping exercises at the end of the first and second years of Program implementation.

These disbursement patterns had significant implications for the expected outputs. As some projects did not commence as planned, the outputs were realised at the very end of the Compact. For example, none of the targets for the Output Level Indicators for the Transportation Project had been achieved, while three out of the six were actually achieved at the end of the Compact.

The incidence of these unfortunate time lags largely explains why outcomes and impacts can only be fully measured a few years after Compact closure.

(ii) Program Re-scoping Exercises – (2008/2009)

As a result of new information that flowed from the Feasibility Studies and the ERR Analysis, the late timing of procurements, the unexpected outcome of bids, and the pressure on input costs from a weaker dollar, two major Meetings were held in Washington, between MiDA's Project Management Team and their MCC counterparts, in December 2008 and December 2009.

The objective of both Meetings was to evaluate the effect of the new developments on the viability of various aspects of the projects selected for implementation under the Program and to reprioritize some of the activities, considering the size of funding available under the Program.

At all Meetings, compromises were reached that enabled MiDA's Management to re-prioritize project activities and to redistribute funds among the various activities, but ensuring that the goal of the Compact was still realizable. The Compact was consequently not amended. It is important to state that in spite of the re-scoping exercises, MiDA was able to implement an integrated Program, as a result of the flexible and therefore scalable nature of some of the related Project Activities.

¹⁷ Out-of-date Budgets refer to the time the Compact Proposals, including the Multi-Year Financial Plan was submitted to MCC, the expected timeline for the commencement of the Project and the actual start time, which in many ways, affected the estimated cost profile.

(iii) Project-Level Disbursements

(a) Financial Performance of the Agriculture Project

The budget for the six Agriculture Project Activities was initially estimated at US\$240,984,000. However, after the re-scoping exercises, the budget for the Project was revised downwards to US\$197,726,609. All the project-level activities experienced decreases in budgetary allocation, except for the Feeder Roads Activity, which had a 22.99% budget increase, representing US\$71,209,552.

At the end of the Compact, however, US\$195,650,408.60 or 99% of the amount reallocated to the Agriculture Project had been disbursed.

(b) Financial Performance of the Transportation Project

The estimated budget of US\$143,104,000 for the Transportation Project increased to US\$ 214,081,712 in 2009. At the end of the Compact, the total amount disbursed was US\$224,170,279. This amount excluded additional costs, totalling US\$60,407,447, for which GoG provided funds. These funds were used mainly to cover the cost of the relocation of utilities, (viz: - water, electricity and telecommunication lines), as well as compensations for Project Affected Persons (PAPs), mainly on the N-1 Highway Project, which accounted for 96% of the total compensations paid.

The Transportation Project eventually assumed the status of the largest Project, under the Compact in terms of cost. The cost increases came mainly from the N-1 Highway, especially the Lot 2 Contract, from the Apenkwa Interchange to the Mallam Junction.

Under the Ferry Activity, 89% of the Contract Sum had been disbursed by the end of the Compact. All outstanding Works, packaged under a Supplementary Agreement, will be paid for by the Government in line with the terms of the Compact.

(c) Financial Performance of the Rural Development Project

The Rural Development Project was significantly affected by the reduction in budgets, following the re-scoping exercises. From an initial estimate of US\$101,288,000, the budget for the Project was reduced twice to US\$87,361,543 and US\$71,436,389 in 2008 and 2009 respectively. By the end of the Compact, the budget had risen to US\$78,312,596, when the need for further increases to support the ongoing construction works became pressing. However, the actual amount disbursed finally came to US\$76,030,566.

The Project was also supported with funds provided by the Government for the compensation of PAPs. The Rural Electrification Sub-Activity of the Community Services Project Activity accounted for the lowest disbursements, with a share of less than 0.5%.

(d) GoG's Budgetary Support

Besides the MCC Funding of approximately US\$547 million, in December 2011, MiDA requested the Government of Ghana to provide an additional USD 25.1 million to support the completion of some of the Compact Project Activities, given that the USD 547million had been fully committed, even before the end of the Compact. This does not include funds provided for relocation of utilities on the N.1 and for resettlement of PAPs. The Supplementary Agreement covering this request was signed between Government and MCC on 6th December 2011.

To pay for Works that remained uncompleted at the end of the Compact and for new Works and Services covered by Supplementary Agreements with Contractors, MiDA put in an additional request for some US\$14.5 million. Government is favourably inclined to providing these funds.

(e) Counterpart Funds

In total, GoG's contribution at the end of the Compact, (akin to Counterpart Funding, which was not included in the original Compact budget) stood at US\$ 79,012,317.00. This is net of taxes on goods, works and services, from which MCC Funding was exempted. In line with Section 2.2 (a) of the Compact, the Ghana Government continues to make outstanding payments to Consultants and Contractors towards the completion of the Compact.

E. Program Sustainability

Satisfactory arrangements were put in place to ensure the sustainability of all the Projects, post-Compact. This was mainly through the Implementing Entity Agreements (IEAs) which MiDA signed with various Sector Ministries and their relevant Departments and Agencies, to gain their support and buy-in during the implementation of the Projects and also for post-Compact periodic and routine maintenance.

All the processes employed in the Planning and Implementation Phases of Projects were also expected to safeguard and sustain them well after they had been completed. In line with this, some Program Assets under the Transportation Project have been transferred to the Ghana Highway Authority (GHA) and the Department of Feeder Roads (DFR), to assist them to maintain, monitor and supervise the projects with GoG funds.

To ensure the technical sustainability of all the infrastructural projects, all contracts for construction were executed in accordance with the standards and specifications of the various Ministries.

F. Challenges, Lessons Learnt and Recommendations – Program Level

- Ghana's anti-poverty Compact has been described as very complex and ambitious and required working with a large number of institutions, both public and private, to ensure the ultimate success of the transformation Program. A major challenge posed by the complexity of the Program was the difficulty in maintaining the timely sequencing needed to promote efficiency and to safeguard the integrated nature of the Program, particularly in various stages of the agricultural value-chain.

- It was regrettable that at the end of the Compact, some critical projects such as the construction of an irrigation scheme and some post-harvest storage facilities were yet to be completed, and their management concepts yet to be tested. *To ensure the effective delivery of all Project Activities within the 5-year time window, it would be appropriate to opt for much-needed Programs that are less complex.*
- Besides the complexities of the Program, the process towards setting up its physical presence, in the form of hiring the staff, renting and setting up the Administrative Offices, took a longer time than anticipated. As these activities occurred after the EIF, MiDA lost some valuable implementation time.
- The Staff was all new and it took some time to build them into a cohesive Project Team and to establish a corporate culture thereafter. However, the loyalty and commitment of the Staff ensured that tasks were implemented according to laid down guidelines and procedures. *Ideally, the processes towards the engagement and setting-up the Project Teams and other administrative structures must all occur prior to EIF.*
- The Program had a rigid 5-year time limitation. MiDA's Staff was aware of the potential job loss/insecurity at the end of the Program, particularly as MiDA was set up mainly to perform the role of an Implementing and Accountable Entity. The challenge, *ab initio*, was the likelihood of losing key staff mid-stream, and the loss of valuable institutional memory, as a result. Suffice it to say that all the key staff remained on their contracts throughout the Compact Term. This was due to the high level of commitment and their determination to complete and ensure the proper closure of the first major Program of its kind to be undertaken in the country.
- Despite this laudable achievement, *it is highly recommended that certain Key Staff must be retained as permanent employees of MiDA in order to sustain the Authority. Project-specific Staff could then be hired and given contracts that are tied to the completion of the Program.*
- MiDA's autonomy as an Authority under the Office of the President, while serving as an advantage, also posed a challenge to Ministries, Departments and Agencies (MDAs), particularly as the MCA Ghana Program handled slices of mandates in the domain of other Government Agencies. This arrangement tended to create subtle tensions between MiDA and the Agencies.
- To overcome the stringent time constraints and appreciate the import of the 'no time extension clause', MiDA sought to manage these public projects, with a private sector mindset, operational strategies and managerial arrangements. These arrangements posed challenges in cases where the actions required were not under MiDA's control. The CP that required MiDA *"to submit evidence that demonstrates that the Government had adopted an Amendment to cause the National Plant Protection Legislation to be in compliance with IPPC Standards prior to any investments in relation to the construction of Post-Harvest Infrastructure"* is a classic example of this challenge.
- The availability of MCC-approved templates for the procurement of Contractors for Works, would have contributed immensely to the early completion of Contracts, such that contracts would encompass the mandatory Defects Notification Period (DNP). This view is supported by the fact that the first major infrastructure Project, the N-1 Lot 1,

was contracted out 22 months after EIF. Additionally, ready-made templates could have enabled the Community Services Project to take early advantage of the *Indefinite Delivery, Indefinite Quantity (IDIQ) contracting process*.

- It is a fact that allowing adequate time for project appraisal, planning, engineering studies, engineering designs, preparation of bidding documents and the procurement of Works and Services would culminate in timely and value-for-money procurements.

This notwithstanding, considering the time-bound nature of the Program, essential modifications to planned works and additions to designs very late in the implementation of Projects, put immense pressure on the implementation phase. *It is suggested that in future, these modifications, leading to variation orders and price adjustments should be subjected to impact analysis to determine the effect of such changes on the triple constraints of: scope, time and costs, before the change process, if any, is initiated.*

Additional lessons learnt were:

- the allocation of realistic budgets to meet contingencies induced by inflationary trends;
- the need to allow adequate time for the implementation of RAP prior to the commencement of any Works on infrastructural projects.

G. Challenges, Lessons Learnt and Recommendations - Project Level

(i) Agriculture Project

- A major challenge under the Agriculture Project was that the pace at which Post-harvest facilities like the ABCs and PPHs were delivered, was far slower than planned. For this reason, there was very little time available for MiDA to supervise the implementation of the Public-Private-Partnership (PPP) arrangements it had designed and thereby ensure the sustainable management of these infrastructures. The timing constraints stem from a 2-year delay in the passage of the Plants and Fertilizer Act, 2010 (Act 830), a condition precedent to disbursements for this Activity. The Law was finally passed and Presidential assent given in September 2010.

It is recommended that to fulfil such conditions in future, it will be necessary to get Government to intervene and to ensure that difficult CPs, like those that involve the passage of laws by the Legislature, do not delay the technical implementation of time-bound Projects.

It is also a fact that the impact of the Activity would have been realized more quickly if the development of value-chains for the marketing of agricultural products had preceded the training given to FBOs. For example, if the ABCs had been completed and handed over for their operations to commence early in the Program and if FBOs had been linked to these Buying Centres, farmers would have had access to reliable markets for their produce and therefore payment of loans granted would have been a lot easier, as loans could have been deducted at source.

- The high cost¹⁸ of Land Title Registration could deter rural-based smallholder farmers from participating in the registration process. The pilot registration exercise placed no cost burden on participants. The exercise will however continue under the Lands Commission, at some cost to the farmer. While the cost per parcel will come down as more parcels share the cost of survey equipment, even if this falls within the range of US\$100-150 per parcel, systematic registration of land titles in our rural areas, would have a significant impact on government's budget. This is an issue that must be critically examined before any plans to scale up the exercise commences.
- On the Agriculture Credit Activity, the BoG which had supervisory and oversight responsibility for the Participating Financial Institutions (PFIs) had capacity challenges. For this reason, BoG needed additional resources to ensure the successful execution of this mandate. Additionally, the methodology which debarred BoG from second-guessing the credit decisions of the PFIs, insofar as they were within their lending limits and using the funds for eligible crops, contributed to the high levels of disbursement in the initial stages.

From hindsight, some innovative ways could have been used to improve the loan repayment rates by FBOs. For example, informing FBOs at the time of lending funds to them that defaulters in their loan repayments would be penalized by being excluded from taking equity shares in the ABCs. MiDA's insistence on excluding farmers who had a record of not repaying their loans helped to improve the chances of success of FBOs that were to partner private investors in the operation of ABCs.

(ii) Transportation Project

- The key challenges that faced the Transportation Project included the late start of construction works. This was influenced by a slower-than-expected procurement process, resulting from the non-availability of MCC-approved Standard Bidding Documents. The timely completion of all Projects, especially the infrastructural projects, was a very critical factor in meeting the Compact's goals and objectives.
- To avoid some of the delays that characterized the construction phase of the roads, as much as possible, contract awards must be timed to precede the rainy season, in order to allow the use of this time for Contractor mobilization prior to the commencement of the Works.
- The conservation of time and other similar measures will allow enough time for the primer seals and surfacing layers to cure before the application of further layers.
- Contractors must be taken through training and refresher courses in Work Programming and Resourcing Techniques, while regular (monthly) submissions of current Work Programs, showing the status of all Works should be made a condition of their Contract, with possible heavy financial sanctions for defaults.
- Contractors were generally poor at managing safety, health and environmental issues. Increased efforts are needed in the form of workshops and training seminars to upgrade their knowledge and ensure compliance at their work places.

¹⁸ The cost of the Pilot Land Title Registration is about US\$167 per Parcel (Consultancy Fees for Survey Works alone is US\$43.60 per parcel).

- The requirement for a full implementation of the RAPs prior to the physical displacement of persons in general, affected the timely commencement of Projects. This also led to some incidences of excessive claims from Contractors as a result of the very short lead time that was available for the implementation of RAPs, which included resolving complex land tenure systems and ownership arrangements and the management of the very large number of project affected persons who needed to be compensated and resettled.
- Another lesson learned was the need to allocate realistic amounts in the form of contingencies within construction budgets, to take care of inflationary trends, prior to the commencement of actual physical Works, e.g. fuel costs moved up from an estimate of US\$30.00 to around US\$130.00 in the cause of the Works. It was obvious that our provisions for 15%-17.5% for Works proved to be inadequate. In some instances, 25% proposed by MCC was ideal.
- Under the Transportation Activity, it will be necessary to set aside adequate funds to support public education on the use of the new road designs in order to minimize the high incidence of accidents, involving pedestrians, immediately after the opening of the new roads, for example, the N-1 Highway in Accra.

(iii) Rural Services Development Project

- Under the **Procurement Capacity Activity**, the number of experienced faculty members to handle procurement related subjects in the participating Institutions, were not sufficient to enable the Institutions to obtain accreditation for running Procurement Courses. In the future, attention must be paid to the training and development of lecturers to handle Courses in Procurement, to enable the project run properly.
- Some of the challenges encountered in the supervision of Projects under the **Community Services Activity** could have been minimized considerably if MiDA had strengthened its resources within the Intervention Zones. The arrangement which allowed the Project Management Support Consultant (PMSC) to operate from his Accra Office was ineffective for project management, in view of the very wide geographical spread of the projects, a Zonal level Project Implementation Team, comprising of the requisite technical staff, ought to be put in place to allow for effective supervision.
- In introducing an ICT System into a new environment, comprising some 134 rural banks and their branches, the **Financial Services Activity** was confronted with some change management challenges. However, prudent actions undertaken by MiDA, including the running of On-Site Crash Courses in basic Computer Appreciation, in addition to the conversion of basic banking transactions in the new environment, proved very useful in bringing the Bank Staff to the minimum technical level of expertise required to manage the newly introduced technology.

H. Publicity, Monitoring and Evaluation

- The level of publicity given to Project Activities played a very key role in ensuring the Program's success. Continuous communication with stakeholders on changes in the scope of projects and outputs and the related challenges during implementation, contributed to the effective management of expectations and minimized disappointments among beneficiaries.
- It is recommended that publicity for the Program and its activities should be recognized and given more prominence at the planning stages and provided with its own budget to make the Communications Department even more effective.
- Performance Monitoring and Evaluation (PM&E) of the Program was limited to the Citizens Satisfaction Score Card on Local Government service delivery. This measured the beneficiary's perceptions of the quality, efficiency and adequacy of the services provided by the various Local Governments and the Implementing Entities. However, there were some limitations to feeding the results into the planning and implementation of activities, as the implementation strategy for Projects did not take account of this, considering the limited timeframe within which to complete Projects.
- Many of the interventions under the Community Services Activity were completed towards the end of the Compact; there was therefore limited opportunity to elicit from beneficiaries their opinions on the access to and the use of the facilities. A beneficiary assessment would have been useful not only for providing valuable feedbacks on the strengths and weaknesses of the various interventions on the beneficiaries, but would have contributed to corrective actions and deepened public accountability.

I. Conclusion

Throughout the 5-year Compact term, the Government of Ghana adhered to policies and programmes that enhanced compliance with the MCA eligibility requirements of ruling justly, investing in people and encouraging economic freedom. This enabled the country to remain eligible for continued funding of the Compact.

All Project Activities had clearly defined objectives and measurable results and benefited from a strong monitoring and evaluation of results at the process, output and outcome levels.

The ability of MiDA to deliver so many outputs within the Compact period, was the result of a combination of factors that included:

- application of very professional project planning and management processes;
- strenuous efforts to adhere to clearly defined timelines for project execution;
- the efficient delegation of roles and responsibilities for project implementation;
- the effective use of professional services;
- the rigid supervision and monitoring of project implementers, in particular contractors; and
- the competitiveness of the Key Project Managers and the determination not to let Ghana down.

The results of the Ghana Program must be judged not only by the quality of outputs and the delivery of a large variety of projects in the time available, but perhaps, more importantly, by the sustainability of the processes that engender good corporate governance, e.g. strong oversight by the Board, transparency in procurement and related transactions, financial and environmental accountability and a committed professional Staff, whose focus remained on the delivery of Projects to enhance agriculture and meet the aspiration of the poor smallholder farmer.

The rigid adherence by the Management to MCC's Guidelines on procurement and fiscal accountability, the overall quality of the deliverables and good oversight by MiDA's Board of Directors, implanted the 'MCC Effect' into MiDA's operations and the appreciation of MiDA's modus operandi and model by Government. These effective measures also prevented interferences from Governments and legal suits from bidders/contracting partners.

MiDA made good use of the strengths of the private organizations and public sector institutions in executing the projects. The involvement of the semi-independent Procurement and Fiscal Agents contributed in a large measure to the effective and successful management of the Program.

The strategy to commence Contracts only when work and procurement plans had been approved, CPs and environmental requirements had been met and funds secured for the Works, served as the major impetus for the successful delivery of Projects.

The MCA Ghana Program was implemented with a high degree of integrity. It was open to public questioning and regular audits; and this was also appreciated by the media and civil society at large.

The excellent professional project management capacity that was built within the MiDA Organization during the 5-year period, the complete and total focus on meeting the challenging timelines, the significant support from the Board and the Office of the President, the support and cooperation from our Colleagues in MCC; and the complete Management and Staff buy-in of the Program's goal and vision to transform agriculture and enhance the lives of the poor rural farmer, were largely responsible for MiDA's ability to fully utilize the MCC funding of approximately US\$547 million.

As an Evaluation Strategy, it will be desirable for the Office of the President to institute arrangements towards the Annual Review of the Compact Program and related Projects, in order to realise the full potential of the considerable grant funds, provided by the Government and people of the United States of America.

Finally, the many lessons learnt and recommendations in this Report will provide additional impetus for putting in place sustainable arrangements towards improvement in the volumes produced and the competitiveness of Ghana's foods and cash crops.

CHAPTERS

CHAPTER 1

INTRODUCTION

In January 2004, the US Government created the Millennium Challenge Account (MCA) as an innovative vehicle for the delivery of foreign assistance intended to stimulate sustainable economic growth and influence poverty reduction in beneficiary countries. This was to be driven through partnerships with countries; namely those committed to ruling justly, investing in their people and promoting economic freedom.

To be selected for a share of the MCA Grant under a Compact, a country must first pass the eligibility criteria of the Millennium Challenge Corporation (MCC), which were seventeen (17) third-party measures of policy performance indicators (at the time of Ghana's selection), that cover three broad themes, namely good governance, promotion of economic freedom and investment in the citizens.

Ghana was one of the eligible candidates invited by MCC in 2004 to submit a Proposal for consideration for a Compact. During the Compact Proposal development process, which involved a constraints analysis, project identification and a Project Concept Paper, consultations were held with a cross-section of members of civil society, non-governmental organizations and business operators in the private sector. This provided the basis for the selection of the three strategic components of the Compact Program that were to be harnessed to transform the agriculture sector and promote economic growth.

Following the approval of the Proposal, the Governments of the United States of America and Ghana entered into a Millennium Challenge Compact. The assistance involved an amount of five hundred and forty seven million, nine thousand US dollars, (US\$ 547,009,000).

The Program's goal was "poverty reduction through economic growth" in Ghana and was to be implemented within a 5-year time period.

The Compact was signed in August 2006, entered into force (EIF) on 16th February 2007 and expired on 15th February 2012.

1.1: Ghana Program Design

The Compact Program targeted a two-fold Objective, namely:

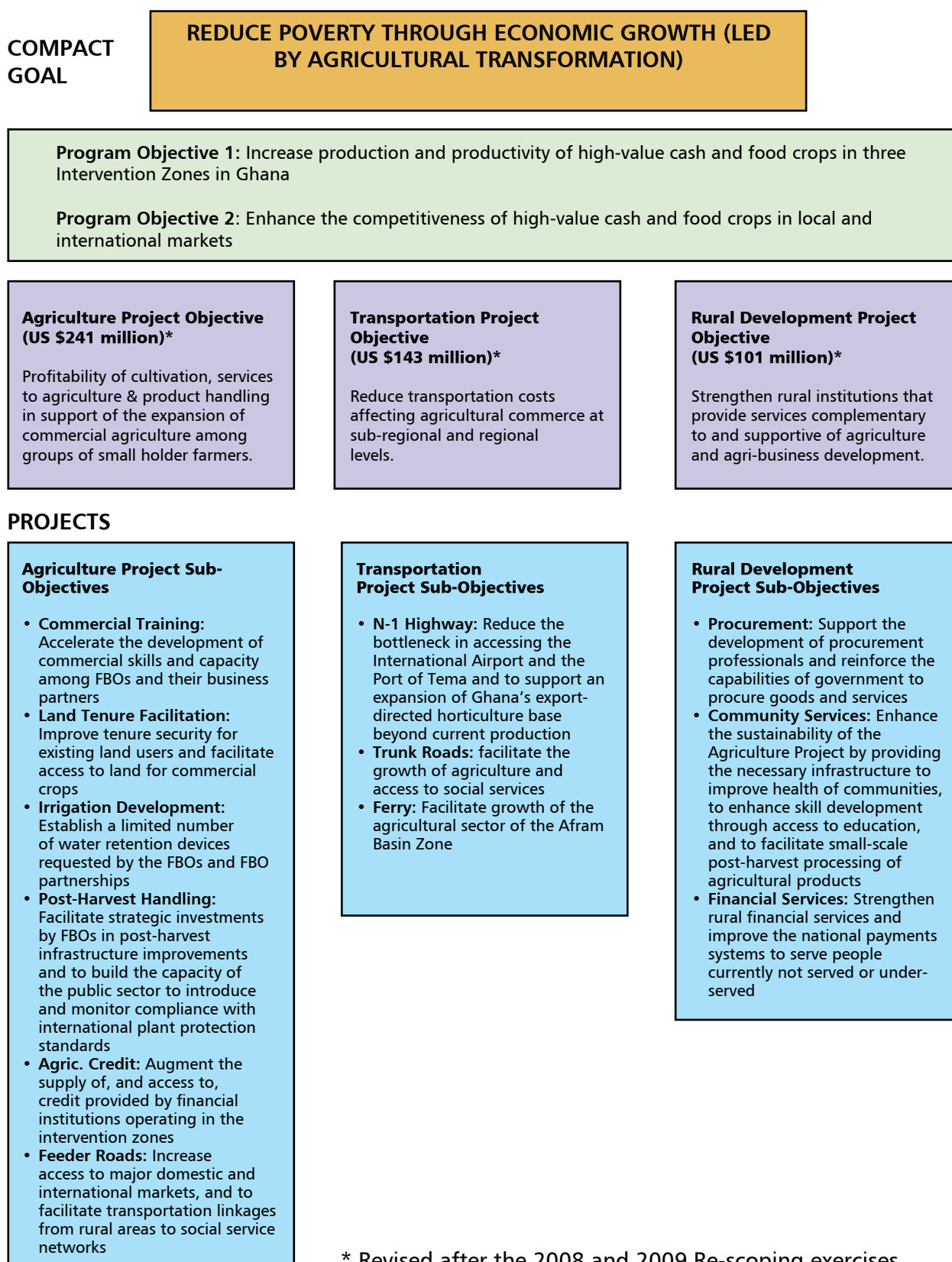
- **Objective 1:** Increase the production and productivity of high-value cash and food staple crops in the Intervention Zones in Ghana.
- **Objective 2:** Enhance the competitiveness of Ghana's high-value cash and food crops in both local and international markets.

(See Figure 1.1 for the Ghana Program Logic)

The Program Objective was to be achieved through the simultaneous implementation of 12 inter-related Project Activities, categorized under three (3) strategic projects, namely; Agriculture, Transportation and Rural Services. The project-level objectives were identified as follows:-

1. ***The "Agriculture Project Objective"***
Enhance the profitability of cultivation, services to agriculture and product handling in support of the expansion of commercial agriculture among smallholder farmers.
2. ***The "Transportation Project Objective"***
Reduce transportation costs affecting agricultural commerce at sub-regional and regional levels.
3. ***The "Rural Development Project Objective"***
Strengthen the rural institutions that provide services complementary to and supportive of, agricultural and agri-business development.

Figure 1.1: Ghana Program Logic



1.1.1: The Ghana Compact and MCC Framework

Like all MCA Compacts, Ghana's Compact Program was country-developed, country-owned and implemented by Ghanaians. A Core Team made up of local Consultants, developed the Compact Proposal.

In developing the results-oriented Program, emphasis was placed on an extensive consultative process, taking into consideration, the development agenda and strategic priorities of the Country, as outlined in Ghana's medium-term national development policy framework; the Ghana Poverty Reduction Strategy (GPRS I, 2003-2005). The consultative process that characterized the development of the Compact Proposal aimed at meeting the key principles of ownership and inclusiveness of the citizenry.

More than thirty Consultative Meetings were held across the length and breadth of the country, with an average participation of about forty (40) stakeholders. Stakeholders included policy makers, agricultural industry players; farmer-based organizations; exporters, industry associations, environmental organizations, gender organizations, the media and other civil society organizations.

The objective of the Consultative Process was to facilitate the selection and prioritization of some of the developmental interventions which rural communities have yearned for, particularly projects that were in line with Government's broad socio-economic development strategy. Activities that were finally selected were those that built synergies with other ongoing Programs; removed constraints to farming and promoted accountability and transparency in the delivery of outputs.

The Country Core Team consulted with MCC's Technical Team throughout the Proposal development process. This was to ensure that the final Proposal was consistent with the goal and objectives of the overall MCA Program and therefore qualified for MCC funding.

A Management Team was engaged under the Millennium Development Authority (MiDA), to be responsible for the oversight and management of the implementation of the Compact.

1.1.2: Selection of Priority Areas for Investment

The Program prioritized and focused on agricultural transformation, given that agriculture contributed 40% to GDP, 60% to employment and 55% to exports. As this Sector is largely rural-based, it held the key to the reduction in the incidence of poverty, which is highest in the rural areas. All Activities under the Compact were therefore intended to address constraints to growth that characterised Ghana's agricultural products value-chain. For this reason, 44% of the Program's budget was dedicated to the agricultural transformation component.

(a) Municipalities and Districts Selected

To ensure the most effective and impactful use of the Compact funds, 23 Municipal and District Assemblies were originally selected from six of the ten administrative regions of the country to represent the three Zones. However, following the creation of additional Districts by Government in 2008, the beneficiary Districts increased to thirty (30).

¹⁹ Source: Ghana MCA Compact 2006

²⁰ In addition, three (3) adjoining Districts were added because of the Transportation Project; viz: N-1 and Trunk Roads, and the Irrigation and Post-Harvest Activities which extended to or run through these Districts. The Financial Services Activity was implemented nationwide.

The Metropolitan, Municipal and District Assemblies were grouped as follows:

- the **Northern Agricultural Zone (NAZ)**, comprising five (5) Districts, all located in the Northern Region;
- the **Afram Basin Zone (ABZ)**, comprising nine (9) Districts, in the middle belt of the country and spanning the Ashanti and Eastern Regions;
- the **Southern Horticultural Zone (SHZ)**²¹, comprising sixteen (16) Districts, spread across the Central, Eastern, Greater Accra and Volta Regions.

Beneficiary Districts were generally contiguous and had similar farming and cultural practices (See Figure 1.2). The original 23 beneficiary Assemblies* were as follows:

- **Northern Agricultural Zone** - Savelugu Nanton, Tolon Kumbungu, Tamale, West Mamprusi, Karaga.
- **Afram Basin Zone** - Ejura Sekyedumasi, Kwahu South, Fantekwa, Afram Plains, Sekyere East, Sekyere West.
- **Southern Horticultural Zone** - Gomoa East, Awutu Effutu Senya, Akwapim South, Manya Krobo, Dangme West, Yilo Krobo, North Dayi, Hohoe, Ketu, Keta, South Tongu and Akatsi.

(b) Criteria for Selection

As part of the Compact development process, all the options that could contribute to the achievement of Ghana's strategic priorities, proposed in the GPRS 1, were examined. The criteria for the selection of priority areas for investment were as follows:

- Economic rate of return on investments
- Impact on economic growth
- Competitive advantage
- Beneficiaries Analysis
- Consistency with the Country's strategy for economic growth and poverty reduction
- Multiplier effect on economy.

The consultative process for the selection of beneficiary Districts within the Intervention Zones, was therefore based on three criteria, namely:

- The Agricultural Growth Potential of the District
- The Scope for Rural Poverty Reduction
- Identifiable Private Sector participation in the Growth Process

These criteria are discussed in detail below:

²¹ For administrative purposes, the Zone was split into two; namely South-West and South East Horticultural Belts.

* These were later increased to 30, following the creation of new Districts by Government.

Table 1.1: Agricultural Growth Potential

		<i>Total Land Area (ha)</i>	<i>Land Under current use (ha)</i>	<i>Horticulture (ha)</i>	<i>Food crop (ha)</i>
SHA	Awutu Effutu Senya*	78,000	45,263	1,780	43,483
	Average per District	76,784	14,555	795	13,760
	Total for Area	908,623	160,109	8,747	151,363
NAA	Savelugu Nanton*	270,000	180,535	535	180,000
	Average per District	374,667	250,923	89	250,833
	Total for Area	2,248,000	1,505,535	535	1,505,000
Afram Basin	Afram Plains*	526,000	57,456	0	57,456
	Average per District	254,000	36,822	0	36,822
	Total for Area	1,778,000	257,757	0	257,757
Overall Total		4,934,623	1,923,401	9,282	1,914,120

*Anchor Districts

Table 1.2: Impact on Rural Poverty Reduction

		<i>Population</i>	<i>Rural population poverty - Rural</i>	<i>Incidence of</i>	<i>No of poor people in rural</i>
SHA	*Efutu Awutu	169,972	110,482	65	71,813
	Average for District	168,396	109,458	56	61,137
	Total for Area	2,020,755	1,313,491	-	733,645
NAA	Savelugu Nanton *	89,968	58,479	91	53,216
	Average per District	92,096	59,862	90	53,686
	Total for Area	552,574	359,173	-	322,113
Afram Basin	Afram Plains *	161,754	105,140	87	91,472
	Average per District	139,084	90,405	59	53,201
	Total for Area	973,587	632,832	-	372,407
Overall Total		3,546,916	2,305,495		1,428,165

(c) Private Sector Participation in the Growth Process

The implementation of the Program was facilitated significantly through private sector participation. Areas within the agriculture sector that lent themselves to economic empowerment were given priority in the selection process. This was to enable the private sector operators that had already made investments into agriculture in the Districts, to take fuller advantage of the economic potentials of the areas covered by the Districts and benefit from the investments that will be made by the Program.

Based on the above criteria, the final selection of beneficiary Districts fell into three Intervention Zones. Districts in each of the three Intervention Zones were intended to benefit from a specific agricultural modernization approach, defined as follows:

Northern Agricultural Zone	:	Diversification
Afram Basin Zone	:	Expansion
Southern Horticultural Zone	:	Intensification

■ *Northern Agricultural Zone*

Key Approach: Diversification

- Support existing initiatives to promote production of higher value non-traditional crops in the Northern Agricultural Zone.
- Population of 0.6 million.
- 1.5 m hectares under cultivation.
- Average 90% incidence of rural poverty.
- Key diversification crops are organic mangoes and sorghum.

■ *Afram Basin Zone*

Key Approach: Expansion/Extensification

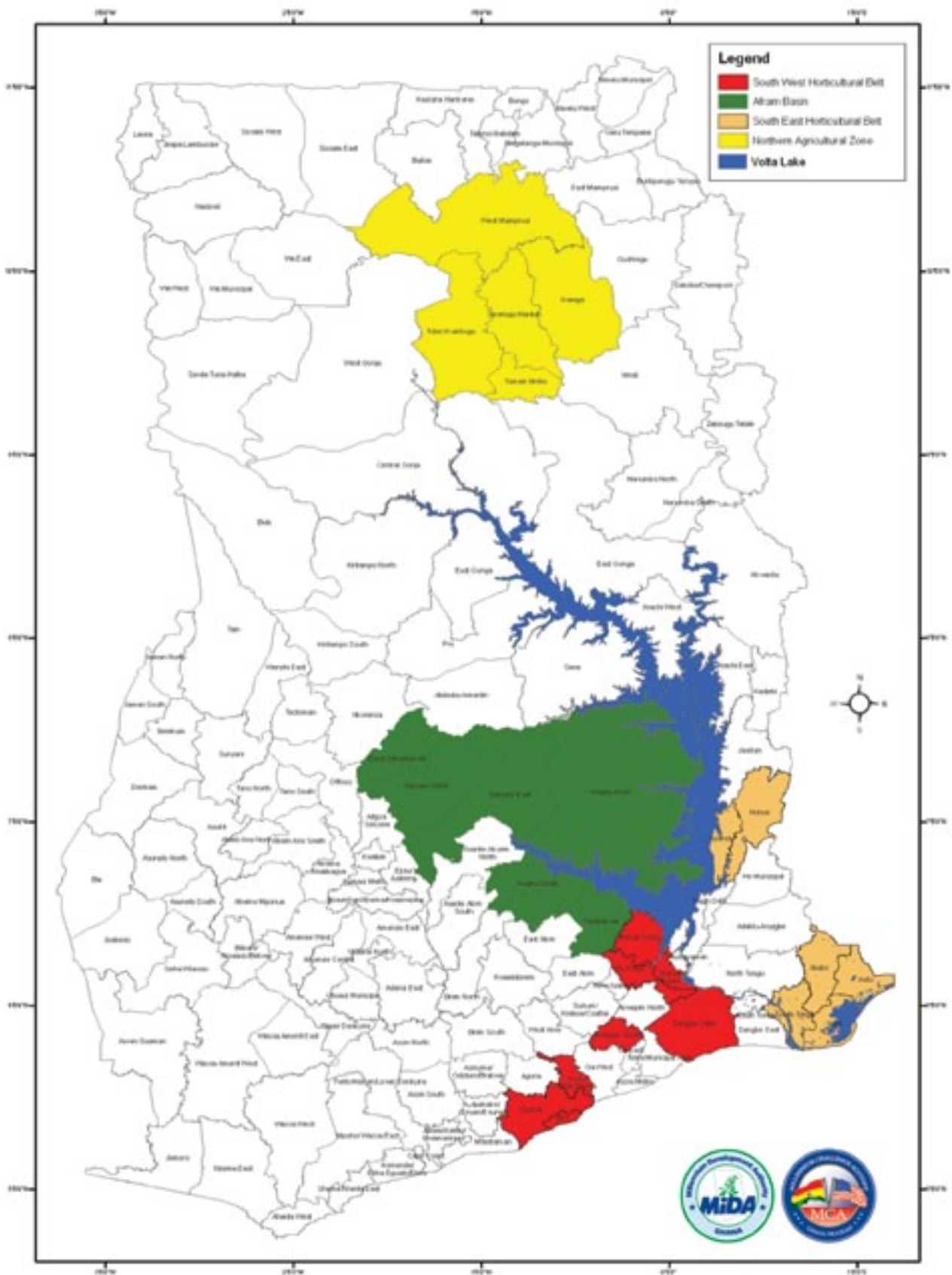
- Opens up a presently inaccessible area of Ghana that is potentially the bread basket of the nation.
- An area with 1.8 million hectares of fertile land, of which less than 0.3 million hectares are presently farmed.
- Population of 1 million, 60% of whom are farmers, with 6 out of 10 rural dwellers living below the poverty line of \$1 a day.
- Program targets increased production of food crops such as yam, cassava, maize, etc.

■ *Southern Horticultural Zone*

Key Approach: Intensification

- Support to accelerate the development of an internationally competitive horticulture industry.
- 0.9 m hectares of farm lands in the area, 18% of which is under cultivation, only 8,747 hectares are for horticulture products.
- Population of 2 million.
- 56% poverty incidence in rural areas.
- Key crops targeted are pineapple, papaya, mango, avocado, melon, lime and exotic vegetables.

Figure 1.2: Intervention Zones - MCA-Ghana Program



1.2: Compact Completion Report (CCR)

1.2.1: Purpose of the Report

The 5-year MCA Ghana Program ended on 15th February 2012. This Completion Report, a major deliverable under the Compact, provides an overview of the performance of the Program in relation to its Objectives, and highlights the significant issues that affected the Program's implementation, the results and outputs obtained and key lessons learnt during the implementation of the Program. The Report offers recommendations that could guide any plans to adopt aspects of the Program for any similar Program in future.

It is important to indicate that the Report does not represent an evaluation of the performance of the Program, as outcomes were not experienced within the Compact term.

1.2.2: Methodology

This CCR is based on the result of initial consultations with various stakeholders, carried out by a team of three consultants engaged under a 4-month contract by MiDA. The Team's work entailed the review of data, reports and interviews with Project Managers, Consultants, Contractors and Implementing Entities. The Team visited selected communities within the Intervention Zones to interview farmers and other intended beneficiaries and to solicit opinions on the implementation of the Projects and the expected benefits.

Two Workshops in November 2011 and January 2012 discussed the first Draft of the Report with MiDA's Senior Management and the Project Management Team. The Consultants incorporated comments from the two Workshops into the Draft Report that was submitted to MiDA in January 2012.

The Final Report is the outcome of extensive reviews by MiDA's Management and includes the latest updates to reflect progress made between the time the Draft Report was submitted and the end of the Compact Closure period, i.e. 15th June 2012; representing the end of the 120-day grace period allowed for reporting and payments, and administrative close-out of the Compact Program.

1.2.3: Structure of the Report

Besides the Executive Summary, the Report is divided into four (4) Sections. After the Introductory Section; i.e. Chapter One, the Administration and Management (including MiDA's governance structure), of the Program is discussed in Chapter Two. Chapter Three discusses the component Projects of the Compact, focusing on achievements, the financial management and factors that affected project implementation. Chapter Four describes cross-cutting issues, including: financial administration, environment and social impact, internal audit, legal, monitoring and evaluation, gender and capacity building.

Under each of the component projects and cross-cutting issues, lessons learnt and challenges encountered are spelt out and recommendations made to guide the implementation of any future Compact.

CHAPTER 2:

PROGRAM MANAGEMENT AND ADMINISTRATION

2.1: The Millennium Development Authority (MiDA)

Prior to signing of the Compact and commencing the implementation of Project Activities, an Act of Parliament, (*Act 702 (2006) and Act 709 (2006), as amended*), were enacted to create an implementing entity called the Millennium Development Authority (MiDA)²². The main Act setting up the Authority was given Presidential Assent on 23rd March 2006. (Refer to Appendix 3.1 for a copy of the Act).

The Objectives of the Authority were spelt out as follows:

- a) To oversee and manage the implementation of the Ghana Program, under the Millennium Challenge Account of the United States Government, for sustainable reduction of poverty through economic growth;
- b) To secure the proper and effective utilization of the Funds granted to Ghana under the Compact;
- c) To oversee and manage other national development programmes of similar nature funded by the Government of Ghana, Development Partners or by both.

The functions of MiDA are elaborated in the principal enactment establishing the Authority, as follows:

- a) Undertake activities to build human resource capacity for successful implementation of development projects by Ministries, Departments and Agencies of the Government of Ghana.
- b) Take necessary steps to ensure the reduction of poverty through modernization of agriculture.
- c) Implement measures that ensure active participation by the private sector in national development, including access to financial resources.
- d) Provide as determined by the Board and within the terms of the Compact, infrastructure facilities, including schools, healthcare, water, sanitation and electricity.
- e) Establish an accounting, reporting and auditing arrangement that is transparent and conforms to the best international practices.
- f) Put in place a mechanism by which there is exchange of information to and from the public on the activities of the Authority.
- g) Perform functions that may be required by subsequent investments made by the Millennium Challenge Corporation, the Government and other Development Partners.
- h) Perform functions ancillary to the objectives of and functions of the Authority.

²² In some other Compact Countries, the Accountable Entity was not set up by an Act of Parliament as Ghana's was. In such countries, they were commonly referred to as the MCA Entity; e.g. MCA Benin, MCA Namibia, etc

The MCA Grant is the first investment fund allocated to MiDA. However, the Authority may on the expiry of the Compact, undertake Programs of similar nature determined by the President of the Republic of Ghana.

Within the Compact's Term, however, MiDA could not handle other Programs which could result in the co-mingling of funds and the use of Compact-funded resources. The intention was that after the life of the Compact, other funds could be channelled through MiDA for development purposes.

2.2: Governance and Administrative Structure

MiDA consists of an independent Board of Directors (the "Board") that oversees MiDA's responsibilities and obligations under the Compact (including any Designated Rights and Responsibilities); the Executive (the "Executive") and a Management Unit (the "Management") that has overall management responsibility for the implementation of this Compact.

Post-Compact, all the Staff members in the Management Unit have been retained to oversee the administrative closeout and the completion and handing over of some Program assets to Implementing Entities and beneficiary communities.

2.2.1: The Board of Directors

In accordance with the MCC-approved Compact Governance Documents, the Board consisted of ten voting Members and four non-voting Observers. The Voting Members were made up of the Chairman, five government institutional representatives, three Civil Society Members and the Chief Executive Officer (CEO) of MiDA.

The current and longest serving Board Chairman²³ ("**Chair**"), Prof. Samuel Kofi Sefa-Dedeh, was appointed by the President of Ghana under Article 195 (1) of the 1992 Constitution, which deals with the appointment of public officers.

The Government Members²⁴ were drawn from the under-listed Ministries and were represented by the Minister or any other Government Official of the rank of Director or higher: Members who served for most parts of the Compact are listed below:

- Ministry of Food and Agriculture (MOFA) - Hon. Kwesi Ahwoi
- Ministry of Trade and Industry (MOTI) - Hon. Hanna S. Tetteh
- Ministry of Roads and Highways²⁵ (MRH) - Hon. Joe Gidisu (MP)
- Ministry of Local Govt and Rural Dev (MLGRD) - Hon. Samuel Ofosu-Ampofo
- Ministry of Finance and Economic Planning (MOFEP) - Hon. Dr. Kwabena Duffuor²⁶

The Civil Members included two representatives, selected by the Private Enterprise Foundation (PEF), viz:- Nana Owusu Afari and Flt. Lt. Godfred Tackey (Rtd.), and Dr. Albert Tenga, a representative of the Ghana Association of Private Voluntary Organizations in Development (GAPVOD).

²³ Other Chairmen prior to the appointment of Prof. Samuel K. Sefa-Dedeh, were Dr. P.K. Nduom, (March 2006 to August 2007) and Mr. Edward Boateng, (September 2007 to December 2008)

²⁴ See complete list of all Directors in Appendix 1

²⁵ Added to the Board in 2008

²⁶ Alternate: Dr. Albert Asamoah-Baah, Ministry of Finance and Economic Planning

The Non-Voting Observers of the Board (each, an “Observer”) were: (i) representative designated by MCC (the “MCC Representative”); and (ii) three (3) representatives, each selected by the District Assemblies within each Intervention Zone.

The Compact’s Governing Documents provide that each Government Member’s position, (other than the Chair), shall be filled by the individual, during the Compact term, holding the Office identified and all Government Members (including the Chair), shall serve in their capacity as the applicable Government Officials and not in their personal capacity; and also that the Voting Members by majority vote, may alter the size of the Board, so long as the total does not exceed eleven members.

Each Observer shall have the right to attend all Meetings of the Board, participate in the discussions of the Board and to receive all information and documents provided to the Board, together with any other rights of access to records, employees or facilities, as would be granted to a Member of the Board under the Governing Documents. Table 1.3, in Appendix 1, shows the Composite List of Board Members and Durations of Service.

The roles and responsibilities of the Board included:

- Oversight of the Management, the overall implementation of the Program and the performance of the Designated Rights and Responsibilities.
- Approval and authorization of certain Management Actions, Agreements, Documents or Instruments executed and delivered, as the case may be, by MiDA as provided under an applicable law or as set forth in any Governing Document, including each MCC Disbursement Request, selection or termination of certain Providers and any Implementation Document.
- The Chair, unless otherwise provided in the applicable Governing Documents, certified any Documents or Reports delivered to MCC in satisfaction of the Government’s reporting requirements under this Compact or any Supplemental Agreement between the Parties (the “Compact Reports”) or any other Documents or Reports from time to time delivered to MCC by MiDA, (whether or not such Documents or Reports are required to be delivered to MCC) and that such Documents or Reports were true, correct and complete.

Through the work of its Sub-Committees, the Board monitored various aspects of MiDA’s activities. The Sub-Committees included: Fiscal and Audit, Credit and Financial Services, Community Services, Procurement, Agriculture and Infrastructure.

The first MiDA Board was inaugurated by H.E. the President of Ghana, Mr. John Agyekum Kufuor, after Ministers had been appointed to the relevant portfolios. The President appointed the then Minister for Public Sector Reform, Hon. Dr. P.K. Nduom (MP), as the first Chairman of the Board.

As per the outcome of the Mid-term Review²⁷ of the Program, the Board suffered from a large measure of instability given that its composition is weighted to Voting Members appointed by Government.

²⁷ The Mid-term Review, a requirement under the Compact, which assessed the performance of MiDA on the Compact, was contracted out to Messrs Impaq International of USA in 21st June 2010. The Report was presented to MiDA on January 31, 2011.

In mid-2008, most of the Voting Members, including the Board Chairman, had to relinquish their positions due to a Cabinet reshuffle, which made them ineligible as members of the MiDA Board. The membership of the first Board lasted until January 2009, when all the political appointees, including the Board Chairman resigned after the December 2008 General Elections, when a new political party won the Elections and a new government sworn in.

The new Ministers of State who were expected to join the MiDA Board had to be nominated by the in-coming President and vetted/approved by Parliament, before assuming their duties. It took some three months before the MiDA Board became fully operational again. Even then, the Board Chairman was not appointed until December 2009.

At all times, the Board comprised of very dedicated public and private sector officials who showed commendable commitment to the successful implementation of the Compact. The Government Members on the Board received no allowances as they were on Government payroll. However, this did not diminish the enthusiasm with which they participated in Board Meetings and contributed to the implementation of the Program.

From the onset, Board Meetings were held monthly. However, two years into the Program, Meetings were held every other month. During the Compact term, there were 40 Board Meetings and 6 Emergency Meetings. Board Sub-Committees, which were very functional in the early years of the Compact, also provided insightful reviews of issues and recommended appropriate decisions to the Board.

To ensure a high level of transparency in its operations, highlights of the Minutes of the Board of Directors were posted on the MiDA website (www.mida.gov.gh).

Whenever necessary, Board Members with some influence on certain sectors of the Executive and Ministries, Departments and Agencies, assisted with specific interventions to move Projects forward. These activities involved facilitating access to other Senior Officers in Government and helping to access additional Government funding. A typical example was when Members prevailed on the National Security Coordinator to provide escort for bitumen from Togo into Ghana to prevent any delays to vital road Projects.

2.2.2: Management

All fourteen (14) Officers of MiDA, as defined in the Compact and other Governing Documents, were hired mainly from the private sector, before the Compact entered into force in February 2007. The Management or Officers, reported through the Chief Executive Officer (CEO) to the Board of Directors.

The Executive Management Team comprised the following:-

- Chief Executive Officer : Martin Eson-Benjamin
- Chief Operating Officer : Matthew Eric Armah²⁸
- Procurement Director (PD) : Vidal Creppy
- Monitoring and Evaluation Director (MED) : Abigail Abandoh-Sam (Mrs.)
- Finance and Administration Director (F&AD) : John Okyere Boakye
- Environmental and Social Impact Director (ESID) : Robert K. Akuamoah (Dr.)
- Community and Public Outreach Director (CPOD) : Major (Rtd.) Albert Don-Chebe

²⁸ Mr. Matthew Armah doubled as the Director responsible for the Agricultural Transformation Programme.

The five (5) Project Managers, also members of the Management Team, were:-

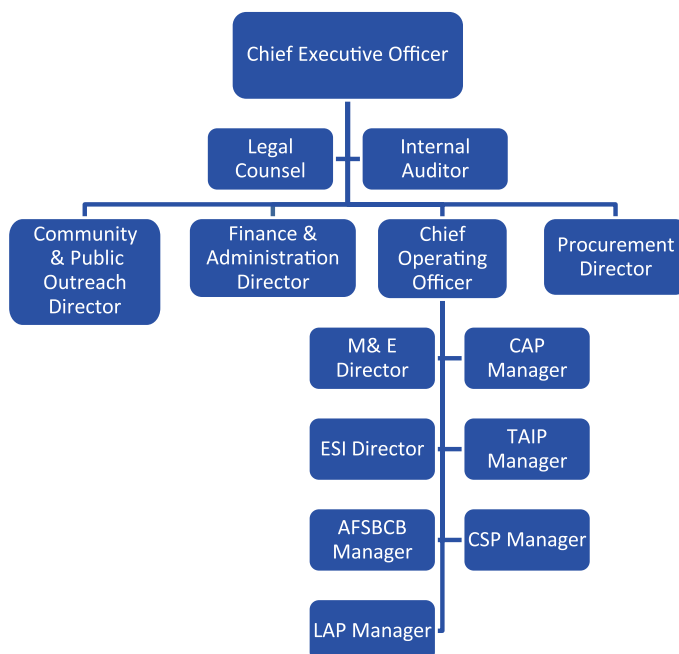
- Commercialization of Agriculture Project Manager (CAPM) : Michael Asomani-Adem
- Transportation and Agriculture Infrastructure Project Manager (TAIPM) : John Bernard Koranteng-Yorke (Dr)
- Agricultural Financial Services and Bank Capacity Building Manager (AFSBCBM) : Yaw Adom Brantuo
- Community Services Project Manager (CSPM) : Samuel Kuma-Botchway
- Land Administration Project Manager (LAPM) : Isaac Bonsu Karikari (Dr.)

Two other Staff Members, viz: - Dorothy Djokoto (Mrs), Legal Counsel and Elsie Bunyan (Mrs), Internal Auditor, complemented the Management Team of MiDA.

The Management Team was supported by a cadre of administrative and support personnel. At the peak of its operations, MiDA worked with a complement of 74 employees.

The **Organizational Structure** of the Management is shown in Figure 2.1; while the details of the responsibilities of the MiDA Board, and the Job Descriptions of the CEO and COO are in Appendix 3.

Figure 2.1: Organizational Structure – MiDA



2.2.3: Program Implementers

MiDA executed the Program with the support of project implementers from both the private and public sectors. These supported the Key Managers responsible for project implementation.

A Fiscal Agent and Procurement Agent, recruited by MiDA and who operated outside MiDA's premises, facilitated the work of MiDA and all the Consultants and Contractors.

(a) Procurement/Fiscal Agent Consortium

MiDA's Procurement and Fiscal Agency Services were provided by a Consortium, comprising of Charles Kendall & Partners (CKP) of the United Kingdom, GFA Consulting of Germany and two (2) local firms; viz: Project and Procurement Management Services (PPMS) and Morrison & Associates.

- Fiscal Agent

The Fiscal Agent was responsible for the disbursement and reporting on the application of Compact Funds in line with the various Governance Agreements and the Compact. The Fiscal Agent worked with MiDA's F&A Directorate to ensure that all financial transactions were in line with MCC Procedures and Guidelines. The Fiscal Agent Agreement was signed between Messrs CKP/GFA and Morrison & Associates and the Government on 1st August 2006 and expired in June 2011, but was subsequently extended to June 2012.

- Procurement Agent

As the Procurement Agent, CKP worked with MiDA's Procurement Department to ensure that procurement of goods and services were in line with MCC's Guidelines and Procedures. The Procurement Agency was established pursuant to an Agreement signed between Messrs CKP, PPMS and the Government, acting through the then Ministry of Public Sector Reform²⁹, on 1st August 2006. The Contract covered a Base Year, followed by annual extensions.

The Procurement Agent Agreement was extended from 1st August 2009 to 31st July 2011 by MiDA, and subsequently to 15th June, 2012. This extension covered the final procurements and Contract Administration reporting from August 2011 onwards, as well as the Compact Closure Period.

(b) MCC's Technical Counterparts

MCC's technical counterparts in Washington DC maintained close contact with every aspect of the Project implementation process, facilitating every approval requirements. For these reasons, there were numerous visits by MCC Officials and their Technical Advisors to confer with their MiDA counterparts and to monitor the progress of work. In addition, weekly and bi-weekly conference calls provided another platform for interactions between MCC and MiDA. These arrangements proved to be very effective in speeding up the Project Activities.

(c) Project Management Support Consultants (PMSCs)

Five (5) PMSCs (*refer to table 1.3 below for the full list of PMSCs*), provided technical support to Project Managers at key stages in the Project Life Cycle (PLC) – planning, execution, control and closure, including the defect notification (liability) period. Specifically, the PMSC coordinated Implementation activities to bring about harmonisation of strategies and sharing of best practices among supervising consultants and contractors. They provided supervision, independent monitoring and assessment, verification and validation of Reports, as well as technical audits of the progress of work indicated in the Supervising Consultants' Reports.

²⁹ The Ministry of Public Sector Reform was responsible for all issues that related to the Management of the Compact for the period between the signing of the Compact on 1st August 2006 and the Entry into Force on 16th February 2007. MiDA Management took over the administration of the Program after EIF in February 2007.

Table 1.3: List of PMSCs

S/NO	PMSC	PROJECT/ACTIVITY
1	SMEC International	Consultant for all Transportation and Agriculture Infrastructure Projects
2	Lamda Consult Limited	Consultant for Community Services Activity
3	KPMG	Consultant for Financial Services Activity
4	IESC	Consultant for the Agric. Credit Activity
5	DAI	Central Management Consultants (CMC) for Agriculture Commercialization Activity.

(d) Project Support Consultants (PSCs)

During the course of the Program's implementation, MiDA realized the need for additional support in Project Management. For this reason, eight (8) PSCs were recruited on short-term contracts to work on the Commercial Agriculture, Transportation, Community Services, Credit and Financial Services Activities. The PSCs provided direct backstopping to Project Managers and operated through delegated authority from the Project Manager. Specially, PSCs assisted the Project Managers to ensure the successful execution, monitoring and reporting of progress of work on Project Activities. This included the supervision of work assigned to Implementing Entities, Consultants and Contractors.

(e) District Advisory Committees (DACs)

DACs were set up in each of the 30 Districts to provide advice and input to MiDA on the implementation of the Compact, maximize the flow of information on the Projects, motivate local interest, encourage participation and strengthen local ownership of the project activities. DAC Membership included representatives of all the key stakeholders in the District, drawn from the private sector, civil society and local and regional governments.

(f) Government of Ghana (GoG) Responsibilities

To ensure the success of the Program, the following responsibilities of the Government of Ghana were spelt out in the Compact:

- i. To ensure that the country continues to be eligible to draw on the MCA funds by not slipping in the performance of the Eligibility Indicators that determined the country's qualification to receive support.
- ii. To facilitate roles for the country to meet a variety of conditions, which the timing and implementation of projects depend on.
- iii. To make up for any shortfalls in funding that may arise to sustain the Program in areas such as road maintenance; community services recurrent costs, and environmental mitigation.

The general conditions that needed to be met by GoG in furtherance of various Project Activities and which would facilitate the release of MCC funding, have been set out as the Conditions Precedent (CP) in the Governing Documents of the Compact. (See Annex 1.4 for CPs and their status).

2.2.4: Structure of MiDA

Lessons and Challenges

- A major challenge to MiDA was the imperative to operate as a public entity that delivers its Program within the Government's policy framework, but cutting across the bureaucracy and red-tapes that do beset the operations of Ministries, Departments and Agencies (MDAs) with whom MiDA had to collaborate.
- For maximum operational efficiency, MiDA was set up as a Project Management and Implementation Unit within the public sector. The Organization's major leverage was derived from the presence of a number of Ministers of State on its Board of Directors. This enhanced the opportunity to reach out and interact smoothly with other MDAs.
- Being under the Office of the President, MiDA was enabled to avoid these bureaucratic tendencies. It provided direct access to the seat of decision making and thus improved the process towards some vital decisions. This was helped to a large extent by the full and detailed Quarterly Reports submitted on its operations to the Office of the President and periodic Briefing Sessions with the Cabinet.
- The independent relationship of the Fiscal and Procurement Agents with MiDA, provided the insulation against some of the interferences that confront public institutions, in as far as financial management and procurement activities were concerned. The fact that MiDA awarded over 850 Contracts, without any Bid Challenges and significant Court Cases, or any recourse to arbitration and settlements, attests to the effectiveness of the procurement processes employed by the Procurement Agent.
- As MCC was a new entity (*created in 2004*) and MiDA was also a start-up organization, (set up in 2006), there were various procedural and operational challenges during the first year of implementation, leading to the loss of valuable time within in the first 18 months of the 5-year Program.
- Another challenge was working through complex project management structures to deliver an integrated output that targets poverty reduction. This required a well oiled, effective and strategy-oriented Oversight Team that would ensure better coordination of activities, from the onset. Team building and cohesion posed challenges.
- The structure of MiDA, with its emphasis on outputs and timely delivery, appeared to encourage Project Managers to focus on their own Projects and work in silos, informed by pressure on time available to complete targets set for each Project. Thus, the work profile of each Manager tended to depend on the delivery of their individual project portfolios. As a remedy, the Technical Management Meetings, led by the COO, provided the fora for meaningful interactions among managers and between managers and the Executive. In addition, Weekly and Monthly Reports written by Managers were collated and circulated to keep every team member in the loop.
- The composition of the Board, which involved Ministers of State at the Cabinet level, led to instances of instability, as a result of Cabinet reshuffles and the changes in Government during the Compact Term. For instance, during 2008, a major reshuffle of the President's Cabinet resulted in changing all the Ministers on the Board. Barely a year later, were the 'new' Ministers also changed as a result of the change in Government.

To the credit of the membership of the Board, these unstable situations did not significantly delay any aspects of the activities of the Board and MiDA. The Meetings of the Board continued to be held regularly and the Board was effective particularly in relaying information and in the provision of direction to MiDA on the implementation of the Compact.

- Another challenge in the implementation process arose from the roles of Implementing Entities (IEs). Given the traditional role of the MDAs in the implementation of projects in which they usually serve as purse managers and implementers, there were some misgivings about MiDA's direct involvement in the implementation of projects; particularly as MDAs were only to assist with implementation and not to control the funds.
- Very regular interactions with the Technical Counterparts in Washington, D.C., and routine Meetings with MCC's Resident Country Director and Visiting Teams, were key to resolving numerous challenges. Routine visits to Washington, D.C. by MiDA's Officers, attendances at MCC's project-related Colleges and MCC's participation in Workshops and Seminars run by MiDA in Ghana, were most helpful for the smoother implementation of the Program.

2.3: Financial Performance of the Program

Program Level:

Contrary to the Disbursement Plan envisaged under the Multi-Year Financial Plan (MYFP) submitted with Ghana's Proposal in October 2005, outflows were particularly low in the first three years. With the exception of payments under Agricultural Credit in 2007 and for Commercial Training Activity in 2008, no significant disbursements were made for any of the other Activities in the first two years, due to the non-realization of performance milestones and non-satisfaction of some Conditions Precedent.

Payments for Invoices were made in quarterly tranches and MCC facilitated payments by approving the deferral or waiver of some CPs. No payments were refused.

From Table 2.1 below, a comparison of the planned and actual draw-down rates showed that at the end of Year 3, total disbursements stood at only 21.4% of planned expenditure.

There was a marked increase in disbursements in Year 4, after most of the infrastructural projects had been rolled out. Disbursements peaked in Year 5, resulting in more than half of the entire budget being disbursed in that year alone. The reasons for the time lag in implementation have been explained under each of the Project Activities.

Confronted with the poor pattern of the draw-downs, the parties held year-end Meetings in 2008 and 2009 and agreed to specific adjustments and re-allocation of funds among the Projects and Project Activities. The reallocations were consistent with the objectives of the implementation documents; consequently, no aspect of the Compact was amended.

Table 2.1: MCC Funding: Disbursements over the 5-Year Period**Actual Payments**

PROJECT ACTIVITY	Compact Year 1	Compact Year 2	Compact Year 3	Compact Year 4	Compact Year 5	Total
Agriculture Project	2,595,490	17,673,299	40,741,752	51,126,908	83,512,960	195,650,409
Commercial Training Activity	529,457	11,548,531	17,487,194	20,291,136	12,737,005	62,593,323
Irrigation Activity	0	329,169	383,872	4,317,827	16,894,787	21,925,655
Land Activity	29,707	44,896	640,515	790,048	2,727,587	4,232,753
Post-Harvest Activity	0	2,188,169	108,570	2,904,118	13,716,780	18,917,637
Credit Activity	2,009,751	3,464,611	17,098,225	3,855,507	-9,656,604	16,771,490
Feeder Roads Activity	26,575	97,923	5,023,376	18,968,272	47,093,405	71,209,551
Transportation Project	43,734	1,776,328	23,925,789	54,443,538	147,522,397	227,711,786
N-1 Activity	41,027	1,262,725	19,708,086	40,449,408	120,669,555	182,130,801
Trunk Roads Activity	161	513,603	3,087,949	9,636,040	17,706,884	30,944,637
Ferry Activity	2,546	0	1,129,754	4,358,090	9,145,958	14,636,348
Rural Development Project	21,146	2,306,030	9,012,809	24,973,491	39,717,091	76,030,567
Procurement Capacity Activity	3,457	105,532	320,922	423,832	444,819	1,298,562
Community Services Activity	14,895	2,079,548	2,320,648	10,951,362	29,099,452	44,465,905
Financial Services Activity	2,794	120,950	6,371,239	13,598,297	10,172,820	30,266,100
Monitoring and Evaluation	67,256	2,226,049	539,468	1,731,026	5,813,312	10,377,111
Program Admin and Audits	2,535,166	6,969,081	6,514,491	7,612,907	13,607,482	37,239,127
TOTAL:	5,262,792	30,950,787	80,734,309	139,887,870	290,173,242	547,009,000

Spend Profile	0.96%	5.66%	14.76%	25.57%	53.05%	
Cumulative		6.62%	21.38%	46.95%	100%	
Original Multi-Year Budget	74,811,000	100,033,000	149,242,000	155,611,000	67,312,000	547,009,000
Spend Profile	13.68%	18.29%	27.28%	28.45%	12.30%	
Cumulative	-	31.97%	59.25%	87.70%	100%	

Challenges/Lessons Learnt

- MiDA was a start-up Organization. Setting up its physical presence by hiring the required staff, renting office accommodation and setting up its administrative offices, took some time. As this happened post-EIF, it reduced the actual time left for the implementation of the Program. In addition, Staff hired were all new and it took some time to build them into a Team and establish a corporate culture.
- MiDA's autonomy as an Authority, while an advantage, posed a challenge as the Authority implemented slices of mandates which were in the domain of other Government Agencies. This created some tensions between MiDA and the said Agencies on some occasions.
- MiDA chose to manage what happened to be purely public sector projects by applying private sector principles and strategic approaches, considering the very severe constraints on time. This approach also presented some challenges, particularly in the many situations where the required actions were not within MiDA's control.
- The Program was for a rigid 5-year period and the Staff were made aware of the inherent and potential job insecurity at the end of the Program. The challenge therefore was the potential loss of Key Staff mid-stream, if they should find more secure employment; and the resultant loss of institutional memory and managerial capacity.
- While some Conditions Precedent were waived by MCC, there were others relating to environmental accountability, which were not satisfied early in the Program; and these did upset the achievement of milestones and the estimated draw-down rates.
- **MiDA Governance:** The Act setting up MiDA focussed on the 5-year Compact Term (*Reference Section 1.3*) and made no definite provision for MiDA's governance, funding and day-to-day management thereafter; and particularly during the contractual 12-month Defects Notification Period for many infrastructural projects. This was more so as appointments lapsed and the Board members ended their 5-year tenure. Managing MiDA as an entity has proven to be a challenging nightmare, in the absence of any direction from Government with regard to follow-up assignments and the future status of the Authority.

Recommendations

- Since MiDA was set up as an autonomous entity, it is advisable to hire certain Key Staff as permanent employees to ensure continuity and to keep the Authority going. Program-specific Staff can then be hired and given clearly defined employment contracts that are tied to the completion of the related Program.
- The Act stipulates that MiDA could be assigned other roles by GoG, particularly post-Compact. GoG must therefore react quickly to the obligatory notification from MiDA with regard to the impending end of the Compact term. Such a move will allow for proper arrangements to be put in place to secure the relevant MiDA Staff, ensure management continuity and safeguard the related governance arrangements. MiDA's integration into the Public Service will also assist in resolving the status of the Authority, post-Compact.

CHAPTER 3:

IMPLEMENTATION OF THE PROGRAM

Introduction

The recruitment of Officers designated in the Compact and the ancillary Staff commenced in July 2006 and was completed in February 2007, prior to EIF of the Compact in February 2007. Workshops to upgrade project management skills of the Officers and to formalise Work Plans for the Projects, characterised the first 3 months after the EIF.

Team-building Workshops, involving MiDA's MCC Technical Partners and the Senior Staff of the Fiscal and Procurement Agents, paved the way for the commencement of all Project Activities; starting with Quarterly Budgets, Procurement Planning and the bidding processes.

3.1: **Agricultural Productivity and Value-Added Development Project ("Agriculture Project")**

A. Background

The Agriculture Project of Ghana's pro-poor Compact Program targeted approximately 878,000 beneficiaries. Poverty in Ghana is highest among the rural farming communities, who constitute over 60% of Ghana's population. For this reason, the Project was expected to improve the incomes of smallholder farmers and significantly reduce the high incidence of poverty associated with them.

The Agriculture Project is the outcome of the desire of the Compact Program to speed up progress towards the expansion and growth of agriculture as envisaged under the Ghana Poverty Reduction Strategy (GPRS I, 2003-2005). The project-level objective was "to enhance the profitability of cultivation, services to agriculture and product handling in support of the expansion of commercial agriculture among groups of smallholder farmers".³⁰

The Project addressed some of the key constraints of smallholders in the agriculture sector of Ghana. These included inadequate knowledge and application of new farming technologies and business methods, poor access to farm inputs, poor access to credit, absence of requisite agricultural infrastructure and absence of ready markets for farm produce.

Under the Project, technical training was provided to smallholder farmers who were members of farmer-based organizations (FBOs). Support was given to only farmers trained under the Project, in the form of credit from an agriculture fund. Some Irrigation Schemes were rehabilitated or constructed to benefit both small and large scale producers of vegetables. In addition, the

³⁰ Source: MCA Ghana Compact

Project provided post-harvest processing and storage facilities and Centres for aggregating, packaging, storing and marketing of farm produce, all aimed at enhancing the quality of fruits and vegetables bound for local and export markets.

To promote an attitudinal and mind-set change from that of peasant and subsistence farmers to commercial-farmer status, the Program provided modern commercial training methods and business advice to selected FBOs. This intervention helped to deepen their understanding of the value-chain approach to a variety of farm produce and enhanced the management of their farming businesses, the handling of produce and the exploitation of market-linkage opportunities.

For reasons that included increases in input and production costs, late start-ups, inadequacy of relevant information to back assumptions and unanticipated local challenges, some activities were reduced in size and scope during the re-scoping exercises. This affected some results and expected outcomes.

The Agriculture Project was carried out in all the 30 Districts of the three Intervention Zones and also benefitted some adjoining Districts.

(a) Project Components

The Agriculture Project comprises of the following six Project Activities, which have been described in some detail under the designated Sections, below:

Section 3.1.1 - Commercial Training Activity;

Section 3.1.2 - Irrigation Activity;

Section 3.1.3 - Land Activity;

Section 3.1.4 - Post-Harvest Activity;

Section 3.1.5 - Credit Activity;

Section 3.1.6 - Feeder Roads Activity

(b) Breakdown of Funding

The actual amount disbursed for the Agriculture Project, at the end of the Compact was US\$195,650,410. The breakdown in funding for this Project is detailed in Table 3.1.

Table 3.1: Agriculture Project: Planned and Final Budget versus Actual Disbursement

Activity	Initial Budget (US\$)	Final Budget (US\$)	Actual Disbursement at Compact Budget (US\$)	Actual Disbursement as % of Final Closure (US\$)
Commercial Training	66,015,000	62,233,252	62,593,323	100.58
Irrigation	27,608,000	23,224,511	21,925,655	94.41
Land	10,688,000	4,086,669	4,232,753	103.57
Post-Harvest	20,376,000	19,777,336	18,917,637	95.65
Credit	58,400,000	17,776,766	16,771,490	94.35
Feeder Roads	57,897,000	70,628,076	71,209,551	100.82
Total	240,984,000	197,726,609	195,650,409	98.95

(c) Financial Performance of the Agriculture Project

This Section reviews the financial performance of the Agriculture Project and the individual Project Activities, in the context of all the factors which affected the implementation and the scope and sustainability of the Project Activities.

Under the Multi-Year Financial Plan (MYFP), funds initially allocated to cover the six (6) Project Activities amounted to USD 240,984,000. This was finally reduced to US\$197,726,609, following the re-scoping/re-allocation exercises. (See Table 1.1 in Appendix 1). Total disbursements at the end of the Compact were US\$ 195,650,409.

In the Compact Budget, the highest allocations of funds went to the Commercial Training Activity, while the re-allocation and re-scoping exercises reduced the budgets of all but the Post-Harvest and Feeder Roads Activities.

Owing to the very poor of repayments of credit, represented by the high portfolio-at-risk (PAR), new disbursements under the Credit Activity were discontinued in December 2009, even though the fund continued to operate as a revolving one. This was after US\$ 16.68 million had been re-disbursed to 10,506 beneficiary farmers.

(d) Disbursements over the 5-Year Period

For the Agriculture Project, disbursements were very low in the first two years, i.e. 2007 and 2008. With the exception of the Credit Activity in 2007 and Commercial Training in 2008, no significant disbursements were made to other Activities.

There was a significant increase in disbursements in 2009, due to the Credit and the Commercial Training Activities. The rapid rise in disbursements in 2010 and 2011 was on account of the

increased disbursement for the Feeder Roads, Irrigation and Post-Harvest Activities. The Feeder Roads Activity, which accounted for about a third of the total expenditure on the Agriculture Project in 2010, was followed by Commercial Training. Disbursements to the Commercial Training Activity peaked in 2010. In 2011, Feeder Roads Activity accounted for half of the total expenditure on the Agriculture Project, followed by the Commercial Training Activity.

(e) Yearly Disbursements

The profile of annual disbursements was generally irregular. Disbursements were low in the first 2 years for all Activities, peaking at high levels in 2011, except for the Credit Activity. Commercial Training expenditure was low in the first Year, but increased significantly from Year 2 to Year 5, as a result of the upsurge in the Commercial Training Activity, from the latter part of the second year.

The low uptake of funds for the Commercial Training and for the Land Activity are attributable to the fact that these activities involved processes and procedures that covered large numbers of beneficiaries and had very incidences of rigid traditional, cultural and institutional challenges.

For the Land Activity, disbursements also suffered from difficulties encountered with defining land border disputes, while for the Commercial Training Activity, more time was needed to organize FBOs for training and this led to the low initial outlay in Year 1. More training was given to new FBOs and some FBOs selected to replace some trainees who had fallen out. This explains the high expenditure on FBO Training in Year 5.

In contrast to the three activities mentioned above, the Irrigation, Post-Harvest and Feeder Roads Activities involved capital-intensive infrastructural projects and had the capacity to absorb the funds allocated to them. Expenditures were concentrated in the last 2 years of the Compact due primarily to the designs, delayed procurements and the re-strategizing and refocusing, following the re-scoping exercises. The Feeder Roads Activity exceeded its planned budget and the Irrigation and Post-Harvest Activities had much smaller disparities than the other Activities.

In terms of budget sizes, the Feeder Roads Activity constituted the largest proportion of the budget allocated to the Agriculture Project. The original estimate for feeder roads was US\$57.9 million, rising to US\$71.21 million, as the final disbursed amount, on account of contract variations and cost increases. VR Lot 3 Roads, located in the Volta Region, accounted for the highest percentage increase in cost.

B. Detailed Description of the Agriculture Project

3.1.1: Farmer and Enterprise Training in Commercial Agriculture (“Commercial Training Activity”)

I. Identifying Information

- **Objectives**

The objectives of the Commercial Training Activity were:

- To equip smallholder farmers with the capacity to strengthen their businesses.
- To improve the technical skills of smallholder farmers to enhance their efficiency in their routine operations.
- To assist smallholder farmers to maximize sales volumes by facilitating their access to local, regional and international markets.
- To provide the smallholder farmer with infrastructural support.

- **Performance Period**

This Activity was implemented between February 16 2007 and February 15 2012.

- **Geographic Area**

The Agricultural Productivity and Value-Added Development Project (“the Agriculture Project”) was implemented in all the 30 Districts, as follows: Northern Agricultural Zone; (Northern Region) 5 Districts, the Afram Basin Zone; (Ashanti and Eastern Regions) with 9 Districts and the Southern Horticultural Zone (Central, Eastern, and Volta Regions) with 16 Districts, as well as in some adjoining Districts like the North Tongu District.

- **Financial Issues**

MCC Funding:

Initial Budget	:	US\$66,015,000.00
Final Budget	:	US\$62,233,252.00
Actual Disbursement	:	US\$62,593,323.00
Host Country Contributions	:	Not Applicable

- **Implementing Partners**

(a) Implementing Entity:

- Ministry of Food and Agriculture

(b) Implementing Consultants:

- Central Management Consultancy (CMC) - Development Alternatives Inc (DAI)
- Regional Implementation Consultancy (RIC) - Adventist Development and Relief Agency (ADRA)
- Regional Implementation Consultancy (RIC) - International Fertilizer Development Centre (IFDC)
- Regional Implementation Consultancy (RIC) - ACDI/VOCA

- Training and Technical Services Providers (TTSP) [Refer to Table 1.4 in Appendix 1, for the List of the 25 Consultants³¹)
- Ghana Standards Authority (GSA)

Highlights: Commercial Training Activity

- 1,242 FBOs, comprising 66,930 farmers, were trained in new farming technologies and methods. 48% of the trained farmers were women.
- Among the trained farmers, 91% have adopted the new technologies and farming methods.



II. Background

The **Commercial Training Activity** was intended to accelerate the development of commercial skills and capacity among FBOs and their business partners, including processors, input suppliers and marketers. It seeks to support and strengthen both FBOs and certain agribusiness service providers who offer various value-adding services to the FBOs that meet a pre-determined set of criteria set by MiDA and MCC.

For ease of management and to enhance efficiencies in terms of volume and the quality of outputs of the operators in the value-chain, the Commercial Training, Irrigation and the Post-Harvest Activities were put together and re-designated as **Commercial Development of Farmer-Based Organizations (CDFO)**. The purpose of the CDFO was to ensure the attainment of the objectives of the Farmer and Enterprise Training in Commercial Agriculture (“Commercial Training Activity”).

³¹ 25 Consultants were selected to manage 29 Blanket Agreements under this Activity.

- **FBO Priming**

Prior to the engagement of the services of a Consultant to design and assist in operationalizing the CDFO, an IEA was signed between MiDA and the Ministry of Food and Agriculture (MOFA), in which the latter would help to identify, sensitise and categorise a number of FBOs, already in the Ministry's database, in readiness for training and capacity-building.

In addition, the Agreement enjoined MOFA to select some AEAs for the Training of Trainers Sub-Activity and provide empirical evidence to validate Households Survey Data, through crop-cutting exercises. Participating MOFA District Offices were expected to use the Training Modules for future reference and use.

By the end of December 2009, MOFA had completed the priming of 1,549 FBOs, (comprising 75,472 farmers) in the three Intervention Zones. The CDFO began with the procurement of the services of Messrs DAI of the USA, as the **Central Management Consultants (CMC)**.

From December 14, 2008 (when they were engaged), to April 30, 2010 (when their Contract ended), the Central Management Consultants, Messrs DAI, prepared a large variety of Training Materials which provided the framework for the farmer training exercise and the oversight for the entire CDFO assignment.

In addition to the CMC, a **Regional Implementation Consultancy (RIC)** was established for each Intervention Zone to manage the CDFO Program. The RICs engaged to provide related services were:

- ADRA** - for Afram Basin Zone; (March 2008 to February 2012)
- IFDC** - for the Northern Agricultural Zone; (March 2008 to February 2012)
- ACDI/VOCA** - for the Southern Horticultural Zone; (April 2008 to February 2012)

Each RIC supervised and monitored the implementation of the FBO Training Program by a number of individual Consultants, referred to as the **Training and Technical Services Providers (TTSPs)**, whose services were procured under the Compact.

Twenty-nine (29) Contracts were awarded to twenty-five (25) TTSPs. In line with their Task Orders, the TTSPs offered training in organizational and business capacity-building, (Business Skills Development) and in technology applications for crop productivity improvements. In addition, they served as a resource to FBOs through the provision of technical assistance and assistance in banking negotiations and linkages to markets. For this reason, they assisted the FBOs to prepare Business Plans to improve their commercial orientation and access to agricultural credit.

All the TTSPs worked from August 2008 to April 30, 2011. However, Six (6) TTSPs were retained to provide training to some FBOs located around the newly rehabilitated/constructed Irrigation Schemes and some other farmers who had not benefitted from the initial FBO Training Program.

- **GlobalGAP Training for FBOs**

To fulfil the objective of producing competitive export products, a nucleus group, comprising 1,350 farmers were selected from FBOs and trained to make them responsive to the demands of Global Good Agriculture Practices (GlobalGAP), which facilitated the acceptance of the produce in international markets.

To initiate the GlobalGAP Certification process, a Contract was signed with the Ghana Standards Authority (GSA), to provide services to the FBOs selected to benefit from the GlobalGAP certification package. The GSA was required to provide training to farmers in the collection of fruit samples, the best management of their farms and the handling of farm produce, prior to the conduct of laboratory analysis to determine the minimum residual level of chemicals. These vital interventions ensured success with final Certification.

III. Significant Changes in Implementation vis-à-vis Framework

- **Number of Beneficiaries**

The CDFO activities were initially targeted at supporting 1,200 FBOs or 60,000 individual farmers and 120 Service Providers, across the beneficiary Districts. At the end of 2009, the FBO target was revised from 1,200 to 1,000 and the number of farmers to be trained reduced to 50,000. This followed a US\$4.0 million reduction in the Commercial Training budget, as a result of the re-scoping exercises.

Due to the judicious use of the funds during the execution of the Project, the actual numbers of FBOs supported and trained, exceeded the original target. A total of 66,930 farmers, from 1,242 FBOs were subsequently given training.

- **Extension of Coverage Area**

The need to re-scope and extend the coverage of the Commercial Training Activity arose from the fact that the North Tongu District, originally not part of the Compact's Districts, was added in view of its potential to provide hectares of land to support the investment in the Kpong Left Bank Irrigation Project (KLBIP) in the Southern Horticultural Zone (SHZ). An Anchor Investor, VegPro Ghana Limited, has relocated from Kenya into the District, in order to benefit from the Scheme. Besides VegPro, 23 additional FBOs operating on the land adjoining the Scheme were trained to enable them to participate in VegPro's Out-grower Scheme.

- **Introduction of Starter Pack**

After the Commercial Training Activity, funds were taken from the Credit Activity to support the innovative Starter Pack³² concept, which was not originally envisaged under the Program.

Starter Packs were introduced into the Commercial Training Activity to enhance the adoption of lessons learnt in business planning and in new technology and to sustain the interest of trained farmers, until Credit became available to them. Starter Packs, each worth US\$230, and containing farm input items, including certified seed maize, fertilizer, etc, were distributed to the over 75,000 who participated in the training Sessions in all the Intervention Zones.

- **MiDA's Oversight Responsibility for the CDFO**

The Option for the renewal of the Contract of the Central Management Consultant (CMC) for the Second Phase of the CDFO Project was not exercised by MiDA. MiDA consequently assumed direct responsibility for this role and enlarged the Project Management Team by engaging two

³² In some cases, these Starter Packs motivated FBOs and made them stronger, more cohesive and more productive. Others refused credits and depended on the Starter Packs only.

Project Support Consultants. US\$5.8 million was saved as a result of this decision. The funds were applied in other areas where resource requirement was critical.

IV. Total Project Cost

- **Funding Breakdown**

The details of the original Compact and final Budgets as well as the final funds disbursed under this Activity and the Funding Category, can be found in Table 1.1 of Appendix 1.

- **Financial Performance of the Project**

The initial allocation from MCC funds to the Commercial Training Activity component was US\$66.02 million. This amount was reduced to US\$62.23 million, following the 2009 re-scoping/re-allocation exercise. However, the final disbursement at Compact closure came in higher at US\$62.59 million. This was due mainly to the extra mopping-up training exercises conducted for new FBOs.

V. Project Activity Implementation Partners

- **FBO Training Programme**

Each FBO Training Programme delivered by the Technical Training Services Providers (TTSPs) lasted for a period of nine (9) weeks and was run for three days a week and 4 hours a day. The training exercise was organized at the community level, using church buildings, schools, community centres, etc. as Training Centres. This ensured that farmers did not travel too far from their farms to towns, where the accommodation would have been an added cost. Moreover, as part of the training was on farming technology, the farmers' own environment was the most appropriate place for any practicals.

The Training Programme was split into two Sessions as follows:

- The First Training Session, which involved capacity building, emphasised the concept of farming as a business and introduced FBOs to the processes of writing Business Plans, an essential tool for successful business practice.
- The Second Training Session focused on Farming Technology. It helped the farmer to gain a deeper understanding of new and improved farming practices, such as the use of improved planting materials, increased application of agricultural inputs like fertilizer and the use of the appropriate farm equipment.

To be classified as a trained farmer, one ought to have completed 50% of each of the two training sessions. To be classified as a trained FBO, 80% of the FBO's members should have received training. Certificates were awarded to farmers who successfully completed all the training sessions.

VI. Summary of Results - Project Activity Level

At the end of the Compact, 1,242 FBOs, made up of 66,930 farmers had been trained. This met the targets for trained FBOs and trained farmers respectively. This included the Mopping-Up Training offered to an additional 42 FBOs, who had been primed but could not be included in

the first four batches of the FBOs trained, as well as FBOs identified around 20 km radius of the irrigation facilities.

The over-achievement of the revised targets, (*i.e.* 1,000 FBOs and 50,000 farmers), was due primarily to the more judicious use of resources.

The results of the Commercial Agriculture Activity in relation to Performance Indicators at the Output and Outcome levels of the results-chain are summarized in Table 3.2.

Table 3.2: Summary of Results: Commercial Training Activity

Indicator	Unit	Baseline	Actual to Date	End of % Compact Target	Complete to Date
FBOs Meeting Market Targets	Percent	0	97.21	60	162
Number of Agribusinesses Assisted	Number	0	1,724	1,320	131
Hectares Under Production With MCC Support	Hectares	0	58,568	53,060	110
Farmers Adopting New Technologies And Farming Methods	Number	0	59,060	42,500	139
Enterprises That Have Applied Improved Techniques	Number	0	535	700	76
Post-Harvest Loss At Farm-Gate: (Maize)	Percent	12.20	11.31	10.30	47
Post-Harvest Loss At Farm-Gate: (Fresh Pepper)	Percent	5.3	5.05	4.50	31
FBOs Trained In Commercial Agriculture	Number	0	1,242	1,000	124
Farmers Trained In Commercial Agriculture	Number	0	66,930	50,000	134

The Contract for the TTSP did not cover all the anticipated tasks. Firms were assigned jobs through new Task Orders only when they had successfully completed what had been assigned to them. Additionally, while the target for the number of farmers adopting new technologies was 42,500, 59,060 actually did so.

Other achievements of the Commercial Training Activity are described below.

Empowerment of Beneficiaries and Access to New Markets

- The training offered to Farmers by the TTSPs, empowered beneficiaries to adopt improved and better agronomic practices; such as line planting, the use of fertilizers, pesticides and other agro chemicals for improved production.
- The training improved on their farming business knowledge, including better record-keeping practices, gained better knowledge of crop storage requirements and applied better marketing strategies.
- Trained farmers also developed more effective working relations among themselves. A number of farmers who did not participate in the training exercises also experienced the effect of the training as the beneficiaries imparting their knowledge to them.

- The Training resulted in improvements to the organizational and management capacity of some FBOs. Some have acquired assets and other resources for production, while others have developed access to new markets.

Increase in Output and Productivity

- In some Districts, (e.g. Sekyere East in ABZ, Awutu Senya and Keta in SHZ and Tamale and Savelugu in NAZ), the training yielded very positive results in terms of increases in farm sizes and productivity.
- With only a marginal increase (less than 15%) in cost per acre (from approximately GH¢ 220 to GH¢ 250), an increase in yield from 3 bags to 15 bags of maize was recorded by some farmers in the Southern Horticultural Zone and the Afram Basin Zone, after the first harvest. However, after training, the average yield in the participating Districts was 10 bags per acre.³³

Adoption of Improved Technologies

A Study on the adoption of technology by trained farmers carried out in 2010 and in 2012, found a 91% rate of adoption among producers of pineapples, maize and chillies. The Study covered 10 factors of improved technology, including two critical factors of adoption; namely, planting materials and planting techniques. The results suggest that trained farmers adopted the new techniques to which they were exposed.

Institutional Strengthening

- Technical and operational capacities have been enhanced within MOFA. The MOFA Staff who took part in the Programme learnt to use the GPS technology and have passed their knowledge on to their colleagues.
- MOFA's work with FBOs has improved on the quality of collaboration between the Agriculture Extension Staff and FBOs.
- MOFA's MIS Database has vastly improved through the provision of equipment and software to validate farm sizes.

Section VII sets out the Capacity-building effects of this Activity.

VII. Long-Term Sustainability

- TTSPs are expected to serve as a training resource for the private sector and other Development Partners.
- Technical and operational capacities have been enhanced within MOFA.
- The application of GPS Technology has significantly improved.
- The collaboration between MoFA's Field Extension Staff and FBOs has seen a lot of improvement.

³³ Source: ABZ RIC Report for Qtr 3, 2011

- MOFA's MIS Data base has vastly improved through the provision of equipment and software to validate farm sizes.

Factors that affected the implementation of the Activity are described in Section VIII below.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- The development of market access should have preceded the training of FBOs. For example, if the ABCs had been developed at the onset and FBOs had been linked to such Centres, farmers would have had access to reliable markets for their produce and consequently the payment of loans granted would have been a lot easier.
- It was economically prudent to conduct the training within the Community. It would have been extremely difficult and counterproductive if training had been done outside the communities, particularly in the districts/regional capitals.
- Due to the absence of specially designated Zonal Agriculture Coordinators, Zonal Managers had to travel extensively to monitor the training exercises. This arrangement adopted for monitoring the Project, was inefficient.
- FBOs were primed and formed through the intervention of MOFA's Extension Agents (EAs) with group membership fixed at an average of 50 persons to enhance efficiency in administering training and ensuring a cost-effective training delivery. A number of FBOs, bound by common interests, were grouped together. The process for achieving the magical number (50) did not always produce the expected homogeneous and binding group characteristics. In such situations, farmers who hardly related well, found themselves together in one Group, in order to attain the required number. Team cohesiveness was therefore weak from the start, in some situations.
- With the failure of some members to obtain loans, their interest in the FBO Groups dwindled (e.g. an FBO in Bawjiase). The lesson here is that group formation processes should place less emphasis on numbers per Group, in favour of factors that promote group cohesion.
- The **Starter Packs** brought immediate increases in production. However, the majority of trained FBOs lacked the resources to put their training into use beyond the Starter Packs. In the Southern Horticultural Zone for example, some FBOs (*including Allornessor FBO, Keta*) lamented the lack of credit to enable them apply the knowledge they had acquired from training.

The lesson learnt from the administration of the Starter Packs is that the support given to the farmers and the yields they obtained, set against the backdrop of unreliable markets for their produce, was not enough to move the farmers to a level above the poverty line. For this reason, it is imperative to factor in market linkages very early in the Program.

- The support through Starter Packs, should be for more than one season, particularly for FBOs who are seen to be applying all the guidelines provided to them during the commercial training programme and the quantum of inputs, should be bigger.

Challenges

- All Project Activities were intended to work together in an integrated manner, to be effective. However, some critical interventions like irrigation schemes and post-harvest infrastructure that would have improved the lot of the farmers came in rather late and at the tail-end of the Program.
- It was only in September 2010 that the Ghana Government satisfied MCC's Condition Precedent that stipulated that 'Prior to any MCC Disbursement for Post-Harvest Activity on or after the Commencement of Quarter 4 of Year 1: MiDA has submitted evidence demonstrating that the Government has adopted an Amendment to cause the National Plant Protection Legislation to be in compliance with IPPC 1997'.
- Due to the delay in amending the old Act, investments in the related infrastructure, i.e. ABCs were delayed, impacting on capacity-building activities related to the marketing of farmers' produce.
- The absence of markets affected projected revenues, and could be a major reason for the high level of defaulters in the repayment for credits disbursed to farmers.

Recommendations

- It is recommended that future Poverty Reduction Programs should ensure that all the necessary and sufficient value-chain investments have been provided at the appropriate times to take advantage of the synergies that they are intended to provide.
- Whenever possible, it is recommended that farmers are provided with Starter Packs after training, rather than the wholesale application of credits.

3.1.2: Irrigation Development (“Irrigation Activity”)

I. Identifying Information

- **Objective**

To establish a limited number of retention ponds and weirs, requested by the FBOs and FBO partnerships for who access to water is critical to the success of their business objectives.

- **Performance Period**

This Activity was implemented within the Compact Term, i.e. between February 16th 2007 and February 15th 2012.

- **Geographic Area**

- The Bontanga and Golinga Irrigation Schemes are located in the Tolon-Kumbungu District in the Northern Agricultural Zone (NAZ).
- The Kpong Left Bank Irrigation Project (KLBIP) and Kpong Piped Irrigation Water Supply (KPIWS) are in the North Tongu District of the Volta Region, abutting the Southern Horticultural Zone (SHZ).

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$27,608,000.00
Final Budget	:	US\$23,224,511.00
Actual Disbursement	:	US\$21,925,655.00 ³⁴

Host Country Contributions

[From Consolidated Fund (GOG)] : US\$2,108,000.00

- **Implementing Partners**

Implementing Entities:

- Ministry of Food and Agriculture (MOFA)
- Ghana Irrigation Development Authority (GIDA)
- Volta River Authority (VRA)

Management Consultants: ACDI VOCA

Engineering Consultants:

- SNC – Lavalin International - Southern Horticultural Zone (Lot 3); and Northern Agricultural Zone (Lot 1)
- Royal Haskoning BV - Afram Basin Zone (Lot 2)

³⁴ This amount represents the Government’s contribution as at the end of the Compact in February 2013. However, it is expected that GoG will provide an additional \$6.5 million through EDAIF to complete the remaining sections of the KLBIP, estimated at 25%.

Contractors

- Jiangxi Zhongmei Engineering Construction Co. Limited – for the Bontanga and Golinga Schemes (NAZ);
- Erdmac Company Limited – for the Kpong Left Bank Irrigation Scheme;
- Ceekabs Limited – for the Kpong Piped Irrigation Water Supply.

HIGHLIGHTS – IRRIGATION ACTIVITY

- Two (2) Irrigation Schemes at Bontanga and Golinga in the Tolon-Kumbungu District, with capacity to irrigate a total of 535 hectares, were rehabilitated.

Lateral Canal of the Golinga Irrigation Scheme



Before Rehabilitation



After Rehabilitation

II. Background

The Irrigation Activity was expected to establish retention ponds and weirs which would irrigate up to 5,060 hectares, based on anticipated demand from trained FBOs and the availability of suitable sites. Relying on additional information from the farming communities, evidence from new cost estimates and a generally low demand from potential beneficiaries, MiDA revised its Original Plan in favour of rehabilitating and constructing ten (10) Irrigation Schemes³⁵. The revised Plan aimed to bring a total of 2,435 hectares of land under irrigation.

The budgetary constraints and delays associated with the recruitment of Contractors to work on the selected Schemes, informed MiDA's decision to concentrate on two Schemes in the North; viz: the Golinga and Bontanga Schemes and two in the Southern Zone; the Kpong Left Bank Schemes.

The Schemes are described below:

The **Bontanga Irrigation Scheme** covers 495 hectares of non-mechanized land, suitable for all year-round cultivation of rice and vegetables. The old Scheme at Bontanga, owned and operated by GIDA, broke down for lack of maintenance and unsustainable financial, economic and organizational management practices. User charges were significantly low and therefore unable to sustain the management of the Project.

³⁵ The Original 10 Schemes included the following: Sata, Aframsso, Amate, Dedeso, Golinga, Bontanga, Nasia, Libga, KLBIP and the KPWIS

The Scheme involves 528 farmers from ten (10) FBO communities, with an average farm size of 0.40 hectare. Like the Golinga Scheme, the farmers are currently producing rice and vegetables as there is insufficient water to support the cultivation of any additional crops. Annual Production Plans are yet to be developed, however, with efficient water management, the farmers could cultivate three crop cycles of rice and vegetables in a year.

The **Golinga Irrigation Scheme** will irrigate 40 hectares of non-mechanized land and allow for rice cultivation, two times in a year. The old Scheme, owned and operated by the GIDA, broke down as a result of poor design, lack of maintenance and unsustainable financial, economic and organizational management practices. User charges were particularly very low and constrained operational cash flow.

The Scheme will benefit 156 farmers drawn from four FBO communities. The average farm size was estimated at 0.25 hectare. The farmers currently focus on rice and some vegetables; as there is insufficient water to support the cultivation of other crops. If more water for irrigation was available, the farmers could have cultivated three crop cycles of rice and vegetables in a year. More land is available to raise the area under irrigation to over 60 hectares, but cost and technical factors have precluded such a decision, to the disappointment of the farmers.

The **Kpong Left Bank Irrigation Project (KLBIP)** located in the SHZ, encompasses a Greenfield Scheme. This involves accessing the Volta Lake, near the Kpong Dam, to draw water required for the irrigation of large portions of land on the Left Bank of the Kpong Hydroelectric Dam. The Scope of Works covered the extension of water from the Kpong Dam, through the construction of concrete-lined Supply and Main Canals, to irrigate 1,900 hectares of vegetable farms. The Project will produce vegetables mainly for the top end of the export market, all year round.

Under the Scheme, it was estimated that 746 smallholder farmers, belonging to 15 FBOs, would cultivate 450 hectares of land, while medium size producers will cultivate an additional 50 hectares. VegPro, a Kenyan vegetables production and marketing Company, will serve as the Anchor Farmer and will cultivate 1,000 hectares.

The KLBIP consists of a 3.54 km Supply Canal (SC), which feeds two Main Supply Canals - (MC), viz: MC1 (3.36km) and MC2 (4.43 km); giving a combined length of over 11.33km. MC1 and MC2 will cover 450 hectares. The Supply and Main Canals have 14 Secondary Canals and several tertiaries.

The KLBIP Contract was signed on 7 January, 2011. The estimated time for the execution of Works was revised from 14 months to 12 months, due to the long delay that characterized MCC's approval for the Works to start.

The 12 months allocated for the Works proved to be inadequate, considering the very challenging Scope of Work. As at the end of Compact on 15 February 2012, 75% of the original Scope of Works had been completed. The delay in completing KLBIP was due mainly to the very slow mobilization by the Contractor. This took three months and coincided with the major rainy season in the Project area.

Under a Supplementary Agreement, the remaining Works that fall outside the Compact were to be completed by end of September 2012, based on the availability of funding support from the Government of Ghana.

Kpong Piped Water Irrigation System (KPWIS):- As part of the Kpong Left Bank Irrigation Project, another water supply pipeline constructed under the KPWIS, will run parallel to the

Main Canals and supply water to the 1,000 hectares farm of VegPro, an anchor investor. The KPIWS, which was undertaken under a different construction contract, has been completed and currently in the defects notification period.

Training and orientation of FBOs benefitting from the Schemes in the Northern Zone has been completed and the Management and Organizational (M&O) arrangements for all the Schemes are in the process of being finalized.

As at the end of the Compact, farmers in the NAZ Irrigation areas had received water and farming activities had began. However, the farmers in the Southern Horticultural Zone will receive irrigation water, after the completion of the Project, post-Compact.

III. Changes in Implementation vis-à-vis Results Framework

The original intention behind the Irrigation Activity was to use a demand-driven approach to provide weirs and ponds to FBOs. Business Plans prepared by the FBOs during their commercialization training, were to serve as the basis for identifying irrigated water needs.

However, there was a major departure from this approach as a result of the slow rate at which these requests came in. Moreover, further consultations and studies showed that some of the Project Plans were either unattainable or could not be implemented without further and extensive technical evaluations. An additional constraint was the dispersed nature of the FBOs, in terms of locations and travel time. These led to the decision that the Irrigation Activity, as originally designed, could not be implemented within the Compact's timeframe.

In line with the above, it was decided at the beginning of Compact Year 2, to conduct feasibility studies for the rehabilitation of the existing Schemes as well as initiating a Greenfield Scheme. MOFA and the RICs were among the Agencies that made inputs towards these decisions. The results of these assessments showed that the budget set aside for irrigation could not cover all the Schemes earmarked for rehabilitation or construction.

MCC and MiDA engaged in prolonged and extensive discussions on the sustainability of the Irrigation Schemes prior to commencement of the Works, given that similar Schemes had not performed as expected in the past. This concern was resolved after it was agreed that there would be the need to have Anchor Investors from the private sector and Scheme Management Entities (SME) in place to ensure the continued viability of the Schemes. These discussions delayed funding and contributed in no small measure to the late start of the Activity.

MiDA clustered the 10 existing Schemes into two; namely Tranche A and B, as shown in Table 1.5 of Appendix 1. Tranche A was made up of Schemes to be funded with Compact funds³⁶ and Tranche B Schemes were those that could not be constructed because of time limitations and financial constraints. Consultancy Contracts were however awarded for feasibility and design studies for all the 10 Schemes.

The Irrigation Activity was finally reduced to three Schemes and four Works Contracts, viz: - Bontanga and Golinga in the Northern Agricultural Zone (NAZ) and KLBIP and KPIWS in the Southern Horticultural Zone (SHZ). This reduced the area under irrigation to 2,435 hectares from the planned 5,060 hectares. The original irrigable area for NAZ was 1,742 hectares;

³⁶ Due to lack of funds, the Amate and Dedeso Schemes, originally classified under Tranche A, did not receive MCC funding and were added to the Tranche B List, to await alternative funding.

however only 535 hectares were rehabilitated; (*Bontanga – 495 hectares and Golinga – 40 hectares*). In the SHZ, a total of 1900 hectares; (*KLBIP – 900 and KPIWS – 1,000 hectares*) were made available for irrigation.

IV. Total Activity Cost

Funding Breakdown

The details of the Original Compact and Final Budgets, as well as total funds disbursed under the Irrigation Activity and the Funding Category, can be found in Table 1.1 of Appendix 1.

Financial Performance of the Project

This Section reviews the financial performance of the Irrigation Activity in the context of the factors affecting the Scope of Works, the implementation of the Works and the sustainability of activities.

The initial allocation of funds for the Projects under the Irrigation Activity was US\$ 27.61 million. This amount was eventually reduced to US\$23.22million, following the re-scoping/re-allocation exercises. (Refer to Table 1.1 of Appendix 1 for details). The bid prices came in far higher than the estimates and as a result, some anticipated contracts could not be procured. Total disbursement as at the end of the Compact was US\$ 21.93 million.

At the end of the Compact Period, 75% of the original scope of the Works of the KLBIP had been achieved. The financial progress as at February 16, 2012 was approximately 44.6% as the Project faced cash flow challenges. The cash flow problems and the inclement weather resulted in delays which were reported by the Contractor in October 2011. To complete the remaining Works after the Compact period, some 4.5 months extension of time was allowed alongside the approval of a Proposal to accelerate the Works to ensure that at least 90% was completed within the Compact period and thereby benefit from MCC funding.

V. Project Activity Implementation Partners

Irrigation Consultancies

Based on the original plan to implement all ten Schemes, MiDA signed three (3) Contracts for consultancy services. The scope of services entailed technical feasibility studies, engineering designs, preparation of bidding documents and construction supervision. These Consultancy Contracts were:

- Consultancy Services on Rehabilitation/Extension of Selected Irrigation Schemes in the NAZ (Lot 1);
- Consultancy Services on Rehabilitation/Extension of Selected Irrigation Schemes in the NAZ(Lot 2);
- Consultancy Services on Rehabilitation/Extension of Selected Irrigation Schemes in the Southern Horticultural Zone (SHZ (Lot 3)

Table 3.3 provides basic information about the Consultancy Contracts:

Table 3.3: Basic Information: Irrigation Consultancy Contracts

Service Contract	Northern Agriculture Zone, Lot 1	Afram Basin Horticultural Zone, Lot 2	Southern Horticultural Zone, Lot 3
Engineer:	SNC - Lavalin International	Royal Haskoning BV	SNC - Lavalin International
Contract Signature Date:	10 Sept 2009	21 Sept 2009	10 Sept 2009
Contract Price:	USD 2,751,669.	USD 1,998,113	USD 3,248,331
Revised Contract Price:	USD 2,947,705	USD 1,301,841	USD 3,580,866

Table 3.4: Completion Dates: Irrigation Consultancy Contracts

Phase	Northern Agriculture Zone, Lot 1	Afram Basin Horticultural Zone, Lot 2	Southern Horticultural Zone, Lot 3
Phase A	30th April 2010	17th June 2010	30th April 2010
Phase B	30th November 2010	31st July 2010	30th November 2010
Phase C1	31st January 2012	Not Executed	30th September 2012
Phase C2	On-going	Not Executed	Pending

The consultancy contracts were split into three Phases of Work: Phase A, Phase B and Phase C, as described below:-

Phase A comprised a Feasibility Study and included the economic and financial assessments, preliminary designs, cost estimates, assessment of environmental and social impacts, preparation of the Environmental Management Plan, any necessary Resettlement Plans and assessment of the organizational and management capacity to run the rehabilitated irrigation schemes. All the deliverables were achieved.

Phase B involved Engineering Studies and Design and preparation of Bidding Documents.

Phase C had two stages: Phase C1 and Phase C2.

- **Phase C1** covered the engineering supervision of the rehabilitation Works and extension and/or construction of the Schemes. It also included the establishment of the appropriate operational and management systems for the rehabilitated Schemes.
- **Phase C2** was for monitoring of defects and supervision of remedial Works during the Defects Notification Period. The Phase C2 period was also to be used for the establishment of the appropriate operational and management systems.

All the Consultants worked with the Central Management Consultant (CMC), their designated Regional Implementation Consultant (RIC), and FBOs, to ensure the effective management and operation of the Schemes.

A. Implementation of Lot 1 Works Contract - NAZ

Table 3.5 summarises the basic Works Contract Data for the two Schemes in the Northern Zone.

Table 3.5: Works Contract Data: NAZ

Works Contract	
Contractor:	Jiangxi Zhongmei Engineering Construction Co. Limited
Date of Signature:	4 Mar 2011
Commencement Date:	15 Mar 2011
Time of Completion:	10.5 months
Completion Date:	31 Jan 2012
Contract Price:	USD 3,046,863
Revised Contract Price:	USD 3,391,853

The Contractor, Jiangxi Zhongmei Engineering Construction Co. Limited, was given possession of the two (2) Sites on 15 March 2011.

The Bontanga Scheme

The Works aimed to irrigate 495 hectares of farm lands and included the rehabilitation of the main and secondary canal linings, duckbill weirs and check structures and repairs to the main canal embankment. Works on the lateral canals comprised the rehabilitation of the linings, intake outlets, checks and end structures, replacement of off-take pipes, installation of new gated off-takes and repairs to the embankments. Water sumps were also provided to supply water to the farms of the anchor investor.

The drainage system was dredged and the roads resurfaced. Additionally, farm buildings were renovated and new threshing floors and maintenance sheds constructed.

The Golinga Scheme

Works on the Golinga Scheme aimed at providing water to irrigate 40 hectares of the existing operational area and included the reconstruction of the spillway structure and irrigation channels, rehabilitation of the main canal lining, check structures and repairs to the main canal embankment. On the lateral canals, the Works involved the reconstruction and rehabilitation of the canals, their linings, intakes, outlets, checks and end structures, replacement of off-take pipes, installation of new gated off-takes and repairs to the lateral canal embankments.

The drainage system was dredged and the farm access roads resurfaced. All farm-buildings were renovated; three fishponds rehabilitated and new threshing floors and maintenance sheds were constructed.

Works Contract Variations and Changes in Costs

As a result of increases in material quantities during the implementation of the Works, variations were made to the Preliminary and General Items. Similar variations, due mainly to Steel Works for both Sites were issued, bringing the total cost of the variations to US\$352,674. Omissions, totalling US\$103,252, reduced the final cost of Variations to US\$249,422. Other increases in the revised contract price were due to price adjustments.

Table 3.6: Works Contract Variations and Changes in Costs in the NAZ

Variations	Description
No.1	BOQ Additions and Omissions The variation is for additional Works for Solar Harvest and also omissions and additions to the BOQ Items. The estimated cost of this variation was USD 249,422.
	The Cost Adjustments as calculated by the Consultant Project Manager, totalled USD 53,679.

Consultancy Contract Variations and Changes in Costs - Lot 1 (NAZ)**Table 3.7: Irrigation Consultancy: Variation Orders and Changes in Costs - (NAZ)**

Variations	Description
No.1	Modification to Documents The variation revises Appendices D1 and D2 to be consistent with the Payment Schedule. (No Cost)
No.2	Additional Printing The variation allows for the printing of additional copies of Bidding Documents. (Cost: USD 695)
No.3	Payment Terms for Phase C The variation revises the Payment Schedule for Phase C of the Consultancy Contract. (No Cost)
No.4	Additional Input Phase C Variation for additional Staff Input during Phase C of the Consultancy. (Cost: USD 75,0970)
No.5	Additional Input Phase C Variation for additional Staff Input during Phase C of the Consultancy. (Cost: USD 77,955)

Following the completion of the Works, a Certificate of Completion was issued on 31 January 2012, after inspections by the stakeholders, including MiDA and the Ghana Irrigation Development Authority (GIDA). The Defects Notification Period for the Contract started on 1 February 2012 and will extend past the end of the Compact, to 31 January 2013.

B. Lot 2 Schemes – Amate and Dedeso (ABZ)

Due to funding constraints, it was decided not to pursue the construction of the Irrigation Schemes under Lot 2. This decision resulted in a USD 696,271.64 reduction in the Consultancy Contract fees. The designs and bidding documents for the two Schemes, located at Dedeso – (Fanteakwa District) and Amate – (Kwahu South District), have now been added to the Tranche B Projects.

Consultancy Contract Variations and Changes in Costs - ABZ

Following the decision to cancel the Lot 2 Works, the contract sum for the Consultancy Contract for Royal Haskoning BV, was revised to omit the cost of Phase C services. (Ref Table 3.8)

Table 3.8: Consultancy Contract Variations and Changes in Costs in the ABZ

Variations	Description
No.1	Modification to Payment Schedule The variation revised the payment schedule. No Cost
No.2	Termination Adjustment The variation allows for a reduction in cost of the Consultancy services following the decision to not go ahead with the Works Contract. Cost USD (696,271.64).

C. Implementation of Irrigation Activity: Lot 3 Works Contract - SHZ

Table 3.9 summarises the details of the Works Contract covering the two Schemes in the Southern Zone.

Table 3.9: Works Contract Data: SHZ

Works Contract		
	KLBIP	KPIWS
Contractor:	Erdmac Company Limited	Ceekabs Limited
Date of Signature:	7 Jan 2011	7 Jan 2011
Commencement Date:	21 Jan 2011	21 Jan 2011
Time of Completion:	12 months	3 months
Completion Date:	21 Jan 2012	21 Apr 2011
Revised Completion Date:	21 May 2012	31 Oct 2011
Contract Price:	USD 9,193,363.36	USD 1,386,236.95
Revised Contract Price:	USD 13,176,272.11	USD 2,163,996.00

The two Works Contracts for the Southern Zone were signed on 7 January 2011. The winning bidders were:

- Erdmac Company Limited - for the Kpong Left Bank Irrigation Project
- Ceekabs Limited - for the Kpong Piped Irrigation Water System

Details of the Works for Lot 3 of the Irrigation Activity are as presented below:-

(i) The Main Works (KLBIP)

This was the first phase (Tranche A) of the Scheme, located at Torgorme and some 900 hectares of irrigated lands, including the 384 hectares leasehold belonging to AquaPrima Ghana Ltd., an aqua-culture fishing company.

The Works involved the following:-

- Construction of Concrete-lined Canals:
 - Supply Canal from the existing Kpong Dam outlet structure to Chainage 3.54km.
 - Main Canal 1 from the end of the Supply Canal to Sokope (3.36km length).
 - Main Canal 2 from the end of the Supply Canal to south of Nakpoe (4.43km length).
- Construction of Hydraulic Control Structures:
 - Supply and Main Canal bifurcator.
 - Canal crossings of the Gblor and Nyifla Rivers, both by inverted siphon.

- Head gates (16 No.) to abstract water from the main canals to the secondary canals.
- Division boxes (42 No.) in the secondary canals to divert water to the Tertiary Canals.
- Road and drainage culverts (9 No.).
- Gated turnouts (71 No.), providing water to the farms through the Tertiary Canals.
- Tail escape structures (15 No.).
- Drop structures in Secondary Canals (10 No.).
- Construction of a pump sump on Main Canal 1 for the eventual use of VegPro.
- Clearing and land smoothing of farms at tertiary level.
- Construction of access roads along the canal embankments.
- Dredging of the main drain (8,957m length) of the Nyifla River and smaller drains along the Secondary and Tertiary Canals.
- Construction of a Scheme Manager's Office and Conference Hall, near Torgorme.
- Construction of Temporary Offices, Laboratory and Accommodation for the Project Manager.

(ii) KLBIP Contract

The Consultant accepted the Contractors Works Programme on 8 February 2011. Comments and additional information were demanded by the Consultant to be included in the next Program update, which became available in May 2011.

The Works Programme was similarly updated in July/August and in September 2011. Works Contract Variations and Changes in Costs are shown in Table 3.10.

Table 3.10: Works Contract Variations and Changes in Costs

Variations	Description
No.1	Diversion Work on Existing Pipeline This variation covers the need for the diversion of an existing GWCL pipeline at Kpong. Cost USD 16,290
No.2	Acceleration Costs The variation is for additional cost of accelerating the Works to complete within the Compact period. Cost USD 2,108,000 (not paid, but receiving MiDA's attention)
No.3	Additions and Omission to BOQ Items The variation is for additional Works plus Additions and Omissions to BOQ Items. Estimated Cost USD 70,420.
No.4	Added SoW & GCC Claims amounting to USD 4,477,906. With this, the Contract Value, less contingencies and not inclusive of VO 3 (Acceleration Claims) is USD 13, 176, 251.

(iii) The Main Works (KPIWS)

The KPIWS supplied bulk water to VegPro during the construction of the Main Works to enable the early implementation of the centre pivot irrigation systems that will initiate production and facilitate training for smallholder farmers. This involved the following key Works:

- Repairs to the gated outlet structure in the embankment of the Kpong Hydropower Dam.
- Construction of the first 50m of the Supply Canal.
- Construction of a temporary pump sump to house four submersible pumps, each capable to deliver a discharge of 225m³/hr at a pressure head of 96m in the pipeline.

- Supply and installation of electricity supply from the Electricity Company of Ghana (ECG) 11kV transmission line, together with Standby Generator.
- Construction of 5.7km of 400mm diameter pipeline running to a point where it will connect to pipe work installed by VegPro.
- Provision and installation of accessories including a steel pipe manifold, butterfly and non-return valves, air and pressure relief valves.
- Construction of a Guard House and a Generator Shed.

(iv) KPIWS Contract

Work on this Contract began with the acceptance of the Contractor's Works Programme by the Consultant on 8 February 2011. Table 3.10 provides basic Contract Data on the Works. During implementation, various design changes were made with the objective of meeting safety concerns raised by stakeholders. Changes due to specifications of the pump, transformer and the generator, also led to cost increases.

In view of the changes at the civil works level, which aimed to improve the functionality of the Intake sump, some increases in quantities were experienced on the supply canal, outlet gate, and the pump intake structure and gate. Additional Works were also carried out due to the insistence of VRA to change the location of Pump Station. These changes contributed significantly to the time required to execute the Contract.

The delay in the construction and the additional Scope of Works resulted in the extension of the Contract period. Considering the rate of inflation and price adjustments since the bidding for the Works in October 2010, the negotiated unit rates including overheads and profit for the additional Works resulted in an increase of 28.3% above the original Contract Price.

Additionally, due to the poor performance of the Contractor, Works earmarked for completion in three months could only be completed after some 14 months.

Consultancy Contract Variations and Changes in Costs

Table 3.11: Consultancy Contract Variations and Changes in Costs: SHZ

Variations	Description
No.1	Modification to Documents The variation revises Appendices D1 and D2 to be consistent with payment schedule.
No.2	Additional Services The variation allows for the design, construction and post-construction services for the Kpong Piped Irrigation Water Supply Project. Cost USD 100,000.
No.3	Printing Costs The variation allows for the printing of additional copies of Bidding Documents. Cost USD 695.15.
No.4	Payment Terms for Phase C The variation revises the Payment Schedule for Phase C of the Consultancy Contract. No Cost
No.5	Additional Input Phase C Variation for additional staff input during Phase C of the Consultancy. Cost USD 77,955.
No.6	Additional Input Kpong Pumped Irrigation Water Supply Project. Variation for additional time for supervision of the Kpong Pumped Irrigation Water Supply Project. Cost USD 100,000

Works Contract Variations and Changes in Costs - KPIWS:

Table 3.12: Works Contract Variations and Changes in Costs: SHZ (Lot 3)

Variations	Description
No.1	Extension of Time The VO 1 covers the necessary provision for extending the completion date for the Contract to 31 July 2011. There are no costs to this variation.
No.2	(Additional Work + EOT to 31 Aug 2011) This variation combines the necessary changes to pumps specifications and the increase in pipe length by 400m. The re-alignment of the pipeline around the Aqua Prima area and an Extension of Time to 31 August 2011 is also included in this variation. The overall cost of Variation No 2 is USD 301,061.50.
No.3	(Additional Work and Extension of Time) Variation No 3 cover further costs not included in VO No 2 for the changes to pumps specifications, and increase in pipe length by 400m and the re-alignment of the pipeline around the Aqua Prima Area. The cost of the extension of time for completion to 14 February 2012 is also included in this variation. The overall cost of Variation No 3 is estimated as USD 478.062.50.

Figure 3.1: The KPIWS Pump Sump Showing Pump Manifolds



Figure 3.2: KLBIP - Supply Canal



(v) Summary of Results - Project Activity Level

The results of the Irrigation Activity in relation to Performance Indicators at the output and outcome levels of the Results-chain are summarized in Table 3.13.

Table 3.13: Summary of Results: Irrigation Activity - NAZ

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Additional hectares irrigated with MCC Support	Hectares	0	535	4,200	12.2
Number of irrigation facilities constructed/rehabilitated	Number	0	2	10	20

At the end of the Compact, two of the three irrigation schemes had been completed. These were located in the NAZ and covered an irrigable area of 535 hectares. 513.60 ha, out of the irrigable area of 535 ha (96%) had been put under cultivation by the end of the Compact. The main crops under irrigation included rice, onions, pepper and other vegetables.

The three Schemes have already delivered some social and economic benefits. On the Kpong Left Bank Scheme for example, the Contractor has employed 370 (mostly previously unemployed) people, including women, engaged in cleaning and secretarial work. About 60% of those employed are from the neighbouring communities like Fojoku, Azogonoe, Torgorme, and Sokope.

The Scheme has also generated secondary employment for several people engaged in food vending and the provision of various minor services. Due to enhanced incomes, the livelihoods of several people have improved. When fully on stream, the three Schemes are expected to lead to better crop yields, better incomes and improved living standards of the beneficiaries and their dependants.

The following milestones have been achieved under the Consultancy Contracts:

- Completion of feasibility, environmental and social evaluation studies on the 10 Selected Schemes; and
- Completion of detailed engineering designs for eight out of the 10 Schemes for Rehabilitation/ Extension Works.

Table 3.14 shows the progress of work on the Schemes at the end of the Compact. Physical progress was 75% at the Kpong Left Bank; and 100% for KPIWS, Golinga and Bontanga. The Kpong Left Bank Irrigation Scheme is yet to be completed; a Quarter 3, 2013 completion date is anticipated.

Table 3.14: Summary of Progress - Irrigation Schemes: NAZ and SHZ

Measure of Progress (Compact-End)	Time Elapsed (Compact-End) %	Physical Progress (Compact-End) %	Financial Progress (Compact-End) %
Kpong Left Bank Irrigation Scheme (KLBIS) - SHZ	110.7	75	44.6
Kpong Piped Irrigation Water Supply (KPIWS) - SHZ	448	100	100
Bontanga - NAZ	100	100	100
Golinga - NAZ	100	100	100

(vi) Long-Term Sustainability

Following a review of the Irrigation Activity, MiDA concluded that public management of the infrastructure would not be sustainable. Arrangements were therefore made for public-private management partnerships. It was proposed to invite anchor farmers into the catchment areas to provide technical assistance and a ready market for the FBOs.

Under this arrangement, the private partner will manage the investment under the direction of a Stakeholders (Supervisory) Governing Board (SGB), comprising GIDA, the Anchor Farmer and the FBOs. This Body will have oversight for the management and maintenance of the Schemes. During Compact closure, GIDA/SGB and the SME were provided with vehicles and office equipment to enable them to support the management of the irrigation investments.

To date, two (2) Anchor Tenants have been invited to participate in the Schemes. At the Kpong Left Bank, VegPro will play the role of an anchor farmer to the smallholders who will be developed into effective out growers. VegPro will provide technical assistance and secure a market for the FBOs. An MOU to this effect was signed at the end of December 2011.

An MOU has also been signed with Messrs Solar Harvest, for the management of the Northern Irrigation Schemes, but activities are yet to take off.

(vii) Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- Despite the very short time that remained prior to the end of the Compact, the Irrigation Activity followed the usual lengthy procurement process, contractor mobilization and pre-construction procedures before the commencement of work. In future Programs, these initial processes should be undertaken within the pre-Compact period.
- For future Compacts, an evaluation of the technical capability of the winning bid must be carried out before the award of contract, wherever there is the possibility of a serious completion risk. MiDA's Technical Team was uncomfortable with the award of the KPIWS Contract, because of the Contractor's apparent technical capacity limitation needed to complete the Works.
- Regular modifications to planned Schemes and late additions to the Projects also put additional pressure on the implementation.

Challenges

- Initial information and analyses upon which the decisions to implement the Irrigation Activity were based, proved insufficient, affecting the scope and implementation.
- More time was needed for studies and design works than was made available. In view of delays in decision-making by MiDA and MCC on the inclusion of the Schemes, less time became available for Project implementation. For example, instead of the Works Contracts being awarded in November 2010, for a 14-month duration, they were awarded in January 2011, thus necessitating a reduction in the construction time to 12 months. A tough challenge indeed.

Recommendations

- In future, feasibility studies and project designs must be completed before the Compact enters into force, as the construction of irrigation Schemes require a much longer time. This will also take care of the lengthy procurement procedures, which were a contributory factor to the delays.
- Future activities involving large construction works, would benefit from an early "go or no-go" decision, to avoid excessive pressure during implementation.

3.1.3: Land Tenure Facilitation (“Land Activity”)

I. Identifying Information

- **Objective**
To improve tenure security for existing land users and facilitate access to land for the cultivation of commercial crops in nine (9) Pilot Registration Districts (PRDs) in Ghana.
- **Performance Period**
This Activity was implemented between February 16th 2007 and February 15th 2012.
- **Geographic Area**
Interventions under the Land Activity occurred in the following areas:
 - The pilot Land Title Registration (LTR) Project was implemented at three Sites in the Intervention Zones, namely: Awutu-Senya (*Awutu-Senya District*), Savelugu (Savelugu-Nanton District) and Donkorkrom (*Kwahu North District*).
 - The Clearing of Backlog of Land Cases in ten (10) Circuit Courts located in the Intervention Zones.
 - Public Education on Land Registration and Land Laws; to inform the public and create awareness for land administration issues.
 - The training of Staff covered all Lands Commission Offices in the country.
- **Financial Issues**

MCC Funding

Original Budget	:	US\$ 10,688,000.00
Budget Reallocations		
Reallocation 1	:	US\$ 5,266,550.00 (Dec 2008)
Reallocation 2	:	US\$ 3,754,158.00 (Dec 2009)
Final Budget	:	US\$ 4,086,669.00
Actual Disbursement	:	US\$ 4,232,253.00

Host Country Contribution : Not Applicable

- **Implementing Partners**

Implementing Entities

- Ministry of Lands and Natural Resources, through the Land Sector Agencies;
- Judicial Service of Ghana

Implementing Consultants

- Bakari Saddique Nyari
- Cad Consult Ghana Ltd
- Capacity Bloom Consult
- Community Land Development Foundation (COLANDEF)
- Consolidated Properties

- CTK Network Aviation Ltd
- Dapeg Ltd
- Fairgreen Ltd
- Gamey and Gamey Ltd
- Geodata Ltd
- Geotech Systems
- International Land Systems
- Nevadian Resources Ltd
- Shawbell Consulting Ltd
- Swede Survey/Geotech Systems
- West Africa Dispute Resolution Centre (WADREC)

Highlights – Land Activity

- 1,481 parcels (out of a target of 3500), involving 410.92 hectares, were successfully registered. This followed the survey and inventory of 5,729 parcels of land, covering an area of 5,039.88 hectares

The collaboration with the Judicial Service of Ghana resulted in the clearance of about 95% of the backlog of cases in the 10 Circuit Courts.



Community sensitization on the Systematic Land Titling process in progress.



A beneficiary of the Land Title Registration Project, displaying her Land Title Certificate.

II. Background

Ghana's vision is to make Land Title Registration (LTR) opportunities available to all land owners. However, with the exception of Accra-Tema and parts of Kumasi where the LTR has been initiated, documentation on land ownership in the rest of the country is predominantly done through Deeds Registration. The Deeds Registration System has been the subject of disputes and litigations, as it is merely an agreement between two persons, hence the introduction of the LTR which provides State-backed security for land ownership.

This vision notwithstanding, the Land Sector suffers from an inadequacy of policy and regulatory frameworks, fragmented institutional arrangements and an underdeveloped land registration system³⁷. Until the promulgation of the Lands Commission Act which brought all the Land Sector Agencies under one Agency, six separate public agencies operated in loose coordination under two different Ministries. "As a result of this non-cohesive institutional arrangement, land transactions are costly and not transparent. In addition, this has produced numerous tenure disputes,"³⁸ with "approximately 40,000 land tenure disputes pending before the Courts"³⁹ prior to the implementation of the Compact.

Other challenges to land administration in Ghana include:

- lack of formal documentation of customary holdings;
- indeterminate boundaries of private and other land holdings;
- conflicting records of land rights;
- delays in negotiating and registering acquisition;
- delays in the transfer of land rights.

It was against this background that the Land Tenure Facilitation Project ("Land Activity") in the Compact was designed for implementation in nine proposed pilot LTR Districts, with the view to improving tenure security for existing land users. It was designed in conformity with the larger Government of Ghana Land Administration Project (LAP) being implemented with sponsorship from the World Bank and other donors.

The Land Activity involved the following:

- **Land Title Registration (LTR):** Prior to MiDA's intervention, no LTR exercise had been conducted in the rural areas. In support of the Commercialization of Agriculture Project, this Sub-Activity was designed to introduce LTR into rural farming communities.
- The MCC-funded LTR exercise was preceded by a **Land Typology Study, intended** to establish ownership types, stakeholder consultations, public outreach and information dissemination, including gender sensitization. These activities were followed by an inventory of the land parcels and eventually the survey of land parcels and production of Parcel Plans.
- **Refurbishment and Clearing of Backlog of Land Cases in Ten (10) Circuit Courts:** MiDA established the number of land disputes pending in ten (10) Circuit Courts selected from the Intervention Zones. In collaboration with the Judicial Service, MiDA facilitated improvements in the Courts' ability to handle such Cases and thereby reduce the backlog of disputes.

As part of this Activity, Judges and Court Clerks were trained to be computer literate and in Alternative Dispute Resolution (ADR) and Mediation processes. Following the training, the Judges cleared a significant number of the backlog of Land Cases.

³⁷ Culled from the MCA Ghana Compact

³⁸ Ibid

³⁹ Ibid

The ten (10) Circuit Courts were also refurbished by the Government of Ghana as a Condition Precedent to MCC's funding of the furnishing, automation and the cost of clearing the backlog of Cases.

- **Public Education and Information Dissemination on Land Registration and Land Laws:** MiDA launched a Public Education and Information Dissemination Plan in the beneficiary Districts to create maximum awareness for land administration issues, land title registration and land laws. This activity, which ran for fourteen (14) months, also provided additional publicity for MiDA's intervention.
- **Capacity-Building for Staff of the Lands Commission and the Judicial Service:** MiDA provided Short Courses in Land Tenure and Land Administration to Senior and Middle Managers of the Lands Commission. Similar Courses were run for Judges, Court Registrars and Court Clerks in the selected Circuit Courts.

All these interventions were intended to facilitate the legitimization of land ownership, improve land tenure security and create maximum awareness for the Land Activity among land users and the general public.

III. Changes in Implementation vis-à-vis Results Framework

- (a) The Pilot Land Registration exercise was planned for execution in two Phases. In Phase I, MiDA was expected to establish Pilot Land Registration Areas (PRAs) in three Districts. In Phase II, this was to be scaled up to include an additional six Pilots, based on outcomes of the initial three, bringing the total pilots to nine.

These Plans could not be realised, as the three key pilots in Phase I did not commence simultaneously. MiDA's decision to start the first three Pilots simultaneously was disapproved by MCC, who considered it necessary to concentrate on only one Pilot and to learn lessons from it before moving on to the other two and eventually add six others, if necessary. The first of the pilots was in the Awutu-Senya District in the Central Region.

- (b) Following a review of the Awutu Senya Pilot, it was realized that using the delineating features, such as roads, rivers, etc. as community boundaries was problematic in the rural setting, particularly as this usually resulted in splitting community boundaries. This was experienced during the parcel surveys in Phase I, (referred to as AS-1). For instance, nine of the 29 Communities in the Awutu Senya Phase I Pilot were split, leading to some localised agitations and risks to MiDA's image and reputation.

To address these issues, MiDA agreed with MCC to extend the coverage of the first Pilot to include split Communities (referred to as AS-2). This extension was mainly to cover preparatory activities, ending up with surveys and production of Parcel Plans. Issuance of Land Title Certificates to this category of beneficiaries was to be done by the Lands Commission, to ensure the smooth takeover of the MiDA-initiated registration and titling activities.

Considering the time lost through focusing on the first Pilot and in addressing reputational risks and the limited financial resources available to the Project after the budget reallocation in 2009, MiDA and MCC conducted an Interim Activity Review

and re-scoped the Pilot Land Registration Activity. It was agreed that MiDA would undertake a downsized Pilot Activity in the Savelugu Nanton District and provide Land Registration Offices and facilities in Donkorkrom for use by the Lands Commission, without issuing land Certificates.

The targets for the Indicator “Total number of land parcels registered in the Pilot Land Registration Areas” was subsequently reduced from 4800 to a total of 3,500. Out of this number, 2,500 and 1,000 Land Title Certificates were to be issued in the Awutu Senya and Savelugu-Nanton Districts, respectively.

In pursuit of the pilot registration exercise, MiDA provided fully equipped Land Registration Offices and Land Survey Equipment and field vehicles at all three Sites; namely, Awutu Senya, Savelugu-Nanton and Donkorkrom.

- (c) The plan to facilitate land transactions through the provision of On-Demand Land Services, had to be amended. The Needs Assessment Study for On-Demand Land Services, conducted to feed into the kind of support to be provided, recommended that the provision of On-Demand Land Services, (e.g. legal services, valuation, land surveying, information provision, etc.) in the rural areas was not going to be effective as it may not be patronized. The Study recommended the discontinuation of this Activity.

The assessment and analysis of the legal and administrative aspects of compensation, resulting from ADRs, was not implemented as a result of the re-scoping exercises.

- (d) To speed up the development of an ADR Practice Manual for use by Circuit Courts involved in handling land disputes, MiDA adopted, refined and utilized a Manual that had been procured by the Judicial Service for internal use. However, based on experiences and lessons learnt, MiDA developed a Manual and Guidelines to support the implementation of the Systematic Land Title Registration Exercise in rural areas, as such a document had not been put together before.
- (e) Though not originally part of the Project’s design, MiDA and MCC had agreed to develop a Land Information System to support the Land Registration Offices at Winneba and Savelugu. This support was to be implemented through a public-private partnership arrangement. This did not happen, as funding of a Public Private Partnership, to be accessed under MCC’s Annual Partnership Solicitation, did not materialize.

IV. Total Activity Cost

The total cost of the Land Activity was US\$ 4,232,753. Table 3.15, summarizes the Status of Planned and Actual amounts disbursed as at Compact closure.

Table 3.15: Summary of Status: Planned and Actual Land Activity Costs

Activity	Initial Projected Cost (USD)	Final Budget Aug 2008–Feb 2012	Actual Disbursement (USD) Feb 16 2012	Actual Disbursement as % of Re-scoped Budget
Land	10,688,000.00	4,086,669.00	4,232,753.00	103.9

Table 1.1 of Appendix 1, has further details of the Original Budget and funding amounts for the Land Activity.

Disbursements were particularly low in the first two years, i.e. 2007 and 2008. No significant disbursements were made during this period as most of the time was spent doing paper work in preparation for full-scale implementation. Funds, amounting to US\$4,086,669, approved during the initial re-scoping exercise, were fully utilized and even exceeded. The budget was exceeded as a result of the differences between budget and actual disbursement on some of the activities, such as the construction and furnishing of Land Registration Offices in the three Districts.

V. Project Activity Implementation Partners

The Land Activity encompassed a pilot LTR, capacity building, involving mainly the training of Staff of the Lands Commission, Public Education/Information Dissemination on Land Registration and Land Laws, and the Clearing of the Backlog of Land Cases in selected Circuit Courts.

MiDA implemented the bulk of this Activity with the support and collaboration of Land Agencies under the Lands Commission. This conformed to existing laws and ensured the sustainability of the Land Activity, post-Compact. Key among these Agencies were: the Land Title Registry (now Land Registration Division), which had the responsibility for Land Title Registration and the Survey Department, (now Survey and Mapping Division), which regulated, supervised and approved Survey Works undertaken by private Land Survey Consultants, engaged by MiDA.

To implement the Land Activity, a Project Coordinating Committee, comprising representatives of all the stakeholders⁴⁰, was set up to ensure the coordination, participation and cooperation of all the Agencies in the Land Sector. This Committee reviewed the progress of implementation and made recommendations, where necessary.

In addition to the above, key decisions during implementation were reached after extensive consultations with the Implementing Entities (IEs). Notable among these was the Mid-term Review of the Pilot Land Title Registration (LTR) Activity, which informed a re-scoping of the Activity. A Stakeholder Workshop, involving the IEs and the various Consultants, deliberated on and arrived at conclusions, which formed the basis for the review and re-scoping of the Activity.

VI. Pilot Land Title Registration Exercises

In the Awutu-Senya (AS) PRD, the pilot communities were divided into two (2) groups, AS-1 and AS-2. AS-1 comprised 2,500 clients, for whom Land Registration Certificates were to be secured. AS-2 covered 1,933 farmers, whose parcels of land were to be surveyed and processed up to the Parcel Plan level due to time limitations. Land Certificates were to be issued by the Lands Commission, post-Compact.

Under the pilot LTR, MiDA aimed to complete title registration in the Awutu Senya District (AS-1), the construction of a Land Title Registration Office (Figure 3.3), provision of Land Survey Equipment and a means of transport to facilitate operations, expanding the LTR to include more communities in the Awutu Senya District (AS-2) and undertaking a downsized pilot LTR in the Savelugu/Nanton District, including the provision of a Land Registration Office, Land Survey Equipment and a means of transport.

⁴⁰ Land Registration Division, Public and Vested Lands Management Division, and Survey and Mapping Division (Lands Commission); Office of Administrator of Stool Lands; Land Administration Project; Ministry of Women's and Children's Affairs; Civil Society Coalition on Land; Ascertainment of Customary Law Project and the Intergrated Legal Adviser, National House of Chiefs.

The Pilot LTR also included a scaled-down activity in the Kwahu North District, involving the provision of a fully-furnished LTR Office, Land Survey Equipment and a means of transport only. There was to be no pilot Land Title Activity in this Zone.

Figure 3.3: Land Title Registration Office at Winneba⁴¹



(a) Completing the Pilot Land Title Registration in Awutu-Senya District

Land registration in the AS Communities followed the **Systematic (Rural) Land Title Registration** process, as against the **Sporadic Land Title Registration** process. This process involved adjudicating, surveying and registering parcels of land on an area by area basis. It was the first time such a System had been applied in any rural setting in Ghana.

In preparation for the implementation of the pilot, MiDA entered into an Implementing Entity Agreement (IEA) with the Ministry of Lands and Natural Resources, (acting on behalf of the Land Sector Agencies), and spelt out the roles and responsibilities of the various partners.

The next step was to identify and map out the proposed PRD, carry out a Typology of Land Rights Study in the area and secure a Parliamentary Declaration of the PRD, in line with existing legislation.

In collaboration with the Agencies under the Implementing Entity, MiDA carried out an initial sensitization of Land Owning Groups, Relevant Government Agencies, Local Authorities and Opinion Leaders in the Communities. This was to inform them about what to expect. Modern land survey equipment was also procured and installed in Bawjiase to facilitate land surveys in the selected Communities.

After the preparatory activities, MiDA recruited various consultants and contractors to undertake activities such as; community sensitization/gender review, facilitating the Alternative Dispute Resolution process (ADR), including the training of local people in the dispute resolution process, Land parcel inventorying and surveying and the preparation of individual Parcel Plans, under the supervision and approval of the Land Survey Division and the construction of Registration Offices, to support the Pilot Registration activities.

The steps followed by MiDA in implementing the first **Pilot Land Title Registration in Awutu Senya District**, could be summarized as follows:

⁴¹ Similar Offices have been provided in Savelugu and Donkorkrom

- A Continuously Operating Reference Station (CORS) was established at Bawjiase. It was used to survey and produce 5,700 Parcel Plans. Unfortunately, pockets of litigation and the non-availability of prospective beneficiaries rendered several Plans inoperative.
- Community Sensitization and Gender Review Consultants were hired to undertake public sensitization on the registration process, including the development of a Gender Guidance Document.
- Private Inventorying and Land Survey Consultants were recruited to undertake the inventory of land parcels, survey land parcels and prepare Parcel Plans to be signed off by the Director of Survey and Mapping Division of the Lands Commission.
- An ADR Consultant was recruited to handle disputes resolution, including training and building the capacity of some local actors to resolve similar disputes even after the Program.
- MiDA converted Oral Grants into writing, in a participatory manner. These were based on the Parcel Plans and facilitated migration into title registration.

The final stages leading to title registration are detailed below:

- An in-house Lawyer arranged the Documentation;
- Documents were presented to the Judicial Service for Oath of Proof;
- Documents were thereafter forwarded to the Land Valuation Division for the determination of a 2% Stamp Duty, so that the Title could be conveyed to the Client. (This requirement was waived by the Ministry of Finance and Economic Planning due to the high incidence of poverty in the Registration District);
- MiDA sponsored the publication of the List of Proprietors waiting for Land Titles in the local Dailies, in accordance with the 1986 Land Title Registration Law, PNDC Law 152, which enjoined proprietors to wait for a period of two (2) weeks, in anticipation of any counterclaims, before proceeding with the remaining stages of the registration process;
- Lodging or the provision of an Identification Number to the Client;
- The Title Certificate is thereafter typed for signature of the Chief Registrar.

Land Title Registration following this procedure provides a State Guaranteed Title and gives safe rights of ownership to the title holder. Out of the 3,802 parcels surveyed in AS 1, 606 parcels fell within areas that were in conflict and for which reasons title certificates could not be issued, while owners of 900 more parcels did not turn up to take advantage of the field exercise. These have been referred to the Registration Office in Winneba.

Of the remaining 2,296 parcels in the AS-1 Pilot Area, MiDA has concluded most of the stages of the registration process on behalf of the Proprietors, with 1,481 title certificates issued. The remaining 815 parcels, which could not be completed due to the non-cooperation of some stakeholders, were at various stages of the process.

Table 3.16 shows the stages at which the Uncompleted Documents had reached as at 15th February 2012, when the Compact ended.

Table 3.16: Uncompleted Land Documents as at February 15, 2012

Item	Activity	In Process
1	Survey and Mapping Division	0
2	Chief's Signature	73
3	Judicial Service	192
4	Valuation	175
5	Concurrence	126
6	Publication	27
7	Lodgement	77
8	Typing Pool	3
9	Queries	75
10	Registration	67
Total Number of Uncompleted Documents		815

In line with the IEA, these unfinished businesses are to be completed by the Lands Commission, post-Compact.

In addition to the main works undertaken in the AS Pilot Title Registration exercise, the Survey Consultant has also completed all survey works in AS 2, involving the survey and production of 1, 933 Parcel Plans.

(b) Downsized Pilot Land Registration Activity in the Savelugu/Nanton District

The Land Activity in the Savelugu-Nanton District, which was similar to the Pilot at Awutu Senya, was not implemented as a result of an unresolved community boundary dispute and the related security concerns. MCC agreed with MiDA's decision to terminate the systematic title registration in the Tuunayili Community, but to continue the Gender and Sensitization Workshops and finalize the construction of the Land Title Registration Office in Savelugu for use by the Lands Commission.

The main activity in Savelugu was therefore limited to the construction of a Land Title Registration Office, furnished and equipped with computers and provided with Land Survey Equipment, including a Continuously Operating Receiver Station (CORS) and a means of transport. It was envisaged that the Office, to be staffed by the Lands Commission, would provide a solid basis for either the Land Administration Project Phase II (LAP 2) or land-based activities under the Savannah Accelerated Development Authority, to build on.

Following the curtailment of the LTR exercise, no land parcels were surveyed and therefore the target of one thousand (1,000) Land Certificates to be issued could not be achieved.

(c) Land Activity in Kwahu North District

In line with decisions based on the Activity Review, no pilot Land Title Activity was undertaken in the Kwahu North District of ABZ, in view of funding and time constraints. However, a Land Title Registry facility for the District, equipped with computers and basic furniture, has been provided. The Office has also been provided with land survey equipment, including a CORS and a means of transportation.

(d) Procedures Manual for Land Title Registration

Based on the lessons learnt under AS 1, MiDA developed a Systematic Rural Land Title Registration Procedures Manual which detailed all the processes, activities and stages in the implementation of the Pilot Land Registration exercises.

MiDA assisted the Lands Commission to take up the role of land title registration as a strategy for passing on responsibility, knowledge and skills to the appropriate Division of the Lands Commission, and to ensure the sustainability of MiDA's investments.

In collaboration with the World Bank, MiDA is undertaking an evaluation of the Pilot Land Registration Activity in Awutu Senya. When completed, the evaluation exercise will feed into any future plans to upscale this Project in Ghana.

(e) Clearing the Backlog of Land Cases in Courts

The rather slow legal process for settling land cases has culminated in a large backlog of land cases. This Project Sub-Activity was designed to clear the backlog in ten selected Circuit Courts by collaborating with the Judicial Service to get Judges to expedite action on these Cases and through automation, quicken the pace at which the Cases are cleared. It was also to put structures in place to prevent a recurrence of the pile-up of land cases in the Circuit Courts.

The clearance process involved a Baseline Survey to establish the stock of cases by number, type, nature and status in these Courts. 734 Cases were identified. However, before the issuance of the Registrar's Summons, the Judges managed to clear additional Cases, reducing the backlog to 242.

The clearing of the backlog of Cases fell under 3 Stages, as follows:

- **Issuance of Registrar's Summons:**
The Registrar of a Court publishes Notices in the Dailies on the status of Cases that are awaiting proceedings within 12 calendar months, to enable parties to confirm their interests. Non-response to the Notices would lead to striking out of the Cases from the Records in the Courts. Through this process, 230 out of the remaining 242 cases (95%) were cleared. 12 Cases, representing 5%, were relisted at the Courts.
- **Application of Alternative Dispute Resolution Process:**
In situations where Parties still showed interest in the Cases, they were encouraged to settle the disputes out of Court through the Alternative Dispute Resolution (ADR) mechanisms. This exercise, conducted by ADR Mediators, was useful in saving time and cost. MiDA provided the funds to train the Mediators and some Judges in ADR, Land Law and Information Communication Technology (ICT) before the entire process began.
- **Backlog Clearing by Judges through Adjudication:**
This phase involved Judges in selected Courts sitting and clearing all the pending and live Cases that could not be dealt with during ADR. Such pending Cases had not been heard for reasons such as the inability of lawyers to produce witnesses, where a land had to be surveyed, etc.

To facilitate the clearance process and prevent their recurrence, ten (10) Circuit Courts were selected and refurbished with GoG's funds, as a condition precedent to the automation of the adjudication process and clearance of the backlog of Cases.

MiDA thereafter furnished, equipped and automated the Courts which were located at Agona Swedru, Nsawam, Odumase Krobo, Mpraeso, Tamale, Sogakope, Keta, Aflao, Hohoe and Kpandu.

- **Capacity-Building - Training of Lands Commission and Judicial Service Officials**
 - o MiDA provided Short Training Courses in land tenure and land administration to 100 Senior and Middle Managers of the Lands Commission. Training was also given to 40 Judges and 40 Judicial Service Staff in Land Law, ADR and ICT to enable them to employ the new automated systems to clear Court Cases. Thirty (30) ADR Mediators were also trained.
 - o An International Consultant was engaged to provide Geodetic Assistance to the Survey and Mapping Division of the Lands Commission. The Consultant also assisted the Division on the ongoing development of a Geodetic Reference Network for Ghana and the development of a Parcel Generation Software.
- **Public Education and Information Dissemination on Land Registration and Land Laws**

Public Education and Information Dissemination on land issues were conducted in four (4) Districts. The beneficiary Districts included Awutu-Senya, Akwapim South, Dangme East and Savelugu/Nanton. The Activity, which was conducted through radio and television discussions, focus group discussions, workshops and community durbars run for 14 months and was completed ahead of schedule. A total of 10,746 landholders were reached directly through this exercise.
- **Environmental, Social and Gender Issues**

There were no environmental risks associated with the Land Title Registration Project. It was anticipated that the introduction of land title registration may initially make women more vulnerable with regard to inheritance rights, following the death of their husbands. To forestall this, a strong sensitization and education component was embedded in the Pilot Land Title Registration exercise. This and the efforts to use ADR mechanisms to resolve such issues, helped to avoid any vulnerabilities. About 25% of Certificates issued have gone to women.

VII. Summary of Results - Project Activity Level

The results of the Land Activity in relation to Performance Indicators at the Output and Outcome Levels of the Results-chain are summarized in Table 3.17.

Table 3.17: Summary of Results: Land Activity

Indicator	Unit	Baseline	Actual to Date	End of Compact Target	% Complete to Date
People Aware of their Land Rights in Pilot Land Registration Areas	Percent	42.6	57	63.90	65
Identified Land Disputes Resolved in the Pilot Land Registration Areas	Percent	0	82	80	103
Land Parcels Registered in the Pilot Land Registration Areas	Number	0	1,481	3,500	42
Rural Hectares Formalized	Hectares	0	410.92	5,100	8
Rural Hectares Mapped	Hectares	0	5039.88	7,000	72
Parcels Surveyed in the Pilot Land Registration Areas	Parcels	0	5,729	4,800	119
Backlog of Land Cases Cleared by the Judicial Service	Percent	0	95.04	95	100
Landholders Reached by Public Outreach Efforts	Number	0	10,746	10,000	107
Personnel Trained	Number	0	427	200	214
Buildings Rehabilitated/Constructed	Number	0	3	3	100

The Land Activity demonstrated the importance and feasibility of rural land title registration. Title Registration is expected to reduce litigation, secure ownership, facilitate investment and in so doing reduce the incidence of poverty among title holders.

- The Project also produced a Procedure Manual that spelt out the stages and processes of title registration for purposes of replication. By the end of the Compact, the effectiveness of the Systematic (Rural) Land Title Registration Manual had been tested and 1,481 Land Title Certificates, representing 42% of the 3,500 parcels targeted for registration by the end of the Compact, had been issued to land Proprietors.

The major achievements under the Land Activity are summarized below:

(a) Pilot LTR

- Three CORS were established at Bawjiase, (now relocated to the Winneba Land Registration Office), Savelugu and Donkorkrom.
- 5,729 Land Parcels, covering an area of 5039.88 ha were inventoried, surveyed and Parcel Plans produced in the Awutu Senya Pilot Land Registration Area.
- 1,481 of the land parcels surveyed (covering 410.92 hectares) were fully registered and title Certificates issued.
- Seven (7) Preparatory Studies were completed.
- 82 percent of identified land disputes were resolved in the Pilot Land Registration areas.
- Three District Land Registration Offices were also constructed and equipped with furniture and IT equipment.

(b) Clearance of the Backlog of Land Cases:

- All ten Circuit Courts were refurbished by GoG, while MiDA equipped them with furniture and automated them.
- 95.04% of the Backlog of Land Cases were cleared by the Judicial Service.

A total of 427 personnel (against a target of 200), from the Lands Commission and the Judicial Service were trained in Land Administration, ADR and ICT.

10,746 landholders were sensitized about Land Laws and Land Registration under the Public Education and Information Dissemination component. This increased the percentage of people aware of their land rights from 50.8% to 69.8% in Awutu-Senya District and from 42.6% to 56.5% in Savelugu Nanton District.

VIII. Long-Term Sustainability

Land Certification Exercise

The Lands Commission will be responsible for completing and issuing outstanding Land Certificates, post-Compact. It is also expected to use the model developed by the pilot to replicate the Land Title Registration Activity in other Districts. For complete success, adequate funding must be provided to support the registration of Certificates.

Title Registration Offices have been built within the Registration Districts to enable land owners to continue with registration or documentation activities. MiDA has assisted the Lands Commission to take up this role as a strategy for passing on responsibility, knowledge and skills to the relevant Divisions of the Lands Commission.

The Lands Commission will resource the District Land Registration Offices with its own Staff and provide them with copies of the Land Records (Deeds) currently stored in the Regional Lands Commission's Offices, so that they will become fully-fledged Offices.

In the Awutu-Senya District, the core Staff have already been recruited to operate from the Land Registration Office in Winneba.

Other Institutional Capacity-Building Issues

The Lands Commission is currently in the process of obtaining relevant approvals/clearances to migrate Staff into the Civil Service as planned.

- MiDA has granted all Program assets to the Lands Commission. The Lands Commission has taken over the newly-built and equipped Land Registration Offices in Winneba, Donkorkrom and Savelugu. Land Survey equipment (including COR Stations), and databases of land ownership and cadastral surveys, used by the private Surveyors contracted to take inventory, demarcate and survey land parcels, have also been handed over to the Land Registration Offices. In addition, the Parcel Template Software has been handed over to the Survey and Mapping Division (SMD), on condition that it will be made available for use by the larger survey community.
- The training and follow-up assistance provided by MiDA to the Lands Commission's Staff should enable the personnel to sustainably apply the knowledge from their training on land issues.

Sustainability of the Land Cases Clearing Exercise by the Judicial Service

- Provisions have been made for the sustainability of Clearing of Land Cases by the Judicial Service under the IEA between MiDA and the Judicial Service. This will ensure that the Judicial Service inherits and continues to operate all equipment supplied by MiDA, as it works to prevent any future backlog of land cases.

- The automated Offices and the trained Staff of the Circuit Courts and ADR Practitioners which enabled the Judicial Service to clear 95% of the identified Land Cases would sustain the speedy clearance of Land Cases in the future.

IX. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- Whole Communities were split up due to the reliance on the traditional method of relying on features, such as roads, rivers, etc. to delineate community boundaries. Even though the Lands Commission would have to take up Title Registration after MiDA, as spelt out in the Implementing Entity Agreement (IEA), in future, these surveys should be based on community boundaries.
- The experience in the Savelugu/Nanton District, where work had to be terminated due to some misunderstandings between communities, also points to the need for care in revising the boundaries of the Pilot Registration Area, even after they had been selected on the basis of the results of a Study. In this particular case, the decision to select Tuunayili, the smallest among the five communities that had originally been identified because of time constraint, was partially responsible for the termination of key activities, such as the Surveys.
- The cost of Land Title Registration could affect its adoption by smallholders. The Pilot Project costs roughly US\$167 per parcel for all the related activities. However, even if costs drop to the US\$100-150 per parcel range, a country-wide systematic title registration exercise in the rural areas would have significant implications for GoG's budget. Current rough estimates, taking the Survey Work (Consultant's Fees), are US\$43.60 per parcel.

The Pilot Activity was free to Clients, and so provided no pointers with regard to the "willingness-to-pay" for a Land Title Certificate by poor farmers. There was every indication that the current arrangements may lead to some risks of acceptance and therefore pose implementation challenges in future projects.

- As MiDA discovered, this Activity was expensive, onerous, time-consuming, skills-intensive and stressful. For these reasons, targets and Work Plans must not be over ambitious.
- Even though other significant lessons were learnt, without undertaking Typology Studies⁴² on various types of land holdings, as part of the original design of the Land Project, the expected impact of this Activity on land administration system in Ghana would not be significant. In future, therefore, maximum care should be taken in deviating from the agreed design.

Challenges

- The implementation of the Land Activity suffered from a reduced scale of operations, reluctance of Implementing Entities (IEs) to cooperate and the inability to obtain Land Certificates for all the beneficiaries.

⁴² The Typology of Land Rights Study (Typology Study) is a study conducted in the Pilot Land Registration District (Registration District) to reflect not only the Land Rights prevailing in the area but also the socio-cultural dynamics and some reflections on the conditions surrounding landholdings in that particular location.

- The institutional reforms undertaken within the Land Sector Agencies, in which independent Agencies were elevated to the status of Divisions within the new Lands Commission, posed some challenges to decision making, as decisions needed approval by persons who were initially not part of Officials engaged in the project's implementation activities.
- A large measure of bureaucracy characterizes land administration in Ghana, and this affected the speedy registration and acquisition of LTR Certificates⁴³.
- Another critical issue was the impact of the reduction of the scope of the Land Activity on the expected ERR, since only 10% of the targeted land area was covered.
- The process was also affected by the frequent absence of Chiefs who were required to sign documents.
- Services under the Pilot Activity were free to Clients, and so provided no pointers to the "willingness-to-pay" for a Land Title Certificate by poor farmers. There was every indication that the arrangements adopted by MiDA, may lead to some risks of acceptance and therefore pose implementation challenges.
- Additionally, splitting nine of the twenty-nine Communities in the Awutu Senya Phase One Pilot entailed some social and reputational risks for MiDA/MCC. MiDA has now extended its work to cover complete Communities. However, stopping short of giving Certificates to Proprietors may still be problematic. The Lands Commission would have to take up Title Registration at the end of the Compact, as required under the provisions of the IEA. An early resolution of budgetary constraints may be key to the overall success of the Project.

Recommendations

- To maximize the use of the Offices at Winneba, Savelugu and Donkorkrom, it was recommended that the Lands Commission operate them as fully-fledged Land Registration Offices. This will mean transferring to them, copies of all Land Documents now stored in the respective Regional Offices. These will need to be scanned and made available to the new District Offices. This could be a major undertaking and therefore would need major decisions to be taken by the Lands Commission. Secondly, the Offices could operate as Windows, in which case they would simply receive and process Applications for later collection by Clients.
- To the average Smallholder Proprietor, the cost of obtaining a Land Title Certificate could be substantial. It is unlikely that the majority of smallholders will be willing to incur this cost, given the small farm sizes (an average of between 1-3 acres) and residential parcels. The Pilot Project was estimated to cost about US\$167 per parcel, including all Consultancies and Equipment and Infrastructure. It was unlikely that the Lands Commission would carry the same financial burden and expend the same level of effort shown by MiDA even on only a few clients. To ensure that the process was not slowed down, Government subsidy, which could be as high as 75%, may be necessary to promote wide scale adoption of LTR by smallholder farmers. In addition, innovative ways of cost-sharing should be promoted among the recipients.

⁴³ This is one of the challenges that are expected to be addressed through the institutional re-structuring of the Land Sector Agencies, under the World Bank-led Land Administration Program (LAP).

- A forum to institutionalize and solicit the continued cooperation of all stakeholders; namely Chiefs, Staff of the Lands Commission and those involved in the acquisition and documentation of lands, should be created by LAP to ensure that the gains of the Project are kept alive.
- In future, an assessment of the implementation of the land titling activities should be carried out to address the following:
 - the effects of land titling on women and vulnerable groups;
 - the effects of land titling on conflicts;
 - effectiveness of the ADR process on land litigation and conflict resolution;
 - changes in public perceptions of the effectiveness of Land Agencies;
 - public awareness of land rights and participation in the acquisition and registration processes;
 - key issues in the transition from traditional tenure to systematic registration and titling.
- While acknowledging the possible impact of the cost of a free rural-based systematic land titling exercise on Government's budget, it is acknowledged that this is an important and major step in Ghana's efforts to improve on land title security and to attract vital investments into agriculture and the rural economy. Efforts must be put in place to undertake the registration exercise across the country. A piecemeal, but sustainable arrangement must be initiated for this purpose.

3.1.4: Improvement of Post-Harvest Handling and Value-Chain Services (“Post-Harvest Activity”)

I. Identifying Information

- **Objectives**

- To facilitate strategic investments in post-harvest infrastructure improvements by FBOs and organizations operating within target value chains.
- To support the ability of FBOs and participating SMEs to achieve major impacts that can be measured in terms of increases in marketed volumes.
- To build the capacity of public sector institutions to introduce and monitor compliance with International Plant Protection Convention Standards.

- **Performance Period**

This Activity was implemented within the Compact Term, i.e. between February 16th 2007 and February 15th 2012.

- **Geographic Area**

The packing houses and cold storage facilities constructed under the Post-Harvest Activity are located in 20 Communities within the Intervention Zones.

All the cooling facilities are located on six farms within the Akwapim South and Efutu Municipals, and the Awutu-Senya District. The Perishable Cargo Handling Centre is located at the Kotoka International Airport in Accra, while the three Public Pack-Houses are located at Akorley (Yilo Krobo District), Mariakrom (Akwapim South Municipal) and Otwekrom (Gomoa East District), all in the SHZ.

The ten (10) Agribusiness Centres (ABCs) are located in nine (9) Districts within four Regions of Ghana, namely Northern, Ashanti, Eastern and Central Regions.

Five of the ABCs are located in NAZ (*one in each of the five Districts*), *three in the ABZ and two in the SHZ*. (See Table 1.6 in Appendix 1 for details).

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$ 20,376,000.00
Final Budget	:	US \$ 19,777,336.00
Actual Disbursement	:	US \$ 18,917,637.00
Host Country Contributions	:	US\$ 577,554.00

- **Implementing Partners**

Implementing Entities:

- Ministry of Food and Agriculture (MOFA)
- Ghana Airports Company Limited (GACL)

Implementing Consultants

Engineers:

- i. VEK, Verhoef and AESL (Ghana)
- ii. SMEC International Ltd
- iii. UDC Consultants

Contractors:

- i. Frigo Services (Ghana) Limited
- ii. Stamek Ltd
- iii. ABC Contractors - (See Appendix 1.13 for further details)

Highlights - Post-Harvest Activity

- 14 new Post-Harvest infrastructural facilities were constructed, viz: - 10 *Agri-Business Centres (ABCs) for grains and pulses, 3 Public Pack houses with cooling facilities for pineapples and mangoes and 1 Perishable Cargo Centre, with cooling facilities for all fresh/perishable agricultural produce bound for the EU Market*
- 6 Cooling facilities and packing lines were also installed for 6 Sea-Freight Pineapple Exporters of Ghana (SPEG) members, to boost the quality and improve the shelf life of pineapples exported to the EU Market and thereby minimize rejects.

The 10 Cooling Facilities have a total cooling area of 1,317.91m². This represents 11% of the total area of post-harvest infrastructure (ABCs, Pack houses, Cooling Units) constructed by MiDA.



Public Pack-house at Mariakrom in the Akwapim South District of the SHZ West



The 1,000 metric tons Warehouse of the Bonyon Agri-Business Centre in the Ejura-Sekyedumase District of the ABZ.

II. Background

The implementation of the activities which aimed at the improvement of post-harvest handling and value chain services was bound by a Condition Precedent (CP), which stated that; “Prior to any disbursement of Post-Harvest Activity on or before Quarter 4 of Year 1: MiDA must have submitted evidence to the effect that the Government has adopted an Amendment to cause the National Plant Legislation to be in compliance with IPPC 1997”.

On 7 September 2010, the Ghana Government fully satisfied the CP, as the **Plant and Pest Diseases Act (Act 307) of 1965**, was revised and updated to be consistent with IPPC Standards. The new Act was passed by Parliament on June 4, 2010, and was given the Presidential Assent and gazetted in September 2010. Investments earmarked for the related infrastructure were therefore delayed while we worked to satisfy the CP. The delay in meeting the CP had an impact on capacity-building activities related to enhancing the values and the marketing of farm produce. In the face of the rather lengthy legislative process, exemptions were granted by MCC for some sub-activities to be carried out prior to meeting the CP.

The Post-Harvest Activity covered the provision of on-farm post-harvest facilities for grains, fresh fruits and vegetables in the form of privately managed Agricultural Business Centres (ABCs) the construction of three (3) Public Pack-Houses (PPHs) and a Perishable Cargo Centre (PCC) at the Kotoka International Airport (KIA), to improve the hygienic handling and packing of perishables for export.

In the Southern Horticultural Zone (SHZ), where most of the cooling facilities are located, pineapples, mangoes and vegetables such as chillies were targeted for export. In the NAZ, ABZ and some parts of the SHZ, maize and pulses were targeted for post-harvest treatment storage and distribution in the ABCs.

MiDA focussed her post-harvest efforts in ways that set up a strong demand pull through the selective positioning of on-farm packing and cold chain facilities that expedited the transportation of produce to markets.

(A detailed list of the Post-harvest Infrastructure is provided in Table 1.6 of Appendix 1.)

Details of the various interventions undertaken under the Post-harvest Activity are provided below.

a. Agricultural Business Centres (ABCs)

The Program intended to support the construction of small-scale facilities such as narrow cribs, for the storage of grains by FBOs and their partners. However, evidence based on the effectiveness of what MOFA had previously provided to smallholder farmers indicated that for the purposes of sustainability, the strategy had to change to ensure effective support to the grains industry.

Based on this evidence, it was decided to construct Agribusiness Centres to provide sustainable values for the grain industry. An Expression of Interest Document was issued to encourage stakeholders in the grain marketing industry in general and farmers in particular to show interest in this approach and to participate in managing the facilities.

The Agribusiness Centres (ABCs) were designed to have facilities for storage and preservation of grains and for providing business and marketing services to farmers. Their major aim was to promote an interface between the agricultural business sector, providing commercial and

marketing services on one hand and the smallholder farmers within the rural environment, selling their produce on the other. They were intended to be “one-stop shops”, for farm produce and were therefore located at vantage points within high-producing Districts, where linkages between producers and marketers had previously not been properly forged.

The plan was aimed to follow a public-private partnership arrangement. For this reason, it was intended that the facilities when completed would be handed over to NewCos, which would set up Escrow Accounts to receive repayments for the investments. These funds would also serve as security for the smallholders to receive credit from a bank or to procure equipment. To ensure the sustainability of these investments, enforceable rules have been drafted to guide the operations of the Escrow Accounts. Shareholders were expected to abide strictly by these Rules.

The NewCos that will manage the ABCs would be owned by the Private Investors and FBO Unions in the proportion of 70%:30%, respectively. Each ABC has a Board consisting of two (2) representatives of the FBO Union and three (3) from the Private Investors. The District Director of MOFA serves as an Ex-Officio Member of the Board and is required to submit a Quarterly Report on the operations of the ABCs to the Regional Director. This would ensure that the District Director played the role of an impartial arbiter who would assist the shareholders to resolve any technical challenges that may arise. MiDA is yet to receive information on the performance of these Boards.

b. On-Farm Cooling Facilities

To support on-farm cooling, MiDA signed a US\$5.4m grant facility with SPEG. Under this facility, MiDA was expected to build temperature-controlled storage facilities which would enable all SPEG members to effectively store their produce for export. Implementation challenges compelled MiDA to limit the amount and change its approach to support a grant of \$2.1m, which will serve as a revolving credit to SPEG members, who would be required to procure their own cooling facilities. Under this new arrangement, seven (7) members of SPEG benefited from the first tranche. (See list below)⁴⁴. Other members were expected to benefit from the funds repaid by the first set of beneficiaries. At the end of the Compact, all but one of the seven cooling houses had been completely installed and in operation.

c. Public Pack-Houses

To become a significant supplier of fruits and vegetables to the EU and other export markets, investment in post-harvest infrastructure was considered necessary for Ghana’s horticulture export industry. In this regard, the Program identified the need for the construction of three (3) public pack-house facilities in **Mariakrom** near Nsawam in the Akwapim South Municipal Assembly of the Eastern Region; **Otwekrom** near Gomoa Buduatta in the Gomoa East District of the Central Region; and in **Akorley** in the Yilo Krobo District of the Eastern Region.

Of the three PPHs, the facilities located at Mariakrom and Otwekrom were originally partially constructed and privately-owned facilities. These were purchased by MiDA and developed to facilitate public access to services provided by the Centres. The third PPH facility, located at Akorley, was a greenfield project.

⁴⁴ SPEG beneficiaries

To facilitate smoother operations of the facilities, the private partner investor would own 70% of the Company and would assist the farmers who own 30%, to secure market access and obtain farm credit and other forms of business-related assistance. A similar management and organizational arrangement exists for the ABCs.

Contracts for the construction of the three (3) PPHs were awarded to one Contractor, at a total cost of US\$3.2m. All three facilities have been completed. FBOs have been organized and registered and Joint Companies have been formed to manage these facilities.

A profile of each of the three facilities is given below:

- ***Mariakrom Pineapple Pack-house***

Mariakrom, near Nsawam, lies in an area with a large number of smallholder pineapple growers supplying pineapples to commercial producers. Greenspan Farms Ltd., a commercial producer of pineapples, owned a simple purpose-built structure intended to be used as a pack-house with a floor area of approximately 600 square metres. The structure had compartments for a pre-cooler and a cold store among other facilities. This was purchased by MiDA and subsequently fitted out as a public pack house for pineapples.

- ***Otwekrom Pineapple Pack-house***

Otwekrom is located near Gomoa Buduatta in the Gomoa East District of the Central Region. The settlement lies in a pineapple-producing area, with a number of large-scale producers and exporters. Chartered Impex Ltd, a pineapple-producing company, owned an uncompleted pack-house. The structure comprised a concrete platform measuring 1,062 square metres. MiDA found this to be suitable for conversion into a public pack house for pineapple growers and therefore purchased it from Chartered Impex.

- ***Akorley Mango Pack-house***

Akorley, near Somanya, is situated in the Yilo Krobo District of the Eastern Region. The town lies within the mango producing belt in the South of Ghana. The Association of Mango Growers, the Yilo Krobo Mango Farmers Association (YKMFA), had already acquired a parcel of land, approximately three (3) acres, in the Akorley Village for the construction of a packing facility. This encouraged MiDA's choice of Akorley for the construction of a public pack-house for mango.

d. Perishable Cargo Centre - KIA, Accra

The original design of the Perishable Cargo Centre (PCC), planned for the Kotoka International Airport and developed by the Ghana Civil Aviation Authority (GCAA) and MOFA, dated back to 2006. However, due to changes in the global economy, many of the estimates used to gauge future developments (and thus the design) changed. In 2009, under the pressure of a dwindling budget, MiDA revised the original capacity and throughput envisaged for the PCC.

Based on data collected from the six main air carriers for perishables in 2009, Messrs VEK, Verhoef and the Architectural and Engineering Services Limited (AESL) redesigned the PCC. It was estimated that Kotoka International Airport, in Accra, would handle a daily peak volume of 130 metric tons of produce and a yearly export volume of just below 20,000 metric tons. The eventual design was based on these figures.

e. Institutional Capacity Building

One of the key objectives of the post-harvest activities of Ghana's Compact Program was to improve the capacity of three (3) public institutions to bring their quality assurance standards in line with international standards. The Institutions were the Plant Protection and Regulatory Services Directorate (PPRSD) of MOFA, the Water Research Institute (WRI) and the Ghana Standards Authority (GSA). This intervention was considered appropriate as certifications by these institutions were not accepted by Authorities and buyers in some international markets.

However, before the execution of these Projects, there was an MCC-defined CP to be met. The CP required the amendment of the Plant Pest and Diseases Act (Act 307) of 1965, to make it consistent with the International Plant Protection Convention (1997) Standards. This CP was met in September 2010 with the passage of the Plants and Fertiliser Act, Act 830, and paved the way for the commencement of work on the three Institutions.

An IDIQ Architect and Quantity Surveyor was procured to provide related services to the Institutions and to oversee the renovations of their facilities. Two other IDIQ Contractors were engaged to undertake rehabilitation works at the PPRSD and WRI. The works at PPRSD involved the rehabilitation of three laboratory blocks, re-fitting them with furniture and providing modern laboratory equipment and a stand-by generator to enhance their operations.

The Staff of PPRSD were also trained in the proper handling of the laboratory equipment. From the CMC's Needs Assessment Report, MiDA was expected to send some Key Staff of PPRSD to institutions in East Africa for further training on the testing of farm produce, but this could not be achieved due to time constraint, resulting from the delay in meeting the CP and inadequate funds.

With respect to WRI, the two main laboratories of the Institute; namely the Microbiology and the Chemistry laboratories were renovated. Each laboratory was provided with furniture, fittings and new equipment.

GSA, had refurbished laboratories and skilled personnel, but lacked modern laboratory equipment. For this reason, they were provided with new state of the art equipment.

III. Changes in Implementation vis-à-vis Results Framework

ABCs

MiDA's initial strategy was to provide credit to small scale farmers for the construction of 34 on-farm storage facilities for grains and pulses, but it was eventually decided that based on evidence on-hand and past experience, the on-farm smallholder storage facility will not be sustainable and therefore the concept of Agribusiness Centres, which did not form part of the Sub-Activities in the Compact, had to be developed.

It is purely for the reason of sustainability and commercial viability, that MiDA finally decided to support 10 ABCs, to be operated under a partnership agreement, between the private sector and FBOs.

IV. Total Activity Cost

- **Funding Breakdown**

The details of the original Compact and final budgets as well as final funds disbursed by Activity and Funding Category can be found in Table 1.1 of Appendix 1.

- **Financial Performance of the Project**

The original allocation from Compact funds to the Post-Harvest Activity component was US\$20,376,000, but was reduced to US\$19,777,336, following changes to the budget (See Table 1.1 in Appendix 1). This was distributed among the 21 facilities.

MiDA supported each ABC with a grant of US\$ 520,000.00, (*US\$350,000.00 for construction; and US\$100,000.00 for equipment; USD70,000 for design and construction supervision*).

Total disbursements at the end of the Compact were US\$18,917,637. GoG contributed an additional US\$ 577,554 towards the Project to cover cost over-runs for the PCC facility at the International Airport in Accra.

V. Project Activity Implementation Partners

- i. **ABCs**

Of the 10 ABCs that were finally approved, 5 constructed in the Northern Agricultural Zone (NAZ), 3 in the Afram Basin Zone (ABZ) and 2 in the Southern Horticultural Zone. This decision was based on the volumes of maize and rice produced in these areas. In addition, lead investors, who had been selected through a competitive process, (Expression of Interest, followed by Evaluation of Proposals), were given the option to select their preferred Districts and localities and the FBOs they were comfortable with. This is because lead investors are expected to broker credit arrangements for the FBOs, a situation which required them to be circumspect in selecting who they will deal with.

The ABCs were designed in line with the proposed scope of services. Construction Contracts for the 10 facilities were awarded to six (6) Contractors and all the ABCs were completed within the Compact term. Operations commenced in August 2012 at four Sites, namely Worebuoggu in the NAZ, Bonyon in the ABZ and Asewewa and Gomoa Abaasa in the SHZ.

- ii. **PPH**

The Post-Harvest Activity also included the provision of three Public Pack houses (PPHs), two for the processing of pineapples and one for the processing of mangoes. The PPHs were to serve the needs of smallholders who could not afford their own storage facilities and to satisfy the demands of exporters who required large quantities of produce.

MiDA awarded the "design and build" Contract to Messrs FRIGO (Ghana) Ltd. to complete the construction of the buildings and to supply, install and test the equipment that would ensure a functioning packing facility, which would promote the work of smallholder pineapple farmers.

Messrs Frigo also designed and constructed a packing facility at Akorley. This facility would handle 3000 metric tons of mangoes each season and thereby assist members of the Mango Producers' Association to improve their quality and increase total export volumes.

The Design-and-Build Contract for the Public Pack house was signed on 4 October 2010.

iii. Supervision Consultancy Contract - PPHs

To reduce the burden of the associated contract management, the Bidding Document was structured to select one contractor with the capacity to carry out the Works at the three Sites simultaneously.

Faced with time constraints for the completion of the PPHs within the Compact period, MiDA adopted the design and build procurement strategy. MiDA used her in-house technical capacity to prepare the Employer's requirements, falling on inputs from MiDA's TAIPM, the CAPM and the PMSC (SMEC).

SMEC's Contract was varied and appointed to supervise the delivery of the Contract for the design, construction and equipping of the three public Pack-houses.

The variations to SMEC's PMSC Contract are summarized in Table 3.18.

Table 3.18: Consultancy Contract Data for the PMSC: Variation Nos. 3 and 4

Service Contract		
Engineer:		SMEC International Ltd
Variation No. 3	Date:	13 Sept 2010
Variation No. 3	Cost:	US\$ 285,940.00
Variation No. 4	Cost:	US\$ 84,400.00
	Total Cost:	US\$ 370,340.00

The Consultant reviewed the Contractor's proposed design for both the Works and the equipment/systems to be installed. The Consultant also provided supervision services for the construction Works and the installation of plant and equipment in all three Pack houses, ensuring that all Works and installations were executed in compliance with the Contract. The Consultant provided deliverables during the Works Supervision Phase and for the Defects Notification Period.

The Contract details are summarized in Table 3.19:

Table 3.19: Works Contract Data: PPHs

Design Build Contract	
Contractor:	Frigo Services (Ghana) Limited
Date of Signature:	24 May 2010
Commencement Date:	22 Jun 2010
Time for Completion:	12 months
Completion Date:	21 Jun 2011
Revised Completion Date	20 Jan 2012
Contract Price:	US\$ 3,297,307.00
Revised Cost Price:	US\$ 3,400,538.00

The Contractor submitted his initial Works Program on 12 September, 2010. With the Works falling behind Program, an extension of time for completion was granted to 10 February 2012.

The extension of time and the related cost increases were due to the following reasons:

- Possessions of Sites were delayed because the beneficiaries took a longer time to transfer existing pack houses to MiDA for rehabilitation. MiDA had to go through the legal process for the Mariakrom and Otwekrom pack houses to be released. At Akorley, the land site had to be legally acquired by MiDA before the Works could start.
- The Consultant ensured that the civil works were executed strictly in accordance with Contract specifications. This resulted in the rejection of some aspects of the Works.
- The Contractor's capacity for the construction of a mechanized borehole was not considered in the Employer's requirement and a Variation Order had to be issued to address the additional time required to carry out this function.
- Additional time required for the construction of an Administration Block at Mariakrom, also led to extension of time.

Following the completion of the Works, the Taking-Over Certificate was issued on 9 February 2012, after an inspection by the stakeholders, which included MiDA and the participating nucleus farmers and the Farmers Associations (FBOs).

The Defects Notification Period for the Contract started on 10 February 2012 and will extend past the end of the Compact, to 10 February 2013.

Work Contract Variations and Changes in Costs

Works Contract Variations and Changes in Cost for the Design-Build Public Pack Houses Contract are tabulated in Table 3.20:

Table 3.20: Work Contract Variations and Changes in Costs: PPHs

Variations	Description
No.1	Extension of No.1 Schedule of Payment Adjustment Variation No. 1 modified the Schedule of Payment to the Contractor. No costs.
No.2	Additional Works Variation No. 2 comprised the addition of an Administration Block at the Greenspan Pack house at Mariakrom. Cost was USD 75,000.00.
No.3	Additional Works Variation No 3 covers provision of water to the Greenspan Pack-house at Mariakrom. Cost was US\$ 20,500.38
No.4	Extension of Time Variation No. 4 awarded an extension of time to complete to 16 December 2011. No costs
No.5	Additional Works Variation No 5 covers provision of a Water Treatment Plant at the Greenspan Pack-house at Mariakrom. Cost was US\$ 17,730.30
No.6	Extension of Time Variation No. 6 awarded an extension of time to complete to 20 January 2012. No costs.
No.7	Variation No. 7 – Extension of Time Variation No. 7 awarded an extension of time to complete to 10 February 2012. No costs.

Figure 3.4: The Akorley Pack-house Facility**Consultancy Contract – PCC**

MiDA signed a contract for Consultancy Services with Messrs VEK, Verhoef and AESL JV, to design and supervise the construction of a Perishable Cargo Centre (PCC) at the Kotoka International Airport (KIA) in Accra.

The scope of the services was packaged into three phases as follows:

Phase A

- Conduct a survey of the economic viability of the investment.
- Conduct a review of the existing design and update as necessary.
- Review existing Bidding Documents (World Bank) and modify with MCC Program Procurement Guidelines.
- Review the Bills of Quantities and Construction Budget prepared under AgSSIP, (a World Bank-funded Project) and update.

- Design and prepare Bills of Quantities of the new palletisation facility at KIA.
- Prepare an Environmental Review and Environmental Assessment Registration, to be submitted to EPA.

Phase B

Phase B1: Assist with the Bidding Procedures and the Evaluation of Bids for the Construction Works.

Phase B2: Provide supervision services for the construction and installation of equipment in line with the Technical Specifications and in a timely and cost effective manner.

Phase C

- Carry out post-installation and construction services, during the Defects Notification Period.

Basic Consultancy Contract Data on the Perishable Cargo Centre is presented in Table 3.21.

Table 3.21: Consultancy Contract Data: PCC

Service Contract	
Engineer:	VEK, Verhoef and AESL
Contract Date:	2 Jun 2009
Contract Price:	USD 1,450,000.00 GH¢ 36,000.00
Revised Contract Price:	USD 1,524,657.00

The Consultancy Contract Variations and Changes in Costs are tabulated in Table 3.22:

Table 3.22: Consultancy Contract Variations and Changes in Costs: PCC

Variations	Description
No.1	Payment Terms The Variation added a Contract Partner. No cost.
No.2	Additional Staffing The Variation changed the address of the Authorized Representative. No Cost

Works Contract - PCC

The tender process was concluded with the issue of the Letter of Acceptance on 26 August, 2010. The Contract was signed with Messrs Stamek Ghana Ltd, on 4 October, 2010. Possession of Site pursuant to Clause 21.1 of the General and Special Conditions of Contract was on 27 October, 2010. The Notice to Commence set the commencement date at 3 November, 2010. (Ref: Table 3.23).

Table 3.23: Works Contract Data: PCC

Works Build Contract	
Contractor:	Stamek Limited of Ghana
Date of Signature:	4 Oct 2010
Commencement Date:	3 Nov 2010
Time of Completion:	12 months
Completion Date:	2 Nov 2011
Revised Completion Date:	20 Jan 2012
Contract Price:	USD 2,473,482.00
Revised Contract Price:	USD 3,179,985.00

The Contractors submitted their Works Programme on 25 January 2010. The Program was finally accepted on 7 July 2010, after many changes.

During execution, some changes were effected based on Site conditions. The area to be asphalted and grassed, totalling 2800m² was changed to concrete paving blocks of higher compressive strength at an added cost of US\$358,810.00. Changes in quantities also increased cost by US\$312,697.00; while omissions brought in savings of US\$93,953.00.

The Certificate of Completion for Works was issued on 18 January 2012, after an inspection by the stakeholders, including MiDA and the Ghana Airport Company Limited, GACL. The Defects Notification Period for the Contract started on 19 January 2012 and will extend past the end of the Compact, to 19 January 2013.

Work Contract Variations and Changes in Costs

Table 3.24: Contract Variations and Changes in Costs: PCC

Variations	Description
No.1	Additional Works Variation No 1 covers new and additional work due to, changes to pavement type. Cost USD 74,900.00.
No.2	Extension of Time Variation No. 2 awarded an extension of time to complete to 14 February 2012. No costs.
No.3	Additions and Omission Variation No. 3 comprised the various additions and omission to the BOQ Items during the Contract. Cost USD 219,809.00.

Figure 3.5: PCC at the Kotoka International Airport (KIA)

VI. Summary of Results - Project Activity Level

The results of the Post-Harvest Activity in relation to Performance Indicators at the Output and Outcome levels of the Results-chain are summarized in Table 3.25.

Table 3.25: Summary of Results: Post-Harvest Activity

Indicator	Unit	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Volume Of Products Passing Through Post-Harvest Treatment (Metric Tons)	Metric Tons	0	36,641.32	385,120	10
Cooling Facilities Installed	Number	0	10	12	83
Area Of Cold Storage Facilities Constructed	Square Meters	0	1,350.71	2,081	65
Area Of Pack-Houses And Other Post-Harvest Infrastructure Constructed	Square Meters	0	9,781.20	12,940	76

PCC and PPHs

All physical structures for the PCC and PPHs have been completed and the packing lines installed. Coldroom panels and refrigeration equipment have also been installed and power connected. Test runs for all three pack houses have been undertaken.

The physical structures for the 10 ABCs have been completed. Equipment, comprising dryers, milling machines, etc. have been installed. In summary, by the end of the Compact, the following had been achieved:-

- 10 Cooling Centres had been completed and 1,350.71 out of 2,081 sq. meters of cold storage floor space had been developed.
- 76% of the 12,940 sq. meters of floor space targeted for Pack-Houses and other post-harvest infrastructure was achieved. (This encompassed 10 ABCs, three public pack houses, one Perishable Cargo Centre and six cooling facilities).

Anecdotes:

Apart from the physical structures, the Project has yielded other non-quantifiable result. The following anecdotes explain some of these:

- Many FBOs see in the ABC/PPH Models, good opportunities for progress on their farms. FBOs have started benefiting from the Cooling Houses through higher quality and larger export volumes.
- FBOs are coming together to form and register Associations towards participating in the business of ABCs and PPHs.
- The business philosophies and outlook of FBOs have visibly changed for the better. This was reflected in the names adopted by some FBOs. For example the **Bandaayeh Cooperative Farmers** explain their choice of the name in terms of “**They said it**” (in reference to MiDA’s training message). Another FBO called itself **Tiwumti**, meaning “**Let Us Agree**”.

VII. Long-Term Sustainability

Lessons Learnt

- **Sustainability of the ABCs**

MiDA has put in place a fairly comprehensive organizational and management arrangement for running the ABCs and other post-harvest infrastructure to ensure sustainability. The Private Partner Investor, who owns 70% of the Company, would assist farmers to secure markets. Additionally, they will obtain for them, farm credit and other business-related assistance.

To ensure that other FBOs could participate in the use of the facility, 30% in the investment would belong to the FBO Union. For this reason, participating FBOs in each locality were encouraged to form a Union and enter into partnerships with lead investors in the New Companies that were promoted to manage these facilities.

- **Sustainability of PPHs**

To ensure that the PPHs are sustainable, each of the two pineapple PPHs is managed by a private operator, in partnership with the FBOs served and with whom the Operator will form a Company. A Board, comprising two representatives each from the Private Investor and FBOs and one from MOFA, appoints the Manager, who may or may not be the Private Investor. The Private Partner Investor owns 70% of the Company and assists the farmers who own 30%, to secure a market, and obtain farm credits and other forms of business-related assistance.

- **Sustainability of PCC**

Unlike the other post-harvest facilities, the PPC at KIA is held in trust by the Ghana Airports Company Limited for the Government of Ghana and managed by a private firm. Air Ghana has been contracted to manage the PCC at KIA.

VIII. Lessons Learnt and Recommendations

Lessons Learnt

- **ABCs & PPHs**

The commencement of construction activities for the ABCs and PPHs occurred later than planned. This was the result of a 2-year delay in the passage of the Plants and Fertilizer Act (Act 830), which was a CP to disbursements for that Activity.

- **ABCs**

FBOs that were indebted to Banks faced the risk of exclusion from participating in the ABCs. These FBOs are of the view that this could limit their freedom to associate and obtain credit. However, MiDA's insistence on excluding farmers who have a record of not repaying their loans has helped to improve the chances of success of FBOs that partner private investors in the operation of ABCs.

- **PCC**

Ghana Airports Company Limited (GACL) the custodians of the new facility, had challenges with the release of a suitable Site for the PCC. There were other challenges with the relocation of utilities prior to construction. The supervision arrangements put in place initially were not consistent with the Supervision Contract. This led to the poor management of the Contract in the first three months of the Works. The Consultant eventually went into partnership with a local firm, Messrs Bartels; and this greatly improved the supervision of the permanent Works.

- **CPs**

The CP with respect to post-harvest infrastructure was met very late in the Program. This had an impact on the delivery of the infrastructural facilities needed to actualize the value chain.

Recommendations

- As many of the ABCs and PPHs were to become operational post-Compact, the proposed public-private management model could not be operationalised under MiDA's own supervision, before the end of the Compact. An opportunity for MiDA to work through any issues in the model as it has been instituted, especially from the perspective of the public partner, would have been useful.
- To ensure an effective transition of the entire post-harvest infrastructure, MiDA ought to have retained a Project Management Team for a reasonable period, e.g. 18-24 months, to oversee the management of these investments.

- The Management arrangements for public and private partnership in production should be developed early in the planning of Projects. From hindsight, it would have been prudent to have had the ABCs in place prior to the training of farmers and the disbursement of some portions of the Agric. Credit. This would have ensured that farmers were linked to reliable buyers, with the capacity to source and administer credit.

Conclusion

At the end of the day, it is not the number of pack houses and/or cool air facilities which will be important but the impact that can be counted on farmers' incomes and in market places.

For this reason and to ensure the sustainability of these interventions, MiDA ought to have put in place arrangements to fund or co-finance solutions to constraint gaps in the value chain, which have a direct effect on production, sales volumes and prices. If the constraint is lack of refrigerated transport, then it is proposed that MiDA finds a way to prime the pump by providing seed financing to the private sector.

With the completion of the Program, the GoG, through MoFA and an agency like EDAIF, should ensure that such arrangements have been put in place.

3.1.5: Improvement of Credit Services for On-Farm and Value-Chain Investments (“Credit Activity”)

I. Identifying Information

- **Objective**

The Agricultural Credit Program (“ACP”) under the Credit Activity was intended to fund the additional resources needed to support the process of transforming the agricultural sector in Ghana through the commercialization of specified growth points in selected Districts, with a view to reducing poverty, especially among the rural population.

- **Performance Period**

The Program was implemented over a five year period, commencing February 2007 and ending in February 2012 (the “Compact Term”).

- **Geographic Area**

Twenty three (23) Districts in six of the ten Regions of Ghana were initially selected, but following the increase in the number of Administrative Districts by the Government, the Districts increased to thirty (30), which were then grouped into the three Intervention Zones, as described earlier.

- **Financial Issues**

MCC Funding⁴⁵

Original Budget	:	US\$58,400,000.00
Reallocated Budget		
Reallocation 1	:	US\$46,612,332.00 (Dec 2008)
Reallocation 2	:	US\$35,911,475.00 (Dec 2009)
Final Budget	:	US\$ 34,315,960.00
Actual Disbursement	:	US\$30,980,538.00

Host Country Contributions : **Not Applicable**

- **Implementing Partners**

Implementing Entities:

- i. Bank of Ghana (BoG)
- ii. International Executive Services Corps (IESC)
- iii. Pentax Management Consultancy Services

⁴⁵ The discrepancy in final budget/actual disbursement, vis-a-vis figures in Appendix 1 (Table 1.1) is due to the discontinuation of new disbursements in December 2009, and the use of the funds as a Revolving Fund. The above figures represent funds that actually got disbursed for various activities.

HIGHLIGHTS – CREDIT ACTIVITY

- Loans valued at US\$16,678,690.94 from the ACP Fund and additional amounts of US\$3,485,730.12 recycled from repaid loans were disbursed to 298 FBOs and SMEs (made up of 10,506 individual farmers and firms), through 56 accredited PFIs.



The Farm of an SME that borrowed from the Agricultural Development Bank, one of the 56 Accredited PFIs.



Tractors for FBOs financed by the Afram Rural Bank, an accredited PFI.

II. Background

Financial Services Providers are few and far between in many of the Districts in the Intervention Zones; and even those operational have limited ability to expand rapidly. Only one commercial bank, the Agriculture Development Bank (“ADB”), was meaningfully engaged in making loans to agricultural clients in the Northern and Afram Basin Zones.

Although there were a number of financial institutions that served rural clients in the Intervention Zones, their resources and capacities were limited. Most of these financial institutions had limited knowledge of agricultural credit and even smaller appetites for the perceived risks; given the poor history of the levels of loan repayments in the sector.

The major aspect of the Credit Activity was the Revolving Credit Fund which supported agribusinesses from production through the entire value chain, including processing, storage, transportation and marketing. Other activities complement the efficient delivery of Credit. These comprised building the capacity of financial institutions through training of their Staff in agricultural credit management, providing grants to expand Loan Production Offices or Bank Branches, as well as supporting the establishment of pilot programmes, including innovative financial products intended to speed the flow of credit along the agriculture value chain.

III. Changes in Implementation vis-à-vis Results Framework

- The ACP experienced a reduction from an initial budget of US\$40.7m to US\$26.0m. The reduction in the budget did not have an adverse effect on the implementation of the ACP, as actual disbursements to the PFIs were still less than US\$26.0m.

- Secondly, in the course of the rollout of the Activity, it became evident that almost all the PFIs did not have adequate resources to undertake effective loan monitoring. It was therefore decided by MiDA and MCC to channel part of the funds earmarked for the provision of Loan Offices into the provision of monitoring assets, (i.e. motor cycles), for all PFIs. This decision did not adversely affect the results, as no reasonable request was received from PFIs for the provision of Loan Offices.

Late in 2009, it became clear that the ACP would face challenges in loan repayments and that the Portfolio-at-Risk (PAR) would far exceed the Program's established threshold of 20%.

Although the ACP had achieved an overall Recovery Rate of 64.22%⁴⁶ as of January 2012, the residual portfolio (i.e. in default) at the ACP Level, (i.e. loans from the ACP to PFIs), was 85.12% at risk and the PFI Level Portfolio, (that is loan from PFIs to loan clients), was 93.22% at risk.

Forensic Audit:- In September 2011, MCC commissioned Messrs Ernst & Young, an Accounting Firm, to conduct a forensic audit and investigations into the implementation of the ACP. The Audit included a review of institutions that played primary roles in the implementation of the Agricultural Credit Program, including MiDA, Bank of Ghana and the Agric. Credit Program Consultants.

A summary of the significant findings in the Final Draft Report submitted by Ernst & Young included the inference that, *"the inability of the ACP to achieve its entire objectives could be attributed to the roles played or ought to have been played by all parties; (i.e. MCC, MiDA, Bank of Ghana, PFIs, FBOs, etc.) and thus it was not possible to single out one party as being solely responsible for the flaws encountered under the ACP."*

The above finding notwithstanding, MCC held MiDA and BoG responsible for the shortcomings in the management of the Programme and demanded a refund of the outstanding loans. A refund of US\$6.9m has already been made by the Government of Ghana to the Treasury of the United States Government.

IV. Total Activity Cost

- **Funding Breakdown (Original Budget and Final Disbursement)**

The details of the original Compact and Final Budgets, as well as Final Funds disbursed by Activity and the Funding Category, are presented in Table 1.1 of Appendix 1.

The key costs for the Credit Activity included the following: Credit Funds, Expansion of Loan Offices, ACP Consultancy, IEA with the Bank of Ghana and the IEA with EPA. Table 3.26 provides the details for each Funding Category.

Table 3.26: Credit Activity: Funding Breakdown

Activity/Sub-Activity	Original Compact Budget (US\$)	Final Budget (US\$)	Disbursements (US\$)	% of Final Budget Disbursed
Credit Funds For On- Lending	40,700,000.00	26,000,000.00	23,127,924.50	88.95
Expansion of Loan Offices	5,600,000.00	359,734.00	212,800.00	59.15
ACP Consultancy	7,860,000.00	7,457,751.00	7,247,750.00	97.18
IEA with Bank of Ghana	4,240,000.00	368,027.00	281,616.00	76.52
IEA with EPA	0	130,448.00	110,447.00	84.67
Credit Activity Total	58,400,000.00	34,315,960.00	30,980,537.50	90.29

⁴⁶ Source: IESC, Closeout Report, January 2012

- **Financial Performance of the Project**

The initial allocation to the Credit Activity was US\$ 58,400,000.00 (See Table 3.26 above). This amount was reduced to US\$34,315,960.00; following the re-scoping and re-allocation exercises (See Table 1.1 of Appendix 1 for further details).

A total of US\$23,127,924.50,⁴⁷ (made up of US\$19,642,194.38 from ACP funds and US\$3,485,730.12 from repaid loans) was disbursed over the life of the Activity to the PFIs for on lending to the sub-borrowers, namely: farmers, input suppliers, SMEs and other players in the agricultural value chain.⁴⁸

Out of the amount of US\$19,642,194.38 from ACP funds that was approved for disbursement, only loans worth US\$ 16,678,690.94 were disbursed to 298 FBOs and SMEs. In addition, funds from repaid loans were added to the ACP fund and disbursed as loans to Clients. This worked out to 10,506 individual farmers and their SME clientele. As at 31st January 2012, an amount of \$5,773,734.20⁴⁹ (*principal and interest*), was outstanding at the ACP Level.

V. Project Activity Implementation Partners

MCC made \$40.7m available for the Agricultural Credit Program (ACP). MiDA signed an Implementing Entity Agreement with the Bank of Ghana (BOG) to manage the loan portfolio of the regulated financial institutions (*Commercial, Rural and Community Banks, Savings and Loan Companies*). MiDA also contracted International Executive Services Corps (IESC) to manage, among other functions, the loan portfolio of the Financial Non-Governmental Organisations (FNGOs) and provide monitoring, reporting and advisory services. Finally, Pentax Management Consultancy, a local firm, was also hired to provide capacity-building services to PFIs.

FBOs could access the ACP Fund only after successfully completing MiDA's Commercial Training Programme and presenting a Business Plan to a Participating Financial Institution for assessment and provision of credit, if successfully evaluated.

Accredited Financial Institutions received funds according to the following criteria:

- their eligibility status
- credit propositions submitted to BoG;
- their financial capacity.

It was the responsibility of every PFI to recover all the monies disbursed to the sub-borrowers.

⁴⁷ This amount is made up of US\$19,642,194.38 from ACP funds and a total fund of US\$3,485,730.12 from repaid loans. Source: Schedule of Disbursement from MiDA Fiscal Agent.

⁴⁸ January 2012; ACPC Monthly Report Schedule 9; (*divided by 1.64485 representing BoG USD Midrate as at 31st January 2012*)

⁴⁹ January 2012; ACPC Monthly Report Schedule 9; (*multiplied by 1.64485 representing BoG USD Midrate as at 31st January 2012*)

- **Assessment of the Start-up of the Project - including Quality of the Project Start-up**

The ACP commenced in September 2007 with the signing of an IEA with the Bank of Ghana. However, it soon became apparent that in the absence of their own Field Offices in the Intervention Zones, it would be difficult for Bank of Ghana to collect, validate, process and generate cogent Reports at the sub-borrower level.

To overcome these challenges, MiDA and MCC initiated the development of the terms of reference for the procurement of an Agricultural Credit Program Consultant (ACPC), to include the above mentioned tasks. The entire process leading to the formal engagement of IESC in August 2008, lasted some 11 months.

The Monthly Monitoring Reports expected from IESC were slow off the blocks due to the initial challenges with their Staffing. These were provided on time from July 2009, when IESC got its act together.

To adhere to the above-mentioned arrangements, the following applied:

- The PFIs were to be allowed to use their own credit appraisal processes in reviewing loan applications at the sub-borrower level;
- MiDA and Bank of Ghana were advised not to second guess the credit decision of the PFIs (ostensibly to avoid political patronage);
- Bank of Ghana was not to refuse credit requests from PFIs, particularly if:
 - i. the PFI was eligible for funding;
 - ii. followed due procedure, as per the various practices of the respective PFIs;
 - iii. the loan was for eligible crops; and
 - iv. the PFI was located within the designated intervention zones.
- **50% Default Risk Guarantee**
 - Due to the risks associated with agricultural financing, MiDA and MCC undertook to guarantee 50% of PFIs' exposure to sub-borrowers, which would be payable in the event of a default. Unfortunately, MCC has stated its intention not to honour its obligations arising from the above-mentioned guarantee. This has now become the burden and responsibility of GoG.
- **60% Incentive Scheme**
 - Finally, it was also the intention of MiDA and MCC to award to the PFIs, under a Grants Incentive Scheme, funds of up to 60% of loans disbursed and fully recovered by the PFIs. (This has been affected by MCC's decision not to honour the commitment.)
- **Assessment of the Role of Project Partners in Overall Implementation**

Bank of Ghana (BOG)

- The ACP commenced in September 2007. However, it became apparent that in the absence of Offices in the Intervention Zones, Bank of Ghana would encounter difficulties with the collection, validation and processing of cogent Reports at the sub-borrower level.

- It also became apparent that the Bank of Ghana lacked adequate technical capacity in supervising Agriculture Credit.
- Without setting lending limits prior to the commencement of disbursements, Bank of Ghana took the risk of disbursing funds to PFIs far in excess of what their balance sheets could absorb.
- In view of its regulatory oversight of the PFIs, Bank of Ghana was able to recover funds from the PFIs far in excess of what the PFIs had recovered from the sub-borrowers.

International Executive Services Corps (IESC)

- The non-performance of the ACP Consultants earlier in their Contract led to the termination of the contract of one of the Consultants in the Consortium.
- IESC's expertise in handling the advisory services task was inadequate. For this reason, it did not perform creditably in its advisory and technical roles required to complement the inadequacies of the Bank of Ghana Team in handling agricultural credits.
- Though IESC managed to put its act together from mid-2009, its reports still contained some inaccuracies. This could be attributed largely to the fact that its Field Officers lacked the skills required for verifying data received from the PFIs.

Pentax Management Consultancy Services

- Undertook capacity-building for Staff and Directors of all PFIs in various locations within Ghana.
- Followed up with Staff Coaching in the Offices of PFIs.

VI. Summary of Results - Project Activity Level

- (a) In view of the achievements listed in Table 3.27 below, it could be concluded that the Credit Project positively impacted the target groups for the following reasons:
 - Over 285 persons from participating Financial Institutions, benefitted from the Agriculture Financing Capacity Building Program;
 - It trained the leadership of PFIs (*i.e. Directors and CEOs of Rural Banks*) on the importance of managing the Assets and Liabilities on their Balance Sheets;
 - It helped a number of Rural and Community Banks to develop Credit Policy Manuals, used in regulating their credit activities;
 - In a long way, it deepened the credit culture which reflected in a recovery rate of 64.22%.
- (b) In terms of poverty reduction, anecdotal evidence from field interviews showed that some beneficiaries increased their incomes and therefore their capacity to support personal and family commitments, such as the educational expenses of their wards.
- (c) Considering the fact that most of the beneficiaries had little or no experience with or access to financial services, the Program managed to show at first hand, the merits of a banking relationship.

- (d) In some instances (mainly in the Northern Region), where FBOs were able to repay their loans in total, the PFIs continued the relationship by lending their own funds to the FBOs.

The achievement under the Agricultural Credit Activity at the Output and Outcome levels of the Results-chain is summarized in Table 3.27.

Table 3.27: Summary of Results: Agricultural Credit Activity

Indicator	Unit of Measure	Baseline	% Actual to Date	End of Compact Target	% Complete to Date	Remarks
Portfolio-at-Risk of Agricultural Loan Fund	Percent	100	87.54%	20%	16	This target proved to be unrealistic due to demand side (e.g. FBO cohesiveness and inadequacies) and supply side challenges (e.g. weaknesses in bank loan appraisal and loan monitoring).
Value of Loans Disbursed to Clients From Agricultural Loan Fund	US\$	0	16,740,762.42*	\$26,000,000	64	As indicated above, loan disbursements were significantly reduced from January 2010 due in part to the challenges in repayment of existing loans and limitations in PFI capacity.
Number of loans disbursed to clients from Agricultural Loan Fund	Number	0	298	400.00	75	Cessation of new loan disbursements limited the expansion of potential beneficiaries.
Number of Clients Receiving Loans Disbursed from Agricultural Loan Fund	Number	0	10,506	16,050	65	Cessation of new loan disbursements limited the expansion of potential beneficiaries
Number of Participating Financial Institutions Accredited	Number	0	56	60.00	93	Whilst the range of PFI types was encouraging (that is, commercial banks, rural banks, S&Ls and FNGOs), the lack of interest by the commercial banks was the direct contributor to the inability to meet the set target.
Number of Participating Financial Institutions' Staff trained	Number	0	285**	480.00	59	This is a headcount of actual numbers of Loan Officers in all the PFIs who were assigned to the Project. Even though over 1,000 Bank Staff attended the various training workshop, this number refers to those covered under the flagship Training Program.
Total Outstanding Principal Balance for Group/ Individual Loans		0	10,541,460.66	20,800,000	51	As a level indicator, this amount refers to loans outstanding at the end of the Compact. As indicated above, the cumulative measure was more.

* Excludes amounts recovered by PFIs in claw-back arrangements and locally revolved funds

**This refers specifically to Loan Officers and Staff trained in Agric Credit Courses. Total number of Bank Staff, Management Personnel and Board Members trained in Agric Credit and other related aspects of banking practice, exceeded 1,000.

VII. Long-Term Sustainability

The sustainability issues of the ACP Fund relate first to the solvency of all Rural and Community Banks that borrowed under the Program.

- As at 15th February 2012, thirteen (13) PFIs had fully repaid their obligations to the ACP from their own resources.
- Ten (10) PFIs are currently on schedule with the agreements reached with the Bank of Ghana. Payments under these agreements are also from the PFIs own resources.
- A third category of four (4) PFIs would not be able to meet the renegotiated terms with the Bank of Ghana.
- Finally, a fourth category of five (5) PFIs have borrowed far in excess of the Bank of Ghana's prudential limits and appear not to have the capacity to repay from own resources.

Two sustainability issues emerged:

- The sustainability of the ACP Fund
- The viability of PFI Operations.

(a) Sustainability of the ACP Fund

With regards to the ACP, it was anticipated in the related Policies and Procedures Manual (Section 2.4.2) that the Fund would provide a continuing source of funding for value chain activities. However, recovered funds were no longer to be re-lent but were applied to other Compact approved objectives.

(b) Viability of PFI Operations

The actions implemented by MiDA and BoG since August 2011, whereby the PFIs, in line with their obligations, made payments to the ACP irrespective of the abysmal performance of their sub-loans, has serious liquidity and therefore solvency implications. Even for some of the relatively larger PFIs, the liquidity challenges of making payments to the ACP from their own resources appeared worrisome. The payment of the 50% risk guarantee, if implemented by GoG, would go a long way to reduce this solvency risk.

Financial Asset Agent: Sustainability of the Activity, post-Compact, will also depend largely on the appointment of a Financial Asset Agent. Given the state of the ACP portfolio, it was strongly recommended that BoG should retain the role of Financial Asset Agent to manage the post-Compact recovery phase.

PFI Capacity Building/Training: The lack of adoption of skills, knowledge of best practices, high staff turnover and weak internal coaching mechanisms in individual banks, constitute sustainability risks for this activity. It was strongly recommended that the Training Department of ARB Apex Bank be engaged to undertake periodic Refresher Courses for PFI Staff, mainly in the Rural and Community Banks.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- It was clear that Bank of Ghana had capacity issues in Agric. Credit supervision and therefore needed additional support resources for the successful execution of the mandate.
- The methodology used, which debarred the Bank of Ghana from second-guessing the credit decisions of the PFIs, insofar as they were within their lending limits and using the funds for eligible crops, contributed to the excessive disbursement in the initial stages.
- It was evident that women borrowers were more likely to repay credit facilities than men.⁵⁰

From hindsight, it would appear that too much emphasis was placed on the ability to transform the mindset of farmers through the CDFO Programme, which aimed to enhance the business skills and operational efficiencies of farmers, (i.e. in terms of volume and quality of outputs), thereby making them willing to repay their loan facilities.

Challenges

- IESC did not have the depth of knowledge and expertise in agricultural credit management; to ensure the effective delivery of their responsibilities.
- Kwahu North District (i.e. Afram Plains), had the highest number of FBOs (211), with 157 meeting the criteria, which qualifies one to be classified as trained farmers. Thus, for the Program to achieve the desired results there was the need to disburse funds to the only PFI in the location, an amount which was far in excess of its borrowing lending limits.
- Low levels of demonstrable skills of PFI Staff due to high turnover of PFIs after undertaking training programs.
- An over-estimation of the FBO's financing requirements in the Business Plans prepared by Consultants engaged by MiDA as part of the CDFO Training Exercise.
- The major challenge encountered in Implementation was to do with repayment of loans disbursed by Bank of Ghana to the PFIs. This problem was more endemic at the sub-borrower level, which recorded a recovery rate of 21.56%.⁵¹
- Risk of the long-term solvency of the PFIs due to the payment of overdue obligations from their own resources, reflecting in a recovery rate of about 65% at the PFI Level as against 21.56% at the sub-borrower level.⁵²
- There was little doubt that the unpredictable nature of rain-fed agriculture posed significant risks to farmers who borrowed for production. Poor weather accounted for bad crop years that partially contributed to loan defaults.

⁵⁰ This is basically extrapolating from the trends observed in the Portfolio. MiDA has not done any Studies to understand why the trends in the ACP were what they were.

⁵¹ ACPC January 2012 Monthly Report

⁵² *ibid*

- The commercial interest rates charged under the ACP were on the higher side, especially for smallholder and subsistence farmers.
- The long delays in the establishment of the Agribusiness Centres, Pack-Houses and the absence of ready markets for their produce, to a large extent, affected the ACP and farmers' ability to repay their loans.
- It was also evident that some of the beneficiaries of the Agriculture Credit did not have the capacity to absorb and utilize their credits properly.
- For the ACP to be successful there must be a careful selection of beneficiaries.
- It was imperative that some value chain activities ought to have been in place before the disbursement of the funds.

Recommendations

- Projects of this kind should focus firstly on removing bottlenecks to production and market access possibly before providing agriculture credit for farmers, to ensure its sustainability.
- A holistic approach to Program implementation should be undertaken. Off-takers presented by FBOs should be assessed by PFIs prior to approval and disbursement of credit, thereby reducing the production and marketing risks. This could reduce the reported cases of farmers who did not meet the loan repayment schedules as a result of weather failure or lack of access to markets.
- Adherence to crop budgets released as and when necessary by PFIs, would be considered to be an ideal practice.

3.1.6: Rehabilitation of Feeder Roads (“Feeder Roads Activity”)

I. Identifying Information

- **Objective**
To increase access to major domestic and international markets and facilitate transportation linkages from rural areas to social service networks, (including hospitals, clinics and schools).
- **Performance Period**
The Feeder Roads Activity was implemented between February 16th 2007 and February 15th 2012. Further details on the actual period, (*The Date of Signature through to Final Completion Date and the date when the Certificate of Completion was issued for each Contract*), can be found in the Basic Contract Data, described below:
- **Geographic Area**
The Activity was implemented in 9 Districts, located in two Intervention Zones; namely NAZ and SHZ. Refer to Table 1.7 in Appendix 1 and Appendices 6.2 and 6.3 for details on the locations of all the feeder roads.

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$57,896,999.00
Final Budget	:	US\$70,628,076.00
Actual Disbursement	:	US\$ 71,209,552.00
Host Country Contributions	:	US\$1,529,784.00
Total Cost (MCC & GoG)	:	US\$72,739,337.00

- **Implementing Partners**

Implementing Entities:

- Ministry of Roads and Highways (MRH)
- Department of Feeder Roads (DFR)

- **Implementing Consultants and Contractors:**

(a) Northern Agricultural Zone - Lot 1

Project Manager (Engineer): Kocks Consult with RRI and Conterra Ltd NR 1;

Contractors:

- Lot NR 1: Jiangxi Zhongmei Eng. Const. Co. Ltd.
- Lot NR2: China Zhong Hao Ltd⁵³.

⁵³ See list of other Consultants and Contractors for all Feeder roads in the Tables under each Sub-heading

(b) Southern Horticultural Zone - Lot 2 and Lot 3

Lot 2: Eastern and Central Regions (EC Series)

Project Manager (Engineer): Rom Consult Ltd

Contractors:

- Lot EC1 - Big Aidoo Construction Ltd
- Lot EC2 - GKL-Kamsad JV
- Lot EC3 - GKL-Kamsad JV

Lot 3: Volta Region (EC Series)

Project Manager (Engineer): SAI/ACON JV

Contractors:

- Lot VR1 - Justmoh - Erdmac JV
- Lot VR3 - Justmoh Construction Ltd
- Lot VR5 - Jiangu Xintianda Engineering Co. Ltd
- Lot VR6 - First Sky Ltd

HIGHLIGHTS - FEEDER ROADS ACTIVITY

- 357.54 km out of 686.04 km of Feeder Roads designed (*for gravel and bituminous seal*) were constructed (52.12%) at the cost of US\$72,739,337.00.
- Annualized Average Daily Traffic rose from about 287 at baseline to 1,839, post-construction (84.4%).



BEFORE



AFTER

A section of the Kudzra-Aveti Road in the Kpandu District

II. Background

To improve transportation linkages and to reduce transport costs, MCC funding supported the rehabilitation or upgrading of some feeder roads in two Intervention Zones. The extent to which the feeder roads were rehabilitated or upgraded depended among others, on their current condition, the present and projected traffic volume as a result of increased agricultural activity and productivity in the affected Districts and the results of an EIA.

The Feeder Roads Activity involved the rehabilitation of selected feeder roads, covering approximately 950 km in ten (10) Districts in two Intervention Zones, to reduce transportation costs and travelling time; to increase access to major domestic and international markets; and to facilitate transportation linkages from rural areas to social service networks.

Before the commencement of the Project, feasibility studies were conducted to ascertain the viability of the roads and the necessary designs prepared.

III. Significant Changes in Implementation vis-à-vis Results Framework

The original 950 km of roads proposed for construction was reduced to 686.04 km after the feasibility studies and design stages. After going to tender, it became necessary to split the designed feeder roads into two Tranches; (Tranche A and Tranche B), because of higher design and works costs, vis-à-vis the size of the budget, which could not cover all the roads. Therefore, out of 686.04 km of roads designed, 357.54 km were constructed in 10 Districts under Tranche A Roads.

The reasons for the cost increases, which provided the rationale for splitting the feeder roads into two tranches, were as follows:

- The Budget for the Feeder Roads Activity was prepared in 2006, when the price of crude oil was USD 30.00 per barrel. At the time of award of the Works on Contract, the price of crude oil had risen to USD 70.00.
- The design standards for many road sections had been upgraded after the feasibility studies.

The breakdown by Districts of the 950 km of Feeder Roads that were originally planned under the Compact is given in Table 3.28.

Table 3.28: Original Distribution of Proposed Feeder Roads

Intervention Zone	Region	District/Municipality	Length Km
Northern Agricultural	Northern	Savelugu Nanton	337
	Eastern	Akwapim South	181
	Central	Awutu Efutu Senya	205
Southern Horticultural	Volta	South Tongu	55
		Keta	7
		Ketu	49
		Kpandu	44
		Hohoe	66

Tranche A Works were grouped into nine (9) Lots⁵⁴ for geographical considerations. As at the time of the Report, all Tranche A Works, funded under the Compact, have been completed.

Tranche B Works were to be executed upon the availability of funding from other sources. It will be relatively easier for any Donor to fund the construction of these roads, as all the Bidding Documents have been completed.

To date, only 45.86 km of roads under Tranche B, located in the Volta Region, have been funded by USAID. The cost of executing the NR and EC Lots under Tranche B, are estimated at US\$18.17 million and US\$19.81 million, respectively. *The Contracts under each Lot are shown in Table 3.29.*

Table 3.29: Packaging of Feeder Roads by Tranches

Region/Lot	Contract Description	Tranche	No. of Roads	Length (km)
Northern Region: Lot 1 - (255.14 km)	NR 1: Savelugu Nanton District	Tranche A	3	46.40
	NR 2: Savelugu Nanton District		6	64.10
	NR 3, NR 4 & NR 5: Savelugu Nanton District	Tranche B	15	144.64
Eastern & Central Regions: Lot 2 - (283.11 km)	EC 1: Akwapim South Municipal	Tranche A	11	71.76
	EC 2: Awutu Efutu Senya Districts		4	41.66
	EC 3: Akwapim South Municipal and Awutu Efutu Senya Districts		5	32.82
	EC 4: Akwapim South Municipal	Tranche B	5	54.85
	EC 5: Awutu Efutu Senya District		13	82.02
Volta Region: Lot 3 – (147.79 km)	VR 1: South Tongu, Keta District	Tranche A	4	27.44
	VR 2: Ketu District		Changed to VR5 and VR6	
	VR 3: Kpandu and Hohoe Districts		4	26.59
	VR 5: Ketu District		1	27.70
	VR 6: Ketu District		2	20.20
	VR 4: Kpandu and Hohoe Districts	Tranche B	4	45.86
Total Feeder Roads (Tranche A)	40 No. Roads with length of 358.67 km			
Total Feeder Roads (Tranche B)	37 No. Roads with length of 327.37 km			

⁵⁴ The nine lots became ten (10) when VR4 was split into VR 5 and VR6.

IV. Total Activity Cost

- Funding Breakdown - (Original Budget and Final Disbursement)

The extent of funding for the Feeder Roads Activity by MCC and GOG can be found in Table 3.30 and Table 3.31 respectively:

Table 3.30: Feeder Roads: Overall Cost of the Works

Feeder Road Contract	MCC Funding US\$	Total Funding US\$	GoG Funding US\$
NR 1	9,431,803	383,532	9,815,335
NR 2	11,836,955	396,786	12,233,741
EC 1	6,961,174	27,469	6,988,643
EC 2	8,072,249	171,268	8,243,517
EC 3	6,325,889	0	6,325,889
VR1	5,939,894	312,894	6,252,788
VR 3	5,685,855	237,836	5,923,691
VR5	4,914,168	-	4,914,168
VR 6	3,826,723	-	3,826,723
Total For Contract	62,994,710	1,529,785	64,524,495
Total For Consultancy & Construction Supervision	8,025,006	0	8,025,006
Compensation	189,836	0	189,836
Grand Total	71,209,552	1,529,785	72,739,337

- Financial Performance of the Project

The total disbursement for the Feeder Roads Activity was US \$71,209,552, (in addition to GoG's contribution of US \$1,529,784), comprising costs related to the aforementioned categories in Table 3.30 above. The total costs represent 36.4% of all funds under the Agriculture Project, making it the highest consumer of funds among the six activities under this Project.

The overall cost of the Consultancy Services, (encompassing feasibility, design and construction supervision), and including cost adjustments for the Feeder Roads Activity, came to US\$ 8,025,006.00.

Details of the original Compact Budget, changes in Budgets after the re-scoping exercises and Final Budgets as well as final funds disbursed by activity and funding category, can be found in Table 1.1 of Appendix 1.

V. Project Activity Implementation Partners

Introduction

After feasibility and preliminary engineering studies, 686.04 kilometres (km) of roads, (72.3% of the original target of 950km), were selected for Detailed Design and Final Engineering Studies.

Designs and Bidding Documents were consequently prepared, but with funding constraints, the 686.04 km of roads were packaged into two Tranches, as shown in Table 3.31.

Table 3.31: Feeder Roads Rehabilitation

Component/ Location	Tranche	Contract Description	Number of Roads	Length (km)
Northern Region: Lot 1 - (255.14 km)	Tranche A (110.50 km)	NR 1: Savelugu Nanton District	3 No	46.40 km
		NR 2: Savelugu Nanton District	6 No	64.10 km
	Tranche B (144.64 km)	NR 3, NR 4 & NR 5: Savelugu Nanton District	15 No	144.64 km
Eastern & Central Regions: Lot 2 - (283.11 km)	Tranche A (146.24 km)	EC 1: Akwapim South Municipal	11 No	71.76 km
		EC 2: Awutu Efutu Senya Districts	4 No	41.66 km
		EC 3: Akwapim South Municipal and Awutu Efutu Senya Districts	5 No	32.82 km
	Tranche B (136.87 km)	EC 4: Akwapim South Municipal	5 No	54.85 km
		EC 5: Awutu Efutu Senya District	13 No	82.02 km
Volta Region: Lot 3 – (147.79 km)	Tranche A (101.93 km)	VR 1: South Tongu, Keta District	4 No	27.44 km
		VR 2: Ketu District		Changed to VR5 and VR6
		VR 3: Kpandu, and Hohoe Districts	4 No	26.59 km
		VR 5: Ketu District	1 No	27.70 km
		VR 6: Ketu District	2 No	20.20 km
	Tranche B (45.86 km)	VR 4: Kpandu and Hohoe Districts	4 No	45.86 km
Total Feeder Roads (Tranche A)			40 No	358.67 km
Total Feeder Roads (Tranche B)			37 No	327.37 km

Tranche A Works were paid for with Compact funds, but Tranche B Works will be executed upon the availability of funding from other sources. To date, only one of the Tranche B Roads segment has been awarded on Contract.

A. Feeder Roads Activity – (NAZ) - Lot 1

The Consultancy Contract for the Feeder Roads Activity was split into two Phases as follows:

(i) **Phase A** – This Phase was split into three, namely:

- Phase A1 : Preparation of Feasibility Study, including Preliminary Design
- Phase A2 : Preparation of an Environmental and Social Impact Evaluation, including EIA and RAP, if required
- Phase A3 : Preparation of the Final Design, the Pre-qualification and Bidding Documents

(ii) **Phase B** – This Phase was further split into two; namely:

- Phase B1 : This involved the provision of supervision during the construction phase of the Works Contracts.
- Phase B2 : This involved attendance during the Defects Notification Period.

The Consultant was required to provide a set of deliverables as part of the Supervision of the Works Contract Phase of the Project and the Defects Notification Period. A profile of the feeder roads contracts is provided below.

Feeder Roads in Tranche A

Following the acceptance of the final designs and final Bid Documents for the Lot 1 Contracts in Tranche A; viz: NR 1 and NR 2, Bid Documents were released to prospective Bidders on 31st August 2009. Bids closed on 21st October 2009, but due to an Addendum issued to all Bidders on the Bill of Quantities, the closing date was extended to 28th October 2009.

The Supervising Consultant for the NR 1 and NR 2 Contracts was **Kocks Consult**, with RRI and Conterra Ltd JV.

NR 1 Roads

Table 3.32 is a summary of the Basic Consultancy Contract for Feeder Roads in the Northern Agricultural Zone (Lot 1).

Table 3.32: Consultancy Contract Data: Feeder Roads - Lot 1

Service Contract	
Engineer:	Kocks Consult with RRI and Conterra Ltd.
Contract Signature Date:	3 Mar 2008
Contract Price:	US\$ 2,223,270.00
Final Contract Price:	US\$ 2,619,137.03

Consultancy Contract Variations and Changes in Costs

Variations and Changes in Costs under the Consultancy Contract for the Roads in the Northern Agricultural Zone are tabulated in Table 3.33.

Table 3.33: Consultancy Contract Variations and Changes in Costs: NR 1 Roads

Variations	Description
No.1	Payment Terms The Variation changed the payment schedule for specified deliverables
No.2	Additional Staff Inputs Variation No 2 was for the provision of additional Consultant Staff input. The variation had a cost of US\$159, 700.00.
No.3	Supplementary Services Variation No 3 was for supplementary time input by the Consultant due to the prolongation of the Supervision Phase of the Consultancy. The cost of the Variation was US\$ 200,517.80

The Contracts for NR 1 and NR 2 were signed on 11 January 2010. The winning Bidders for the two Lot 1 Contracts were:

- NR 1 : Jiangxi Zhongmei Eng. Const. Co. Ltd.
- NR 2 : China Zhong Hao Ltd.

Table 3.34 provides basic data on the NR Lot 1 Works Contract.

Table 3.34: Works Contract Data: NR 1

Works Contract	
Contractor:	Jiangxi Zhongmei Engineering (P.R. China)
Date of Signature:	11 Jan 2010
Commencement Date:	17 Feb 2010
Time of Completion:	20 months
Completion Date:	17 Oct 2011
Revised Completion Date:	16 Dec 2011
Issue of Certificate Completion:	25 Nov 2011
Contract Price:	US\$ 9,181,577.90
Final Contract Price:	US\$ 9,815,334.92

The Consultant accepted the Contractor's **Environmental Management Plan (EMP) and the Health and Safety Plan (H&SP)** on 29 April 2010. The Environmental Baseline Survey was submitted on 27 May 2010 and accepted on 3 June 2010.

The EMP contained plans for mitigating environmental impacts identified on the road projects including the Contractor's Camp Site and borrow pits excavated for materials for construction Works. Implementation of the Proposals for re-instating the used borrow pits has been very challenging and a separate strategy had to be developed, with the aid of MCC, to ensure the completion of the re-instatement works.

The Contractor's H&SP looked at the arrangements for securing the health and safety of the workers, the community and visitors to the Construction Sites. Implementation of this Plan had been sluggish and therefore additional monitoring responsibility was assigned to the Environmental & Social Impact Consultant (ESOC), who reported to MiDA in their bi-monthly Reports. Corrective measures were implemented through communications with the Consultants or through instructions at Site Meetings and during Site Visits.

The Contractor encountered delays from the onset; the main reasons being the inexperienced Site Management and the insufficient quantities of plant and equipment. Attempts to recover

the delays commenced in December 2010 and continued at varying rates of progress, (hampered by inadequate management of equipment and high rates of breakdowns), until July 2011, when the Contractor submitted a request for extension of time (EOT). The Contractor was awarded extension of time until 16 December 2011.

Following the completion of Works, and after an inspection by the Stakeholders, including MiDA and the Department for Feeder Roads, the Certificate of Completion was issued on 25 November, 2011. The Defects Notification Period for the Contract started on 26th November, 2011 and will extend past the end of the Compact, to 25 November, 2012.

Profile of the Works:

- The **Savelugu - Zoggu Road** (Road 11) had a primer seal, plus bituminous surface dressing throughout its 13.4 km length. All the necessary drainage structures and pipe culverts have been completed. The required road markings and signage have also been done.
- The **Zoggu - Tampion Junction Road** (Road 12) received a gravel wearing course throughout its 15 km length. All the necessary pipe culverts and road signage have also been done.
- The **Savelugu - Botayili Road** (Road 'O') has been surfaced for 9.3 km length, receiving a primer seal and bituminous surface dressing, with the remaining 8.7 km of its total 18.0 km receiving a gravel wearing course. All the necessary pipe culverts and concrete side drains in the Savelugu Town section of the road have been completed. The required road marking and signage have also been done.

In summary, 22.7 km of the NR1 Roads, representing 49%, benefitted from a primer seal and bituminous surface dressing, while 23.7 km or 51% received a gravel wearing course.

NR 2 Roads

Table 3.35 provides basic data on the Works Contract of NR Lot 2.

Table 3.35: Works Contract Data: NR 2

Works Contract	
Contractor:	China Zhonghao Limited (P.R. China)
Date of Signature:	11 Jan 2010
Commencement Date:	15 Feb 2010
Time for Completion:	20 months
Completion Date:	17 Oct 2011
Revised Completion Date:	16 Dec 2011
Issue of Certificate of Completion:	Nov 2011
Contract Price:	US\$ 11,101,661.41
Final Contract Price:	US\$ 12,233,741.00

The Contractor was given 'possession of site', pursuant to Clause 21.1 of the General and Special Conditions of Contract for the six road sections, with the exception of a Section (Km 7.0 to 7.4) on Road 'H', the Yong-Sandu-Kpano Road, on 23 February, 2010. The remaining Section was released in January 2011, although there was still reticence by some of the PAPs to allow demolition of some of the affected properties. MiDA's Zonal Office assisted in resolving the various issues; but it was only during May 2011 that the outstanding issues were finally resolved.

Inexperience and poor Contract Management skills on the part of the Contractor's Team resulted in poor performance over much of the Contract period, which delayed the Works. However, with greater effort being applied and the absence of major rains during the second half of 2011, the Contractor managed to recover some of the delays.

The Contractor substantially completed the Contract on 26 October 2011, some 11-days behind the time for completion stipulated in the Contract. The formal inspection of the Works was carried out on 27 October 2011 and the Certificate of Completion in accordance with Clause 59.1 of the Conditions of Contract was issued on 4 November 2011. The 12-month Defects Notification Period (DNP) will run from 5 November 2011 to 4 November 2012.

Profile of the Works:

The Works carried out under the NR 2 Contract comprised the following:

- The **Yong–Sandu–Guno–Kpano Junction Road** (Road 'H') has been surfaced for 10.5 km length, receiving a primer seal, plus bituminous surface dressing, with the remaining 3.1 km of the total 13.6 km, receiving a gravel wearing course. All the necessary drainage structures and pipe culverts for the road have been completed. Road markings and signage have also been done.
- The **Pong–Landokura-Gubua Road** (Road 'R') received a gravel wearing course throughout its 27.5 km length. All the necessary drainage structures and pipe culverts for the road have been completed. Road signages have also been put up.
- The **Bontanga Junction - Bontanga Road** (Road 'L') has been surfaced for 2.9 km length, receiving a primer seal, plus a bituminous surface dressing. All the necessary drainage structures and pipe culverts for the road have been completed. Road markings and signage have also been done.
- The **Kumbungu – Bontanga Junction Road** (Road 9b) has been surfaced, with 5.6 km, receiving a primer seal, plus a bituminous surface dressing, with an additional 0.6 km of road at the end of the project road, receiving a gravel wearing course. All the necessary drainage structures and pipe culverts for the road have been completed. Road markings and signage have also been done.
- The **Ligba Junction–Ligba Road** (Road 'K') received a gravel wearing course throughout its 1.9 km length. All the necessary drainage structures and pipe culverts for the road have been completed.
- The **Diare–Adayili Road** (Road 13) received a gravel wearing course throughout its 12.5 km length. All the necessary drainage structures and pipe culverts for the road have been completed. The required road signage was also installed.

In summary, 19km of the NR2 Roads, representing 29%, had primer seal and a bituminous surface dressing, while 46.1km or 71% were upgraded to gravel wearing course. Indeed all the beneficiary communities had expected bituminous-surfaced roads, considering the devastation which local rains tended to cause to gravel-surfaced roads.

Work Contract Variations and Changes in Costs:

Variations and Changes in Cost under the Works Contract for the Rehabilitation of Feeder Roads in Savelugu Nanton District, NR 2, are tabulated in Table 3.36:

Table 3.36: Work Contract Variations and Changes in Costs: NR2

Variations	Description
No.1	Additional Works Variation No. 1 covers the necessary provision additions and omission of BOQ Items and additional work instructed.
No.2	Extension of Time Variation No. 2 covers the necessary provision for extending the completion date for the Contract to 16 December 2011. There are no costs associated with this Variation.
No.3	Additional Box Culvert Variation No. 3 covers the construction of an additional box culvert on Road 'R', the Pong – Landokura–Gubua Road. The cost of this Variation is US\$196,031.04.

Feeder Roads in Tranche B

The Draft Final Design Report and Draft Final Bid Documents for Tranche B Road Projects were submitted by the Consultant in January 2010.

The individual Sections of roads to be included in the Tranche B (designated as NR 3, NR 4 and NR 5), and the planned intervention are listed in Table 3.37.

Table 3.37: Feeder Roads (Tranche B): NAZ

Item	Road Name	District	Length (Km)	Intervention*
1	Savelugu – Kumbungu	Savelugu-Nanton	13.99	BSUP
2	Kumbungu – Dalun	Tolon-Kumbungu	7.04	GRRE
3	Savelugu – Nanton	Savelugu-Nanton	14.00	GRRE
4	Gushie Adayili Road	Savelugu-Nanton	9.92	GRRE
5	Nabogo – Bagurugu	Savelugu-Nanton	20.93	GRRE
6	Kadia – Zosali	Savelugu-Nanton	2.52	GRRE
7	Zion Golore Road	Savelugu-Nanton	6.63	GRRE
8	Gbumgbum – Guno	Savelugu-Nanton	4.78	GRRE
9	Guno – Nagdigu	Savelugu-Nanton	6.91	GRRE
10	Nagdigu - Guntinbgle – Moya	Savelugu-Nanton	11.99	GRRE
11	Tampion – Sahani	Savelugu-Nanton	9.10	GRRE
12	Zogu – Sankpem	Savelugu-Nanton	11.05	GRRE
13	Pong Tamale – Kpanya Jct.	Savelugu-Nanton	11.05	GRRE
14	Tigla Dinga Road	Savelugu-Nanton	2.29	GRRE
15	Disiga – Saakpuli – Dekpungni	Savelugu-Nanton	12.44	GRRE
	Total		144.64	

* BRUP = Bitumen Road Upgrade; GRRE = Gravel Road Rehabilitation

B. Feeder Roads Activity – SHZ (Central and Eastern Region): Lot 2:

The overall cost of the Consultancy Services Contracts (involving feasibility studies, design and construction supervision) for the Feeder Roads (EC 1, EC 2, EC 3) in the Central and Eastern Regions, including cost adjustment, came to US\$ 1,479,420.

Consultancy Variations and Changes in Cost under the EC Consultancy Contract are shown in Table 3.38:

Table 3.38: Consultancy Contract: Variations and Changes in Costs - EC Roads

Variations	Description
No.1	Payment Terms The Variation changed the payment schedule for specified deliverables
No.2	Additional Staffing The sum of USD 425,200.00 for additional Consultant Staff input has been approved by MiDA. The variation covers the supervision services to all three of the EC Contracts
No.3	Extension of Time Variation No, 3 extended the length of the supervision services provided to 30 September 2011. Costs associated with this Variation are included in Variation No. 4
No.4	Additional Services Variation No 4 covers the provision of additional services due to the prolongation of the construction contracts. The cost of this Variation is US\$159,400.00.

Feeder Roads in EC 1

The Contract for EC 1 Roads was signed on 13 October, 2009, and on 5 October 2009, for both EC 2 and EC 3. The winning Bidders were:

- EC 1: Big Aidoo Construction Ltd.
- EC 2: GKL/Kamsad JV
- EC 3: GKL/Kamsad JV

The Supervision Consultant for this Contract was Messrs Rom Consult Ltd.

Safety and Environmental Management

At the commencement of the Project, all the Contractors and the Consultant received additional training organised by MiDA and MCC, to enable them keep up with MCC's stringent requirements for environmental accountability. This was because the Contractors could not measure up to the environmental standards required by MCC in their Bidding Documents, e.g. Environmental Baseline Survey, the Environmental Management Plan, and the Health and Safety Plan.

The Works carried out under the EC 1 Contract comprised eleven (11) Sections of roads in the Akwapim South Municipality of the Eastern Region. (See list in Table 3.39).

The Contractor was given "possession of site" pursuant to Clause 21.1 of the General and Special Conditions of Contract for all eleven Sections on 15 October 2009.

Table 3.39: Works Contract: EC 1 Roads

Item	Road Name	Length (Km)	Intervention*
1	Odeikrom -Pakro Jn. (Adese)	7.44	BSUP
2	Nsawam – Odeikrom	6.70	BSUP
3	Pepawani – Mariakrom	4.29	GRUP
4	Odeikrom – Dago	5.97	GRRE
5	Adese -Ankwaso-Aboabo	10.26	GRRE
6	Amanfrom – Otiakrom	7.85	GRRE
7	Oboadaka-Bepoano-Nkwanta	3.7	GRRE
8	Yaw Duodu-Pepawani	4.67	BSUP
9	Pepawani –Adawso	8.66	GRRE
10	Pokrom - Yaw Duodu	4.28	BSUP
11	Nkumkrom – Mariakrom	7.94	GRRE
	Total	71.76	

* GRUP = Gravel Road Upgrade; BSUP – Bitumen Surface Upgrade; GRRE = Gravel Road Rehabilitation

Profile of the Works:

- The **Odeikrom-Pakro Junction (Adese) Road** (7.44 km) received a primer seal and a bituminous surface dressing. All the 'U' side drains, drainage structures and pipe culverts for the road have been completed. Road markings and signage have also been done.
- The **Nsawam-Odeikrom Road** (6.7 km) has also been surfaced throughout its length, receiving a primer seal, plus a bituminous surface dressing. All the necessary 'U' side drains, drainage structures and pipe culverts for the road have been completed. Road markings and signage are in place.
- The **Pepawani-Mariakrom Road** (4.29 km) involved the upgrading of an all-gravel road.
- The **Odeikrom-Dago Road** (5.97 km) has been surfaced for 1.5 km length. It received a primer seal, plus a bituminous surface dressing for the length of 1.5 km, with the remaining 4.47 km receiving a gravel wearing course. All the essential 'U' side drains, drainage structures and pipe culverts for the road have been completed. The road markings and signages have also been put in place.
- The **Adese-Ankwaso-Aboabo Road** (10.26 km) received a gravel wearing course throughout its 10.26 km length. All the necessary drainage structures and pipe culverts for the road have been completed.
- The **Amanfrom-Otiakrom Road** (7.85 km), an all gravel road, has been completed.
- The **Oboadaka-Bepoano - Nkwanta Road** (3.70 km) was an upgrading of an all gravel road.
- The **Yaw Duodu-Pepawani Road** (4.67 km) has been bituminous surfaced throughout the full length of 4.67 km. It received a primer seal, plus a bituminous surface dressing. All the necessary 'U' side drains, drainage structures and pipe culverts were also constructed with the required road markings and signage also done.
- The **Pepawani-Adawso Road** (8.66 km) was bituminous surfaced for 1.3 km with the remaining 7.36 km receiving a gravel wearing course.
- The **Pokrom-Yaw Duodu Road** (4.28 km) is bituminous surfaced throughout its entire length of 4.28 km. All the necessary 'U' side drains, drainage structures and pipe culverts were also constructed with the required road markings and signage also completed.
- The **Nkrumkrom-Mariakrom Road** (7.94 km) is an all gravel road.

In all 23.09km, representing 32% of the 71.76 km roads Contract, received bituminous sealing, while 48.67km or 67.82% were upgraded gravel roads.⁵⁵

Table 3.40 shows the Basic Works Contract Data for EC 1 Roads.

Table 3.40: Works Contract Data: EC 1 Roads

Works Contract	
Contractor:	Big Aidoo Construction Limited
Date of Signature:	13 Oct 2009
Commencement Date:	21 Oct 2009
Time for Completion:	20 months
Completion Date:	20 Jun 2011
Revised Completion Date:	31 Oct 2011
Contract Price:	USD 6,104,462.69
Final Contract Price	USD 6,988,642.92

During the construction phase of the EC 1 Roads, there was an increase in Bill of Quantities Items which resulted in changes to the original Scope of Works. The increase in quantities exceeded 25% of the original bill of quantities. This led to revision of the unit rates, which increased the Contract sum. Also changes in the design for the drainage structures increased the net cost of bill items.

Additional Works carried out as a result of design changes were negotiated at the Original Contract Rates. The growing levels of inflation and subsequent price adjustments also led to cost increases. The total cost increase was 9.2% above the Original Contract Sum.

Following the Contractor's completion of the Works, the Certificate of Completion was issued on 17 January 2012, after final inspection by the Stakeholders, including MiDA and the Department for Feeder Roads.

The DNP started on 18 January 2012 and will extend to 17 January 2013.

⁵⁵ The split was as a result of budgetary constraints, following the values of Bids received. As indicated earlier, Communities had prioritized bituminous-sealed roads as gravel roads, even if designed, deteriorated very fast, particularly with the rains.

Figure 3.6: Lot 2, EC 1 Contract – Guard Rails on the Odeikrom-Pakro Road - (Ch 4+600)



Works Contract Variations and Changes in Costs – EC 1 Roads

A tabulation of Works Contract Variations and Changes in Cost is given in Table 3.41.

Table 3.41: Works Contract Variations and Changes in Costs: EC 1 Roads.

Variations	Description
No.1	Additions and Omissions of BOQ Items. Variation No. 1 consolidated all the omissions and additions to the Works BOQ Items. The aggregated cost of these changes are USD490,783.76
No.2	Extension of Time Variation No. 2 covers the necessary provisions for extending the completion date for the Contract to 31 October 2011. There are no costs associated with this Variation.
No.3	Extension of Time. Variation No. 3 covers the necessary provisions for extending the completion date for the Contract to 17 January 2012. There are costs due to changes in construction sequence of US\$12,630.00.

Feeder Roads in EC 2

The Supervising Consultant for this Contract was Messrs Rom Consult Ltd and the Contractor was GKL Holdings/Kamsad JV.

Table 3.42 provides basic data on the EC 2 Works Contract.

Table 3.42: Works Contract Data: EC 2 Roads

Works Contract	
Contractor:	GKL Holdings/Kamsad JV
Date of Signature:	5 Oct 2009
Commencement Date:	16 Oct 2009
Time for Completion:	18 months
Completion Date:	15 Apr 2011
Revised Completion Date:	31 Dec 2011
Contract Price:	US\$ 7,000,044.52
Final Contract Price:	US\$ 8,243,516.53

The Works carried out under the EC 2 Contract comprises the following four sections of road in the Awutu Efutu Senya District:

Profile of the Works;

- The **Buduburam–Apra Road** (4.14 km) has been surfaced throughout its entire length, receiving a primer seal and a bituminous surface dressing. All the necessary 'U' side drains, drainage structures and pipe culverts for the road have been completed. The required road markings and signage have also been done.
- The **Ofaakor–Loye–Apra Road** (11.34 km) is a bituminous surfaced road. All the essential 'U' side drains, drainage structures and pipe culverts have been constructed while all the road markings and signage have also been done.
- The **Awutu Breku–Bontrase–Obrakyire Road** (18.93 km) has been bituminous surfaced. All the necessary 'U' side drains, drainage structures and pipe culverts for the road have been completed. The required road markings and signage have also been done.
- The **Akoti–Desum–Kwanyako Road** (7.25 km) is a bituminous surfaced road throughout its entire length. This contract included the construction of a 17 meter span bridge across the Ayensu River at Kwanyako. All the necessary 'U' drains, drainage structures and pipe culverts for the road have been completed. The required road markings and signage have also been done.

Following the review and approval by the Employer for extension of time, (EoT) until 9 May 2010, the Contractor submitted a revised Works Programme on the 26 April 2010. This was accepted by the Consultant. The Contractor made further requests for EoT which resulted in a revised Completion Date of 14 August 2011, being awarded. The new date was included in various revised Works Programmes. The Final Programme incorporated a further EoT to 31 October 2011. Subsequently, an EoT to 31 December 2011 was awarded, although no updated Works Programme was submitted by the Contractor.

The major challenge encountered during implementation was the very limited curing time, with respect to priming, first seal and second bituminous seal. This resulted in the bleeding of the bituminous surface. The problem was addressed by the removal of the bleeding sections and re-doing the sealing.

Following the completion of the Works, the Certificate of Completion was issued on 31st January, 2012 after an inspection by the Stakeholders, including MiDA and the Department for Feeder Roads. The DNP started on 1st February, 2012 and will extend to 31st January, 2013.

Works Contract Variations and Changes in Costs – EC 2 Roads

A couple of variations for extension of time due to additional services from the Contractor were made to this Contract.

A tabulation of Works Contract Variations and Changes in Cost under the Contract is presented in Table 3.43:

Table 3.43: Works Contract Variations and Changes in Costs: EC2 Roads

Variations	Description
No.1	Extension of Time Variation No. 1 covers the necessary provision for extending the completion date for the Contract to 14 August 2011. There are costs associated with this variation amounting to US\$48,105.97.
No.2	Additions and Omissions of BOQ Items Variation No. 2 consolidated all the omissions and additions to the Works BOQ Items. The aggregated cost of these changes are US\$643,104.95

Feeder Roads in EC 3

The Supervision Consultant for this Contract was Rom Consult Ltd and the Contractor was GKL Holdings/Kamsad JV.

Table 3.44 provides basic data on the EC 3 Works Contract.

Table 3.44: Works Contract Data: EC 3 Roads

Works Contract	
Contractor:	GKL Holdings/Kamsad JV
Date of Signature:	5 Oct 2009
Commencement Date:	16 Oct 2009
Time for Completion:	16 months
Completion Date:	15 Feb 2011
Revised Completion Date:	31 Dec 2011
Contract Price:	USD 5,338,914.96
Final Contract Price:	USD 6,325,889.00

The Works carried out under the EC 3 Contract comprised the following five sections of road in the original Awutu Efutu Senya and Akwapim South Districts:

Profile of the Works:

- The **Amanfrom–Bawjiase Road** (10.75 km) is surfaced throughout its length with double bituminous surface dressing. All the necessary 'U' side drain, drainage structures and pipe culverts are completed. All required road markings and signage have been done.

- The **Maame Dede Junction–Otukrom Road** (3.92 km) is bituminous surfaced dressed for a length of 1.9 km with the remaining 2 km gravelled.
- The **Maame Dede Junction–Duayeden Road** (3.39 km) is bituminous surfaced throughout its length. All the necessary 'U' side drain, drainage structures and pipe culverts are completed. All required road markings and signage have been done.
- The **Dobro–Chinto Road** (5.24 km) is a single bituminous surfaced dressed road. The original length of this road was increased by 100 meters. The road has the necessary U' side drains, drainage structures and pipe culverts completed.
- The **Kofi Kwei-Sakyikrom-Adoagyiri Road** (9.52 km) is an all gravel road with the original length reduced by 950 meters.

The Contractor's Works Program was accepted by the Supervising Consultant on 19 December 2009. The Contractor regularly up-dated the Program and the last submission incorporated the extension of time, (EOT) to 30 September 2011. No revision to the Works Program was made that addressed the EOTs that were granted, culminating in the extension of time to 31 December 2011. The Contractor's Environmental Baseline Survey; the Environmental Management Plan, Traffic Control Plan; the Health and Safety Plan were also accepted by the Supervising Consultant.

Just like EC2, EC3 was also confronted by implementation challenges arising from the inadequacy of curing time for the priming, first seal and second seals. Serious bleeding was experienced at the initial stages. The bleeding was addressed by the removal of the bleeding sections and re-doing the sealing.

The Certificate of Completion was issued on 15 February 2012, following an inspection by the Stakeholders, including MiDA and the Department for Feeder Roads.

The DNP for the Contract started on 16 February 2012 and will extend past the end of the Compact, to 15 February 2013.

Figure 3.7: A Section of the Upgraded Amanfro–Bawjiase Feeder Road - EC 3



Works Contract Variations and Changes in Costs – EC 3

A number of variations were approved for extension of time due to delays in the implementation of the RAP as well as the services that were added to the Bill of Quantities (BOQ). A tabulation of Works Contract Variations and Changes in Cost under the Contract is shown in Table 3.45.

Table 3.45: Works Contract Variations and Changes in Costs: EC 3 Roads

Variations	Description
No.1	Extension of Time Variation No. 1 covers the necessary provisions for extending the completion date for the Contract to 9 May 2011. There are no costs associated with this Variation.
No.2	Additions and Omissions of BOQ Items Variation No. 2 consolidated all the omissions and additions to the Works BOQ Items. The aggregated cost of these changes is US\$562,610.44.
No.3	Extension of Time Variation No. 3 covers the necessary provisions for extending the completion date for the Contract to 30 June 2011. There are no costs associated with this Variation.
No.4	Extension of Time Variation No. 4 covers the necessary provisions for extending the completion date for the Contract to 31 December 2011. There are no costs associated with this Variation.
No.5	Extension of Time Variation No. 5 covers the necessary provisions for extending the completion date for the Contract to 17 January 2011. There are no costs associated with this Variation
No.6	Time Related Costs Variation No. 6 covers the cost due to the requested re-sequencing of Works. The cost associated with this variation is US\$29,568.00.

Feeder Roads Activity in the Southern Horticultural Zone: (Volta Region): Lot 3

The Supervising Consultant for this Contract was **SAI Consulting Engineers JV**, with Associated Consultants (ACON) and the Contractor was **Messrs Justmoh Construction Ltd/Erdmac JV**. As part of the effort to resource Consultants to ensure the effective supervision of the construction phase, MiDA in consultation with MCC issued a variation to the Consultant to address additional staff input, the main variation with a cost increase.

The cost of the consultancy services (*including feasibility studies, design and construction supervision*) Contract for the feeder roads in the Volta Region (*VR 1, VR 3, VR 5, VR6*), including Cost Adjustments, came to US\$ 3,066,063.

Consultancy Contract Variations and Changes in Costs are shown in Table 3.46:

Table 3.46: Consultancy Contract Variations and Changes in Costs: VR Roads

Variations	Description
No.1	Payment Terms The Variation changed the payment schedule for specified deliverables
No.2	Cost Adjustment The sum of Variation No 2 is US\$7,468.00 for cost adjustments, pursuant to Clause 6.1 of GCC/SCC Consultancy Contract.
No.3	Additional Staff Inputs The sum of Variation No. 3 is US\$565,920.00, representing the cost for the supplementary time input by the Consultant due to the prolongation of the Supervision Phase of the Consultancy.

Feeder Roads in VR 1

Following the acceptance of the Final Design and the Final Bid Documents for the Lot 3 Contracts in April 2009, the Tender Advertisement was placed for VR 1 and VR 2 Roads and Bid documents were released to prospective Bidders on 24 April 2009.

Bid Closing was 12 June 2009, but due to the process being rejected by the Board and MCC, Contracts for VR 1 and VR 2 had to be re-tendered. Bid Documents were released on 15 October 2009 for the VR 1 and 16 December 2009 for VR 2. The submission dates for VR 1 was 26 November 2009 and 29 January 2010 for VR 2.

The Contractor could not adhere strictly to his Work Schedules, resulting in variations to the original timelines.

The Works carried out under the VR 1 Contract, comprised four sections of roads in the South Tongu and Keta Districts of the Volta Region, as follows:-

- **Adutor Junction–Bekpo Road** - 7.8 km
- **Dabala–Lakpo-Agbakope Road** - 7.02 km
- **Sogakope-Adidiokope Road** - 5.8 km
- **Woe–Tegbi-Ashiata Road** - 6.82 km

All the four Sections were bituminous surface dressed, and provided with all the essential drainage structures, including pipe culverts. Road markings and signages have all been done. A significant change made under the Contract was replacing the proposed bitumen cutback with bitumen emulsion variant, which ensured rapid curing and also prevented bleeding, as had been experienced under other contracts. To improve the cash flow of the Contractor, a Variation Order was issued to enable payment for 'Materials on Site' and the release of accrued retentions, against a Bank Guarantee.

Several Meetings were held with the Contractor at the initial stages of the Contract to ensure that adequate resources were provided for the execution of the Works. Other Meetings to improve safety in the Work Zones were held with the Contractor's Workers, as a number of avoidable accidents were experienced in the early stages of the execution of the Works.

The Take-Over Certificate and Certificate of Completion were issued on 15th February 2012. The Defects Notification Period will end on 15th February 2013.

Feeder Roads in VR 2

The original VR 2 Contract was made up of the roads detailed in Table 3.47:

Table 3.47: Contract VR2 - Ketu District

Item	Road Name	District	Length (Km)	Intervention
1	Avalavi–Yekpoyaa–Dekpodome	Ketu	11.96	Gravel to Seal
2	Dekpo Dome–Agorve–Kave	Ketu	8.06	Gravel to Seal
3	Avi Have–Tadzewu–Abor	Ketu	27.70	Gravel to Seal
Total			47.72	

Repackaging of Original VR 2 Roads

Subsequent to the re-tendering for the VR 2 Contract, the procurement process had to be cancelled once again due to a legal action taken by one of the unsuccessful bidders. After the resolution of the legal issues and considering the reduction in time available to implement the Works, it was decided to repackage the VR 2 Contract into two separate contracts, designated as VR 5 and VR 6.

The new road packages are shown in Table 3.48

Table 3.48: New Packaging of VR 5 and VR 6 Roads

Contract	District	Item	Road Name	Length (km)	Intervention	District Totals (Km)
VR5	Ketu	1	Ave Hevi–Tadzewu–Abor	27.7	Gravel to Seal	27.70
VR 6	Ketu	1	Avalavi–Dekpoyaa–Dekpodome	11.96	Gravel to Seal	20.02
	Ketu	2	Depkodome–Agorve–Kave	8.06	Gravel to Seal	

Feeder Roads in VR 5

The Supervising Consultant for this Contract was **SAI Consulting Engineers JV, with Associated Consultants (ACON)** and the Contractor was **First Sky Ltd.**

The Works undertaken under the VR 5 Contract comprised only one section of the roads in the Ketu District of the Volta Region, namely: the **Abor–Tadzewu–Ave Hevi Road** (27.7 km). The road is bituminous surfaced throughout its entire length.

The Take-Over Certificate/Certificate of Completion was issued on 15th February 2012. The Defects Notification Period will end on 15th February, 2013.

Feeder Roads in VR 6

The Supervising Consultant for this Contract was **SAI Consulting Engineers JV, with Associated Consultants (ACON)** and the Contractor was **Jiangsu Xintianda Eng. Co. Ltd.**

The Works under the VR 6 Contract comprised the following two sections of roads in the Ketu District of the Volta Region:

- **The Avalavi–Dekpoyaa–Dekpodme Road** (11.96 km)
- **The Dekpodome–Agorve–Kave Road** (8.06 km)

Both road sections were bituminous-surfaced and have the necessary drainage structures and pipe culverts. The road markings and signage have also been done.

Take-Over Certificate/Certificate of Completion was issued on 15 January 2012. Defects Notification Period will end on 15 January, 2013.

Feeder Roads in VR 3

The Supervising Consultant for this Contract was **SAI Consulting Engineers JV**, with **Associated Consultants (ACON)** and the Contractor was **Justmoh Construction Ltd.**

The Works carried out under the VR 3 Contract comprised four sections of roads in the Kpandu and Hohoe Districts of the Volta Region, as follows:

- **The Kpandu-Kudzra Road** - (7.8 km)
- **The Kudzra-Aveti Road** - (4.0 km)
- **The Tafi Mardor-Jordanu Road** - (9.8 km)
- **The Leklebi Fiafe–Ve Deme–Ve Abeme Road** - (4.04 km)

All the four road sections under the VR3 Contract were bituminous surface dressed, with all the necessary drainage structures and pipe culverts provided. The road markings and signage have all been completed on these roads.

Take-Over Certificate/Certificate of Completion was issued on 22nd February 2012. The Defects Notification Period will end on 22nd February 2013.

Tranche B Feeder Roads for the Southern Horticultural Zone

Feeder Roads in VR 4

The Tranche B Package for the Southern Horticultural Zone comprised a single construction lot, identified as Contract Lot VR 4, running through the Kpandu and Hohoe Districts and totalling 45.90 km. (See Table 3.49).

Table 3.49: Tranche B Roads: Contract VR 4 (Kpandu and Hohoe Districts)

Contract	District	Item	Road Name	Length (Km)	Intervention
VR 4	Kpandu	1	Dzigbe Jn–Dzigbe–Tornu	7.80	GRRE*
		2	Kpandu–Alavanyo–Kpeme	15.90	GRRE*
	Hohoe	3	Tafi Atom–Vakpo Fu–Tafi Abuipe	11.00	GRRE*
		4	Aveti–Logba–Alakpeti	11.20	GRRE*
			Total	45.90	

* *GRRE = Gravel Road Rehabilitation*

These roads were deselected by MiDA in the face of budgetary constraints. However, as the designs and Bid Documents were already prepared and available at MiDA, discussions with USAID to take up the construction of VR 4 were successful.

After agreeing on funding from the USAID, construction activities on VR4 commenced in January, 2012. MiDA made a justification to USAID for a 'sole-source' contract to the Contractor and the Supervising Consultant who worked on Lot VR3, to enable them to implement the VR4 Contract. This request was based on the strength of the satisfactory performance of the Contractor for Lot VR3 and the fact that the Contractor was already set up and mobilized in the area, MiDA's Contract Management System was applied to the VR4 Project, with MiDA playing the role of Employer on behalf of USAID.

VI. Summary of Results - Project Activity Level

The target for the feeder roads was to enhance the quality of road surfaces through improved engineering designs, bitumen upgrades, bitumen rehabilitation and gravel road rehabilitation.

Table 3.50 provides achievements of the Feeder Roads Activity at the Output and Outcome levels of the results-chain.

Table 3.50: Summary of Result: Feeder Roads Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
International Roughness Index	Meters per Kilometre	12.67	4.4	5	115
Annualized Average Daily Traffic	Number	286.63	1,839	566	556
Kilometres of Feeder Roads Completed	Kilometres	0	357.44	357	100

The following are some other key results observed from MiDA's monitoring activities:

- Reduced cost of travel – It was established that the cost of travel had reduced from GH¢ 2.00 to GH¢ 1.00 between Agbakope – Dabala, due to the opening of a more direct route that by-passes the Dabala Junction.
- Travel on all-weather motorable roads, which was hitherto impossible on some of the road sections.
- Accessibility of villages to social services (*hospitals and schools*) and reduced cost of moving farm produce; (*as experienced by tomato farmers operating between Nsawam – Adeiso*)
- Greater accessibility of many villages to markets and social services, as corroborated by the 556% increase in the Annualized Average Daily Traffic (*from a baseline of 286.63 to 1,839*) on these roads, as at April 2012.
- A major negative impact associated with these roads is the high incidence of over-speeding, leading to motor accidents involving pedestrians.

VII. Long-Term Sustainability

Arrangements that will ensure the sustainability of the MCC funded Feeder Roads were built into the Compact at the planning stage. The issue of funding was made a CP to ensure that GoG had made adequate provision for the maintenance and sustainability of the roads. The Condition Precedent stated that *“Prior to each MCC Disbursement for the Transportation Project covering Quarter 1 of each Year: MiDA has submitted evidence⁵⁶ demonstrating that (a) the amounts budgeted for routine and periodic maintenance of the maintainable road network for the previous fiscal year (other than fiscal year 2006) has been substantially expended for the intended purpose, and (b) the Government has budgeted funds sufficient to ensure that routine and periodic maintenance Works are carried out in accordance with Ghana’s Road Maintenance Standards for the maintainable road network for the current fiscal year”*.

⁵⁶ Refer to the Condition Precedent section in the Appendices for further information on this CP.

In fulfilment of this CP, MiDA submitted the underlisted information to MCC:

- a written confirmation from the Ministry of Roads and Highways (MRH) and a Report from the Road Fund Board;
- excerpts from the Government's Budget for the relative fiscal year to establish and confirm the satisfaction of the CP;
- the Policy on Tolling of Roads; Legislative Instruments on Road Use Fee; Vehicle Registration and Bridge Tolls, as amended by MRH and approved by Cabinet.

In addition, the Department of Feeder Roads of the Ministry of Roads and Highways was made responsible for the "Take Over and Maintenance" of the roads. For this reason, the Department was involved in all Evaluations of Bids for the procurement of consultants and contractors, through to the final "Take Over" of the roads.

All the road designs were reviewed with engineering professionals from various Divisions of DFR. DFR's Technical Staff participated in all Site Inspections and Site Meetings throughout the construction period. This arrangement was to ensure that all the roads were constructed in accordance with DFR's technical specifications.

An IEA, which was signed between MiDA and MRH and attested to by DFR, made the Department responsible for the maintenance of all Feeder Roads constructed under the Compact. At the end of the Program, MiDA transferred to DFR, Program Assets, such as laboratory equipment, vehicles and office accommodation, to support their road maintenance activities.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

The following lessons learnt during the implementation of the Feeder Roads Activity will guide the design/implementation of similar road projects in future:

- The time usually available within the construction phase, to allow for the bituminous primer seal to cure was insufficient. This contributed significantly to the bleeding problems that were experienced. The rigid deadline imposed by the Compact completion, vis-à-vis the rather late commencement of these Projects, put pressure on construction time and compounded the problem.
- The strategy adopted by some Contractors to accelerate the Works in order to meet the Compact Completion date. These Contractors tended to use unapproved arrangements; which were eventually rejected by the Engineers, leading to long delays.
- The unusually high levels of rainfall experienced in the latter half of 2011, compounded these problems, necessitating the need for a longer time analysis of the rain fall pattern.
- The intensity of rains affected work on the new gravel roads, making gravel roads inappropriate options.
- Some local contractors lacked the required capacity to meet the high quality levels in respect of construction, health and safety requirements/management and other reporting standards demanded by the Contract.

- Difficulties between local workers and some foreign Contractors and Consultants, which arose out of efforts to communicate, created their own challenges. These challenges resulted initially in delayed submission of some requirements. These were resolved by involving local personnel with the requisite expertise to do the work.
- Uncontrolled use of new road accesses by very heavily laden trucks, immediately after completion, ruined the surfaces and undermined the planned life of the roads.

Recommendations

- Future work planning should allow enough time for the primer seal and subsequent surfacing layers to cure before the application of further layers.
- The selection of the type of bitumen for the Project must take into consideration the curing properties and the time allowed for the execution of the Project, considering the time-bound nature of MCA Projects.
- Local Contractors need to be given some training in work programming and resourcing techniques, with regular (monthly) submissions of current Programs, the status of all Works being made a condition of their Contract, with possible heavy financial sanctions for non-compliance.
- In view of what has been observed as a deficiency and therefore a knowledge gap for some local Contractors, some ad-hoc/routine training in environmental management and in handling safety and health issues are recommended. This will ensure that they comply with directives on these issues throughout the Contract. *(MCC had indeed supported contractors with some training workshops prior to the commencement of the Works Contract.)*
- In future, the award of Contracts should be timed to precede the rainy season, to allow for adequate mobilization by the contractor, prior to the commencement of physical Works.
- Whenever possible, feeder roads must have bitumen sealed surfaces. This will extend their useful lives, while weigh bridges must be installed to check axle loads and impacts on the lifespan on feeder roads.

3.2: Transportation Infrastructure Development Project ("Transportation Project")

Introduction

The successful development and upgrading of the country's agriculture sector is dependent to a large extent on a sound transportation network that allows access to inputs and markets. Ghana's transport system consists of four modes: namely, road, aviation, maritime and rail, with a national road network totalling about 60,000 km. The levels of development and the reach of these modes of transportation are key to the development of commercial agriculture in the country.

In the Constraints Analysis that formed part of the Compact development process, the Government identified high transportation costs as a barrier to sustainable economic growth. This also inhibited the expansion of agricultural opportunities by restricting access to major domestic and international agricultural markets.

To unlock the potential of the agricultural value chains in some Districts, producers of food and cash crops need a faster and more reliable transport system which will reduce costs, ensure products reach markets faster and enhance supply and distribution chain efficiencies for exporters.

To this end, the Compact initiated a number of road upgrading and rehabilitation projects which aimed at reducing transportation cost for agricultural commerce at the sub-regional and regional levels, and improving the competitiveness of agricultural producers using the roads in the Intervention Zones.

The activities under the Transportation Infrastructure Development Project consisted of the construction of sections of the **N-1 Highway in Accra, selected Trunk and Feeder Roads**⁵⁷ and vital additions to the **Ferry fleet of the Volta Lake Transport Company (VLTC) and the supporting infrastructure**. Details of the implementation processes and the results and achievements are described under the Sections for each Project Activity.

Among Conditions Precedent to each Project Activity under the Transportation Project, as set forth in the Disbursement Agreement, was the completion and approval of Strategic Environmental Assessments (SEA) for each of the three Intervention Zones, Environmental Impact Assessments (EIA), Resettlement Action Plans (RAP) and Environmental Management Plans (EMP).

⁵⁷ The Feeder Roads sub-activity formed part of the Agriculture Project, described earlier in this Report.

3.2.1: Upgrades to Sections of N-1 Highway (“N-1 Activity”)

I. Identifying Information

- **Project Objective:**

Upgrading of 14.1 kilometres of the National Highway (N-1 Highway), in order to reduce the congestion and the bottleneck in accessing the International Airport in Accra and the Sea Port of Tema and thereby support an expansion of Ghana’s export-directed horticulture base beyond current production levels.

Performance Period: February 16th 2007 to February 15th 2012

Description	N-1 (LOT 1)	N-1 (LOT 2)
Date of Signature	31 Dec 2008	1 Oct 2009
Commencement Date	31 Dec 2008	21 Oct 2009
Original Time for Completion	30 months	24 months
Completion Date	30 June 2011	20 Oct 2011
Revised Completion Date	31 January 2012	31 January 2012

- **Geographic Area:**

The **N-1 Highway** is located in the Accra Metropolitan Assembly of the Greater Accra Region and supports the urban traffic movement within the Metropolitan Area. It stretches from the Tetteh Quarshie Interchange to the Mallam Junction (TQM) in Accra.

The TQM, which runs in an East-West direction, constitutes part of the Accra–Tema Motorway (*“the Kwame Nkrumah Motorway”*) and the larger Trans-West Africa Highway, which runs from the Aflao Border in the Volta Region of Ghana to the Elubo Border in the Western Region of Ghana.

- **Financial Issues:**

MCC Funding

Initial Budget	:	US\$101,296,000.00.
Reallocation of the Budgets 1	:	US\$134,674,021.00 (2008) ⁵⁸
Reallocation of the Budgets 2	:	US\$167,853,375.00 (2009)
Final Budget	:	US\$177,602,473.00
Actual Disbursement	:	US\$182,130,800.00

Host Country Contribution

Actual Disbursement for Works for N1	:	US\$14,731,275.00
Actual Disbursement for Utilities, RAPs	:	US\$43,987,897.44
Total GoG	:	US\$58,719,172.44

⁵⁸ Table 1.1 in Appendix 1, provides information on the financial issues for both N-1 Lot 1 and N-1 Lot 2.

Highlights - N-1 Highway

- 13.6 km of the N-1 Highway (*encompassing Lot 1 and Lot 2*) was upgraded from a two-lane road to a three-lane dual carriageway at a cost of US\$188,927,473.00 for the Works. This reduced the Roughness Index from about 4 IRI at baseline to 1.9 IRI of jumps, per kilometre travelled (52.5%).
- Annualized Average Daily Traffic increased from 27,737 at baseline to 51,055.42, post-construction (84%). Volume-to-capacity ratio along the Stretch reduced from 0.85-1 to 0.3-0.34. Travel time at peak hours reduced from 60 minutes to 19 minutes.

Sections of the N-1 Highway around the Dimples Interchange



Before the Upgrade



After the Upgrade

Implementing Partners:

	N-1 (LOT 1)	N-1 (LOT 2)
Implementing Entities	Ministry of Roads and Highways (MRH) Ghana Highway Authority (GHA)	Ministry of Roads and Highways (MRH) Ghana Highway Authority (GHA)
Implementing Consultant	ICT - BANS Joint Venture	ICT - BANS Joint Venture
Implementing Contractors	China Railway Wuju (Group) Corporation (CRWJ).	⁵⁹ Moniz De Maia Serra & Fortunato - Empreiteiros, SA (MSF)

⁵⁹ The Company later changed its name to "MSF Engenharia, S.A."

II. Background

The decision to upgrade the severely congested sections of the N-1 Highway from a two-lane road into a 3-lane, dual carriageway, with two interchange facilities, was intended to reduce the bottleneck in accessing the Kotoka International Airport in Accra and the sea Port of Tema and thereby support the expansion of Ghana's export-directed horticulture base beyond current levels of production.

The Tetteh-Quarshie-Mallam (TQM) section of the Highway which serves farmers in the Greater Accra, Western and Central Regions of Ghana, becomes severely congested during the greater part of the working day, (*with an estimated traffic flow of between 28,000 and 35,000 vehicles per day*). The congestion results in high vehicle operating costs and delays in the transportation of horticultural products; and has had a negative impact on business profits and affected investments in the horticulture sector.

The N-1 Project, which encompassed the TQM,⁶⁰ assumed the status of the flagship Project of Ghana's Compact Program, due to its high visibility and significant role in easing traffic congestion along the eastern and western corridors of Accra. The rehabilitation and upgrading of specific sections of the Highway was the first wholly urban-based road project to be undertaken by the Millennium Challenge Corporation (MCC) under its Millennium Challenge Account (MCA) Program.

Land Acquisition and Executive Instruments

The Road Project was split into 2 lots (*Lot 1 and Lot 2*) to ensure speedy implementation.

Prior to the Works Contract, the Apenkwa-Mallam Junction Section (Lot 2), lacked an Executive Instrument (E.I.) that covered the Right of Way, even though such had been legally acquired for the Lot 1, the Tetteh Quarshie -Apenkwa Section, as far back as 1973.

MiDA used the 1962 State Lands Act, Act 125 and the State Lands Act Amendment Act, Act 586 of 2000 in acquiring the portion of the road affected by the construction, as opposed to the Lands (Statutory Wayleaves) Act, 1963, Act 186⁶¹.

The E.I. for the Right of Way (ROW) for Lot 2 was acquired on 31st December 2009, by which time the pre-qualification of contractors that had been done for the N-1 Project had expired. This exercise had to be repeated to cover other construction Firms who did not participate in the earlier exercise.

⁶⁰ Subsequently named the *George Walker Bush Highway* by the then President of Ghana, H.E John Agyekum Kufuor in honour of George Walker Bush, the US President, who was instrumental in setting up the Millennium Challenge Account Program, of which Ghana was a major beneficiary. The N.1 Highway was rehabilitated with part of the MCC Funding.

⁶¹ Besides the fact that Act 125 and Act 586 conform to the Constitution of the Republic of Ghana and the World Bank Guidelines on compensation (as adopted by MCC); it also allowed MiDA to pay compensation to other Project Affected Persons, other than Land owners, i.e. traders.

Furthermore, the Law protects the investment/Project against any litigation, by allowing acquisition to continue whilst the Case(s), if any is/are settled in the Courts, by providing for an Escrow Account to be opened, into which assessed compensation is paid, pending the settlement of the Case. In this way, the Project does not stall.

Furthermore, the release of bidding documents was conditional upon the satisfaction of the CP associated with the RAP. These requirements delayed the award of the Contracts for some six months. These RAP issues and the loss of time supported the decision to divide the N-1 Project into two separate Contracts to allow for a faster rate of delivery and to meet the tight completion deadlines.

At the end of the day, a total of 13.644 km was constructed, broken down as follows:-

- Lot 1 - (Tetteh-Quarshie Interchange to Apenkwa Interchange – 5.525 km)
- Lot 2 - (Apenkwa Interchange to the Mallam Junction – 8.119 km)

III. Changes in Implementation vis-à-vis Results Framework

Compared to the results framework and the Program logic of the N-1 Activity, as laid out in the Compact, there were no significant changes during implementation of the Project. The Compact's objective of upgrading the original single-lane carriageway into a 3-lane dual carriageway, with two interchange facilities in order to resolve the critical conflicts points on the road corridor, was achieved within the Compact term.

IV. Total Activity Cost

- **Financial Performance of the Project**

The original budget approved for the N-1 Activity was \$101,296,000.00. During the reallocation of budgets, this was increased to US\$134,674,021 in year 2008 and to US\$167,853,375 in year 2009. By the end of the Compact, the final budget had risen to US\$177,602,473 (representing 33% of Compact funds), making the Project the largest, in terms of budget under the Compact.

The cost increases which came mainly from the Lot 2 Contract were due largely to cost over-runs from fuel price increases and some other building materials.

In the case of Lot 1, the original currency mix for payment was varied to a single currency to prevent a potential loss to the Contractor of almost US\$5.0 million, when estimated over the Contract price. However, the related Price Adjustment Clauses covering such variations in the Contract were not affected, raising issues with respect to price adjustment. (*Table 1.1 in Appendix 1 provides further information on the financials of the N-1*).

- In Lot 2, a provisional sum of US\$0.7million was allocated for the Kokroko Transport Terminal at the Mallam Junction end of the road, intended to serve displaced transport operators. However, an additional US\$0.975million was added to complete the Terminal Works, after the Contractor's Bid had been negotiated.
- An access road to the Transport Terminal, constructed at a cost of US\$1.112million, was also added to the Works, bringing the total cost of the Kokroko Resettlement Project to US \$2.787million.
- The Off-site Drainage Works were funded from a provisional sum of US\$1.6 million, with a mark-up of 15% should the Works be carried out by the nominated Sub-Contractor. The provisional sum was not based on a detailed design as this was not ready at the time of bidding. A cost estimate based on the detailed design of US\$4.42million was subsequently submitted by the Contractor and negotiated down to US\$3.48million.

- The Works under the Contract for the Installation of Street Lighting and Traffic Signals finally came in at an additional cost of US\$1.704million. The Day Works were carried out at a cost of US\$0.69million above the provisional sum in the Contract. The increase was as a result of the level of effort required to meet the revised scope of Works.
- Subsoil investigations were carried out at culvert locations and at the Interchange Sites at an additional cost of US\$ 0.087million.

At the end of November 2011, all measurements on Interim Payment Certificates (IPC), up to IPC No. 20, representing quantities on completed permanent Works, and arising out of omissions and additions, accounted for a further increase of US\$1.43million.

New Works with respect to earthworks on the main road corridor, on the slip roads, on the subsoil on drainage, road works, construction of GWCL's plinths, access roads and the encasement of service lines on the Winneba Road, led to additional cost of US\$3.93million.

- Breakdown of Funding

The total actual funds disbursed by MCC for the N-1 Activity was US\$ 174,196,198. This cost excludes an amount of US\$ 7,934,602, which represents SMEC's cost for managing all the transportation and the main agricultural infrastructure projects and services for the N-1 Project.

In addition to the Compact funds, the Government of Ghana spent an amount of US\$14,731,275 to cover the costs of additional Works, bringing the total cost of the Works only to US\$188,927,473. However, the amounts exclude further costs of US\$43,987,897.44 relating mainly to Utilities Relocation and Resettlements, for which GoG provided funds.

Table 3.51: Funding Breakdown: N-1 Lot 1 & Lot 2

Description	N-1 LOT 1 (US\$)	N-1 LOT 2 (US\$)	TOTAL (US\$)
MCC Funding			
Initial Budget:	N/A	N/A	101,296,000.00
Contract Price:	42,168,600.55	83,666,046.33	125,834,646.88
Final Contract Price:	55,745,687.00	123,515,430.00	179,261,117.00
Project Management & Consultancy			7,934,602.00
Construction Supervision			3,106,721.00
Compensation to PAPs			7,606,628.00
Other Costs (Soil Test, Geotechnical Investigation, etc)			312,108.26
Actual Disbursement for Works (MCC):	47,227,469.00	115,943,272.00	163,170,740.94
Host Country Contributions			
Disbursements for Relocation of Utilities	7,982,356.87	26,005,780.70	33,988,137.56
Disbursements for Works (GoG)	7,159,117.00	7,572,158.00	14,731,275.00
Disbursements for RAPs Tranche 1			5,066,436.95
Actual Disbursements for RAPs - Tranche 2			4,933,322.93
Total Actual Disbursements (GoG):			58,719,172.44

V. Project Activity Implementation Partners

The implementation of the Project began with the procurement of the services of 3 Contractors to undertake the relocation of utilities (*viz:- water, electricity and telecommunications*) and the resolution by MiDA of a large number of RAP-related issues.⁶²

Relocation of Utilities

Following the approval by the Public Procurement Authority (PPA) of GHA's Shortlist of Potential Contractors and with the aim of providing a timely and cost-effective means of undertaking the contracts for the relocation of utilities/service lines, vital Works on both the N-1 Lot 1 and N-1 Lot 2, were carried out by three (3) Contractors, funded by GoG; viz: .

- Water Services - Blessedfield Limited
- Telecoms Services - Kenpong Construction Limited
- Electricity Services - Sapato Company Limited

The Basic Contracts Data on the Works for both N-1-Lot 1 and N-1-Lot 2 are presented in Tables 3.52 and Table 3.53 respectively.

Table 3.52: Contract Data for the Relocation of Utilities: N-1 Lot 1

Utility Service	Water	Telecom	Electricity
Contractor	Blessedfield Ltd.	Kenpong Const Ltd	SAPATO Co. Ltd.
Date of Signature	01/10/2008	14/10/2008	22/10/2008
Commencement Date	29/10/2008	15/10/2008	15/10/2008
Contract Price	GH¢8,161,307.01	GH¢1,130,984.20	GH¢659,105.61
Final Contract Price (Lot 1):	GH¢8,161,307.01	GH¢1,130,984.20	GH¢890,647.64
Original Construction Period	8 months	6 months	6 months
Original Completion Date	30/06/2009	16/04/2009	16/04/2009
Completion Date - EOT I	30/09/2009	30/09/2009	22/11/2009
- EOT II	19/06/2009	19/08/2009	31/10/2009
- EOT III	31/07/2009	31/10/2009	31/01/2010

Table 3.53: Contract Data for the Relocation of Utilities: N-1 Lot 2

Utility Service	Water	Telecom	Electricity
Contractor:	Blessedfield Ltd.	Kenpong Const Ltd	SAPATO Co. Ltd.
Date of Signature:	23 Jul 2009	23 Jul 2009	13 Aug 2009
Commencement Date:	3 Aug 2009	3 Aug 2009	1 Sept 2009
Contract Price:	GH¢19,481,894.40	GH¢ 3,243,867.84	GH¢ 3,388,189.84
Final Contract Price (Lot 2):	GH¢28,214,066.65	GH¢ 4,242,629.84	GH¢3,388,189.84
Original Construction Period:	10 months	8 months	8 months
Original Completion Date:	2 Jun 2010	2 Apr 2010	30 Apr 2010
Revised Completion Date:	31 Oct 2011	31 Oct 2011	31 Oct 2011

⁶² Refer to Chapter 5.5, Section, vii, for more details on the N-1 RAP issues

Consultancy Contract: N-1 Activity (Lot 1 and Lot 2)

The Consultancy Contract for the N-1 Highway Project was awarded to ICT-BANS Joint Venture on 28th December 2007. The Contract was broken down into two Phases of Works as follows:

Phase A:

- Phase A1 : Preparation of Feasibility Study, including Preliminary Design
- Phase A2 : Preparation of an Environmental and Social Impact Evaluation, including EIA and RAP, if required
- Phase A3 : Preparation of the Final Design, the Pre-qualification and Bidding Documents

Phase B:

Under this Phase, the Consultant carried out supervisory duties during the construction and Defects Notification Periods.

Consultancy Contract Variations and Changes in Costs

Variations for additional works were made to the Consultancy Contract. These included the design of the Off-Site Drainage System and other issues emanating from resettlement actions.

Table 3.54: Consultancy Contract Variations and Changes in Costs

Variations	Description
No.1	Production of Models Variation No 1 covers the production of computerized models from the road design. Cost USD22,281.64
No.2	Resettlement Action Plans Variation No. 2 was done for the additional input regarding the Resettlement Action Plan. Cost US\$198,371.21.
No.3	Change in Payment Terms Variation No. 3 was done to change the Payment Terms regarding the undertaking of VO No. 2. No cost
No.4	Drainage Study Variation No. 4 was to identify the impact of the N-1-TQM Road Works on the 'Off Site drainage and to define the necessary mitigation measures required. The cost of the Variation was US\$148,100.00.
No.5	Resettlement Action Plan Variation No. 5 was for additional services due to the re-scoping of the RAP for Lot 1, Phase 2 and for a RAP for Lot 2 Phase 1 and 2. The cost of the Variation was US\$111,191.96.
No.6	Drainage Design Variation No. 6 covered the additional work required on the design of the 'Off Site Drainage'. Cost of variation was US\$150,200.00.
No.7	Amendment to Delivery Schedule Variation No. 7 was to revise the delivery schedule and payments at no cost

A tabulation of modifications under the Consultancy Contract is presented in Table 3.55:

Table 3.55: Consultancy Contract Modifications

Modifications	Description
1	Modification of Payment Schedule Modification No. 1 modifies the Consultancy Payment Schedule. No Cost.
2	Conversion of Payment to USD Modification No. 2 modifies the Consultancy Contract so that all payments will be made in US dollars. No Cost.
3	Additional Staff Inputs Modification No. 3 allowed for the additional time input due to the extension of construction period. Cost US\$1,787,103.31.
4	Additional Staff Inputs Modification No. 4 allowed for the additional time input due to the extension of construction period. Cost US\$556,315.00.

A. N-1 Highway: Lot 1 (Works Contract)

- The Contract was signed on 31 December 2008 with Messrs China Railway Wuju (Group) Corporation (CRWJ), However, Possession of Site followed four (4) months later. This was due to unanticipated challenges that faced MiDA in resettling Project Affected Persons (PAPs), for example, the imperative for MiDA to comply with the World Bank's O.P 4.12 Directive, which enjoined MiDA to allow PAPs who had been paid their compensations, a period of three months to quit the area being occupied.
- Delays relating to sourcing of the specified bitumen for the asphaltic concrete works were also not expected. The specified bitumen required for the Works was under patent from only one producer, thereby making availability and supplies very critical to the completion of the Works.
- There were Variations to the Works Contract and Changes in Costs. Off-site Drainage Works, which did not form part of original Scope of Works, had to be incorporated at a very late stage of the Contract. Also, additional Works for the construction of Access Roads on the Southern Carriageway to serve adjoining Properties were added after almost all the original Scope of Works had been completed.
- Some changes were also made to the Bill of Quantities due to the level of effort required with respect to excavation Works for the construction of the Dimples Interchange.
- To address cash flow requirements for the importation of the bitumen, a Variation Order was issued to release the Contractors' retention against a Bank Guarantee.

Table 3.56 provides a Summary of Variations and Changes made during the Implementation Phase.

Managing construction activities within a heavily built up and very busy urban road corridor, which remained actively in use during throughout the construction period, presented problems to the Contractor, CRWJ. Following some unresolved safety and health compliance challenges, MCC ordered a shutdown of the whole N.1 Lot 1 Works Site. This resulted in a two-week delay of the Project.

The additional Works and the late release of Sections of the Project Corridor also resulted in delays to the works and the completion of the Contract.

Table 3.56:- Works Contract Variations and Changes in Costs: N-1 Lot 1

Variations/ Amendment	Description
Variation 1	Supplementary Agreement on Retention Money Variation No. 1 provided for a change to the Contract regarding the release of retention money being held against a Retention Guarantee.
Amendment 1	Change of Currency of Payment Amendment No. 1 allowed for all payments to the Contractor to be in United States Dollars.
Amendment 2	Extension of Completion Date Amendment No. 2 provided for an Extension in Time from 30 June 2011 to December 2011 required for the additional Works requested.
	Amendment to Supplementary Agreement An amendment to a supplementary agreement in Amendment No. 1 regarding the payment terms and the release of retention for the purchase of bitumen
Amendment 3	Cost of Additional Works Amendment No. 3 provides for the payment for the Street Lighting and Traffic Signals. The cost was US\$460,454.10.
Amendment 5	Off-Site Drainage Amendment No. 5 provided for the payment for additional works required on the Off-Site Drainage. The cost was US\$1,069,599.20.
Amendment 6	Additional Excavation Amendment No. 6 provided for the payment for additional excavation for the retaining walls. The cost was US\$1,998,882.06.
Amendment 7	Extension of Time Amendment No. 7 provided for an Extension in Time from 30 June 2011 to 31 January 2012. The cost was US\$1,846,149.61
Amendment 8	Access Roads Amendment No. 8 provided for the payment for the additional Access Roads. The cost was US\$5,438,563.02.

Completion and Final Inspection

The Taking-Over Certificate for Lot 1 was issued to the Contractor on 30 January 2012, after an inspection by the Stakeholders, including MiDA and the Ghana Highway Authority.

The Defects Notification Period for the Contract started on 31 January 2012 and extends to 30th January 2013.

B. N-1 Highway: Lot 2 (Works Contract)

The Contract was awarded to Messrs Moniz da Maia Serra and Fortunato–Empereiteros SA (MSF) of Portugal (*later changed to MSF Engenharia SA*), and signed on 1st October 2009.

The ‘Start of Works’ delayed for seven weeks due to a rather long dispute over the Works Program submitted by the Contractor and some RAP-related obstructions. The Contractor eventually provided an acceptable Works Program on 14 December 2009. To off-set the time lost, another Works Program for Acceleration to complete the Contract was granted. This was formally approved on 31st January 2012. The Accelerated Program was updated on a monthly basis until the completion of the Works in February 2012.

The Contractor's mobilization took approximately six months. Delays were encountered as a result of the large number of PAPs to be resettled and the complex and time-consuming process of addressing the issues related to the resettlement and compensation of PAPs.

Works Contract Variations and Changes in Costs

Various costs, resulting in variations to the Contract were incurred by MiDA as part of the package for resettling PAPs. These included an Access Road to a Bus Terminal at Kokroko, near the Mallam Junction. As part of the social impact mitigation measures, the Study and Design of an Off-Site drainage, was also carried out.

Additional variations included street lighting, traffic signals, and subsoil investigations, at an additional cost of US\$ 0.087m.

At the end of November 2011, all measurements on IPC quantities due to omissions and additions (up to IPC No. 20), increased costs by US\$1.43million, while new Works with respect to earthworks and others on the Main Road Corridor, added a further cost of US\$3.93million.

Table 3.57: Works Contract Variations and Changes in Costs: N-1 Lot 2

Variations	Description
No.1	Transport Terminal and associated facilities: Net addition to accepted Contract Amount USD 975,020.30
No.2	Offsite Drainage Improvement: Net Addition to accepted Amount - USD 1,848,496.81
No.3	Street Lightings and Traffic Signals: net Addition to Accepted Contract Amount - USD 1,704,459.05
No.4	Day Works: Net Addition to Accepted Contract Amount - USD 688,908.30
No.5	Subsoil Investigations and Testing - USD 86,536.05
No.6	Re-measurement of Works as BOQ Items and Rates - USD 1,429,431.48
No.7	Varied Works as BOQ Items and Rates - USD 3,934,795.07

Other Claims:

During the execution of the Works, the Contractor made significant claims for extension of time and additional costs, pursuant to Clause 20.1. The Claims arose from the following:

- Delays in providing access to Site;
- Pile Testing And Changes To Working Piles;
- Drainage Construction;
- Earthworks - Change In Quantities;
- Suspension of Works - Kokroko Bus Terminal, at Mallam Junction;
- Delay to Abeka-Lapaz Road Works;
- Others: Utility Crossings; RAP issues.

The Claims led to a Contractor's entitlement of five months (new completion date: 29th March 2012) in time extension, beyond the Contract completion date of 20th October 2011.

Acceleration of Works:

To complete the Contract within the Compact period, MiDA and MCC agreed to accelerate the Works from 29th March 2012 to a revised completion date of 31st January 2012. Consequently, an initial assessment of these Claims was carried out by Messrs Jacobs, MCC's Independent Consultant and an interim Claim of USD 8,084,704.21 (IPC No. 11) approved for payment to the Contractor to enable the acceleration of the critical Works.

Following further negotiations, a final assessment of the Claims in the amount of USD 15.0m was agreed between MiDA and Messrs MSF and signed on 3rd October, 2011.

Completion and Final Inspection

The Taking-Over Certificate was issued on 16th February 2012 after an inspection by all the Stakeholders, including MiDA and the Ghana Highway Authority.

The Defects Notification Period for the Contract started on 16th February 2012 and will extend to 15th February 2013.

N-1 Resettlement: Construction of Cane and Rattan Weaving Centre for PAPs

This Sub-Activity involved the relocation of the Cane and Rattan Weaving Centre, situated along the Lot 1 Corridor, which was affected by the Project. MiDA acquired a plot of land at Ayi Mensah, a suburb of Accra, for the construction of a Shed and an access road, with gravel finish, to the Site for use by the members of the Cane and Rattan Weaving Association.

The Works were initially supervised by the Transportation and Agriculture Infrastructure Project Manager (TAIPM), MiDA. This was later considered as a variation to the Road Project and the N.1 Project Consultant, Messrs ICT-BANS JV was therefore given the added responsibility of supervising the Works. The Contractor was Messrs Blessedfield Limited. (See Table 3.58).

Table 3.58: Contract Data: Construction of Cane and Rattan Weaving Centre

Project Title:	Construction of Cane & Rattan Weaving Centre
Employer	Millennium Development Authority (MiDA)
Contractor:	Blessedfield Limited
Original Scope of Works	Development of Access Road and the Park, in gravel surfacing, construction of Timber Shed. Provision of Urinal facility and Provision of Water Storage Tank.
Initial Contract Sum:	USD 195,462.83
Original Contract Duration	30 days
Original Start Date	12th October, 2009
Possession of Site	Significantly delayed due to protracted land litigation
Completion Date	30th April, 2010
Revised Completion Date	26th September 2010

Possession of Site and Effect on Contract Duration and Cost

Litigations on the land for the Centre delayed the commencement of the Project. This was finally resolved at the end of June 2010, at a cost of US\$ 45,000 to MiDA, representing a claim for the cost of idle Plant and Labour. Extension of Time was issued with 26 September 2010 as the new completion date.

Variations and Effect on Contract Duration and Cost

To make the Site conducive for the work of the Association, MiDA included the following Works in two separate Contracts:-

Group A - Contract Sum of US\$ 24,026.75

- Supply of Electricity
- Supply of Water

Group B - Contract Sum of US\$ 147,547.87

- Provision Of two Storage Containers for Workers' Tools
- Workers' Canteen
- Signage at both the Entrance and At The Park
- Bituminous Surfacing of the entire road and Parking Area
- Stone Pitching of the Earth Ditches Around The Park
- Provision of Access Culverts.

These Contracts were signed on the 13th of December 2011, for duration of 30 days.

Additional Civil Works

Other Civil Works were estimated at USD 221,618.89, compared to the Contract Sum of USD 195,462.83. MiDA approved the Variations of the Civil Works in the latter part of November, 2011.

VI. Summary of Results – Project Activity Level

Summary of achievements of the N-1 Activity at the Output and Outcome Levels of the Results-chain, are shown in Table 3.59.

Table 3.59: Summary of Results: N-1 Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Volume-to-capacity ratio on N-1	Number	0.85-1	0.3-0.34	0.26	86
Vehicles per hour at Peak Hour	Number	4,021	4,078	4,254.22	24
Travel time at Peak Hour	Minutes	60	19	20	103
International Roughness Index (IRI)	Meters/km	4	1.9	2.5	140
Annualized Average Daily Traffic	Number	27,737	51,055.42	36,530	265
Kilometres of Road (N-1) Upgraded	Kilometres	0	13.644	14.125	97

At the end of the Compact Term, the original 14.1 km section of the N-1 Highway, with a baseline roughness index of 4.0 IRI, had been upgraded from a single-lane dual carriageway, to a 13.644 km three-lane dual carriageway, with a roughness index of 1.9 IRI. Each carriageway had a 10.5m width, a 1.0m–4.0m median. Additionally there were new grade separating interchanges at the Mallam and Dimples Junctions, four major intersections at Lapaz, Darkuman, Kwashieman and Awoshie Junctions, and 12 minor Junctions.

Apart from the “vehicles per hour at peak hour” and the “volume to capacity ratio” which achieved 24% and 86% of their targets, the upgrade resulted in all the outcome level indicators achieving results in excess of their end of Compact targets.

One of the successes chalked by the new George Walker Bush Highway, after it had been commissioned by His Excellency President John Evans Atta-Mills on 15th February 2012, is the speedier movement of goods, including agricultural produce, as shown by the decrease in the “volume-to-capacity ratio”, from a baseline that ranged between 0.85 - 1 to 0.3 – 0.34. This also signifies an improved capacity of the road to contain the increase in volume of traffic by 66% and to reduce travel time at peak hour by about 68%.

VII. Long-Term Sustainability

Arrangements that will ensure the long-term sustainability of the N-1 Highway were built into the Compact at the planning stages. The issue of funding for routine and periodic maintenance activities was made a CP to ensure that the Government of Ghana had made adequate provision for the maintenance and sustainability of the Project.

In fulfilment of the CP, MiDA submitted to MCC the following documents: (i) a written confirmation from the MRH, a Report from the Road Fund Board and (ii) excerpts from the Government’s Budget, to satisfy the Condition. To meet the CP, Cabinet also approved the Policy on Tolling of Roads; the Legislative Instruments on Road User Fee; and Vehicle Registration and Bridge Tolls were amended by MRH.

The GHA was made responsible for “Taking Over” and Maintenance of the new road. Consequently, the Authority was involved in all evaluations of Bids for the procurement of Consultants and Contractors, through to final “Take Over” of the roads.

All the technical designs were reviewed with engineering professionals from various divisions of GHA and GHA’s Technical Staff participated in all Site Inspections and Meetings throughout the construction period. This was to ensure that the highway was constructed in accordance with GHA’s technical specifications.

The IEA, which was signed between MiDA and MRH, was also attested to by GHA, making the Authority responsible for the maintenance of the N-1 Highway, post-Compact. MiDA transferred Program assets like laboratory equipment, vehicles and office accommodation to GHA, to support them in their road maintenance activities.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- The commencement of implementation of the RAP immediately after the ROW was established, would have been the ideal timing, rather than when construction was in progress.
- The period of validity of pre-qualified Contractors must be notified to all by the Procurement Department, to obviate the need for another bout of pre-qualifications, as was the case in bidding for the N-1 Lot 2 Works.
- Alternative arrangements must be in place to take care of the avoidable delays caused by Government Agencies, on account of their competing schedules. In particular are MiDA’s experiences with the Land Valuation Division of the Lands Commission, for the determination

of valuations, compensations and settlements, the GHA for payments to PAPs and the EPA for issuing of Environmental Permits. These bottlenecks that led to delays ought to have been anticipated and addressed from the onset.

- Loss of some quality resources, with respect in particular to potential Consultants and Contractors, following the adherence to the rather lengthy procurement lead times.
- Consultancy Contracts must have provisions for 'delay damages', to compel Consultants to submit better quality deliverables on schedule.
- For speedy responses and decision-making, a strong Technical Team, comprising members drawn from all the relevant Road Agencies, is an imperative for such time-bound projects.

Challenges

- There is the need for effective communication and better understanding between counterparts working for MCC and MiDA to avoid any delays in the procurement process. A typical case arose from the inability of the Environmental and Infrastructure groups to reach a compromise on the process of resettlements and handing-over of Sites.
- The implementation of the RAP could not be carried out in accordance with the Schedule in the Appendix to Bid. This led to revisions on several occasions; and therefore the late Possession of Site by the Contractor.
- Procurements scheduled to start in January 2009, were delayed until May 2009, in order to address the Offsite Drainage issue which was not in the original Terms of Reference. The long delay resulted in the Extension of Time for the Contractor.
- An ambiguity in the specification of the bitumen to be used for the asphaltic concrete works, led to prolonged discussions between the Stakeholders. This delayed the laying of asphaltic bitumen on Lot 2.
- Rather than supporting MiDA to strategise and handle the RAP issues on a heavily built-up road corridor, the decision of the Lot 2 Contractor to take possession and commence work only when entire sections of the road corridor had been cleared of PAPs, led to delays and created opportunities for the Contractor to make Claims.
- Poor mobilization of the Consultant's Supervision Team and the frequent replacement of the Team Leader during the period of execution deprived MiDA of the opportunity to deal decisively with issues raised by the Contractor at the initial stages of the Contract.
- Following some safety and health compliance challenges, MCC ordered a shutdown of the entire Lot 1 Works Site. This resulted in a two-week delay of the Project.
- The Additional Works and the late release of Sections of the Project Corridor, also led to delays in the completion of the Contract.

Recommendations

- There is the need for effective communication between MiDA and her MCC Technical Counterparts to prevent delays in the procurement process. The 5-day turnaround time for documents presented for review must be respected on both sides.
- TORs must be thorough and envisage all contractual issues, to speed up the procurement process.
- Commencement of the resettlement of PAPs immediately after the ROW has been established must be the norm. Implementation of RAPs when construction is in progress should be avoided.
- For a project with an extensive resettlement and compensation issues, a fully resourced Department to handle Surveys and Valuations, and for liaison with the Lands Commission, would be ideal.
- The technical specifications for bituminous materials needed for construction must be explicit in order to debar litigious Contractors from using similar/equivalent material of uncertain quality and cost.
- In future, Offsite Drainages must be incorporated into the drainage design of the main Works.
- To avoid protracted negotiations, which are likely to trigger MCC interventions, the contracting parties must be encouraged at all times to handle issues relating to Claims, strictly in accordance with the Terms of the Contract, particularly when the Contract is up and running.

3.2.2: Improvement of Trunk Roads (“Trunk Roads Activity”)

I. Identifying Information

- **Objective**

To facilitate the growth of agriculture and improve access to social services in the Afram Basin Zone.

- **Performance Period**

The performance period for the two separate Contracts is highlighted below:

Description	Trunk Road (AF 1)	Trunk Road (AF 2)
Date of Signature	6 Oct 2009	6 Oct 2009
Commencement Date	22 Oct 2009	22 Oct 2009
Original Time for Completion	24 months	24 months
Completion Date	23 Oct 2011	23 Oct 2011
Revised Completion Date	2 Dec 2011	31 January 2012

- **Geographic Area**

The selected road segments under the Trunk Roads Activity stretch from Agogo in the Asante-Akyem District to Dome in the Kwahu North District, located in the Ashanti and Eastern Region respectively. The 75.2 km segment forms part of the five (5) trunk roads network in the Afram Basin Zone.

To speed up the construction of the road, the corridor was divided into two Lots as follows:-

- **AF1** - the 32.5 km road lies entirely in the Ashanti Region of Ghana. The road starts from Agogo and runs in the north-easterly direction through the village of Afrisere to end on the Afram River, at Km 32+500.
- **AF2** - the 42.7km Afrisere to Dome stretch, also runs in a north-easterly direction through the villages of Mossi Panyin and Samsu to Dome at Km 75+208. The road starts just before Afrisere, where the AF 1 Contract ends and lies in the Kwahu North District of the Eastern Region.

- **Financial Issues**

MCC Funding	AF 1 (US\$)	AF 2 (US\$)	Total (US\$)
Initial Budget:	N/A	N/A	32,764,280.00
Contract Price:	13,050,075.00	12,850,584.00	25,900,659.00
Final Budget:	14,144,897.34	14,336,177.08	28,481,074.42
Actual Disbursement:	14,034,288.00	13,604,283.00	27,638,571.00
Host Country Contributions:	Nil	1,920,541.00	1,920,541.00

- **Implementing Partners**

	AF 1	AF 2
Implementing Entity:	GHA	GHA

HIGHLIGHTS – TRUNK ROADS ACTIVITY

75.208 km of Trunk Roads was y constructed at a cost of US\$32,553,023

This has reduced the International Roughness Index along the stretch, post-construction, from 9-12 at pre-construction to 3.4 meters of jumps per kilometre travelled.

This increased the Annualized Average Daily Traffic from 221.5 at Pre-construction to 440.34 Post-construction (84%).

A crossing point on the Agogo-Dome Trunk Road



Pre-Construction Bridge



Post-Construction Bridge

II. Background

Since the early 1990s, there has been considerable interest in developing the Afram Basin Zone to address the high incidence of poverty and also enhance the agricultural potential of the area. The reason for this decision is that despite the efforts of the disadvantaged farmers who occupy the land, lack of basic social amenities and infrastructure makes the area unattractive to investment. The Afram Basin Zone is characterized by a poor road network and this handicap discourages economic growth, considering the poor accesses to markets, for agricultural produce. The need to “open up” the Afram Basin Zone and promote agricultural production through the improvement of the trunk road networks has become a necessary part of the development of the area.

The Trunk Roads Activity in the Compact was intended to facilitate the growth of agriculture and enhance access to social services through the rehabilitation or construction of up to 230 kilometres of trunk roads in the Afram Basin Zone. While the roads are classified as either regional or inter-regional trunk roads, the Ejura-Mossi Panyin and Agogo-Dome roads and to a certain extent, the Begoro-Adawso Roads, are commonly referred to as “missing links”, in that they are basically bush tracks which do not even feature on Ghana’s topographic maps. They are classified as such because of their geographical importance in connecting the Afram Basin Zone to the National Road Network.

The Original List of Trunk Roads from which the final selection was made, is shown in Table 3.60.

Table 3.60: Originally Proposed Trunk Roads

Zone	District	Road Sections (Nos.)	Length (km)
Afram Basin	Ashanti Akyem North/Sekyere East	1	77.0
	Ashanti Akyem North/Sekyere East/Afram Plains North	2	107.0
	Fanteakwa/Kwahu South	1	43.0
	Total Proposed Trunk Roads	4	227.0

III. Changes in Implementation vis-à-vis Results Framework

The major changes and deviations in the implementation of the Trunk Roads Activity as proposed under Table 3.60 above, involved the drastic reduction in the number of road segments from five to two, after the Pre-Feasibility Studies. This resulted in a minimal reduction in the targeted kilometres, from the initial 230 kilometres to 227 kilometres.

In consultation with the European Union (EU), MCC had agreed to cede the construction of the Ekye-Amanfrom to Amankwakrom segment (85 kilometres), which had been designed and the Bidding Documents prepared for the procurement of the Works. Unfortunately, this could not be accomplished, as the EU encountered financial challenges.

The remaining roads (measuring 142 kilometres), were engineered, designed and packaged into 4 Lots, viz: AF1, AF2, AF3 and AF4. AF1 and AF2 (measuring 77 kilometres) were selected for construction under the Compact. They were designated as Tranche A Roads.

Lots AF3 and AF4, (168 kilometres), which were designated as Tranche B Roads were not constructed under the Compact, due to budget constraints.

IV. Total Activity Cost

The original Activity Budget was US\$32.764 million. After procuring the Works, the total cost of both Contracts came in at US\$25.9 million, 21% less than the Budget. However, when the Works were completed, the final cost had risen to US\$28.48 million, 9.96% above the Original Contract Sum. *Table 3:61 provides the cost details.*

Table 3.61: Cost Details of Trunk Roads Activity

MCC Funding:	Trunk Road AF 1 (US\$)	Trunk Road AF 2 (US\$)	Total (US\$)
Initial Budget:	N/A	N/A	32,764,280.00
Contract Price:	13,050,075.00	12,850,584.00	25,900,659.00
Final Contract Price:	14,144,897.34	14,336,177.08	28,481,074.42
Construction Supervision			2,479,511.00
Actual Disbursement for Works (MCC):	14,034,288.00	13,604,283.00	27,638,571.00
Actual Disbursement for Mini RAP and EPA Permits (by MCC)			514,400.00
Actual Disbursement for works. (Host Country Contributions)	Nil	1,920,541.00	1,920,541.00
Total Actual Disbursement for Works			30,073,512.00

V. Project Activity Implementation Partners

The implementation of the Trunk Roads Activity began with Feasibility Studies, which informed the detailed engineering studies and designs and subsequently the preparation of Bidding Documents for the Tranches A and B Roads by the Messrs H.P Gauff Ingenieure GmbH, the Implementing Consultant. The Consultant was also responsible for the supervision of the Tranche A Works Contract.

Afram Basin Zone - Consultancy Contract for Trunk Roads

The Basic Contract Data for the Consultancy for Supervision are shown in Table 3.62.

Table 3.62: Consultancy Contract Data: AF1 & AF2 Roads

Service Contract	
Engineer:	H.P Gauff Ingenieure GmbH & Co
Commencement Date:	3rd March 2008
Contract Price:	USD 2,079,638.00
Revised Contract Price:	USD 2,806,574.47

The Consultant's Contract was split into the following Phases:

Phase A:

- Phase A1 : Preparation of Feasibility Study, including Preliminary Design.
- Phase A2 : Preparation of an Environmental and Social Impact Evaluation, including EIA and RAP, if required.
- Phase A3 : Preparation of the Final Design, the Pre-Qualification and Bidding Documents.

Phase B:

- Phase B1 : The provision of supervision during the construction of the Works Contracts.
- Phase B2 : Attendance during the Defects Notification Period.

The Consultant also provided the necessary attendance during the Defects Notification Period.

Consultancy Contract Variations and Changes in Costs

Under the consultancy contract, additional staffs' input was required due to the need for dedicated key personnel in the Engineer's Staff to manage and report on Lots AF1 and AF2 separately.

Two Consultancy Contract Variations were approved as tabulated in Table 3.63.

Table 3.63: Consultancy Contract Variations and Changes in Costs: Trunk Roads

Variations	Description
No.1	Payment Terms The Variation changed the Payment Schedule for specified deliverables. No cost.
No.2	Additional Staffing The sum of USD 505,000.00 for additional Consultant's Staff input. The Variation covers supervision services for AF 1 and AF 2.

VI. Tranche A: Works Contracts for AF1 & AF2

The Contracts for AF 1 and AF 2 were signed on 6 October 2009. The winning Bid for the two Lots came from the same Contractor, viz:

- AF 1 : China Jiangsu Jianda Construction Ltd.
- AF 2 : China Jiangsu Jianda Construction Ltd.

(a) AF 1 Works Contract: Agogo–Afrisere - (32.5km)

Pursuant to Clause 2.1 of the General Conditions of Contract, the Contractor, Messrs China Jiangsu Jianda Construction Limited, was given the right of access to Site for two sections of the road; namely: Km 0+000 to 15+000 and Km 16+000 to 32+500 on 15th October 2009.

The Right of Access to the 1km stretch of road passing through the Ananekrom Village was however delayed pending the resolution of some RAP issues. Resolution of the RAP issues was completed, after which possession of Site for this section of the road was granted on 19 January 2011.

PAPs affected by the Works were located mainly in the Ananekrom, Dukusen and Afrisere villages.

A tabulation of Works Contract Variations and changes in Costs under the AF 1 Works Contract is shown in Table 3.64.

Table 3.64: Works Contract Variations and Changes in Costs – AF 1 & AF 2 Roads

Variations	Description
No.1	Changes in BOQ The Variation consolidates the various omissions and additions to the BOQ, together with additions due to the EOT. The Net Change is an addition of USD 74,359.16
No.2	This Variation was for the additional Staff-months input due to the Works Contract being extended from the 20 to 24 months. The total amount of Variation No. 2 is USD 504,000.00
No.3	This variation was for the additional Staff-months input due to the EOT awarded to the Contractor for both AF 1 and AF 2. The total amount of Variation No. 3 is USD 158,659.00.

Some delays were experienced during the implementation of the Works, as a result of the rather long distance from the Works to the borrow pit recommended for winning granular materials for the pavement works. However, further material investigations by the Contractor identified a source for good nodular laterite for the sub-base and base pavement layers work, close by the road corridor.

There were no other major challenges with respect to implementation, except with the timing of applying the bitumen seals. Due to the inadequate curing time after priming, the first seal and the second seal, significant bleeding of the bitumen was experienced at sections of the road. This was done in order to be within the Compact completion period.

The excessive bleeding was addressed with the application of shale as a catalyst to improve the curing process.

Works Contract Variations and Changes in Costs: AF1

Changes in the material quantities as implementation progressed, led to a net increase in cost of US\$74,359.16. The Contract Period was also extended from the original 20 months to 24 months, to compensate for interruptions and delays due to exceptionally heavy rains. This attracted additional cost of US\$504,000.00 to cover the Contractor's key personnel, while the cost due to extension of time was US\$158,659.00.

Completion and Final Inspection

The Taking-Over Certificate was issued in February 2012 after an inspection by the Stakeholders, including MiDA and the GHA on 11 January 2012. The Defects Notification Period for the Contract started from February 2012 and will extend to February 2013.

(b) AF 2 Works Contract: Afrisere-Dome (42.71 km)

The **Afrisere-Dome Road** (42.71km) was upgraded from gravel to a bituminous sealed road. The tendering process was concluded with the Letter of Acceptance on 10 September 2009. The Contract was formally signed on 6 October 2009 and the Notice to Commence pursuant to the Conditions of Contract, set the Contract Commencement date as 22 October 2009, with completion 24 months later, i.e. in October 2011.

Pursuant to Clause 2.1 of the General Conditions of Contract for the road, the Contractor was given access to the Site (i.e. Km 32+500 to 75+208) on 15th October 2009.

Refer to details of the Works Contract Data are presented in Table 3.65.

Table 3.65: Works Contract Data: AF 2

Works Contract	
Contractor:	China Jiangsu Jianda Const. Ltd.
Date of Signature:	6 October 2009
Commencement Date:	22 October 2009
Time of Completion:	24 months
Completion Date:	23 October 2011
Revised Completion Date	31 January 2012

Commencement of Works

The Contractor started the Works very late, having adopted an approach which serialized the Works; starting from AF 1 and continuing with AF2. This was against the Employer's recommendation to have the Works executed concurrently for both Contracts. The Contractor also lost most of the dry period of the year and had to do a lot of drainage works at the Afrisere Bridge Site to ensure unimpeded access to the AF2 Contract Site. The quantities for earthworks increased by 40,000m³, due to our inability to envisage the very large volume of earthworks at the Design Phase.

Accommodation was constructed for the Engineer's Key Personnel and the Senior Technical Officers. For the Technical Officers' accommodation, three (3) Type 1-design houses were to

be constructed, but only one of Type 1 accommodation was finally constructed. The financial provision in the Contract for the maintenance of the Type 1 accommodation therefore decreased from 72 months to 24 months. The 4 months EOT, took the maintenance months to 28 and not 84, as originally proposed.

The same bitumen bleeding challenges experienced under Lot AF1 were encountered under Lot AF2, though this was not as widespread as in the former.

Works Contract Variations and Changes in Costs - AF 2

Table 3.66: Works Contract Variations and Changes in Costs: Trunk Roads

Variations	Description
No.1	<p>Changes in BOQ The Variation consolidates the various omissions and additions to the BOQ together with additions resulting from the EOT. The Net Change is an Addition of USD 1,485,593.08.</p>

Completion and Final Inspection

Following the completion of the Works, and a final inspection by the Stakeholders, including MiDA and the GHA, the Certificate of Completion was issued.

(c) Outstanding Projects: Tranche B Roads

Roads designed by the Consultant that were not constructed for lack of funds, were designated Tranche B Roads. The Consultant submitted the Final Design Report and Final Bid Documents for these road segments in January 2010.

Table 3.67 lists the individual sections of roads in Tranche B.

Table 3.67: Tranche B Roads - Contract AF 3 & AF 4

Item	Road Name	Length (Km)	Intervention
1	Dome – Mossi Panyin	73.00	G to S
2	Begoro – Adawso	73.00	G to S
3	Ejura – Dome	22.00	G to S
	Total	168.00	

Note: G to S: Gravel to Bituminous Seal

VII. Summary of Results at Activity Level: AF1 & AF2

Works on the Agogo-Dome Road comprised the construction of new pavement layers to form a 7.3 m wide carriageway, with 1.5m wide shoulders on either side, the construction of a new embankment and the installation of cross-drainage facilities. The road received a primer seal and has double bituminous surfacing throughout its length.

Summary of achievements of the Trunk Roads Activity at the Output and Outcome levels of the Results-chain are shown in Table 3.68.

Table 3.68: Summary of Results - Trunk Roads Activity

Indicator Measure	Unit of	Baseline	Actual to Date	End of Compact	% Complete to Date
International Roughness Index (IRI)	Meters/km	9 - 12	3.4	3.5	102
Annualized Average Daily Traffic	Number	221.5	440.34	258.5	591
Kilometres of Trunk Roads completed	Kilometres	0	75.21	75.21	100

The completion of the trunk roads reduced the roughness index by between 62% and 72% (from a range of 9–12 to 3.40). Within a month of completion and the opening of the road to traffic, AADT was double that at pre-construction.

VIII. Long-Term Sustainability

Arrangements that would ensure the long-term sustainability of the trunk roads were built into the Compact at the Planning Stages. The GHA was made responsible for the maintenance of the trunk roads. To this end, the Authority was involved in all Evaluations of Bids for the procurement of Consultants and Contractors, through to the final “Take Over” of the roads. All the designs were reviewed by engineering professionals selected from various Divisions of GHA.

Lot AF1 and Lot AF2 Contracts were executed in line with Ghana’s Trunk Road Technical Specifications, thereby making it easier for GHA to programme the maintenance activities, using the Maintenance Management System. MiDA transferred the road asset through an Asset Transfer Agreement to the Ministry of Roads and Highways at the end of the Compact Term, to support GHA in their road maintenance activities. Assets included laboratory equipment, vehicles and Office accommodation.

In addition, GHA’s Technical Staff participated in all Site Inspections and Meetings throughout the construction period. This arrangement was to ensure that all the roads complied very strictly with GHA’s Technical Specifications. The IEA, which was signed between MiDA and MRH, was also attested to by GHA, making the Authority responsible for the maintenance of the trunk roads.

The issue of funding road maintenance activities post-Compact was made a CP to ensure that the Government of Ghana had made adequate provision for the maintenance and sustainability of the project. In fulfilment of the CP, MiDA submitted to MCC, the following:-

- (i) a written confirmation from the MRH and a Report from the Road Fund Board;
- (ii) excerpts from the Government’s Budget, to satisfy the condition.

Cabinet also approved the Policy on Tolling of Roads; Legislative Instruments on Road User Fee; while Vehicle Registration and Bridge Tolls were amended by MRH.

IX. Challenges, Lessons Learnt and Recommendations

Challenges

- The main challenge was the execution of AF2, due to the inaccessibility of the road corridor following the unexpected heavy rainfall which led to many months of flooding at various sections of the road corridor.

Lessons Learnt and Recommendations

- Concurrent contracts awarded to the same Contractor must be closely monitored to prevent serialization of the Works by the Contractor.
- Equipment earmarked for each of the Contracts must be strictly monitored by the Consultant. This is to ensure that each Project is adequately resourced in line with the contractual requirements. This is intended to prevent the use of the same equipment on both Projects, as a means to optimize common equipment.
- The Consultant's Supervision Teams for each Contract must be distinct, to ensure focused attention and effective supervision.
- The credentials of the Consultant's Key Personnel, especially the Team Leader, must be carefully evaluated to ensure that he has the requisite capacity to work on the engineering design and the preparation of the Bidding Document.
- To prevent bleeding, the use of Cut-back bitumen and the recommended time for curing must be taken into consideration during surface dressing Works. Normally, for double surface dressing Works, a 3-month curing interval is required between the first and the second seals.
- The application of Shale to address bleeding on surface dressed roads must be perfected under the sponsorship of the Road Sector Agencies.
- Emulsion Bitumen must be used in surface dressing works, particularly when the time to complete and deliver the Works is rigid and cannot be changed.

3.2.3: Improvements of Lake Volta Ferry Service (“Ferry Activity”)

I. Identifying Information - (2 Ferries and a Floating Dock)

- Objective**
 To facilitate growth of the agricultural sector in the Afram Basin Zone, MCC funding will support improvements to ferry services connecting Adawso on the southern shore to Ekye Amanfrom, on the northern shore; run by Volta Lake Transport Company Ltd. (VLTC),
- Performance Period**
 Information on the performance period of the two (2) major contracts under the Ferry Activity⁶³ designated FS1 and FS2 is presented below:

	FS 1	FS2
Date of Signature:	16 Apr 2010	07 October 2010
Commencement Date:	24 May 2010	25 October 2010
Time of Completion:	20 months	12 months
Completion Date:	23 Jan 2012	25 October 2011
Revised Completion Date:	15th February 2012 ⁶⁴	31 Jan 2012

- Geographic Area**
 Construction activities on two new ferries, which will be used at the Adawso to Ekye Amanfrom crossing points in the Kwahu North District of the Eastern Region, took place at VLTC’s Akosombo Port. The same Port’s facilities were used to support the rehabilitation of the over 40-year old Floating Dock.
- Financial Issues**
 The three Contract Lots, under the Ferry Activity were funded by MCC as follows:

MCC Funding

	FS 1	FS 2	FS 3 ⁶⁵
Initial Budget:	US\$ 2,988,195.00	US\$ 1,433,900.00	US\$ 328,000.00
Contract Price:	US\$ 9,484,800.00	US\$ 3,632,258.65	US\$ 328,000.00
Actual Disbursement: ⁶⁶	US\$ 8,486,746.00	US\$ 3,507,628.00	US\$ 307,956.00

Host Country Contributions

	FS 1	FS 2	FS 3
GoG Contribution:	US\$ 872,000.00	US\$ 816,050.00	-

⁶³ FS1 – Construction of 2 new RoRo Ferries and the Rehabilitation of the Akosombo Floating Dock.
 FS2 – Rehabilitation of the Landing Stages and Passenger Terminals at the Adawso and Ekye Amanfrom ends of the Volta Lake.

⁶⁴ At the end of the Compact Term, 90% of the Scope of Works had been achieved. The remaining 10% was scheduled for completion by end of May 2012

⁶⁵ The Contract for the Removal of Tree Stumps in the Adawso to Ekye Amanfrom Navigational Route

⁶⁶ This refers to total payments from MCC’s funds as at the end of the Compact..

- **Implementing Partners**

Implementing Entities:

MiDA worked with the following Implementing Entities on the three Contract Lots viz: - FS1, FS2 and FS3, which formed the Ferry Activity:

- Ministry of Transport (MoT)
- Gha **Feeder Roads** in na Maritime Authority (GMA)
- Volta Lake Transport Company (VLTC)
- Volta River Authority (VRA)

Implementing Contractors and Consultants:

	FS 1	FS 2	FS 3
Consultant:	Grontmij/Carlbro/Erria/Map Consult		
Contractors:	Messrs Arab Contractors (Osman Ahmed Osman & JV Co.), Egypt	Terrascon Engineering Limited/Hopkus Limited	VRA (CRSD)

Project Management Support Consultant (PMSC) - SMEC:

SMEC International Pty, the Project Management Support Consultant, provided a Marine Engineer/ Naval Architect and a Coastal Hydraulics Engineer for the initial review of the design study and detailed designs of the ferries and the landing sites. SMEC also provided services during the tendering stage and in the evaluation of bids for the Works.

During the Construction Phase, SMEC provided services in reviewing all Project documents and supporting the TAIPM at Monthly Site Progress Meetings, as well as checking and advising on the approval or otherwise of all Interim Payment Certificates.

II. Background

Before the commencement of the Ferry Activity, ferry services between the Adawso and Ekye Aman from crossing points were provided by the “MV Nana Kwasi Gyimah”. This vessel made on the average, six crossings per day. Each crossing, including loading and unloading, took about one hour. At the commencement of the Ferry Activity, the service was being operated close to its capacity. Night-time crossings were considered unsafe and had been discontinued.

On average, 53 vehicles and 541 passengers used VLTC’s ferry every day, while another 275 passengers used privately operated small-crafts. These traffic volumes are the norm, however, on peak and seasonal periods like Market Days; volumes reach about 1.33 times the average daily volumes. In December, about 1.5 times the average monthly volumes can be reached.

Highlights – Ferry Activity

- One of two Ferries and two Ferry Terminals had been completed by end of Compact Term.
- A Second Ferry, the Floating Dock and two Landing Stages which were at various levels of completion at the end of the Compact, have since been completed.
- Removal of tree stumps from the crossing route has been completed.



Traffic in and out of the Afram Plains for vehicles carrying freight is forecast to grow at 7.0% per year over the next ten years, dropping to 5.0% per year over the period thereafter; and 3.0% per year over the next twenty years for vehicles carrying passengers. Another 32 vehicles per day may result from the proposed MCC investments in the Afram Plains.

III. Changes in Implementation vis-à-vis Results Framework

There were no significant changes in the implementation of the Ferry Activity.

IV. Total Activity Cost

After the procurement exercise, Contracts for the three Lots came in at US\$13.45m. This increased to a final budget of US\$16,457,010. Out of this amount, US\$13,708,265 had been spent by the end of the Compact, since some activities had not been completed at the end of the Compact, GOG made a commitment to pay for all the outstanding Works. Further details are provided in Table 3.69.

Table 3.69: Cost Details of Ferry Activity

Contract Lots	Original Contract Sum (US\$)	Variation and Price Adjustments (US\$)	Final Contract Sum (US\$)	Actual Disbursement (US\$)
Lot FS1	9,484,800.00	398,000.00	9,882,800.00	8,486,746
Lot FS2	3,632,258.65	910,652.00	4,542,910.65	3,507,628
Lot FS3	328,000.00	-	328,000.00	307,956
Construction Supervision				1,358,161
Training of VLTC Staff				47,774
Total	13,445,058.65	1,308,652.00	14,753,710.65	13,708,265

V. Project Activity Implementation

a. Consultancy Contracts

Table 3.70: Consultancy Contract Data:

Service Contract	
Engineer:	Grontmij/Carl Bro/Erria/Map Consult.
Commencement Date:	14 Feb 2008
Contract Price:	USD 2,660,129.00
Revised Contract Price:	USD 2,700,851.03

The Consultancy Contract was split into three Phases as follows:

- Phase 1: Feasibility Study, including the preliminary design, cost estimates, assessment of environmental and social impacts and preparation of environmental management plans.
- Phase 2: Final engineering designs, including preparation of Bidding Documents and supporting MiDA during the technical evaluation of the bids.
- Phase 3: Supervision of the Project as required.

Consultancy Contract Variations and Changes in Costs

Variation Order No. 1 – Extension of Supervision Services

- Variation No. 1 provided for the extension of the supervision services for all three contracts, following the extension of time for the Construction Contract. Cost was estimated at USD 62,000.
- MiDA converted the IEA with the VRA into a Contract Agreement to enable VRA to implement the FS 3 Contract, as it had the equipment and the facilities to undertake the removal of the tree-stumps along the navigation channel.

b. Works Contracts

The Winning Bidders for the three contracts were:

- FS 1: Messrs Arab Contractors (Osman Ahmed Osman & Co.), Egypt
- FS 2: Messrs Terrascon Engineering Limited/Hopkus Limited JV.
- FS 3: The Volta River Authority of Ghana

Profile of Works Contracts

FS1 Contract:

The Contract for the construction of two (2) Ferries and the rehabilitation of the Floating Dock was awarded to **Messrs Arab Contractors Ghana Limited**.

The tender process ended with the issue of the Letter of Acceptance on 12 March 2010. The Contract was signed on 16 April 2010 and the Notice to Commence pursuant to the Conditions of Contract set the commencement date as 24 May 2010. The Contractor was given "Possession of Site", pursuant to Clause 21.1 of the General and Special Conditions of Contract, on 24 May 2010.

- Details of the Works on the Ro-Ro Ferries are described below:

This covered the construction of two Ro-Ro ferries within VLTC's facilities in Akosombo and the rehabilitation of the very old Akosombo Floating Dock. The Employer's Requirements under the Ferry Contract included the provisions for a 200-person Passenger Capacity and Passenger Car Equivalents (PCE) capacity of 20 units.

- Works on the rehabilitation of the **Floating Dock** included the following:
 - General Hull Works: (Repair of 4 pontoons and Cleaning of all 25 pontoons)
 - Aft Body Construction: (Strengthening Deck Aft with Stiffeners)
 - Fore Body Construction: (Dismantling and construction of Portside and Starboard-side Crane Deck)
 - Engine Area Works: (Generator Room, Engine Foundation)
 - Deck Housing: (Rehabilitation of Port and Starboard Deck Houses)

Some noteworthy developments during the prosecution of the Project, included:

- Health and safety aberrations on the part of the Contractor, which resulted in one fatal lost time accident.

- Delays occurred as the initial batch of local welders engaged by the Contractor was not certified to meet the Welding Standards of Germanischer Lloyd's (GL)⁶⁷ and were generally inexperienced. These had to be replaced by expatriate welders.
- Poor communication and misunderstandings between the Contractor's Staff and the Consultant also had an impact on the progress of work.
- Throughout the execution of the Contract, the tenure of nearly all the Resident Engineers deployed by the Consultant, remained unstable, leading to different management styles and lack of consistency in the supervision of the Ferry Construction Works. In the face of these delays, Works on the Second Ferry, could not be completed before the end of the Compact.

Under a Supplementary Agreement, GOG will provide funding to ensure completion of the Works after Compact Closure.

FS 2 Contract:

The Contract was awarded to Messrs Terrascon Engineering Ltd/Hopkus Ltd JV (THOP JV), in late September 2010 with the Contract signing taking place on 7 October 2010. The Contract Commencement date was 25 October 2010 and "Possession of Site" was given on 11 November 2010.

The Scope of the Works at Adawso and Ekye Amanfrom, involved the rehabilitation and extension of the Landing Stages to increase ferry handling capacities and rehabilitation of the Ferry Terminal facilities. The rehabilitation and extension of passenger terminals also aimed at improving on sanitation and increasing accommodation facilities within the terminals to support the additional ferry and passenger traffic.

Works on the Terminals were completed within the Contract period. The Marine Works had to wait until April 2011, as a result of high water level.

The Marine Works component could not be completed as a result of the higher than expected water level. The remaining Marine Works have been packaged under the Supplementary Agreement to enable Works to continue post-Compact.

The Access Roads to the Landing Ramps were upgraded from asphaltic concrete to rigid concrete pavement. This was to prevent water from undermining the foundation of the pavement.

FS 3 Contract:

The Contract between MiDA and VRA, fashioned after the Small Works Conditions of Contract, was signed on 28 September 2010. The Contract involved the extraction of submerged tree-stumps in the ferry crossing path of the Volta Lake.

Both parties thereafter agreed that the Works should be carried out by a Sub-Contractor, Messrs Clark Sustainable Resources Development Limited, (CSRD) of Canada.

⁶⁷ Germanischer Lloyd (GL): the Classification Society whose Standards were used for the ferry construction.

Due to the high water level in the Lake, Messrs CSRD was given the approval to commence the exercise between end of July 2011 and mid-August 2011, when the water level would be at its lowest. This would allow for the completion of the Contract by the end of August 2011.

Due to the continued high water levels, this Schedule did not work. The Works were however completed successfully in September 2011, after CSRD had changed the proposed Work Method.

VI. Summary of Results – Project Activity Level

Five Outcome Level Indicators that relate to travel time and AADT for walk-on passengers, small vehicles and trucks are yet to be measured, as the two ferries were yet to start operations at the end of the Compact.

A summary of achievements of the Ferry Activity at the Output Level of the Results-chain are shown in Table 3.71:

Table 3.71: Summary of Results: Ferry Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Physical Completion of Civil Works at Landing Stages	Percentage	0	84	100	84
Physical Completion of Terminals	Percent	0	100	100	100
Ferry Terminals Upgraded	Number	0	2	2	100

By the end of the Compact, the summarized results in Table 3.71, disaggregated by Contract, i.e. FS1, FS2 and FS3, were as follows:

FS1: One ferry completed, but yet to commence operations at the Adawso - Ekye Amanfrom crossing area.

FS2: Ferry Terminals at Adawso and Ekye Amanfrom, fully upgraded (including furnishing). Though none of the two Landing Stages had been completed, civil works were about 84% completed.

FS3: A total of 685 tree stumps were extracted (against the 200 tree stumps specified in the Contract), from the trajectory of the crossing route between Adawso and Ekye Amanfrom.

VII. Long-Term Sustainability

Arrangements similar to the Feeder Roads Activity have been made for the running, management and sustenance of the ferries and the terminals and landing stages.

- The beneficiary of the Ferry Activity is VLTC, who will be operating the ferries on the Ekye Amanfrom-Adawso crossing route.
- The Floating Dock has been fully rehabilitated to enhance VLTC's capacity in the repair and maintenance of ferries.
- The Contractor provided on-the-job training to VLTC's Staff during the construction of the ferries. The Technical Staff were also supported to upgrade their ferry maintenance and operating skills at the Maritime University in Ghana.
- VLTC will locate permanent Staff at the Adawso-Ekye Amanfrom crossing route to manage the Terminals and handle ferry-related operations.

VIII. Challenges and Lessons Learnt

FS1 Contract

Challenges

- From feasibility studies through to design and construction supervision, the Project experienced four (4) changes in Team Leadership. This resulted in poor coordination and a disjointed supervision process.
- Due to the high turnover of key personnel, the Consortium that provided consultancy services did not fully benefit from institutional memory at various stages of the assignment.
- Working with a Consortium as the Consultant, necessitated clearly spelt out roles and responsibilities at every stage during the execution of the Contract.
- There were slippages in adherence to Health and Safety Rules, which led to delay in the execution of the Work Programme.
- **The contractual payload of 120 metric tons could not be achieved as the principal dimension of Depth 1.8m and Draft 1.2m, was varied to Depth 1.9m and Draft 1.3m, due to the increase in steel thickness. This led to a loss of 22 metric tons in the payload. The Consultant must always wait for the Classification Society's approved drawings before instructing the Contractor to commence construction.**

Lessons Learnt and Recommendations

- Poor cooperation between the Consultant and Contractor affected the pace of work and delayed key deliverables. To prevent such unfortunate occurrences, Parties should respect each other's social and cultural sensibilities.
- Health and Safety issues must be given priority attention at all times during the construction phase.

- There must be continuous training of Staff on the application of Regulations relating to safety, health and environment.

FS2 Contract

Lessons Learnt

- As far as practicable, sectional handing over of Works must be avoided, as it creates resource challenges during the DLP.
- As much as possible, Works must be so packaged to be mutually exclusive.

IX. Lessons Learnt, Challenges and Recommendations on the Transportation Project

The following comments and observations made in connection with the Transportation Project provide valuable information that would benefit the implementation of future Compacts and the implementation of similar infrastructural Projects.

Lessons Learnt

Issues that arose at the **Pre-Construction Stages** included the following:

- The supervision period allowed under the Consultancy Contracts was found to be inadequate after the actual works had been packaged.
- In almost all the TAIP Projects, the adoption of the lump sum payment format for the supervision phase of the Consultancy Contract, also led to the acceptance of extensions of time requests for most of the Works Contracts. As a result, there were variations in Consultancy Contracts.
- In the event of a Contractor engaging in significant amounts of overtime work which required the Supervisor's Staff's attendance, the provisions made and the method of payment for the Consultant's Support Staff need to be clearly defined in the Consultancy RFP. The Contract must cover such occurrences, in order to avoid disputes.

Challenges

- A major challenge encountered during the implementation of the Works was the inability of some Contractors to operate in an effective and efficient manner as a result of the inadequacy of their financial resources. The following constitute very important aspects of this issue:
- The criteria for pre-qualification and/or post-qualification of potential Contractors needs to be reassessed in the light of the numerous cash flow challenges experienced by Contractors during the construction phases of many of the TAIP Contracts. If by raising the qualification requirements it is felt that the opportunity to engage the services of smaller domestic contractors will be lost, then there must be the need to make a provision for routine mentoring of smaller local Contractors to support their capacity build-up.

The above notwithstanding, there must be an even more rigid scrutiny of Bidders at the initial stages, if the related slow pace of work or poor quality of work are to be avoided.

- The re-designing of sections of some approach roads during construction, impacted on work progress and costs. It was realised at the start of construction activities that some of the original designs did not fit the actual Site conditions. It is suggested that some sections of the design be sampled at the design stage for scrutiny by the Employer's Design Review Panel. This would also ensure that in-depth survey works have been carried out, prior to the final design.

The following lessons relate particularly to the **Construction Stage**:

- In the case of Supervision of Works, the quality of Contract Management and Contract Administration on some projects was not as high as it should have been. This was usually traced to the inexperience of the Senior Site Personnel and in some cases, was due to lack of commitment by the Supervising Firm.

These shortcomings manifested themselves in poor record keeping, poor handling of tests and quality controls and in poor reporting of progress monitoring; (physical and financial).

The provision for these things in the Consultancy Agreements notwithstanding, the inability to apply any rigid sanctions due to the desire to push towards the tight completion deadline, allowed the situation to prevail without any remedy. A possible way to ensure better compliance may be to apply all regular payments to the proper delivery of services.

- **Monthly Progress Reports:** Problems with receiving adequate and timely Monthly Progress Reports from the Consultants affected Project monitoring and the quality of feedback that came to the Employer in the construction phase.

Rather than relating to the Consultant's payments to the Contractor's Progress of Work, it may be advisable to tie payments to the delivery of satisfactory and complete Monthly Progress Reports. This could significantly improve the Implementing Agency's Project Management Capability.

- **Many Contractors did not appear to follow their Works Program in any great detail to facilitate the monitoring of the progress of Works.** Despite the requirement of contracts for the Contractor to provide a Works Program and to update it regularly, it proved difficult to receive meaningful and regular copies of the Works Program. Even when Programs were produced, they appeared to be done purely as a deliverable in the Contract and were hardly used on the Project.

The lack of appreciation for this monitoring tool has to be addressed through some initial training for the Contractors (and Consultants) and on-going monitoring/mentoring exercises by the Implementing Agency. This will not only improve on the monitoring of progress, but would also improve the Contractor's performance. Additionally, some payment provisions may have to be introduced into the Contract to encourage or sanction defaulting Contractors.

- **Inadequacy of Testing Facilities:** Some Contractors chose to use external commercial testing facilities. This made the work of the Consultant difficult. In future, Contracts should stipulate and the Implementing Agency should insist that before any Works requiring materials testing are undertaken, an on-site fully equipped testing laboratory must be in place. A specific payment provision should be introduced into the Contract to sanction Contractors.
- **Conflict between the Consultancy and Works Contracts and the Fiscal Agent's Contract:** Other problems in the administration of the TAIP Contracts arose from a conflict between the Consultancy Contracts, Works Contracts and the Fiscal Agent's (FA) Contract. On numerous occasions, payments to Contractors were delayed due the need for the Fiscal Agency to fulfil a 'contractual obligation'. This imperative to ensure compliance with MCC's Rules and Guidelines placed MiDA in a non-compliant position, vis-a-vis the payment arrangements under its Contracts with the Contractors.
- Similarly, the decision to award an extension of time for Construction Contracts in order to enable the Fiscal Agent to effect payment for work done, were generally not supported by the Construction Contract and was merely the outcome of the FA's interpretation.

There were numerous instances where values on the Certified IPCs were reviewed downwards by the FA, in line with his mandate under the Compact, regardless of the responsibility of the Engineer under the FIDIC Conditions of Contract.

This conflict between the FA and the Engineer, which delayed some payments, should be addressed in any future Compacts by ensuring that the Fiscal Accountability Plan (FAP) is consistent with the conditions of the respective contract agreements for the Works. Such an arrangement would remove any potential liability to MCAs.

- Some of the problems highlighted above appeared even more difficult to manage, particularly in the later stages of the Compact, as a direct consequence of the rigid Compact completion deadline and the resultant pressure on Supervisors from Contractors to avoid delays that may result in uncompleted projects.

Although some of the delays could be attributed to the Contractors, because of the extremely slow mobilization at the start of the Contracts.

In a number of cases, had late procurements been avoided, some of the pressure to complete Contracts would not have occurred.

- **Deadline for Procurements:** It is suggested that a deadline for procurement should be adopted, (*i.e. if the procurement process has not been initiated or if a Contractor/Consultant has not been procured by a certain date, then it is too late to implement the Works*). This will help to avoid the award of late Contracts, which may ultimately not be completed within the Compact period. This could be done through the use of a specific date for Project procurement, or on a deadline dependent on the size of the particular Contract, *e.g. a deadline for procurement of a Contractor is the estimated length of Contract time plus 6 months before the Compact Completion Date.*

Recommendations

- **Pre-construction Stage**

For the successful and efficient execution of any civil engineering infrastructure projects, one of the principal requirements is the selection of a highly qualified and experienced Design and Construction Supervision Consultant. To achieve this objective, the Terms of Reference and Request for Proposals for the Selection of Consultants need to be complete, comprehensive and specific in stating the Objectives and Tasks of the Assignment, so that the Consultants' Proposals would be complete, realistic and responsive to the related Project Activity.

Integration of PMSC Team with MiDA

Apart from the regular monitoring by the Consultants and Contractors, the PMSC was also required to produce various Reports for MiDA and to assist the TAIPM in monitoring contract variations and enforcing budgetary control.

In undertaking their duties, the PMSC Team so often encountered difficulties in obtaining financial information that was necessary to deliver on aspects of their responsibilities. It was not always practical to channel their requests through the TAIPM, placing unnecessary demands on his valuable time.

Despite being an External Consultant, the impact of the PMSC's work would have been better felt, if the whole of MiDA accepted that the PMSC Team was part of the Compact Team.

3.3: Rural Services Development Project (“Rural Development Project”)

Introduction

Residents in the rural areas of Ghana have spotty and frequently poor access to basic utility services such as potable water, sanitation, domestic electricity and educational facilities. These shortcomings affect the productivity of these people and make it difficult to attract investors or retain skilled workers to develop the rural areas. This has limited Ghana’s ability to realize the full potential of its agricultural resources.

The objective of the Rural Services Development Project was to expand basic community services infrastructure and strengthen rural institutions that provide services to rural communities.

The Project was made up of the following Activities:

- **Procurement Capacity Activity (PCA);** which involved the development of procurement professionals to improve the procurement capabilities of the Government of Ghana.
- **Community Services Activity (CSA);** which involved the construction and rehabilitation of educational facilities and water and sanitation services in rural communities; as well as electrification of agro-processing facilities in rural areas.
- **Financial Services Activity (FSA);** which involved the automation and interconnectivity of the network of all community and rural banks; and Improvements in the national payments system designed to draw people currently not served or under-served into the financial system.

Major interventions under each Activity are summarized in Table 3.72.

Table 3.72: Summary of Activities: Rural Development Project

Activity	Zone	Interventions
Procurement Capacity Building	Nationwide	<ul style="list-style-type: none"> • Placement of tertiary level students in procurement-related internships with public institutions • Development of Curricula and Modules for procurement majors, diploma holders and in-service public procurement professionals • Training of Lecturers in the use of Curricula and Modules and the development of accompanying Lecture Notes. • Training of practicing procurement personnel on the Modules. • Development of Case Studies to complement Lecture Notes • Establishment of a Career Path System for Procurement Professionals and Practitioners.
Community Services	All Compact Districts	<ul style="list-style-type: none"> • Rehabilitation/Construction of classroom blocks, with rain water harvesting systems and handicapped ramps, girl-friendly sanitation facilities, teacher accommodation and a full complement of furniture for teachers and pupils. • Construction of pipe extensions, small town water systems and stand-alone boreholes with hand pumps. • Construction of the Tamale Water Extension Project (TWEP). • Extension of electricity and installation of transformers to agro-processing facilities to enhance post-harvest infrastructure - nucleus farms and pack houses working with FBOs.
Financial Services	Nationwide	<ul style="list-style-type: none"> • Installation and Staff Training for a Cheque Codeline Clearing System and an Automated Clearing House Facility for the National Clearing House, involving all Banks (including Rural Banks) in Ghana • Development of a satellite-based, wide area network (WAN) for 134 Rural Banks, • Deployment of a standard e-merge software for all Rural Banks and their Agencies; plus Computers, Passbooks and Statement Printers, Generators and equipment for local area network (LAN) installations

Financial Performance of the Project

After the re-scoping exercises in December 2008 and 2009, the original Compact Budget of US\$101,288,000 for the Rural Development Project was reduced to US\$87,361,543 and subsequently to US\$71,436,389. The Budget finally increased to US\$78,312,596.

Table 3.73: Budget Allocations and Disbursements for Project Activities

Activity	Initial Projected Cost (US\$)	Final Re-Scoped Budget (US\$)	Actual Disbursement At Compact Closure (US\$)	Actual Disbursement As % of Re-Scoped Budget
Procurement Capacity	2,318,000.00	1,390,000.00	1,298,562.00	93.42
Community Services	75,000,000.00	45,585,670.00	44,465,905.00	97.54
Financial Services	23,970,000.00	31,336,925.00	30,266,099.00	96.58
Total	101,288,000.00	78,312,596.00	76,030,566.00	97.09

3.3.1: Procurement Capacity Activity (PCA)

I. Identifying Information

Project Objective:

The purpose of the Procurement Capacity Activity (PCA) was to:

- Strengthen the capacity of various procurement entities in Government Organizations to procure goods, works and services with greater economy, efficiency and effectiveness.
- Enable public entities to effectively implement Ghana's Public Procurement Act 2003 (Act 663), by assisting in the development of training materials for the Staff of such entities, the formation of career paths for procurement professionals in the public sector and the placement of trainees in such entities, to gain some practical experience.

Performance Period:

This Activity was implemented between August 2007 and January 2012.

Geographic Area:

Being a cross-cutting action, the PCA was implemented throughout the country.

Financial Issues:

MCC Funding

Initial Budget	:	US\$ 2,318,000.00
Final Budget	:	US\$ 1,390,000.00
Disbursements	:	US\$ 1,298,562.00

Host Government Contributions : Not Applicable

Implementing Partners:

Implementing Entity : Public Procurement Authority (PPA)

Implementing Consultants

- Carl Lokko and Associates
- Crown Agents Ghana Ltd

Highlights - Procurement Capacity Activity

- 1,274 Students from various Polytechnics completed their Internship Programmes in 538 Public Institutions.
- 9 Tertiary Institutions have used the Modules developed by MiDA and the PPA.
- 278 and 119 tertiary students have completed one and two year Course Work, respectively.
- The Institutions also provided On-the-job Training Courses to 175 practising procurement personnel.



An Orientation Program held for students of Koforidua Polytechnic prior to commencement of Internship



An Orientation Program held for students of Koforidua Polytechnic prior to commencement of Internship

II. Background

The PCA developed Curricula and Training Modules with associated Lecture Notes and Case Studies to be used by tertiary institutions; an Internship Program for Students and Lecturers of the tertiary institutions and the establishment of a Career Path System for Procurement Practitioners and Professionals in the Public Service of Ghana.

The main objectives of the PCA were:

- Training of Procurement Staff on the implementation of the Public Procurement Act and placing them in a Public Service Career Development Program.
- Strengthening local Training Institutions to provide quality procurement training services.
- Establishment of an Internship Program for procurement students and graduates.

III. Changes in Implementation vis-à-vis Results Framework

(a) *Implementation of a Short-Term Training Program for Procurement Practitioners*

Due to the urgent need to train public servants in the application of the Public Procurement Act, (Act 663), the Public Procurement Authority used DFID's funds for this Activity. The funds earmarked for this Activity were therefore used to finance other activities under the Compact.

(b) Procurement of Books for Libraries

The supply of textbooks was added as a new component to complement the Curricula and Modules. Textbooks were purchased to augment the stock of books in the libraries of fifteen (15) tertiary Institutions that had either applied to participate in the training of procurement professionals or were already offering procurement training. Part of the funds originally intended for the Short-Term Training Program, went into this Activity.

(c) Establishment of a Career Path for Procurement Practitioners and Professionals

While this Sub-Activity was included in the Compact, no funding was allocated to it in the Implementing Entity Agreement (IEA), signed with PPA. Once again, some of the funding originally designated for the implementation of the Short-Term Training Program was used to run Stakeholders Workshops across the country.

The Stakeholder Workshops sensitized participants on the Proposals for the new Career Path System and Guidelines were issued by the Public Services Commission (PSC) to all public service institutions on this initiative.

Some Workshops had not been organized at the close of the Compact. No Indicator/Target was set for this Sub-Activity.

IV. Total Activity Cost

- **Funding Breakdown**

The total actual disbursement for the Procurement Capacity Activity was US\$1,298,562.

Further details of the Original Budget, final budget and funding amounts by Funding Category are attached as Table 1.1 in Appendix 1.

- **Financial Performance of the Project**

The initial allocation of funds to this Activity was US\$ 2,318,000. This amount was finally reduced to US\$1,390,000 in August 2009, following changes to the scope of the Projects under this Activity. The breakdown of funding is as follows:-

Project Coordination	:	US\$ 313,789.00
Development of Training Modules	:	US\$ 469,896.00
Training, Scholarship and Internship	:	US\$ 606,315.00

V. Project Activity Implementation Partners

The PCA was undertaken under an IEA between MiDA and the PPA. The Project Coordinator (PC) contracted by MiDA was located in the PPA's Offices and worked closely with Officials of the PPA.

Sub-Activities that were coordinated, undertaken and completed under the PCA are listed below:

(a) Engagement of the Project Coordinator (PC):

This was completed on the 30th of May, 2008 and the PC commenced his contract on the 2nd of July, 2008. Under the Contract, the duration of the Sub-Activity was set for 36 months and was to end on the 30th of May, 2011, seven months prior to the end of the Compact. However, owing to the volume of activities which had to be completed by end of the Compact, (including the 2011 Summer Internship Program, and the monitoring of Institutions that were to begin the use of the Training Modules in September 2011), the Contract was extended to the end of the Compact.

(b) Implementation of Short-Term Training Program for Practicing Procurement Practitioners:

Under the IEA, this Sub-Activity was intended to be funded with MCC funds. However, due to the pressure on time needed to train Public Servants, the PPA went ahead to undertake this aspect of the PCA, using DFID funds. The Training has since been completed.

(c) Medium and Long-Term Curricula and Modules:

These were developed to support the training of Staff of Procurement Entities, Higher National Diploma holders wishing to acquire Bachelor's Degrees and students from Senior High Schools, seeking to make a career in Procurement.

The Curricula and Modules were delivered to MiDA and PPA by the Consultants, Messrs Crown Agents, on the 26th of February, 2010 and are currently being used by nine (9) Institutions. Plans are far advanced for five more Institutions to begin running Procurement Courses in the 2012-2013 Academic Year. The target set for the number of institutions that will use the Modules was exceeded by the end of the Compact Term.

The PPA and MiDA secured from the National Accreditation Board (NAB), a one-off accreditation for the Curricula and Modules for a period of five years, beginning from 1st April, 2011.

To ensure effective use of the Curricula and Modules, some Lecturers from tertiary institutions were trained in the use of the Curricula. A complete set of Lecture Notes were developed for this purpose.

(d) Establishment of a Career Path for Procurement Practitioners and Professionals:

MiDA funded Stakeholder Workshops across the country, after which Guidelines for establishing the Career Paths were issued by the Public Services Commission (PSC) to all Public Service Institutions.

A Scheme of Service for establishing the Career Path System was launched at Stakeholder Workshops organized in Accra for the Greater Accra Region (20th August 2011) and at Koforidua for the Eastern and Volta Regions (28th September 2011). Similar Workshops were scheduled for Takoradi, for the Western and Central Regions, Kumasi for the Ashanti and Brong-Ahafo Regions and Tamale (for the Northern, Upper East and West Regions). These were not completed before the end of the Compact.

(e) Sponsorship of Procurement Students/Graduates on Internship Programs:

This Program was run by MiDA and PPA and did not involve any external Consultants. The Activity also placed Lecturers from the Polytechnics on Internship Programs to deepen their experience in procurement processes and enhance their capacities for effective teaching.

VI. Summary of Results - Project Activity Level

The PCA had six Outcome Level Indicators on which performance was measured. A *Summary of achievements is shown in Table 3.74.*

Table 3.74: Summary of Results: Procurement Capacity Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Number of Practicing Procurement Personnel who completed Training Modules	Number	0	175	450	39
Number of Individuals Completing Internships at Ministries, Departments and Agencies (MDAs) And Metropolitan, Municipal and District Assemblies (MMDAs)	Number	0	1,274	1,250	102
Number of Procurement Students in Various Tertiary Institutions who successfully completed one year of Coursework	Number	0	278	1,080	26
Number of Procurement Students in Various Tertiary Institutions who successfully completed two years of Coursework	Number	0	119	250	48
Number of Interns who Gained Employment in Public Procurement.	Number	0	202	100	202
Number of Tertiary Institutions Already Using the Modules.	Number	0	9	9	113

Training and Placement of Procurement Staff

- The PPA carried out short-term training for Procurement Practitioners in the Public Sector,
- A Career Path System was established for procurement professionals and practitioners within the Public Service by end of Compact.
- The Ghana Institute for Management and Public Administration (GIMPA) trained a total of 148 Procurement Practitioners on a 3-6 months Course, run between November and December 2011.
- A total of 72 Practitioners undertook the 3-6 months Courses being run by Ghana Telecom University College (GTUC), Concord Business College (CBC) and KNUST, with sponsorship.
- The Management Development and Productivity Institute (MDPI) trained a total of 22 participants from the public sector (6 from Gambia and 16 from Ghana) on their Short Courses in Procurement. A total of five (5) Practitioners were trained by GTUC.

Strengthening Institutional Capacity

- Three sets of tertiary level Curricula and Training Modules and the accompanying Lecture Notes and Case Studies have been developed.

- The Curricula and Modules are being used by nine (9) tertiary institutions. The Institutions are: Takoradi Polytechnic, GIMPA, Central University College, Management Development & Productivity Institute, Ghana Telecom University College, Kwame Nkrumah University of Science & Technology, Koforidua Polytechnic, Concord Business College and Catholic Institute of Business and Technology.
- Lecturers from selected tertiary institutions have been trained in the use of the Modules and to revise the Modules when necessary.
- Textbooks for the Libraries of 15 selected tertiary institutions were provided before end of Compact.
- GIMPA admitted a total of 118 Students to its post-HND and 4-year Bachelor's Degree in Procurement Programs. Takoradi Polytechnic admitted 32 Students to its B.Tech Course in the 2011/2012 Academic Year.
- So far 278 Students have completed one year of Coursework, while 119 had also completed two years of Coursework by the end of the Compact.

Internship Program for Procurement Students and Graduates

- A total of 538 public institutions willingly accepted to take on Interns over the three-year period.
- 1,274 Interns from four Polytechnics, (Koforidua, Takoradi, Kumasi, and Accra) have so far completed their internships in public institutions.
- 202 students have been placed with public institutions to undertake their National Service, thereby continuing the training process they began under the Internship Program. Out of this number, 20 have gained permanent employment in some public institutions.

VII. Long-Term Sustainability

To ensure sustainability at the end of the Project, MiDA engaged a Project Coordinator and located him at the PPA. The Project Coordinator served as the link between MiDA and PPA and worked closely and directly on the Project with all key PPA Directors and Senior Operations Officers. The PPA therefore took active part in the implementation of the PCA Activity from the very beginning. This has made it easy for the Officers of the PPA to continue from where the Project Coordinator left off.

The sustainability issues were discussed and appropriate roles assigned during the "End of Project Meeting". In addition, all Program Assets acquired under the Project, including the Project Vehicle, Office Equipment; (heavy duty printer, laptop which contains valuable Project information) and other Project Documentation, (including Files), have all been handed over to the PPA to support the sustainability of the Project.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- As the process of accreditation usually took a long time, it is advisable to make room for a longer period of accreditation to enable the tertiary institutions to go through the rather long period of obtaining accreditation to run Procurement Courses.
- It is advisable to initially train sufficient Faculty Members in the area of Public Procurement. The tertiary institutions could then draw their Lecturers from this pool. Under the PCA, there were very few individuals with the requisite knowledge and experience in Public Procurement who the tertiary institutions could fall on as Lecturers. The presence of qualified Lecturers is a major requirement for accreditation.

Challenges

- The tertiary institutions, especially the Polytechnics, went through a circuitous process of accreditation to become eligible to run the Procurement Courses. This greatly affected the targets achieved.
- Finding slots for the Internship Program was difficult, as Institutions did not have the capacity to take on Interns, or were unwilling to participate in the Program.
- The PCA got off to a difficult start as the PPA, the Implementing Entity, brought up issues of a contractual nature: (viz: ownership and leadership of the Project, identification of Project components, etc). The time taken to resolve these issues delayed the take off of the Project and affected some targets under the Project.

Recommendations

- Should capacity-building in public procurement feature in any future Compact, attention should be paid to the development of lecturers for the tertiary institutions. The adequacy of faculty is a critical condition that ought to be met before Institutions are granted accreditation to run procurement courses.
- State Institutions ought to regard future Compacts as national projects that should benefit from their enthusiastic participation, in the interest of national development. For this reason, some orientation should be provided to beneficiary and stakeholder Institutions prior to the commencement of the Activity.

3.3.2: Community Services Activity (CSA)

I. Identifying Information

- **Objective**

The objective of the Community Services Activity (CSA) was to ensure that community services were available to the beneficiary farmers and their families in order to support and protect agricultural investments in the 30 Districts of the Program.

The purpose was to supply and improve social infrastructure like education, water and sanitation and rural electrification, to serve as the catalyst for sustainable growth in rural agricultural production.

There were three Sub-Activities under the CSA, namely:

- o Education
- o Water and Sanitation
- o Rural Electrification

- **Performance Period**

This Activity was implemented between February 16th 2007 and February 15th 2012.

- **Geographic Area**

- o The Education Sub-Activity was carried out in 204 Communities, spread across the entire 30 beneficiary Districts.
- o The Water and Sanitation Sub-Activity was carried out in 135 Communities in 27 Districts across all three zones.
- o The Rural Electrification Sub-Activity was implemented in 13 Nucleus Farms and the Pack houses, located in six Districts within the Northern and Southern Intervention Zones.

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$ 75,000,000.00
Final Budget	:	US\$ 45,585,670.00
Actual Disbursement	:	US\$ 44,465,905.00

Host Country Contributions : Not Applicable

- **Implementing Partners**

(i) Education Sub-Activity

- **Implementing Entities:**

- Ministry of Local Government and Rural Development (MLGRD)
- Ministry of Education (MoE)

- **Implementing Consultants:**
 - Lamda Consult Limited
 - Urban Development Consortium/Nippon Koei UK
 - Addis Consult/Tech Consult/Hydrocom
 - AB Serkoms/Procurement and Project Management Consultancy Limited/Richcon Ltd.
- **Implementing Contractors:** Refer to Table 1.8 in Appendix 1 for the full list of Contractors

(ii) Water and Sanitation Sub-Activity

- **Implementing Entities:**
 - Ministry of Local Government and Rural Development
 - Ministry of Water Resources, Works and Housing (MWRWH)
 - Community Water and Sanitation Agency (CWSA)
 - Ghana Water Company Limited (GWCL)
- **Implementing Consultants:**
 - Lamda Consult Limited
 - AB Serkoms/Procurement and Project Management Consultancy Limited/Richcon Ltd
 - HP Gauff Ingenieure GmbH
 - Urban Development Consortium/Nippon Koei UK
- **Implementing Contractors:** Refer to Table 1.8 in Appendix 1 for the full list of Contractors

(iii) Rural Electrification Sub-Activity

- **Implementing Entities:**
 - Ministry of Energy (MoEn)
 - VRA/NED/ECG
- **Implementing Consultants:**
 - Lamda Consult Limited (Project Management Support Consultant)
 - Addis Consult/Tech Consult/Hydrocom
- **Implementing Contractors:**
 - Berock Bashiru Joint Venture
 - Best and Crompton Limited
 - M Bashiru Livingman Electrical Company Limited

Highlights - Education Sub-Activity

- 206 Classroom Blocks for KG, Primary and JHS, constructed and 44 rehabilitated (at the cost of US\$18,689,747).
- Enrolment increased from 37,733 in the 2008/2009 Academic Year to 41,019 (8.7%) in the 2011/2012 Academic Year.
- Female enrolment increased by 12.7%, four percentage points higher than the overall.



Completed Kindergarten Block, showing Play Area and rain water storage tank at Fotobi in the Akwapim South Municipality




A Classroom furnished with Mono Desks at the Kpotame Presby JHS School in the South Tongu District.




A Classroom furnished with Mono Desks at the Zoosali DA Primary School in the Savelugu-Nanton District of the NAZ.

Highlights - Water and Sanitation Sub-Activity

- 394 water points were constructed for over 153,853 people in rural and peri-urban communities. This has reduced the average distance and time to collect water from 1.19km to 0.52km and 43.67 minutes to 31.76 minutes respectively.
- Domestic water consumption increased from 15 to 36 litres per capita/day.



STWS (Small Town Water System) in Pong-Tamale Water Treatment Process



<ol style="list-style-type: none"> 1. Water is pumped from the river 4km away 2. Flocculation process: Alum from the tanks is added as a coagulant 3. Sedimentation basin where sediment settles out 	<ol style="list-style-type: none"> 4. Upflow Roughing Filter 5. Rapid Sand Filter 6. Clear Water Well with disinfection processing 7. Pumphouse pumps potable water into storage tank on hill, supplying schools and local communities
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Fetching water from a Standpipe under the TWEP at Tindang in NAZ.



A Borehole with hand-pump at Tadieso in the Afram Basin Zone.

Highlights - Rural Electrification Sub-Activity

- Fourteen (14) 315kVA/ 34.5/0.415kV PMT transformers were installed as part of the 13 Rural Electrification Projects.
- 11 Nucleus farms and agro-processors benefitted from the project.



A 315kVA/ 34.5/0.415kV PMT Transformer installed at the Integrated Tamale Food Company (ITFC) in the Savelugu Nanton District of the NAZ.

II. Background

The CSA complemented the Agriculture Project by supporting agricultural Investments and improving social infrastructure in sectors like education, water and sanitation and rural electrification, to serve as the catalysts for sustainable improvements in rural agricultural production. It also ensured that community services were available to the beneficiary farmers and their families with the aim of reducing poverty and improving their livelihoods.

The Projects were designed and implemented in line with the existing guidelines and policies of four Sector Ministries, namely: the MoE, MWRWH, MoEn and MLGRD, in order not to reinvent the wheel and thereby ensure that the delivery of educational infrastructure, water and sanitation and rural electrification to beneficiary communities was consistent with GoG's policies. They were also intended to support the development of the human resources required to ensure the effective transfer of agricultural technology.

Prior to the implementation of projects under the CSA, MiDA undertook a Strategic Environmental Assessment (SEA) of the three Intervention Zones, which was a condition precedent for funding the implementation of some infrastructural projects. Before the completion of the SEA, the CSA was given a window of opportunity in October 2007 to rehabilitate thirty five (35) Schools, with dilapidated classroom blocks in ten (10) operational Districts.

Following the floods that ravaged some areas of Northern Ghana in September 2007 and which affected schools in all five Districts of the NAZ, MiDA once again selected thirty (30) schools to benefit from the reconstruction of the severely devastated schools. The rehabilitation and the reconstruction exercises constituted the Phase 1A and Phase 1B of the Educational Sub-Activity, respectively. These Phases aimed at achieving quick wins, whilst MiDA awaited the completion of a comprehensive SEA, prior to the commencement of the Phase 2 interventions.

To achieve the aforementioned objectives, MiDA commissioned a Needs Assessment and Validation Studies in 538 FBO Communities in late 2008. The list of FBO Communities was compiled from data gathered under Phase 1 of the FBO priming exercise, conducted by MOFA in all the three Zones. The assessment of the data was undertaken by the Project Management Support Consultant (PMSC).

The Needs Assessment and Validation Studies were completed in January 2009. These were followed by a Project Selection Process based on a set of criteria. The selection process was necessitated by the fact that the CSA budget could not support the number of social services-related projects in the Medium-term Development Plans (MTDP) of the selected Metropolitan, Municipal and District Assemblies (MMDAs), which the CSA had to recognize and work with. It was not the intention of the MCA Program to initiate any activities besides what had been approved in the MTDPs.

III. Changes in Implementation vis-à-vis Results Framework

Originally, funding was to support the following Sub-Activities under the Community Services Activity:

- Capacity-building by the Rural Infrastructure Coordinating Unit (RICU) of the Ministry of Local Government, Rural Development and Environment (MLGRDE), for the local government units in the Intervention Zones, with the view to strengthening their ability to deliver community services, to manage assets and to ensure transparency and accountability in their operations.

At the inception of the CSA, there was a significant change in the approach to the implementation of the Project. This involved a shift from the use of RICU to a PMSC and Project Support Consultants (PSCs). The RICU was an operating unit set up and supervised by the MLGRDE. It was staffed by Consultants under contract to act as a Program Coordinating Unit for Rural Infrastructure Projects and the training of local government staff to handle the decentralization process. It also provided training and technical support on rural infrastructure development to the Community-Based Rural Development Project (CBRDP).

The Unit was expected to work under a similar agreement for MiDA. However, this role conflicted with MCC's Guidelines on recruiting and paying government agencies with MCA funds, hence the procurement of a PMSC and PSCs.

- The rehabilitation and construction of educational facilities in the form of primary, junior secondary and senior secondary schools, as well as vocational and technical institutions, vis-à-vis initiating new school structures.

Requests received from the Medium Term Development Plans (MTDP) of the MMDAs indicated high deficits in infrastructure at the basic educational level, (i.e. Primary and Junior High Schools). Hence, the rehabilitation and construction of educational facilities, concentrated on basic schools.

- The **construction of water and sanitation facilities**, like boreholes (whether mechanized or fitted with hand-pumps), small town piped water systems and community sanitary facilities to achieve improved health, to reduce the incidence of diseases and loss of productivity due to unsafe drinking water, poor sanitation and hygiene and to reduce the time required to procure potable water.

There was no significant change from the Compact Objective for **the Water and Sanitation Sub-Activities**, except the provision of community sanitation facilities. This was because the Needs Assessment exercise revealed a high deficit in sanitation facilities in basic schools and that many Communities had benefitted from r interventions from other Donors. This explains why MiDA decided to provide girl-friendly toilets and urinary facilities in the Schools

- The **expansion of rural electrification** to unserved and under-served areas for domestic use as well as for irrigation, agricultural processing and for education. MCC will fund both on-grid and off-grid (*including photovoltaic, bio-fuel and micro-hydro*) rural electricity investments.

In the implementation of Electrification Sub-Activity, there was a conscious effort to select domestic areas where there will be a positive return on the investment. Therefore, the post-harvest and irrigation sites were targeted. Households within 20-km of the catchment areas were to access electricity from the high tension power lines passing through the Communities, under the Government's Self-Help Electrification Programme (SHEP).

IV. Total Activity Cost

The Budget restructuring exercises in December 2008 and December 2009 reduced the Community Services Budget of US\$ 75 million to US\$ 45.6 million. For this reason, the planned level of interventions under the CSA were scaled down and some of the projects that had already been identified by the Ministries, Departments and Agencies, could not be executed.

Expenditure by Sub-Activity are detailed in Table 3.75:

Table 3.75: Community Services Expenditure by Sub-Activity

Activity/ Component	Works	Consultancy	Furniture Supplies	Biofil Toilets	Others	Sub-Total
EDUCATION						
Phase 1A	1,332,826.05	359,924.83	125,084.12	281,689.56	89,106.09	2,188,630.65
Phase 1B	1,459,940.83	308,885.03	-	-	8,711.13	1,777,536.99
Phase II	15,896,979.90	1,058,851.66	1,667,232.26	-	-	18,623,063.682
Total for Education	18,689,746.78	1,727,661.52	1,792,316.38	281,689.56	97,817.22	22,589,231.46
WATER						
Boreholes	2,156,069.18					
STWS	4,206,938.72	923,860.00				9,442,212.53
Pipe Extension	2,155,344.63					
TWEP	5,431,112.11	551,287.50				5,982,399.61
Total for Water & Sanitation	13,949,464.64	1,475,147.50				15,424,612.14
RURAL ELECTRIFICATION						
Total for Rural Electrification	2,356,631.38	434,850.00				2,791,481.38
PROJECT MANAGEMENT						
Total for Project Management						3,660,579.08
GRAND TOTAL FOR COMMUNITY SERVICES						44,465,903.98

V. Project Activity Implementation Partners

Interventions under the CSA were implemented in two Phases; Phase 1 and Phase 2:

Phase 1:

Phase 1 Projects covered the provision of educational infrastructure only and involved the rehabilitation and reconstruction of educational infrastructure in the footprints of those being replaced. While waiting for the completion of the SEA, the CSA rehabilitated classroom blocks that were severely dilapidated in ten of the operational Districts. These were classified under **Phase 1A**. Another batch of schools which were affected by floods in the NAZ in September 2007 were either completely reconstructed or rehabilitated under **Phase 1B**.

To fast track the implementation process in Phase 1, four (4) Consultancy Teams, each comprising two (2) Architects and two (2) Quantity Surveyors, were procured to do designs, prepare cost estimates and undertake construction supervision for the selected schools. Seven (7) Contractors were also engaged to handle the Works, while seven (7) Clerks of Works supported the Construction Supervisors.

Similarly, the services of four (4) individual Consultants, (two Architects and two Quantity Surveyors), were procured to design, prepare cost estimates and undertake construction supervision for the schools selected under Phase 1B. Thirteen (13) Contractors carried out construction and were directly supervised by five (5) Clerks of Works.

Construction works were generally satisfactorily carried out, but there were many implementation challenges due to difficult terrains and the unavailability of building materials like sand and stone in some of the areas, among others. Many of the Projects consequently exceeded their planned completion timelines.

One of the Phase 1B Contracts in the Karaga District was terminated and re-awarded, following the poor performance of the Contractor

Phase 2:

The bulk of the social infrastructural Projects implemented under Phase 2, namely schools, water and sanitation and rural electrification for agriculture facilities were located at sites within and around FBO Communities.

The implementation of Phase 2 Projects was guided by a Work Program and a Budget. The Work Program identified projects after the Needs Assessment and Validation Studies, the Procurement of IDIQ Consultants and Contractors and the preparation and signing of Implementing Entity Agreements with MDAs.

The Projects were selected from the approved Proposals contained in the beneficiary Districts' MTDPs, as follows:

- Education Infrastructure - 50%
- Water And Sanitation - 40%
- Rural Electrification - 10%

Based on a weighted score, which used information provided by the Ghana Statistical Service's 2005 District Poverty Index and from FBO concentrations in the Intervention Zones, the budget allocation for the Intervention Zones was distributed as follows:-

- Northern Agricultural Zone - 30%
- Afram Basin Zone - 50%
- Southern Horticultural Zone - 20%

The Budget for the MMDAs was also allocated using the same criteria.

Project Selection Criteria

The selection criteria used for Community Services Projects aimed to ensure transparency and fairness and to avoid duplications. At the same time, Projects ensured linkages with other poverty reduction interventions under the Program. The process of selecting beneficiary communities was guided by the **Project Selection Criteria** described below:

- Projects should be located in important agricultural communities, where FBOs reside.
- Projects should be identified by FBOs who have been qualified for agricultural credit;
- The selected Projects should be an identified need and priority.
- Projects should be channelled through the Area Councils and be included in the approved District Assemblies' Medium Term Development Plans (MTDPs).
- Projects should meet standards and norms of the respective Ministries and Agencies and should meet MCC/EPA environmental requirements.
- The Project should complement other MiDA investments (e.g. *feeder roads, agricultural credit, etc.*) and should be designated as a priority project.

Selection of Consultants

Under the **Indefinite Delivery, Indefinite Quantity Contract (IDIQ)** procurement method introduced to MiDA by MCC and employed for the large variety of Projects under the Community Services Activity, Contracts were awarded directly by MiDA. The Scope of Works had inputs from all the beneficiaries, Metropolitan, Municipal, District Assemblies, Sector Ministries and other stakeholders.

The Request for Proposals (RFPs) for consulting services began with the preparation of Terms of References (TORs) by the Community Services Project Department, with assistance from MiDA's Procurement Department and finalized by Charles Kendall and Partners (CKP), the Procurement Agent, for inclusion in the half-yearly Procurement Plans, approved by the MiDA Board.

The IDIQ procurement process, prequalified a number of Consultants or Consortiums with experience and skills in managing works related to educational infrastructure, water and sanitation and rural electrification projects. The IDIQ process also requested for Consultants' salary rates.

After a number of IDIQ Contract holders had been selected, Task Orders were awarded, as their salary rates had already been contract-determined. Task Order Negotiations did not only allow MiDA to focus on the level of effort (hours) to complete tasks or the approach and specific staff to be used, but in addition, the lengthy procurement process was significantly reduced.

The salary rates provided by the Consultants established the maximum ceiling of their fully loaded rates. Once they were invited to compete for a particular Task Order, they were not allowed any quotations exceeding the approved rates, but were permitted to quote below such established rates to enhance their competitiveness. This invariably inured to the benefit of the Client.

One thing worthy of note is that the procurement process was based on the International Competitive Tendering format and was opened to all countries, except those debarred by MCC. It was therefore transparent and competitive.

Advertising was limited to selected IDIQ Contract holders only. In this case, advertising took a form of notification and request for a Brief Proposal, indicating approach, methodology and the Staff to be used in carrying out the assignment. IDIQ Contract holders were selected to perform the consultancy services based on their Proposals. The consulting services provided under the various contracts were design, oversight, mobilization, implementation, preparation of bid documents and construction supervision.

Evaluation of Proposals

Evaluation of the Proposals was done by requesting for CVs of competent Staff from Implementing Entities and other Government Agencies. A Panel at MiDA vetted these CVs and made recommendations to MiDA's Management and the Procurement Agent Manager for approval. The selected Evaluation Panel Members were given an Orientation prior to the commencement of the evaluation exercise. As usual, an Evaluation Report was compiled for approval by MiDA or MCC, depending on the budget threshold or the contract sum.

Contract Duration and Retainer Fees

Upon signing the Contract, Consultancy firms were paid an initial US\$5,000, which they were entitled to under their Contracts. This was also followed by another payment of US\$5,000, on the first anniversary of signing the Contract.

Each Firm was entitled to awards of Task Orders under their respective Contracts, with an amount of US\$ 5,000,000 as a ceiling.

To provide a fair opportunity for Consultants, the intention was for the process to be repeated after two years, to allow new firms the opportunity to submit Proposals and to participate in the procurement process.

Implementation Roll-out

During the implementation of the services contract, the experience of each Consortium Member was evaluated. This was not limited to only the Prime Consultant's qualifications and experience. Where necessary, prospective Teams were asked to add or propose other individual firms to ensure viable Consortiums.

Scope of Works under the IDIQ Procurement Process

Under the Water and Sanitation Sub-Activity, the Scope of Works for a Prime Consultant for a typical Small Town Water Systems (STWS), included the following:

Community mobilization and hygiene education:

- Small Town Level Community Sanitation Promotion and Planning
- Feasibility Studies, including Hydro-geological Study and Siting
- Detailed Design and Tender Document Preparation
- Construction Supervision

The Scope of the Services was divided into two Phases:

Phase 1 – Feasibility and Design

- Community Mobilization and Feasibility Study
- Detailed Design and Tendering
- Final Design

Phase 2 – Construction Management

- Construction Supervision
- General Contract Administration and Management
- Measurement and Certification of Works
- Final Inspection and Testing
- Preparation of "As Built" Drawings
- Training and Preparation of Operation and Maintenance (O&M) Manual
- Community Development and Training
- Preparation of Final Report
- Supervision of Defects Notification Periods
- Review of Engineering Design Reports, Drawings and Tender Documents, etc.

Consultants for IDIQ Contracts

Four (4) IDIQ Consultants were engaged for an initial term of two years after signing the Head Contracts with them. These Contracts were subsequently extended to the end of the Compact.

Supplementary Agreements were also signed by all the Consultants at the end of the Compact, to carry out outstanding assignments in the Defects Notification Periods.

Task Orders for IDIQ Consultants:

MiDA awarded 16 Task Orders to Consultants through the QCBS Bidding Process.

Selection of Contractors for Civil Works

Request for Bids (RFBs) from potential Contractors started with the preparation of Terms of References (TORs) and the Scope of Works by the Community Services Project Manager and his Team, with assistance from the MiDA's Procurement Department and Charles Kendall and Partners (CKP), the Procurement Agent.

The IDIQ Contracting process pre-qualified a number of Contractors with particular skills-set in the construction of school blocks and ancillary facilities; water and sanitation facilities, boreholes and electrification.

In addition to the normal pre-qualification exercise, the IDIQ process also asked for the Contractors' fully loaded rates for a base period of two years. Once a number of IDIQ holders had been selected, Task Orders were quickly awarded as their fully loaded rates had already been predetermined and accepted. The lengthy formal process of advertising, pre-bid meetings, responses to questions, etc. was significantly reduced.

Financial and technical thresholds were established to allow only firms with the requisite experience and capacity, sound financials, highly competent and capable personnel, to be prequalified, considering the short duration of the Compact Term.

Advertising was in the form of notification and request for bids, including a bidding schedule and unit costs to be used in carrying out the work. IDIQ holders were selected based usually on the lowest responsive Bid.

Evaluation of IDIQ Bids

The process of Evaluation of IDIQ Bids was similar to that of the Consultants. MiDA requested for CVs of competent Staff from Implementing Entities and other Government Agencies. A Panel at MiDA vetted these CVs and made a recommendation to MiDA's Management and the Procurement Agent Manager for approval. The Panel Members were given an orientation before the evaluation exercise got underway. An Evaluation Report was compiled and submitted at the end of the evaluation exercise for approval by MiDA or MCC, depending on the budget threshold.

Upon approval, the Contracts were listed under the Procurement Plan for the MiDA Board and MCC's approval and consequent implementation by Management.

Validity of IDIQ Works Contracts and Retainer Fees

The IDIQ Works Contracts were valid for an initial period of twelve (12) months, but renewable on satisfactory performance and at the discretion of MiDA, for one Option Period, but up to the end of the Compact. Each IDIQ Contractor received a guaranteed minimum fee of US\$500 for the Contract Base Period. The guaranteed minimum payment during the Option Period was calculated on pro-rata basis, i.e. based on a price adjustment factor in the Contract.

MiDA reserved the right to award a Works Order to each Qualified IDIQ Works Contractor in the course of the base period. Work Order Packages comprised combinations of facilities within Districts.

IDIQ Works Contracts

Prequalification of IDIQ Contractors was undertaken through an international competitive bidding process. Head Contracts were signed for one year period, with the prequalified Contractors and were also extended as and when MiDA considered it necessary.

Fifty (50) Works Order Contracts (WOCs) were awarded to IDIQ Contractors. The breakdown was as follows:

- Borehole Drilling – 6 WOCs
- Small Town Water Systems – 12 WOCs
- Education – 32 WOCs
- Agribusiness Centres – 10 WOCs (under the Commercialization of Agriculture Activity)
- Rural Electrification – 2 ICB Contracts

Projects Implementation Strategy

A rigorous Project Monitoring System was set up to safeguard quality and the timely completion of Projects. The Community Services Project Manager (CSPM) was supported in-house by the Community Development Planner (CDP), Project Support Consultants (PSCs), one each for Education, Water and Sanitation and Rural Electrification. Support also came from a Project Management Support Consultant (PMSC), a Consortium made up of technical specialists in education, water and sanitation, electrification, rural development, contracting, design, etc.

These Consultants assisted the CSPM to undertake the following multi-tasks and ensure the delivery of quality work:

- Supported the CSPM in managing and implementing activities prescribed under the Community Services Activity.
- Supported the CSPM to develop systems and structures that facilitated clear reporting lines, high levels of accountability and transparency, effective communication and timely and professional decision-making.
- Achieved anticipated physical outputs in a timely and cost effective manner, and in accordance with standards and quality specifications.
- Took decisions in order to mitigate risks and achieve appropriate results.
- Achieved Project Outputs in a way that contributed effectively to the overall Program objectives.
- Efficiently utilized Program Funds in line with requirements of the Compact.
- Provided guidance and technical assistance to DAs.
- Approved /rejected technical specifications and drawings for Works and procurement.

- Approved /rejected all required Check Lists, including environmental and community participation.
- Approved Task Orders for bidding by Procurement Agent.
- Provided periodic technical audits of Works in progress.
- Approved Work Certificates so that the Vendor may issue an invoice to MiDA.
- Ensured prudent financial management procedures, accounts, audits and management of MiDA's CS Projects, etc.

VI. Summary of Results at the Project Activity Level

Results at the Project Activity level are discussed separately for each of the three Sub-Activities, viz: - Education, Water and Sanitation and Rural Electrification.

• Education

A Summary of achievements of the Education Sub-Activity at the Output and Outcome Levels of the Results-chain are shown in Table 3.76.

Table 3.76: Summary of Results: Education Sub-Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Number of Students enrolled in Schools affected by Education Facilities Sub-Activity	Number	37,733	41,019	43,393	58
Additional Female Students enrolled in Schools affected by the Education Facilities Sub-Activity	Number	0	2,166	2,665	81
Number of School Blocks Rehabilitated	Number	0	44	35	126
Number of School Blocks Constructed	Number	0	206	253	81

The Education Sub-Activity rehabilitated and constructed 250 classroom blocks, each with some complementary facilities, (e.g. ramps for the handicapped, water harvesting and storage systems, and electrical installations [Phase 2 only]) under the two phases of implementation in 204 FBO Communities.

To provide the full complement of a modern school, all classroom blocks were supplied with furniture and 178 girl-friendly sanitation facilities were provided. Due to budget constraints, only one (1) 3-unit teachers' accommodation was provided in a very deprived Community in the Karaga District.

By the end of the Compact, total enrolment in the 250 Schools had increased from 36,812 (46% girls) to 41,019 (47% girls). This represents an increase of 11.4% in total enrolment. This is expected to increase further at the start of the 2012/2013 Academic Year when the classroom blocks would be in full use.

Table 3.77 highlights the Zonal distribution of the educational facilities.

Table 3.77: Distribution of Educational Facilities by Zones

Zone	Type of Classroom Blocks						3-unit Teacher Accommo- dation	5-Unit KVIP	Biofil Toilet
	8-Class rooms	6-Class rooms	5-Class rooms	4-Class rooms	3-Class rooms	2-Class rooms			
SHZ		12	2		32	20	0	38	11
ABZ	1	19		5	27	53	0	79	14
NAZ		11		4	34	30	1	32	4
Total	1	42	2	9	93	103	1	149	29

- **Water and Sanitation**

Achievements of the Water and Sanitation Sub-Activity at the Output and Outcome Levels of the results-chain are shown in Table 3.78.

Table 3.78: Summary of Results: Water and Sanitation Sub-Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Distance To Collect Water	Meters	1190	522	500	97
Time To Collect Water	Minutes	43.67	31.76	30	87
Number Of Reported Guinea Worm Cases In MiDA Districts	Number	252	0	10	104
Volume Of Domestic Water Consumption	Litres per capita per day	15	36	20	420
Number Of People Affected By Water And Sanitation Facilities Sub-Activity	Number	0	133,975	129,840	103
Number Of People Trained In Hygiene And Sanitary Best Practices	Number	0	778	1,661	47
Number Of Women Trained In Hygiene And Sanitary Best Practices	Number	0	246	Not established	N/A
Number Of Households With Access To Improved Water Supply	Number	0	23,381	21,800	107
Number Of Water Points Constructed	Number	0	394	377	104

Under the Water and Sanitation Sub-Activity, 24 Small Town Water Systems (STWS), 359 Boreholes and 31 pipe extensions were identified and due-diligenced for rehabilitation/construction. Out of these, 13 STWS, 185 Boreholes and 15 pipe extensions were designed and constructed. In total, 394 water points, (i.e. stand-alone boreholes with hand-pumps and standpipes), involving 310 community-owned and 82 privately-owned facilities, were constructed and rehabilitated in 135 Communities in 27 Districts.

Overview of Outputs by Water Project Type

- (a) **Boreholes:** 51% of the borehole requests received from MMDAs was constructed. Of the 359 due-diligenced boreholes, 230 were drilled, out of which 140 were successful and 90 marginal and dry. Out of the 140 successful boreholes, 119 boreholes have potable water. These comprise 19 boreholes mechanized for STWS facilities and 100 boreholes fitted with hand pumps and iron removal plants; (8 out of 13 plants installed). On the average, the success rate for boreholes was 62% and was distributed as follows: *NAZ* - 73%, *SHZ* - 50%, and *ABZ* - 63%.
- (b) **STWS:** Under the STWS (which included pipe extensions), 65.3 km of pipelines were laid, 17 poly-tanks on high level concrete platforms were installed, 12 high level concrete tanks and one ground-level concrete tank was constructed. These resulted in the construction of 140 standpipes and 21 Pump houses, in 25 communities over the period.
- (c) **Tamale Water Extension Project (TWEP):** A significant addition to the STWS was the TWEP. MiDA in collaboration with three District Assemblies, (*viz:- Tolon-Kumbungu, Savelugu-Nanton and Tamale Metropolis*) Ghana Water Company Limited (GWCL) and the Tamale Office and The Carter Centre of USA, initiated the TWEP to improve the health of farmer-based organizations and to eradicate the guinea worm disease, by providing safe drinking water.

The key achievements under the TWEP are as follows:

- 165 water points were either newly constructed or restored (as in the case of old disused standpipes), to supply potable water to 26 Communities within the three Metropolitan/District Assemblies.
- Civil Works involved the laying and replacement of pipelines, provision of standpipes, construction of service reservoirs, complete refurbishment Works on a derelict Water Treatment Booster Station at Pong Tamale, and the installation of electro-mechanical equipment.

About 50,000 people are benefitting directly from this Project, which has improved health outcomes through the reduction of water borne diseases. Data from the Ghana Guinea-worm Eradication Project (GWEP) indicated that no incidence of guinea-worm had been recorded in the TWEP area during the last two years – 2010 and 2011. It is expected that a lot more improvements in guinea worm incidence will be associated with the delivery of potable 3water to these communities after the Compact.

Table 3.79 shows the number and type of water facilities provided under the Compact in each Intervention Zone.

Table 3.79: Water and Sanitation Facilities Provided to Communities

Implementing Zone	Boreholes		Small Town Water System			No. Water Points	
	No. Drilled	Wet Wells	No. High Level Tanks	No. Stand Pipes	Km of Pipeline Connections	Community -Owned	Privately -Owned
SHZ	75	52	13	46	34	75	
ABZ	121	65	12	91	28	113	16
NAZ	34	23	1	5	3.3	124	66
Total	230	140	26	142	65.3	312	82

- **Rural Electrification**

At the process level, the Rural Electrification Sub-Activity had earmarked the installation of 230 km of HV Lines and 12 Transformers to boost operations of agricultural facilities.

Achievement at the Output Level of the Results-chain is shown in Table 3.80.

Table 3.80: Summary of Results - Rural Electrification Sub-Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Number Of Agricultural Facilities In Target Districts With Electricity Due To the Rural Electrification Sub-Activity	Number	0	13	12	108

In all, 93.475km of High Voltage Lines, 20.0km of Low Voltage lines were extended and 14 Transformers installed to serve farms and pack-houses. This constituted 52 % of requests for electricity by Nucleus Farmers located in and around FBO Communities and engaged in out-grower schemes.

Table 3.81 provides a summary of Outputs delivered under the Rural Electrification Sub-Activity by Zone.

Table 3.81: Summary of Implementation: Rural Electrification Sub-Activity

Zone	Low Voltage Lines (km)	High Voltage Lines (Km)	Transformers (No.)
Southern	16	24.354	10
Northern	4	69.121	4
Afram	0	0	
Total	20	93.475	14

Linking post-harvest facilities to the national electricity grid improved the efficiency of the operations of beneficiary enterprises and reduced operating cost. A case in point is the Integrated Tamale Fruits Company (ITFC), which significantly reduced its operating cost by switching to the national grid. According to the Assistant General Manager of the Company:

“.....before MiDA, the cost of running generators for the Pack-House was GH¢689/day, (i.e. 380 litres of diesel), but now we spend only GH¢55/day on electricity to run the facility. Electricity cost for Office running was GH¢92/day but now costs only GH¢15 and for the Manager’s Residence it has reduced from GH¢73/day to GH¢3.80.”

ITFC has also increased their fruits processing capacity from 15% to 65% of installed capacity, i.e. 120 tons to 450 tons a year, as a result of the interventions initiated under the Program.

VII. Long-Term Sustainability

(i) Education

In the area of Education, specific arrangements have been made to support the implementation process as well as post-handing-over maintenance of the facilities. In all the Communities where MiDA provided educational facilities, they have ensured that Parent Teacher Associations (PTA) and School Management Committees (SMCs) have been formed or re-activated and that they have been empowered through their involvement at the construction stages of the Projects.

Specifically, students, teachers, administrators and community leaders were trained on the correct use of school buildings, how to clean them, lubricate moveable parts and to inspect them periodically for potential problems. Maintenance responsibility would be shared by District Assemblies and individual schools.

Maintenance Planning: Routine inspections and minor touch-ups will be required to keep the buildings in good shape. The cost of these activities would be borne by the School's budget and support from the PTA, SMC and others. A Maintenance Program Chart will be established for each School. Similar activities like re-roofing or re-plastering can be aggregated at the District level into a Master Maintenance Program Chart. Responsibilities for Maintenance would be defined by both the Head Teacher and an appointed Technician. Mechanisms and budgets would be put in place by the PTAs and SMEs to ensure that it can be done, for example regular inspections and the availability of a Maintenance Budget.

Technical Aspects: A Maintenance Manual (MM) has been developed by the Community Services Team for use by all beneficiary Districts to cover all possible aspects of maintenance. The MM spells out exactly what each Head Teacher should be familiar with, in particular the process of obtaining cost estimates and awarding small jobs. Head teachers will also keep a Maintenance Log, indicating the maintenance needs and Works performed.

(ii) Water and Sanitation

Under this Sub-Activity, all Communities benefiting from a MiDA intervention have formed Water and Sanitation (WATSAN) Committees and Water and Sanitation Development Boards (WSDB). These have been trained by IDIQ Consultants to manage the facilities in line with the Community Water and Sanitation Agency (CWSA) Sector Policy.

After the training programme, the Committees, Boards and some members of the Community, will undertake the management and periodic maintenance of the facilities, setting adequate tariffs to cover the cost of normal operations, minor and major repairs as well as future expansion.

Public sector Agencies, such as Community Water and Sanitation Agency (CWSA), Regional Offices and District Assemblies (DAs), have the responsibility and mandate under the Implementing Entity Agreement, to ensure effective community management of water systems by monitoring and advising on the administrative, technical and financial performances of the WATSANs and WSDBs.

As part of this responsibility, the Regional Water and Sanitation Team at CWSA Regional Offices and the District Water and Sanitation Team in the District Assembly will offer support to WATSANs/WSDBs in the overall management of water and sanitation facilities after the Compact period.

(iii) Rural Electrification

Project sustainability under the Rural Electrification Sub-Activity is the responsibility of the Ministry of Energy. Agencies under the Ministry of Energy shall take full responsibility of the operation and maintenance and sustainability of the installed infrastructure. The Projects in the North and South have been handed over to VRA/NED and ECG respectively. These Agencies are responsible for establishing tariffs/user fees for all beneficiaries including pack-houses, Agri-business Centres and other agriculture infrastructure.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- The arrangement whereby the PMSC operated from Accra was ineffective for hands-on project management. For wide spread interventions like that of the Community Services Activity, maintaining a Zonal-level Project Implementation Team, comprising the requisite Technical Staff, (i.e. Community Development Planner, Project support Staff for Water and Sanitation, Education and Rural Electrification), allows for effective supervision and quality outputs.
- The number of Clerks of Works and the logistics provided by IDIQ Consultants did not support the volume and pace of work. For this reason, some Clerks of Works were not able to visit their Work Sites regularly. By enforcing an arrangement whereby IDIQ Consultants stationed their Staff in each of the Zones to allow for closer monitoring, would address this issue.
- For each Intervention Zone, an MCA Implementation Team should have been set up to coordinate all Projects and act as the institutional memory, just as it happens with other Donor projects.
- Although the competitive and transparent procurement process was acceptable, some consideration should have been given for some sole-sourced firms with the expertise and financial capacity to perform some of the procurement activities, e.g. supply of classroom furniture, where most of the Suppliers failed to deliver.
- Timelines for the implementation of some Phase 1A Projects were greatly affected by the long procurement process. As a result, the commencement of most of the projects coincided with the heavy rainy season, making it difficult to access materials like sand and stones, thereby delaying the construction program. A much shorter procurement process would ensure that future projects do not coincide with the rainy season.
- The Project was run under the premise that payments could be effected only when one's Contract with MiDA remained current. Unfortunately, this practice delayed payments

unduly whenever any contract extension or renewal process was initiated. Renewals had to be completed before any payments due a Contractor or Consultant could be made.

- The IDIQ Concept is very laudable, but for circumstances beyond the control of the CS Team, it was not implemented as fully as intended. The original intention was to roll out the projects to the Contractors in smaller packages. This would have enabled MiDA to assess the performance of the Consultants and Contractors before awarding additional contracts to them. Thus, the good and performing ones would have been rewarded with additional contracts while others performing poorly on their contracts would have been excluded from future contracts. Unfortunately, due to time constraints, only one set of contracts were awarded, which fully committed all available funds.
- In the same way, to speed up and implement so many Projects, like school buildings, the piecemeal approach, using a large number of Contractors needs to be critically examined. This is necessary as removing and replacing slow and incompetent Contractors mid-stream proved to be a difficult option, particularly when time had been lost.

Challenges

Implementation of the CSA faced delays for various reasons. Reasons for delays included:

- Even though there was an urgent need to construct the Phase 1A and 1B Schools, procurement challenges, involving competent Contractors as well as continuous heavy rains; and the inaccessibility of building sites due to the very poor roads in many areas, delayed the commencement of projects. Excessive rainfall was experienced in the Project areas between July and October 2010. This natural phenomenon made it extremely difficult for contractors to have access to some communities. This affected the work plan.
- There was the need for re-siting and re-drilling of boreholes in some communities due to unsuccessful drilling attempts (result of low groundwater potential areas), in order to establish groundwater sources for the STWS.
- Limited capacity of many local Contractors to deliver to quality standards meant increased level of supervision and correction of defects, leading to delays on various projects.
- Under the Rural Electrification Sub-Activity, some parts of the Line Route in the NAZ were flooded by the spillage of Burkina Faso's Bagre Dam, causing delays to the commencement of the Project. Delays in obtaining Clearance from the Chiefs and other Stakeholders for clearing of the right of way of the Line Route also affected Project delivery timelines.
- Similarly, in the Southern Horticultural Zone, delays in obtaining clearance from the Chiefs and some stakeholders for clearing of the Right-of-Way for the Line Route (power lines) affected Project timelines.
- Due to delays in starting some Projects, some Communities had to be replaced, as the selected Districts or Communities had benefitted from other Donor Funds for support of the infrastructure projects. This not only affected the initial planned Works but also delayed the work of Contractors.

- A major drawback in the implementation of the CSP was the problem encountered by Contractors with adjusting to the new and stricter compliance with standards set by the Program. Being used to situations in which any Works they presented in the very remote rural communities were accepted without any queries, many of the Contractors were uncomfortable with the very high level of supervision. On many occasions, some Contractors had to repeat the same corrections until the required standards were attained. Consultants also struggled to keep up with the level of supervision, as in many cases, Works were being executed at multiple Work Sites.

Recommendations

- In designing IEAs, it is important to describe in detail the roles of Government Agencies and their Officials who would be directly involved in implementation.
- For the successful and efficient execution of I infrastructural projects for education, water and sanitation and rural electrification, Consultants and Contractors to be engaged for future Projects must be prepared to place a lot of emphasis on supervision, by stationing key technical staff on Project Sites to maximize value from the investments.
- Centralized buying and delivery of high quality fixtures, like doors, roofing and windows, etc. for Schools would ensure consistency in quality and is recommended.

3.3.3: Financial Services Activity (FSA)

I. Identifying Information

- **Objective**

To automate and interconnect all the 121 Rural Banks (RBs) in Ghana and to provide other improvements in the National Payments Systems that will draw a large number of people currently not served or under-served into the financial system. If there was sufficient funding and appropriate waivers are granted, to interconnect the Savings and Loans Institutions to the National Payments System.

The Objective of the FSA was met through the underlisted interventions:

- o Improvement in National Payment Systems by Bank of Ghana. By deploying the Cheque Codeline Clearing (CCC) and the Automated Clearing House (ACH) Systems, aimed at improving the efficiency of the National Payments and Settlements System through the establishment of an Electronic Payment System.
- o Ghana Rural Bank Computerization & Interconnectivity Project (GRBCIP), which enhanced access to financial services in the rural economy through the automation, computerization and interconnectivity of all the Rural Banks in the country.

- **Performance Period**

The FSA was implemented over a five year period, commencing February 2007 and ending in February 2012.

- **Geographic Area**

The FSA had a nationwide coverage, as it covered all the ten (10) Regions of Ghana. (This was the only MCA Project with a nationwide coverage.)

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$23,970,000.00
Reallocated Budgets	:	US\$30,266,099.00 ⁶⁸
Final Budget	:	US\$31,336,925.00
Actual Disbursements	:	US\$30,266,099.00

Host Country Contributions : Not Applicable

Implementing Partners

Implementing Entities : ARB Apex Bank

⁶⁸ Note: Six million, two hundred and ninety six thousand, and ninety nine dollars (US\$6,296,099.) were further allocated to the Activity, after the re-scoping exercises.

Implementing Consultants:

- Ghana Interbank Payment and Settlement Systems (GHIPSS)
- NCR
- KPMG
- Inlaks
- Sambus Company Limited

Highlights - Financial Services Activity

- As a result of the Financial Services Activity, the volume of inter-bank transactions (within **Rural/Community Banks and between Rural/Community and Commercial Banks**) increased from 516,565 at the baseline, to 3,286,179 by the end of the Compact, a growth of 536%.



Part of the Equipment installed at the Data Centre at ARB Apex Bank to coordinate the processes among the 134 automated/ computerized Rural and Community Banks.

II. Background

A major constraint within the banking system was the many bottlenecks that clogged the banking infrastructure and which manifested in the low financial inclusiveness of large sections of our rural communities. This resulted in a sizeable proportion of the population being under-served by banks or completely unbanked; thereby depriving them of the opportunity to contribute to Ghana's GDP base and her progress towards the status of a middle income economy.

It was to address these challenges that the *Financial Services Activity (FSA)*, which formed part of the Rural Services Development Project, was designed. Its prime objective is to extend the depth and value of financial services being provided to rural populations, in particular our farming communities, by reinforcing their integration into the cash economy, as well as widening their access to savings, credit and cash transfer services. The Activity expanded the capabilities of Rural Banks (RBs), mainly privately-owned by members of the local communities.

III. Changes in Implementation vis-à-vis Results Framework

The original Activity as agreed during the Compact Development Phase was to computerize and connect 121 Rural and Community Banks and their branch networks to a Data Centre. However, by the completion of the Project, 134 Rural and Community Banks, spread across the country, with branch networks in 147 locations, had been computerized and connected to the Data Centre. This deviation had a positive impact, as it increased the Program's coverage and accessibility and allowed for utmost effectiveness.

IV. Total Activity Cost

- Funding Breakdown

The Original Budget, Final Budget and Funding amounts by Project and Funding by Category are as presented below.

Table 3.82: Budget: Financial Services Activity

Sub-Activity	Original Budget (US\$)	Final Budget (US\$)	Amount Disbursed (US\$)
Dev't of WAN for Rural Banks	20,827,900.00	26,428,060.00	26,355,270.00
Improvement of Payment Systems	3,142,100.00	2,200,350.00	1,799,064.00
APEX Bank IEA	0	2,708,515.00	2,111,765.00
Total	23,970,000.00	31,336,925.00	30,266,099.00

V. Project Activity Implementation Partners

- **Brief Description of Methodologies, Processes and Strategies**

This Project involved the selection of a Project Management Support Consultant, (i.e. Messrs KPMG), who had responsibility for the following tasks:-

- coordinating the activities of Consultants;
- monitoring the achievement of deliverables of Consultants;

- supervising the supply of computer software and hardware which were deployed in relation to the provision of the Cheque Codeline Clearing System, Automated Clearing House System and the provision of a Wide Area Network for the Rural and Community Banks.

- **Assessment of the Start-up of the Project**

There were no marked deviations from the planned activities at the Project start-up stage. All processes relating to orientation for various stakeholders and the procurement of Consultants were rolled out as planned.

- **Key Factors in the Implementation Process**

- **Data Preparation by Rural and Community Banks for Migration to the Data Centre:** A key stage in the computerization process was the timely and meticulous compilation of accurate historic data for migration unto the new electronic platform. This presented challenges at the RB end of the process, as (a) the records of the banks were challenged in many ways in terms of accuracy and format, and (b) about a third of the Rural Banks did not employ any electronic intervention and therefore their Staff were not computer literate at the commencement of the Project.

- **Instability of Production Environment:**

The IT architecture comprised the hardware for processing and storing data as well as communications infrastructure to link each RB Site to the centralized Data Centre. Between February and June 2011, at the peak of the migrations, the Project experienced some inconsistencies in access to the Data Centre, congestion on the network and instability in the links for communications. After some delays, these were resolved with additional investments in infrastructure and change management interventions, in order to retain the interest and commitment of all stakeholders.

- **Assessment of the Role of Project Activity Partners in Overall Implementation**

The FSA worked with a number of Partners, namely:

- KPMG (*Project Management Services*),
- ARB Apex Bank (*Implementing Entity*),
- NCR (*Implementation of Cheque Codeline Solution*),
- GHIPSS (*BoG's Subsidiary responsible for hosting the CCC System*),
- Sambus Company Limited (*Data Centre Solution*),
- STL (*Implementation of Wide Area Network Solution with Bandwidth Services*),
- Inlaks (*Implementation of the Temenos T24 Banking Application Common Platform*).

Each of these Partners adequately fulfilled all contractual obligations assigned to them. All Partners' Closeout Reports are available at MiDA's Offices.

VI. Summary of Results - Project Activity Level

Summary of achievements of the FSA at the Output and Outcome Levels of the Results-chain are shown in Table 3.83.

Table 3.83: Summary of Results: Financial Services Sub-Activity

Indicator	Unit of Measure	Baseline	Actual to Date	End of Compact Target	% Complete to Date
Number Of Inter-Bank Transactions	Number	516,565	3,286,179	1,475,900	289%
Value Of Deposit Accounts In Rural Banks	US \$	283,421,931	497,534,104.21	1,117,776,371	26%
Number Of Rural Banks Automated Under The Automation/ Computerization And Interconnectivity Of Rural Bank Activity	Number	0	130	121	107%
Number Of Rural Banks Connected To The WAN	Number	0	134	121	111%

At the end of the Compact, 134, (as against the targeted 121 RBs), had been automated under the automation/computerization and interconnectivity of rural bank Sub-Activity. In addition, Branches/ Agencies of the RBs had been connected to the wide area network (WAN).

Data Centre: These activities were facilitated and supported by a Data Centre, set up and fully equipped with NCC Funding..

These have influenced the outcomes in Table 3.84 above.

The Cheque Codeline Clearing (CCC) and Automated Clearing House (ACH) Systems are expected to improve the bank payment systems' infrastructure, by accelerating the pace of financial intermediation. In addition, they support safer and sound banking practices, leading to improvements in the flow of commercial activity all over Ghana.

These interventions will significantly enhance access to financial services by the under-served and unbanked segments of our society, especially in the rural areas and thereby enhance the efficiency of the national economy.

The Projects form the banking superhighway, from which all the 134 RBs have been connected to their branches/agencies and into the National Payments Systems, to facilitate commercial activities, as well as internal and international remittance flows.

The Project was significantly successful, as it over-achieved its objectives.

VII. Long-Term Sustainability

(a) *Improvement in National Payment Systems - (CCC and ACH):*

The Bank of Ghana and ARB Apex Bank are working with industry operators to agree on levies and charges to meet the cost of operations and maintenance (recurrent costs) as well as accumulate funds to replace aging equipment (investment/capital costs). The Bank of Ghana is operating the payment systems intervention through a wholly-owned subsidiary which it will hive off to the Banks, which are the users of the services.

ARB Apex Bank is sensitizing the RBs on the setting up of a recovery fund to meet the cost of shared services, such as the Data Centre Staff, equipment maintenance and bandwidth costs.

(b) GRBCIP:

Regarding the RB computerization exercise, there is in place a Steering Committee, comprising all Stakeholders. During the Project Phase, this Committee included MiDA, represented on Observer status, as well as the PMSC. Post-Compact, the Steering Committee, with the residual membership of ARB Apex Bank, the Association of Rural Banks and the Bank of Ghana, will remain as the Clearing House for issues and would ensure that the interests of all stakeholders were considered in matters relating to the investment.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- *Effective planning and coordination yields good results:*
The supply, delivery, installation, commissioning and synchronization of over five thousand individual pieces of technical equipment in all the ten (10) Administrative Regions of Ghana, including some of the most rural and remote communities, and involving over twelve (12) major Consultancies and Contractors, was achieved as a result of good planning and coordination. A typical example was the distribution and installation of equipment for the Rural Bank computerization exercise.
- *Bank Staff with lower qualifications are effective in deploying and managing computerized systems:*
In the Banking Sector, the average qualification and quality of the RBs' Staff are perceived to be lower compared to the mainstream commercial banks. It was however gratifying to note that the Staff of the RBs were able to grasp the newly-introduced computerized systems within a short period and successfully served customers as effectively as their counterparts in the better endowed banks. The net effect is enhanced skills and efficiencies at the RB level nationwide.

Challenges

Change management challenges in introducing an ICT System into a new environment:

At the beginning of the Project, the RBs were stratified into three categories, namely:

- those with purely manual banking systems, that is, including those whose use of ICT equipment were limited to word processing;
- those using some form of software to automate certain activities, such as spreadsheets, to compute interest on loans, etc;
- the high-end RBs, some of whom were actually using the T24 Banking Applications Software, deployed by the Project.

The implementation of on-site Crash Courses in basic Computer Appreciation, coupled with the conversion of basic banking transactions in the new environment, brought all the Staff of the banks to the minimum level required. Also, there was a specific Change Agent Training provided for all bank-specific System Administrators, to improve their first-line support to their newly trained Staff.

Managing Customer Expectations during Downtime:

As with new Systems, the initial experience of the centralized network was characterized by several downtimes and instability. Two important interventions were:

- the use of alternative upload arrangements, which made the previous Closing Balances available to the Banks when the System was temporarily unavailable;
- encouraging Banks to inform their Customers through various media, to expect some slowness in service delivery and the alternative arrangements for them to receive service under such circumstances.

Information Security Challenges at the Data Centre and at the Banks:

The Centralized System relies on a Primary Data Centre in Accra to which all the individual banks were connected and received support. The risk was to ensure that there were adequate controls and auditable processes to preserve the privacy of individual bank data, without interfering with the systems support provided to the individual Banks.

At the end of the Project, ARB Apex Bank had made arrangements to include a permanent Staff to oversee this function even though in the interim, a Desk within their Audit Department was created to handle the responsibilities.

At the individual Bank level, the challenge was to ensure that the relatively ignorant Staff, new to the ICT environment, handled their Access Codes properly and that there was oversight for the work of the System Administrators. The "Sensitization Sessions" held with the Banks helped to encourage the respective Managements to deploy their own measures to stem these dangers, using as a basis, a generic policy framework shared with them by the Project.

Recommendations

- Continuation of Change Management interventions, targeting Bank Ownership, Management, Staff and Customers
- Training of Bank Staff to better manage customer expectations
- Appointment of an Information Security Officer at the Data Centre level and also within the audit functions of the respective Banks.

IX. Close-Out Reporting Instruments

- Project Completion Report submitted by KPMG
- Project Completion Report by Sambus Company Limited
- Project Completion Report submitted by NCR.
- Project Completion Report submitted by Inlaks.

CHAPTER 4:

CROSS-CUTTING FUNCTIONS

4.1: Financial Administration

The financial administration process was aligned to the Fiscal Accountability Plan (FAP) in order to facilitate planning, management, disbursement and reporting of financial activities. The re-disbursement of Compact funds was governed by guidelines, safeguards and processes designed to ensure the attainment of the Compact Goal and uphold the integrity of the Program. Generally, financial and procurement transactions were executed in conformity with the Compact, Implementation, Disbursement, Procurement and Governance Agreements.

I. Key Personnel

- (i) The **Chief Executive Officer (CEO)** had principal responsibility to act on all financial management matters, including authorization of payments and acceptance of invoices.
- (ii) The **Finance and Administration Director** reported to the CEO and ensured that all financial, accounting and cash re-disbursement and management issues were efficiently prosecuted.
- (iii) A **Fiscal Agent** was also appointed to support the implementation of financial transactions in strict accordance with the principles, rules and procedures set out in the Compact, Implementation Agreement and Supplemental Agreements.
- (iv) The Internal Auditor was also appointed to ensure compliance with laid down processes and guidelines in relation to procurement, disbursements and reporting.

- **Chief Executive Officer**

The CEO retained overall responsibility for the prudent management of the Authority's finances. One of the key responsibilities of the CEO was to collaborate with the Fiscal Agent to fully account for all funding, in line with the Fiscal Accountability Plan and to report on this to the Board. (This Structure is shown in Figure 4.1).

- **Chief Operating Officer**

The COO assisted in developing Work plans, planning budgets and overseeing the progress of Project activities in line with the Compact Goal. He liaised with various line Directorates in MiDA to ensure compliance with the Fiscal Accountability Plan.

- **Director, Finance & Administration**

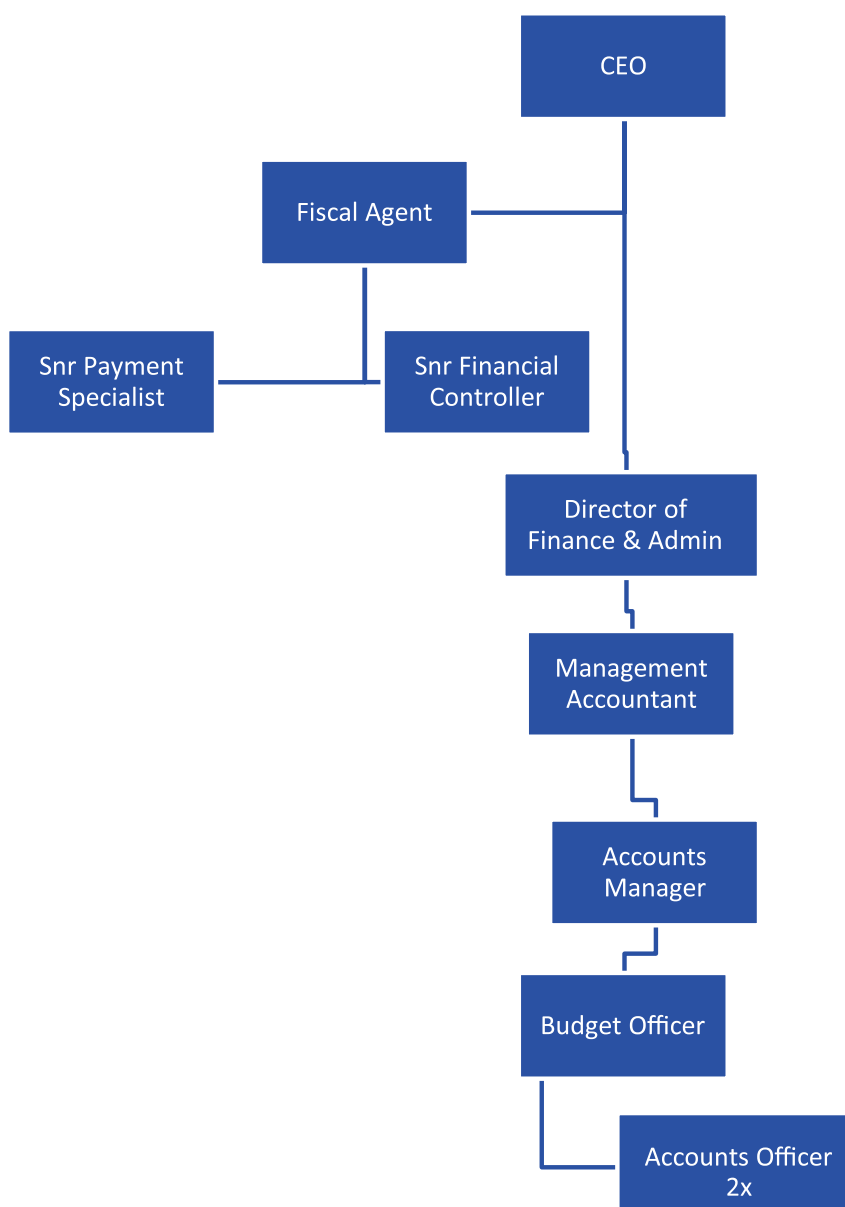
The Director of Finance and Administration liaised with the Fiscal Agent and ensured that all financial, accounting and cash re-disbursement management provisions and guidelines in the Compact and Governing Documents were adhered to. The DFA acted as the guarantor of the Authority's administrative procedures and regulations and supervised information communication technology (ICT) applications that supported the Program.

II. Implementation Partner: Fiscal Agent

In August 2006 and prior to Program Implementation, i.e. before the EIF, a Fiscal Agent was contracted to support the financial administration of the Program.

The Fiscal Agent acted on behalf of MiDA, providing a broad range of financial management services requested by MiDA for the implementation of Projects funded with MCC's 609(g) funds and Compact funds. In this capacity, the Fiscal Agent was to oversee, discharge and perform all services necessary to achieve the optimum value for the monies expended by MiDA, while ensuring that all financial transactions were conducted in line with the principles, rules and procedures set out in the Implementation Agreement in the Compact and in Supplemental Agreements.

Figure 4.1: Organizational Structure - Financial Administration



III. Nature of MCC Funding

The MCC funding made available to Ghana, is in addition to the normal and expected resources that the Government usually receives from external or domestic sources as budgets for some of her planned activities. Grant funding for the Compact was in three forms as follows:

- Section 609g: Funds provided by MCC prior the signing of the Compact, to facilitate the development of the Compact. US\$ 3,213,941
- Compact Implementation Funding (CIF): Part of MCC Funding provided in advance, (post-Compact Signing, but prior to meeting all the EIF Conditionalities by Ghana), to facilitate certain aspects of Compact preparatory works and thereby ensure smooth implementation. US\$10, 371,000
- Balance of Compact Funding: US\$ 536, 638, 000

The CIF and the balance of the Compact Funding add up to the US\$547, 009,000.

IV. Accounting Systems

A Modified Cash-basis Method of accounting was used during the Compact.

The application of the Sun Accounting System ensured an efficient financial management system. Its functionalities included a general ledger accounting, budget and commitment control and an assets management system.

V. Detailed Financial Planning

A quarterly Detailed Financial Plans (DFP) submitted to MCC and the MiDA Board for approval reflected the funding that MiDA expected to commit and the cash (in the form of spending authority) it required to carry out the tasks included in the approved Work Plans.

For planning purposes, the DFP broke down these categories into the Sub-Activity level, on a quarterly basis, over the life of the Compact.

The DFP consisted of 4 Schedules; namely:

- **Schedules A and B:** These Schedules account for proposed and executed re-programming (reallocation) of funds across projects and/or activities within projects.
- **Schedules C and D:** These Schedules established the cash requirements, driven by actual and projected disbursements.

With the assistance of the Fiscal Agent, MiDA prepared the Detailed Financial Plans, Quarterly Financial Reports and Disbursement Requests on a rolling quarterly basis. Each one required the approval of the MiDA Board before being submitted to MCC for scrutiny and final approval.

(a) Payment Process

The payment process for goods, works and services procured under the Program was driven by a 30-day payment deadline, commencing from when an Invoice was received by the Fiscal Agent. On receipt of the Invoice, the Fiscal Agent put the details into its Automated Accounting System and sent all Invoices relating to any procurement to the Procurement Agent, who in

turn approved the Invoice in line with procurement documentation. The commencement of the 30-day payment deadline was also subject to MiDA's certification of the receipt of the goods, works or services. Invalid Invoices were expected to be rejected, not later than nine days after submission and the Originator had to be informed of the reasons for the rejection. Any curative steps were to be taken not later than thirteen days later.

(b) Common Payment System (CPS)

The CPS was set up by MCC to ensure the efficient management of outflows from the US Treasury, of any portion of the approved MCC funding obligated to Ghana under the Compact. CPS also intervened to avert the risk of MCC Funds (MCC Disbursement); sitting idle in local bank accounts longer than expected and to regularise and optimise cash outflows. The CPS was managed by an institution procured by MCC and based in the United States of America.

The CPS was a mechanism for the movement of grant funds for direct payment to a beneficiary for a valid, approved level of service or goods delivered. The CPS was designed to adhere to the approved and formal MCC processes incorporated in the Quarterly Financial Reporting (QFR). The QFR process detailed the Compact Program's past expenditures and expected expenditures by each major Project and Activity. CPS adhered to payment delivery within five to seven business days.

Based on the operational needs of MiDA, the Fiscal Agent made payments (re-disbursements) within the CPS structure in three ways:

- Transfer of funds from the US Treasury to MiDA's Local Permitted Bank Account. These funds remained unallocated until they were accounted for in the Quarterly Financial Reporting (QFR).
- CPS Direct Payment, using MiDA's Local Permitted Account Banking information. These funds were received into the Local Permitted Bank Account, but were subsequently allocated to the appropriate Fund/Project/Activity.
- CPS Direct Payment, using Vendor's banking information.

(c) Summary of Key Outcomes and Achievements

At the end of the Compact Term, 99.3% of the total Compact funds had been fully utilized. The unspent funds represented outstanding M&E and Audit Costs which were to be paid by MCC on behalf of MiDA.

Project	Initial Projected Budget (US\$)	Final Budget (US\$)	Actual Disbursement at Compact Closure (US\$)	Actual Disbursement as % of Final Budget
Agriculture	240,984,000	197,726,609	195,650,410	98.95
Transportation	143,104,000	224,170,279	227,711,786	101.58
Rural Development	101,288,000	78,312,596	76,030,566	97.09
Monitoring and Evaluation	15,000,000	10,376,840	6,942,082	66.90
Program Administration	46,633,000	36,422,676	36,873,275	101.24
Total	547,009,000	547,009,000	543,208,118	99.31

It is worthy of note that MiDA did not incur and accrue interest on MCC Funding.

VI. Challenges and Recommendations

Challenges

- Conflicts in the interpretation of some Clauses in the Fiscal Agent Agreement, in which the Fiscal Agent is mandated as the one who authorizes payments, vis-a-vis the adoption of FIDIC Contract requirements for Infrastructure Projects, which authorises the Engineer to authorise payments resulted in the loss to MiDA of the right to charge liquidated damages for errant Contractors and Consultants. This was as a result of the Fiscal Agent's insistence on the use of Contract Variations to extend Contract end dates.
- The use of the Central Bank as MiDA's sole Banker, compelled MiDA to use cash to pay some implementing partners and Project affected Persons, with the attendant security problems. It also compelled Staff to use their personal funds in most cases for official travel, for reimbursement later. The reason for this is that the Bank of Ghana is not set up to operate as a retail bank and therefore cheques issued to Staff, could not be cashed on a timely basis.
- While the Independent Fiscal Agent had a positive impact on fiscal accountability and the implementation of the Program, the FA's lack of first hand knowledge about progress of work at Project Sites, led to avoidable arguments and unnecessary delays.

Recommendations

- MCC should synchronize the Fiscal and Procurement Agent Agreements to ensure that the Fiscal Agent paid Certificates that were submitted and approved by Supervising Engineers; and that roles were clearly defined so that some of the problems and delays that occurred in the payment for infrastructural works could be avoided.
- On the Bank issue, it is recommended that in future, the level of services required of the Central Bank should be clearly spelt out in the Bank Agreement. Ideally, sufficient due diligence should be done to allow the use of Private Banks by MiDA, as pertains in other MCAs.
- Procurement and Fiscal Agents must visit Project Sites to see the progress of work on Projects they pay for and the quality of Consultants/Contractors they procure to execute Compact Projects.
- The prompt payment arrangements adopted by MiDA worked very well and was commended by Contractors and Consultants as the best payment system in the public service and one which was worthy of adoption by the public service.

4.2: Internal Audit Department

I. Introduction

As part of the governance structure of Ghana's Compact, an Internal Audit Department was set up under the Office of the CEO to promote good governance practices by ensuring compliance with rules and regulations; the effective and efficient utilization of resources and the maintenance of reliable financial records and reports.

Internal auditing in MiDA covered all areas where Compact funds were used, including the Procurement and Fiscal Agents' Offices; all Consultants' locations and all Project Sites within the Program's Intervention Zones, spread across 30 Districts.

Apart from the quarterly internal audits, twelve (12) financial audits were conducted by external audit firms and were funded from MCA funds. In addition, a one-time audit was conducted by the Ghana Audit Service on selected Projects during the implementation of the Program. MCC and the Office of the Inspector General (OIG) performed audits and reviews on Procurement, Credit, Health and Safety Guidelines and compliance with Labour Laws under the Infrastructural Projects, during the five year period. In addition, a forensic audit of the Agricultural Credit Activity was conducted on the request of MCC. The total cost of the financial audit contracts which were awarded during the Compact period was US\$ 759,927.

Audit Plans were prepared for the CEO's approval prior to the initial disbursement of Compact funds. The Plan designated entities that would be subject to auditing as well as the timing of such audits. MiDA also had to ensure that Auditors were given the necessary assistance including access to employees and contractors to enable them to carry out their work. Audits were conducted on a semi-annual basis for the periods ending 30th June and 31st December each year.

II. Description of Activities

The Internal Audit Department consisted of two Staff members; the Internal Auditor and the Internal Audit Officer. The Internal Auditor reported directly to the CEO and was part of the Management Team and participated in Management Meetings and in all other Meetings held with Stakeholders and Partners.

The audits and reviews undertaken by the Internal Audit Team comprised financial audits, procurement audits, credit reviews, validation of ICT equipment procured under the Rural Computerization Project, inspection of assets procured by Implementing Entities, inspection of Projects, e.g. school infrastructure, water systems and post-harvest facilities. The Internal Audit Team also visited Participating Financial Institutions and Agric. Credit beneficiaries to ensure that credit funds given to the Banks have been disbursed to the farmers and SMEs and that the beneficiaries have utilized the funds for the intended purposes.

The Internal Auditor participated in the Evaluation of Proposals for the engagement of External Auditors and Forensic Auditors. The Audit Team also performed procurement audits in the first, second and third year of the Program.

The Internal Audit Team also performed joint reviews with MCC and MiDA Project Teams; in particular, the Credit, Financial Services, Agricultural and Monitoring & Evaluation Teams.

The Internal Audit Team brought to the attention of Management, its findings on all issues arising from Project Site visits for timely rectification of defects and problems. In response to all audit issues raised, Management held meetings with Project Teams, Consultants and Contractors to ensure the speedy resolution of any problems and challenges.

III. Lessons Learnt, Challenges and Recommendations

Lesson Learnt

- The Internal Audit Team observed that in spite of the rigorous procurement process adopted by the Program, there were instances where the performance of some Consultants and Contractors were below standard; while some others could not complete their assignments within the contractual period. This fact was corroborated by Managers during presentations at Management Meetings. The affected vendors were alerted of their shortcomings.

Challenges

- For a \$547 million Program which was implemented in 30 Districts and comprising twelve Project Activities and numerous Sub-Activities, the staff strength of the Internal Audit Team was woefully inadequate. For instance, ICT equipment was procured for all the Rural Banks in Ghana including their branches. In all over 600 Rural Banks including their Branches and Agencies benefited from the ICT equipment. Agricultural Credit was also given to some farmers located in remote and deprived areas, with very difficult access. Despite these physical challenges, the Internal Audit Team managed to visit a significant number of the farmers during the term of the Program.

Recommendations

- For the size of the Program, the Internal Audit function ought to have been handled by a minimum of four (4) Staff Members. This is based on the fact that Internal Auditors play a vital role in ensuring the effective and efficient utilization of resources; ensuring that Projects are delivered in accordance with the quality and timelines in Contract Documents. They also bring to Management's attention, issues and challenges affecting Project delivery to enable their prompt resolution.
- As part of the procurement process, the background information and references provided by Consultants and Contractors must be thoroughly checked to ensure that the right calibre of contractors and consultants are engaged. A larger Department, with adequate resources could have facilitated this arrangement.

4.3: Legal Department

I. Introduction

The role of the Legal Department was to monitor and facilitate compliance with MiDA's obligations under the Compact or as delegated by Government, all Supplemental Agreements entered into in furtherance of the Compact, Ghanaian Laws and Regulations and any other applicable Laws, Regulations and Agreements.

The Department had two Staff members; namely the Legal Counsel and the Legal Assistant. The Department was assisted in its work by an External Legal Counsel – Messrs. Minka-Premo & Co, a full service law firm.

II. Description of Activities

The Legal Counsel ('Legal') played an advisory and compliance role during the implementation of the Compact Program. The Compact provided that, it was a key role in the implementation process and the Legal Counsel was the Chief Legal Advisor to the CEO and the MiDA Board on all issues pertaining to the Compact. The Legal Counsel also acted as the main liaison between MiDA and MCC's Legal Counsel on all related legal matters and on any Supplemental Agreement. During implementation, legal advice spanned areas of procurement, construction, employment and drafting and interpretation of contracts, negotiations and settlements, among others.

The Legal Counsel acted generally as Legal Advisor on matters pertaining to the Compact and its implementation. The MCA Ghana Program operated in a highly regulated environment, with several Implementation Documentations which were legal in nature and which required correct interpretation and strict compliance. Legal was on hand to advise the Board, CEO and Staff on matters of governance and compliance in respect of the Compact, Governance Agreement and other Supplemental Agreements as required.

Notably, the Compact Projects and funds disbursement cycles were subject to several Conditions Precedent and it was the role of Legal to ensure and report on the fulfilment or otherwise of these Condition Precedents on a quarterly basis.

In the area of procurement, ensuring a fair and transparent procurement of Goods, Works and Services posed a challenge. This was because the MCC's procurement rules and guidelines had embedded in them, a Bid Challenge System, which had the potential to derail an otherwise tight Compact implementation timeline, if any procurement was challenged under that System.

During the procurement process, Legal took Bidders through issues that could lead to disqualifications and explained a Declaration of Impartiality and Confidentiality to Evaluators prior to each evaluation to ensure an independent and transparent procurement process.

While there were no Bid Challenges during the Compact's 5-year term, there were a few threats which were averted by the interpretation and explanation of the Bid Challenge System, such that bidders realized that frivolous Claims would not be entertained.

Legal advised and instructed the External Legal Counsel on litigation cases arising mainly from the resettlement and compensation of Project Affected Persons, monitored the performance and quality of services offered and ensured the cost effectiveness of such Counsel. On some occasions, Legal sought formal Legal Opinions to assist the smooth implementation of the Compact.

Legal also doubled as Board and Corporate Secretary and maintained Corporate Records and Notices, Agenda and Minutes of Board Meetings.

III. Brief Description of the Methodologies, Processes and Strategies Used by Legal in Managing the Department

- The Legal Counsel ensured that all legal advice, whether in-house or external, emanated from the Department. It was Legal's prerogative to decide where and how legal advice would be sought and given. This ensured cost control for MiDA's legal services.
- The Projects under the Compact involved over 850 Contracts. All Contracts were finalized for signing by Legal to ensure that the correct versions were signed and all legal issues were complied with. Legal kept the Original Versions and distributed scanned copies to relevant parties. In cases where some of the signatories were out of Ghana and in the interest of time, a scanned version was sent by email, for signing.
- Tax Exemptions: The MCA Program demanded that works, goods and services employed for Project delivery were tax exempt. Tax exemption requests for exempted works, goods and services were also processed by Legal. To prevent an abuse of the exemptions, Legal always procured a sign-off from Project Managers to ensure that unauthorized goods which were not in furtherance of the Compact and specific contracts did not enjoy the tax exemption. Legal also advised that all such goods be consigned in the joint names of MiDA and the Contractor or Consultant to make it easier for the Customs and Excise Division to identify the goods and to reduce delays from verifications.
- Immigration: The Legal Counsel also handled immigration issues for expatriate personnel of Consultants and Contractors. Legal ensured that MiDA only gave letters of introduction to facilitate Visa and Work Permit Applications. This ensured that sponsoring Companies retained responsibility for their expatriate personnel. Additionally, to ensure that only the requisite expatriate personnel were brought into Ghana, Legal worked with Project Managers to verify whether such personnel were part of agreed Staffing Plans in their Contracts.

IV. Assessment of the Role of Project Activity Partners In Overall Implementation

- External Legal Counsel

The Legal Counsel was assisted by the External Legal Counsel – Minka-Premo and Co., a full service Law Firm that offered all manner of legal services. The Firm performed creditably, especially in the area of litigation.

The compensation and resettlement aspect of the N-1 Highway construction involved a significant number of displacements of persons and properties and the assessment and payment of compensations to these Project-Affected Persons. This gave rise to a number of Court Cases and Messrs Minka-Premo & Co represented MiDA in all the Cases successfully. The Firm also supported MiDA on the incorporation of new Companies for the Agriculture Project and provided excellent and well researched Legal Opinions, when necessary.

V. Summary of Key Outcomes and Achievements

- Legal handled all legal matters as envisaged and thereby managed to keep MiDA and the Compact Projects free from long-drawn and costly disputes, throughout the Compact term.
- Legal facilitated the processes towards the signing of thirteen (13) Implementing Entity Agreements and five (5) Memorandums of Understanding with Ministries, Departments,

Agencies and Institutions. This made it possible for the relevant Organizations to implement and carry out some Project activities or a component of Project activities, in furtherance of the Compact.

- The Compact was implemented smoothly without falling foul of the provisions of any aspect of the Governing Documents.
- There was not a single Bid Challenge in spite of the over 850 procurements made during the term of the Compact.

VI. Challenges and Recommendations

Challenges

- The MiDA Board included five Government Members who were all Ministers of State and sometimes, Parliamentarians. These Members were also the majority of voting Members on the Board and naturally they had busy schedules which sometimes hampered their ability to participate in Board Meetings.
- The positions of Government Members' on the Board were ex-officio and they were therefore vulnerable to Cabinet reshuffles and changes in Government. Such changes affected institutional memories that were built by Board Members who left the Board for any of the above reasons.
- Indeed, during implementation of the Program, there were several Cabinet reshuffles and a change of Government. The latter affected the Program as the new administration revoked the appointment of the Sitting Chairman of the Board and took a while in appointing a Chairman to the Board. In addition, all the Government Members were new and had to learn about the Program and the rationale for decisions taken prior to their joining.
- MiDA reported to the Office of the President. At the onset of the Program, the Board Chairman was a Member of Parliament and a Minister of State; and therefore ably represented MiDA's interest. At another point in time, the Chief of Staff in the Office of the President doubled as a Minister of State, responsible for Presidential Affairs and therefore became MiDA's spokesperson on issues relating to the Legislature.

In the absence of these fine arrangements, Compact-related issues that needed Presidential and Parliamentary approval took far longer than was expected.

Recommendations

- **The Board:** - It is recommended that, the composition of the Board be insulated from political changes.
- **Procurement:** - One of the challenges was in the area of consultancy contracts. The MCC template did not provide for penalties for delays in the submission of deliverables, especially on Reports. As a result, Consultants delivered Reports late and delayed projects, but still got paid without any penalties. It is recommended that, some form of liquidated damages be included in Consultancy Contracts to motivate Consultants to deliver on time.
- For future Compacts, there must be a clear reporting line to the Office of the President or to the Legislature, facilitated by the assignment of a Ministry or Minister of State, to whom MiDA will report, considering the very busy nature of the Office of the President.

4.4: Environmental and Social Impact Directorate (ESID)

I. Introduction

Objective:

The Objective of the Environmental and Social Impact Directorate (ESID) was to ensure that all projects under the MCA Program were carried out in an environmentally sustainable manner.

In line with MCC's CP, three Strategic Environmental Assessments (SEAs) were carried out in all the Intervention Zones, with a focus on identifying key environmental and social issues, assessing cumulative impacts and proposing a broad mitigation framework under which Ghana's MCA Projects will be implemented. It was also to ensure that all Documents from MiDA satisfied MCC and EPA of Ghana's Guidelines on environmental management.

ESID's interventions, which commenced at the onset of the implementation of all infrastructural and agriculture projects, continued throughout the Compact term in all the three Intervention Zones, namely: Northern Agriculture Zone, Afram Basin Zone and the Southern Horticultural Zone.

Financial Issues:

MCC Funding, totalling US\$3.22million, was used in the implementation of the Environmental Impact Assessments (EIAs). In addition, US\$18.81million was spent towards the implementation of the Resettlement Action Plans related to the EIAs, out of which the Government of Ghana contributed US\$10.2million.

Implementing Partners:

Apart from **Messrs Louis Berger/Transtech**, who were responsible for the Environmental & Social Oversight Consultancy, (ESOC), four Entities supported the Environmental and Social Impact component of the Program as Implementing Entities. These were:

- Environmental Protection Agency of Ghana (EPA);
- Department of Urban Roads (DUR) of the Ministry of Roads and Highways;
- Ghana Highway Authority (GHA);
- Land Valuation Division (LVD) of the Lands Commission.

II. Background

Adherence to health, safety and environmental standards was a key requirement by both the United States and Ghana Governments for the implementation of the Ghana MCA Compact. This required environmental assessments for all Compact Projects, including a cumulative assessment of the impacts of MCC funded Projects, with a view to drawing up possible mitigation, environmental safety and health plans for implementation. These assessments were carried out and reported in the three Strategic Environmental Assessments (SEAs), prepared for the Intervention Zones.

The SEAs were followed by activity-specific Environmental Impact Assessments for all the three Projects under the Compact.

- **Classification of Projects**

- a. In line with MCC's Environmental Guidelines, the **Agriculture Project** was classified as Category B, *(with the exception of the Credit Activity, which was classified as Category D and required lending guidelines that stipulated environmental requirements)*. Specifically, this meant that potentially adverse environmental impacts may result from the construction of retention ponds and weirs under the Irrigation Sub-Activity, implementation of the feeder roads projects and intensification and conversion activities related to large-scale agriculture, (e.g., deforestation, mono-culturing) were to be assessed and mitigated.
- b. The **Transportation Project** was also classified as Category B, due to the potentially adverse and site-specific impacts resulting from improvements to the N-1 Highway and selected trunk roads, including the compensation for over 6,000 permanent and temporary structures; (e.g. containers and kiosks) on the N-1 Highway's Right-of-Way (ROW). Furthermore, there would be both induced and cumulative impacts on the Afram Basin Area as a result of the increased access to the Basin provided by the trunk roads and ferry activities.
- c. The **Rural Services Project** was classified as Category C and required the selection criteria for provision of community services that took into account environmental and social impacts.

Environmental Management Plans (EMPs) and Resettlement Action Plans (RAPs) were developed for Projects when necessary. The environmental and social benefits expected from the Compact included enhanced livelihoods, greater access to social services and more sustainable agricultural practices, ultimately leading to reduced slash and burn agriculture and improved soil quality.

- **Environmental Permits**

- o A key CP for the commencement of all projects was the acquisition of *Environmental Permits*. The ESID ensured that all bidding documents under project activities contained the necessary language to guarantee that all environmental assessments and resettlement action plans have been prepared in accordance with EPA Ghana Regulations and MCC Guidelines. EIAs were submitted to EPA for review prior to the issuance of Environmental Permits. RAPs were submitted to MCC for review and approval. ESID also liaised with EPA to facilitate prompt issue of Permits.

III. Environmental and Social Oversight Consultant (ESOC)

To ensure adherence to environmental and social accountability issues, MiDA entered into a two-phased Contract, on 21st December 2007, with an Environmental and Social Oversight Consultant (ESOC), to perform essentially two main functions:-

- In Phase A: To prepare the Strategic Environmental Assessment (SEA) Reports for each of the Intervention Zones. As part of the SEA Report for the Afram Basin Zone, ESOC also prepared a draft Regional Development Study for the Afram Basin.
- In Phases B and C: ESOC provided Project-level and Activity-level planning support, which included:
 - o Monitoring the implementation of the environmental and social outcomes of the SEA.
 - o Reviewing TORs and related documentation developed for the Projects by Consultants.
 - o Assisting MiDA with their oversight of the ESMP and Project-related EMPs.
 - o Conducting Site Visits to review progress in the implementation of Project-specific and Activity-specific environmental and social requirements,
 - o Conducting environmental and social audits of unintended impacts or unwarranted actions.

IV. Changes in Implementation vis-à-vis Results Framework

Originally, all the Compact Projects, with the exception of the N-1 Activity, were to be preceded by the omnibus SEA. The SEA was to have been completed by the end of 2008, but was delayed till the end of 2009. The SEA delayed, due in part, to the Consultant's initial inability to carry out a good scoping of the Assessment.

In the light of the Compact's five-year timeline, MCC permitted some activities to begin in May 2008, while the Report on the SEA was being awaited.

The long delay in the preparation of the SEA Documents affected the preparation of the Project-specific EIAs and the commencement of construction activities. For this reason, the Phases B and C of the Contract had to be modified as the monitoring of the implementation of environmental and social outcomes of the SEA, for instance, could not be carried out.

As part of Phases B and C of the Contract, ESOC conducted, either monthly or bi-monthly Site Visits to inspect Projects in each Zone. Their Field Reports included reporting on environmental and social impediments to construction activities and also the extent to which Contractors were complying with required health and safety standards.

Phase B of the ESOC Contract was completed in January 2011, while Phase C ended at the end of January 2012.

V. Implementing Entity Agreement (IEA) with the EPA

A second action to ensure environmental compliance involved the signing of an IEA between MiDA and the EPA on 24 July 2008. Under the IEA, MiDA provided resources for EPA to carry out the following tasks:

- Review Training Manuals prepared by the CMC for training FBOs under the Commercialization of Agriculture Project.
- Prepare Manuals for training of Officials of Participating Financial Institutions (PFIs), in the Agric. Credit Program (ACP), in the use of Screening Checklists in the environmental assessment of FBO farms.

- Permitting and Monitoring of FBO Beneficiaries of ACP.
- Permitting and Monitoring of Nucleus Farmers as beneficiaries of the ACP.
- Permitting and Monitoring of all activities under the following Projects:
 - *Agricultural Infrastructure; (ferry, irrigation, post-harvest)*
 - *Transportation; (trunk and feeder roads)*
 - *Community Services*

VI. Total Activity Cost

- See the Program Administration Section of the MiDA Budget in Appendix 1, Table 1.1, for all information relating to the Original Budget of USD 2,106,671.00 and funding amounts by funding category.

VII. Project Activity Implementation Partners

SEAs were conducted in all Zones for Projects and related Activities. Eight main documents were produced under the SEA, namely:

- (a) Public Consultation Strategy.
- (b) Three (3) SEA Reports, one for each Compact Zone. (This Report was expanded to include a Section on Afram Basin Development.)
- (c) Compact-level M&E Indicators.
- (d) Framework Environmental and Social Management Plan (FESMP).
- (e) Resettlement Policy Framework (RPF) based on World Bank Operational Policy (OP 4.12).
- (f) HIV Awareness Plan.

Conclusions and recommendations from the SEAs served as part of the basis for project-specific environmental assessments. The Consultant who prepared the SEA Reports was retained to supervise the implementation of the recommendations of the Reports, in the capacity of the Environment and Social Oversight Consultant (ESOC). The Contract was successfully completed within the Compact term.

VIII. Road Construction - Pre-Construction Activities

Prior to construction, every Road Contractor submitted Environmental Management Plans (EMPs), Health and Safety Plans (H&SPs) and Environmental Baseline Surveys (EBS), which were reviewed and accepted by the Supervising Consultants. The initial attempts by the Contractors to produce EMPs, H&SPs and EBS were generally poor. For this reason, MCC's Consultant organised Workshops and Training Seminars for both Consultants and Contractors, with a view to upgrading their knowledge on standard pre-construction documents.

• *EMP*

Each Contractor's EMP contained Plans for mitigating environmental impacts identified on the Project roads, including the Contractor's Camp Site and the borrow pits excavated for materials for construction Works. These Plans were implemented by the Contractor under the supervision of the Consultant. Implementation of the Plans for reinstating the used borrow pits have been very challenging and a separate strategic approach has been developed, with the aid of MCC, to ensure completion of the reinstatement activities.

- **H&SP**

The Contractor's H&SP looked at the plans for securing the health and safety of workers, the community and also visitors to the construction sites. Implementation of this Plan was sluggish, for which reason an additional monitoring responsibility was assigned to ESOC, who reported on this to MiDA in its bi-monthly Reports. Corrective measures were implemented through communication with Consultants or through instructions at Site Meetings and Visits.

- **EBS**

The Contractor's EBS usually constituted an important portion of the EMP and determined the baseline against which appropriate environmental parameters would be compared during the course of the construction Works.

Project-Specific Environmental Assessments

Project-specific environmental assessments were carried out using various processes; namely:

- Environmental Screening
- Environmental Checklists
- Environmental Impact Assessments

- ***Environmental Screening***

Environmental Screening was performed on project-types that the SEA perceived to have very low-level environmental and social impacts (i.e. those classified as Category C by EPA). For Category C Projects, MiDA went through all the EPA Procedures and obtained Permits.

This type of environmental assessment was used for the Community Services Projects, such as schools, boreholes and small town water systems (STWS), as well as the Pack houses and the Agricultural Business Centres (ABCs), under the Agriculture Infrastructure Projects.

- ***Environmental Checklists***

Environmental Checklists were also used for some Project activities that were considered to be in Category C (higher level). This was because of the use of agro-chemicals and fertilizers, albeit in small quantities.

The development of a Checklist, comprising possible effects of the use of agro-chemicals on both the user and the environment, allowed some of these activities to take off and also introduced some farmers to environmental and social assessments. For instance, under the Agricultural Credit Program, the EPA and MiDA developed an Environmental Checklist that permitted the Nucleus Farmers to have their farms assessed for good farming practices; including the handling and disposal of agro-chemicals, as well as sustainable waste management practices. The Nucleus Farmers could therefore be assessed by EPA within two weeks compared to the hitherto six months required for the process. The EPA Permit was one of the requirements of the Banks for farmers seeking agriculture credit.

Similar Environmental Checklists were developed in conjunction with the Central Management Consultants (CMC) for the Farmer Based Organizations (FBOs) who were primed to take part in the CDFO Activities. Thus, for the first time, FBOs and smallholder farmers developed

simple Environmental Management Plans (EMPs) for their farming activities. Officials of PFIs (involved in the ACP), were also trained in the appreciation of environmental assessments, the environmental assessment cycle and also the need for EMPs. The training helped them to accept the Environmental Permit as one of the requirements for Agriculture Credit. The EMPs were monitored by the RICs during the Compact period.

- ***Environmental Impact Assessments (EIAs)***

Environmental Impact Assessments were carried out on projects that were likely to have significant impacts on the environment, as determined by the SEA. These Projects were classified as Category B Projects. These included all the Transportation Project activities, namely: N-1, Trunk Roads, Ferry; the Agriculture Projects activities such as Feeder Roads Rehabilitation, and Irrigation Schemes at the Kpong Left Bank, Bontanga and Golinga. Some Community Services Projects, such as the Tamale Water Extension Project (TWEP), were also included in this Category.

These Projects were subjected to the entire environmental assessment process cycle, involving:

- Scoping Process and Scoping Report,
- Draft EIA Report for review by EPA and MCC,
- Finalization of the Environmental Impact Statement (EIS).

With the exception of the Ferry Activity, Resettlement Action Plans (RAPs) were developed for every Project. The RAPs have all been fully implemented.

IX. Summary of Results - Project Activity Level

A total of thirty-five (35) Environmental Permits were obtained for the Projects, while twelve (12) Resettlement Action Plans (RAPs) prepared and implemented under the Compact.

The number of Environmental Permits obtained and the dates they were issued are indicated in Table 1.9 of Appendix 1.

X. Long-Term Sustainability

The sustainability of the completed Projects was assured through the mitigation measures recommended as a result of Environmental Impact Assessments (EIA) of Projects.

In all cases, PAPs were identified and compensations paid. In addition, complementary Projects, i.e. those not originally part of the planned Projects, were implemented to enhance the standard of living of some communities. For instance, in the case of the Kpong Left Bank Irrigation Project (KLBIP), potable water has been provided to some Communities. This would improve the health of Community members and therefore their ability to participate in the new Irrigation Scheme.

The sustainability of arrangements to mitigate the environmental and social impacts of the infrastructure projects was assured through consultations with the public, regarding the manner in which they would be implemented. SEAs were conducted in each Intervention Zone, (other than the Districts affected by the N-1 Activity) where necessary, environmental and social analyses that included the gender impacts, were conducted, as part of the technical survey and

design of any physical infrastructure contract under the Transportation Project. These helped to determine the environmental impacts and the likelihood of any negative economic and physical displacements.

MiDA ensured that environmental and social assessment responsibilities were included in the Bidding Documents for Project design firms, supervisory firms, the construction firms, the independent technical audit firms and any project management advisors. MiDA ensured that HIV Awareness and Worker Safety Training Plans were also included in the Bidding Documents for the construction firms. In addition, any other EIAs, EMPs and RAPs, in form and substance satisfactory to MCC, were developed and implemented and monitored by MiDA during the project implementation period.

Any MCC disbursement for a construction activity was contingent upon the issuance of an Environmental Permit or other statutory requirements. The Government funded project-related environmental mitigation costs (including resettlement costs), that were not already covered by MCC's funding, pursuant to Sections 2(a)(ii), 2(b)(ii), and 2(c)(vii) of the Compact.

The total expenditure on RAP was US\$18.81 million. *Table 4.1 provides details of the expenditure per Activity and Sub-Activity.*

Table 4.1: RAP Expenditure by Activity: December, 2011

Activity/Sub-Activity	Expenditure (US\$)
N-1	17,806,628.00
Feeder Roads	189,836.00
Trunk Roads	446,660.00
Rural Electrification	39,501.00
Irrigation	327,624.00
Total	18,810,249.00

Table 4.2 also provides a Summary of RAP Beneficiaries by Zone.

Table 4.2: Summary: RAP Beneficiaries

Zone	Rural Electrification	Feeder & Trunk Roads	Land Acquisition	Irrigation	Structures Paid	Non-Structures Paid	Secondary Interest	Total Number Paid	Number Of Persons Not Paid
SHZ	95	153	34	282		414		978	12
ABZ		196						196	11
NAZ	21	68		481				570	28
N.1 LOT 1					279	1351		1630	27
N-1 LOT 2					2209	909	34	3,152	80
TOTAL	116	417	34	763	2488	2,674	34	6,526	158

XI. RAP Field Office and Grievances Committees

Under the RAP implementation process, each Project set high standards by identifying the actual beneficiaries and offering them full and fair compensations, with a view to minimizing the impact of any dislocations on the affected persons. In line with this, PAPs on the N.1 Road Corridor were provided with easy access to RAP Officers through a Field Office, set up on the corridor.

In addition to this, Grievance Committees were also set up to investigate complaints from Project affected persons.

Key Achievements of the RAPs:

- Compensated and removed over 4,500 project affected persons on the N-1 Project, without any upheaval.
- Paid compensations for lost business profits, for a period of 6 months
- Managed grievances so well that out of the 4500 affected persons, only 3 PAPs had grievances pending in the Courts at the end of the Compact.
- Resettled the Cane and Rattan Weavers (on the N.1, Lot 1) at Ayi Mensah
- Trained the vulnerable petty traders and hawkers to minimize the impact on their well-being. This was the first of its kind in Ghana's Road Sector resettlement history.
- Built new Transport Terminals at Kokroko (near Mallam) and at the Nii Boye Town, (near Abeka Lapaz)

The results of these efforts have translated into the disbursement of about \$18.81million in compensation to PAPs on the N-1. Despite these efforts, all aimed at offering fair compensations, the social costs and the psychological trauma associated with such resettlements placed a heavy burden on the affected persons.

MiDA's careful efforts aimed at reducing the impact of the resettlement process notwithstanding, some practices associated with the operations in the real estate market, such as the payment of goodwill or a minimum of two years rent advance to landlords, were not taken into account. This placed additional burdens on the affected businesses.

It is important to note that despite the challenges and their impact on the time needed for completion of Projects, every effort was made to follow the World Bank's OP 4.12 in as far as compensations and resettlements were concerned.

XII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- To avoid challenges and delays that resulted from the short lead time between payments of compensations to Project-Affected Persons (PAPs) and the commencement of the Works, the time allocated to the implementation of RAPs must be made part of the main timelines for implementation of the related Projects.

- The methodologies required in assessing values of properties and structures prior to the payment of compensations would have to be agreed early in the Project's life, in order to avoid the time spent in obtaining certified compensation values.
- The avoidable delays caused by the reliance on Government's Agencies, (Land Valuation Division of the Lands Commission, for the determination of valuations, compensations and settlements (for structures and affected persons), the GHA for payments to PAPs and EPA for issuing of Environmental Permits) could have been minimized if specific Officers had been assigned exclusively to MiDA in these Agencies. These delays on the part of the Agencies were due to their handling of competing Schedules.

Challenges

- Working with ESOC was fraught with challenges. There was no cohesion in the Team, especially between the first Team Leader and his Ghanaian counterparts. (Eventually, the former resigned and the Deputy Team Leader also left before Phase A was completed.) The replacement Team Leader, though very affable and competent, missed the opportunity to influence the SEA Studies as he came in when the Studies had been completed.
- MiDA had no control over GoG's Statutory Agencies mandated to advise on compensations and resettlements and this negatively affected the timelines for compensation.
- The short lead time between addressing the RAP issues and the commencement of physical Works on the N1 Activity, meant that in some cases, the timing of the Contractors' Possession of Site lagged behind the Contractors' stipulated time for possession of Site. This delayed the commencement of actual construction Works and also led to delay claims from the Contractor.
- It was evident that the success of the implementation of the RAP depended on an enabling policy environment in Ghana, underpinned by necessary legislations and supported by the relevant Institutions in carrying out the policies and regulations. Even though the Policy Environment has generally been favourable, due to the amendment of the State Lands Act 1962, Act 125;⁶⁹ (State Lands Act Amendment, Act 586 of 2000), in the execution of the Policy, it was realised that because the Land Valuation Division did not adjust rates as frequently as it ought to have done, values assigned to property and crops, were generally below what beneficiaries considered fair.

⁶⁹ MiDA used the State Lands Act 1962, Act 125, and its amendment State Lands Act Amendment Act 586 of 2000 in acquiring the portion of the road affected by construction, as opposed to the Lands (Statutory Wayleaves) Act, 1963, Act 186. The Act enabled the acquisition and compensation process to conform to the spirit and letter of the Ghana 1992 Constitution, which enjoins persons to get fair and prompt compensation for any acquisition of property by Government for the common good..

- There were practical challenges in the process of identifying beneficiaries and property owners due to the complexities in assigning ownership under Ghana's land tenure system, in particular, the multiplicity of custodians or owners and the long drawn out land/property litigations tended to slow down the process. In addition, the absence of good record-keeping and the unavailability of tax returns, on the part of many informal business owners, led to some PAPs not receiving compensation for Claims relating to loss of revenue.
- The timely implementation and conclusion of RAP settlements were also affected by the usually slow decision-making process in public institutions, in particular the Land Valuation Division of the Lands Commission.
- Additionally, the effect of working with the Lands Valuation Division (LVD) and their lengthy approval processes for values and compensations, compounded by the inherent complexity of land ownership and property rights in Ghana, all led to delays in the implementation of Projects.
- From the onset of the implementation of the RAP, there were no Photo ID records of beneficiaries. This resulted in attempts by beneficiaries to put in fraudulent claims.

Recommendations

- With a widespread and varied Compact as this was, three separate contracts for Strategic Environmental Assessment should have been awarded. The delay that occurred would not have impacted on the commencement of Infrastructure projects so much if, for example, only one out of three Consultants was not up to the skills required.
- In future, Government Agencies that have to work with MiDA should be compelled to create a MiDA Desk and allocate a fairly Senior Officer to man it. This will reduce delays in decision making and in the execution of assignments. Alternatively, MiDA should have its own Officers, carefully selected to assist with Valuations, Surveys and Assessment of Compensations. These would work hand-in-hand with the Land Agencies.
- MiDA must seek approval from consider the Government for the use of independent Consultants to speedily determine fair values and compensation for PAPs, rather than depend solely on over-burdened statutory bodies, like the Land Valuation Division. The Land Valuation Division will only be required to review he work of the Consultants.

4.5: Monitoring and Evaluation (M&E)

I. Identifying Information

- **Objective**

The Monitoring and Evaluation (M&E) Activity of the Program was intended to fulfil the following obligations:-

- determine whether MiDA was achieving intended results for activities planned under the Program;
- arrange for the evaluation of the larger impacts of the Compact;
- highlight the M&E requirements that MiDA must meet in order to receive disbursements;
- guide Program implementers and management, so that Stakeholders understand what results are expected, by when the results should be achieved and who was responsible for achieving and reporting on them;
- provide a framework that will alert Stakeholders to performance-related problems, so that adjustments can be made, as needed.

- **Performance Period**

This function was carried out within the Compact Term, during the Compact Closure Period and by MCC, after the Compact.

- **Geographic Area**

The M&E Activity was implemented in the 30 Districts, located within the Northern Agricultural Zone (*in the Northern Region*), the Afram Basin Zone (*in the Ashanti and Eastern Regions*) and the Southern Horticultural Zone (*in Central, Eastern, Volta and Greater Accra Regions*).⁷⁰ [See Map 1, attached].

Besides these, some adjoining Districts like Asante-Akyem North and the Accra Metropolitan Assembly, (*where the Trunk Road and N-1 Activities were implemented*) and the North Tongu District, (*where the Kpong Left Bank Irrigation Project was sited*), were also covered by M&E activities.

The additional coverage included communities in some Districts outside MiDA's operational area, which fell in the areas covered by the counterfactual data collection exercise, carried out under the Feeder Roads Impact Evaluation.

Monitoring visits were also undertaken to all towns where the Head Offices of Rural and Community Banks or their Branches or Agencies were located.

⁷⁰ These 30 Districts cover the same geographical territory occupied by the original 23 Districts.

- **Financial Issues**

MCC Funding

Initial Budget	:	US\$15,000,000 (<i>this excludes an US\$180,000 from CIF</i>)
Final Budget	:	US\$10,196,874
Actual Disbursement	:	US\$6,941,811 (<i>this includes CIF expenditure of US\$179,966</i>)

Host Country Contributions : Not Applicable

- **Implementing Partners**

Implementing Entities:

- Ghana Statistical Service (GSS)
- Ministry of Roads and Highways (MRH)
- Statistics, Research and Information Directorate (SRID) of MoFA

Implementing Consultants:

- Institute of Statistical, Social and Economic Research (ISSER) of the University of Ghana
- National Opinion Research Centre (NORC) at the University of Chicago
- Masdar (UK) Ltd
- Centre for Remote Sensing and Geographic Information Systems (CERSGIS) of the University of Ghana
- Vision Consult
- Pentax Management Consultancy Services
- IMPAQ International

II. Background

In the \$547 million Compact, a focus on results was at the heart of the business model. There were also CPs to certain MCC disbursements, as provided in the Disbursement Agreement, for which reasons, MiDA was required to formulate an M&E Plan that specified the following:

- how the implementation of the Program and progress towards the Compact Goal and Objectives will be monitored (the **“Monitoring Component”**),
- a methodology, process and timeline for the evaluation of planned, ongoing, or completed Projects and Project Activities to determine their impact and likely sustainability (the **“Evaluation Component”**),
- other components of the M&E Plan⁷¹.

The M&E Plan delivered to MCC, was one of the key deliverables required from Ghana prior to the EIF of the Compact. The Plan was a key management tool for implementing a results-based Program. It was a living Document and therefore had to be constantly updated as the implementation of the Program progressed to be in tune with the Compact Goal and Objectives.

⁷¹ Source: Ghana Compact, Annex III

The M&E Plan was a binding Document and therefore any failure by MiDA to comply with its stipulations could have resulted in the suspension of disbursements of Compact funds.

Lastly, 'information on the performance of every aspect of the Program, including the M&E Plan and any amendments or modifications thereto, as well as periodically-generated Reports,⁷² were to be compiled and made available to the public on MiDA's website and elsewhere.

As a result of the above provisions, M&E assumed significant importance as a component of Ghana's Compact Program. M&E issues were incorporated into all facets of the Program.

All the major components of the M&E Plan were implemented, with the exception of some evaluations that could not be carried out as the corresponding interventions were completed at the very end of the Compact Term⁷³.

At the beginning of the Program's implementation, the Directorate redefined its focus and that of its partners, prior to signing the Implementing Entity Agreement. Terms of References were prepared for the Ghana Statistical Services (GSS) and various Consultants. The IEA with GSS was signed on 17th October 2007. The Sole Source Contract with ISSER, the major Consultant for the overall Program Impact Evaluation and the Farmer-Based Organizations' Impact Evaluation under the Commercial Training Activity was signed on 14th January 2008.

By the end of the first quarter of implementation, the M&E Directorate had finalized its staffing requirements by bringing on board a Research Economist and a Statistician. The M&E Work Plan was also finalised during this period, while the development of the Performance Indicator Reference Sheets (PIRS) was completed in the second quarter. The listing run by the GSS to create a sampling frame for the Ghana Living Standards Survey, Round Five plus (GLSS 5+), (the baseline study for impact evaluation), commenced in the first quarter and was completed in the subsequent quarter.

To ensure full compliance and conformity with MCC's M&E Policies and Guidelines, the M&E Plan was modified and amended five times during the Compact term. This was. The first update of the M&E Plan, which included 16 new Output Indicators, was completed and approved by MCC in February 2008. Thereafter, the M&E Plan was updated every year till the end of the Compact, with the final version approved on 30th November 2011. In all these amendments, the changes remained consistent with the requirements of the Compact and other relevant Supplemental Agreements.

Data collection for the Baseline Study for the Impact Evaluation was carried out jointly by the GSS and ISSER over a period of seven months, starting from March 2008. During this period, the M&E Staff participated in extensive monitoring activities to ensure that all processes and parameters agreed on were being followed.

⁷² Ibid

⁷³ These evaluations and other post-Compact monitoring activities will be carried out by MCC. MCC will hire an Independent Consultant to conduct the remaining evaluations under their direct supervision. A Plan has been prepared by MCC, with support from MiDA, for the implementation of these post-closure impact evaluations.

III. Changes in Implementation vis-a-vis Results Framework

A significant deviation from the Original M&E Plan was the inability of MiDA to carry out some of the planned evaluations. Two factors accounted for this; namely:

- sequencing of the roll-out of Activities
- delays in completing Activities.

In cases where there were implementation delays, there was not enough time to assess the impact of the Activity. It was only in the case of Farmer Training, that an impact evaluation exercise was completed.

Given that the evaluation was carried out after just one season of applying the knowledge acquired during the training and as other interventions intended for the integrated Program were not in place, the expected impact was not observed except in the NAZ.

The status of Planned Evaluations at end of the Compact is summarized in Table 4.3.

Table 4.3: Status: Planned Impact Evaluations

Project/Activity	Status at Compact Completion	Post-Compact Role of MCC
Overall Program		
Overall Program Evaluation – Final	Baseline Data Collection completed	Second Round Data Collection Analysis
Agriculture Project		
Commercial Training Activity	Final Report Prepared	Oversee a Dissemination Seminar with Consultant
Irrigation Activity	Evaluation Firm contracted by MCC	To manage the entire Evaluation Exercise
Post-Harvest Activity	Evaluation Firm contracted by MCC	To manage the entire Evaluation Exercise
Credit Activity	Evaluation Firm contracted by MCC	To manage the entire Evaluation Exercise
Feeder Roads Activity	Complete one of the two rounds of Data Collection	Procure Consultant for third round of Data Collection and Analysis
Transportation Project		
N-1 Activity	Draft Terms of Reference completed	Procure Consultant and manage the Evaluation Exercise
Trunk Roads Activity	Draft Terms of Reference completed	Procure Consultant and manage the Evaluation Exercise
Ferry Activity	Draft Terms of Reference completed	Procure Consultant and manage the Evaluation Exercise
Rural Development Activity		
Procurement Capacity Activity	Draft Terms of Reference completed	Procure Consultant and manage the Evaluation Exercise
Education Sub-Activity*	Evaluation Firm contracted by MCC	To manage the entire Evaluation
Water Facilities Sub-Activity*	Baseline Data Collection completed	Procure Consultant for second round of Data Collection and Analysis
Rural Electrification Sub-Activity*	Draft Terms of Reference completed	Procure Consultant and manage the Evaluation
Financial Services Activity	Evaluation Firm contracted by MCC	To manage the entire Evaluation

*Community Services Activity

IV. Total Activity Cost

- Funding Breakdown

The total disbursement to the M&E Directorate was US\$6,942,082.00. This represented costs shown in Table 4.4. The remainder of the funds, US\$3,435,029.00, which brings the final budget to US\$10,376,840.00, will be administered by MCC for the impact evaluations that will be carried out, post-Compact.

Table 4.4: Total Disbursement: M&E Directorate

Budget Items	Aug 2006 -June 2012 (US\$)
ISSER IEA	261,954.00
GLSS5+& FBO Surveys	1,986,240.00
Other Specialized Surveys	722,090.00
Misc. M&E Activities	2,330,165.00
IEA with GSS	1,466,215.00
IEA with Ministry of Transport	175,418.00
Total	6,942,082.00

The details of the Original Budget and funding amounts by Project and funding Category are in Table 1.1 of Appendix 1.

V. Project Activity Implementation Process

Descriptions of Methodologies, Processes and Strategies used in the Achievement of Results

The need for teamwork was emphasized at the onset of the Program. The Directorate used the first few weeks to provide orientation to Staff Members on their respective roles, including roles as Point of Contact Officers (POCs) for each Project Activity and Program Component.

The Directorate adopted an interactive approach to its assignments, which involved Project Managers and Consultants. Periodic reviews as well as one-on-one interactions with Key Management and other Project Staff enabled Staff to constantly focus on the Compact Goal and Objectives. Quarterly and other Periodic Review Meetings, involving all Stakeholders with monitoring roles and responsibilities were held to re-strategize, consolidate and synchronize the inputs or data coming from Consultants, with M&E Validation Reports, before Quarterly Reports were finalized.

M&E Tools

In implementing the results-based Program, MiDA created an MS Excel-based Project "Performance Alert System" as part of the key M&E tools for communicating performance to Management. The System periodically drew the attention of Management to the performance of Program components at any particular point in time.

The introduction of the Process Indicators and Milestones into the ITT was timely, as this enabled the Directorate to track performances long before the interventions began to yield any significant outputs. Because the Process Indicators and Milestones were linked to the Work Plans of each Project Manager, it made it easy for the Managers to track this by themselves.

The planning elements of the monitoring frameworks were closely linked to the Work Plans of Project Managers and therefore monitoring of the rollout of the various Work Plans were carried out by both managers and their points of contacts.

M&E Workshops

The M&E Directorate organized four major Workshops within the Compact Period. These Workshops were intended to update partners and stakeholders on the implementation of projects, assess performance towards achieving results and seek additional information to resolve any issues and evaluate trends identified during implementation. Significant features of these Workshops were the presentations on Surveys and Assessments conducted by various Consultants.

Performance Monitoring

To ensure that the implementation of Projects was on track and to assess the Program's performance, regular field trips were made to Project Sites by all M&E Staff. These trips also enabled the M&E Staff to verify information, to validate data and to audit Reports submitted by Consultants.

Indicators, Baselines and Targets

The Indicator Tracking Tables contained two hundred and six (206) Indicators identified for monitoring the Program's implementation and for assessing the performance and results of the twelve (12) Project Activities. These were distributed as follows:

- Seven each of these Performance Indicators were at the Compact-wide Goal and Program Objectives levels.
- At the Project Level, each Project's Performance was measured using 44 Outcome, 34 Output and 104 Process Level Indicators.

The **Performance Monitoring Plan** in Annex I of the M&E Plan provides a full list of these Indicators, with their definitions, data sources, entities responsible for data collection, the data collection method, measurement unit and frequency of data collection. The detailed results for each Project have been discussed under the Sections for Projects.

The **Performance Indicator Reference Sheets (PIRS)**, which served as the repository of detailed information on each Indicator, can be found as an Annex V to the last updated M&E Plan. The PIRS provides information such as precise definition, justification for and usefulness of the measure, unit of measure, documentation of data quality issues and actions, disaggregation, sources of data, data collection methodology, indicator calculation methodology (where applicable) and information on baseline values, targets and actuals for each indicator. The Reference Sheets were updated whenever the M&E Plan was updated. The final version provides information on the actuals recorded for each Indicator over the entire Compact Period. *(The final version will be ready after the completion of all post-Compact data collection activities).*

Data Disaggregation

Even though data in the ITT had not been fully disaggregated, the detailed data has been disaggregated by gender, age, income, Intervention Zone, District and other appropriate variables. Data from Baseline Surveys, like the GLSS5+, the FBO Survey and other Surveys, have also been disaggregated and analyzed by various variables, including those listed above.

Reports

At the onset, MCC requested for three main Reports from the M&E Directorate. They were:

- i. the Narrative Report and the ITT, which was submitted alongside the Disbursement Request, before the end of each Quarter;
- ii. the Quarterly Progress Report, which was submitted one month after the end of each Quarter;
- iii. the Annual Supplementary Report, which was submitted annually in October each year.

Due to changes in the reporting plan as advised by MCC, the Narrative Report and the ITT became the only Report that was submitted to MCC. However, MiDA continued to produce the Quarterly Progress Report because that was the Report into which the Consultants' Reports were fed and also because it coincided with the timelines for reporting to the Government of Ghana and on the ITT.

Data Quality Checks

Periodic data quality checks, including field validations, were also carried out by the M&E Staff.

The Essence of the Economic Rate of Return (ERR)

At its core, an ERR is a comparison of the costs and benefits of a public investment. In MCC's analysis, the costs of a project reflect the necessary financial expenses, including those covered by other parties. The benefits include the increased income of a country's population or value added by its firms due specifically to the proposed project. Estimating the ERR of a proposed project before the investment is made offers MCC a forecast of the project's likely economic impact.

The Economic Rate of Return (ERR) is the main Project Appraisal tool used by MCC to select Projects for funding.

This Economic Analysis is the key pillar of the M&E Plan. Variables capturing the benefit streams in the ERR are included as key performance indicators and targets in the M&E Plan.

In the case of Ghana's Compact, estimates that supported the calculations for the ERR, were made ex-ante. The ERR for the overall Program was estimated at the following levels over a 24-year period:-

- 20% in a Base Case
- 27% in a High Return Case
- 12% in a Low Return Case

The overall Project ERR was calculated as a weighted average of the activities.⁷⁴

Table 4.5 shows the ERR Estimates for each Project and Activity (ex ante).

⁷⁴ **Base Case:** It was assumed that farmers would realise basic technical improvements and marketing advantages from FBO membership.

High Return Case: It was assumed that FBO farmers double the size of cultivation and achieve higher marketing performance.

Low Return Case: A 50% decrease in agricultural incremental net benefits, 50% decrease in feeder and trunk road benefits, and 50% decrease in N1 Highway benefits was assumed.

Table 4.5: ERR Estimates for Projects and Activities

Activity	Pre-Compact ERR
<i>Project 1: Agriculture Productivity and Value-Added Development</i>	
Farmer and Enterprise Training in Commercial Agriculture and Irrigation Development	29
FBO Training, Credit Services and Land Tenure Facilitation	22
Post-harvest Handling (SHZ only)	15
Rehabilitation of Feeder Roads	18
Total Agriculture Project	21
<i>Project 2: Transportation Infrastructure Development</i>	
Improvement of the Afram Plains Basin Trunk Roads	17
Improvement of the Adawso to Ekye Amanfrom Ferry Services	15
Improvement of the Tetteh Quarshie Interchange to Mallam Junction Section of the N1 Highway	36
Total Transportation Project	32
<i>Project 3: Rural Services Development</i>	
Support for Community Services	10
Strengthening of Public Sector Procurement Capacity	
Strengthening of Rural Financial Services	
Total Rural Development Project	10

In line with MCC Guidelines, the estimated costs and net benefits would be updated periodically by MCC, using actual costs and additional information on the net benefits obtained after the end of the Compact.

Assessment of the Start-up of the Project - including Quality of the Project Start-up

At the commencement of the Program, the M&E Directorate updated the M&E Plan and the Annexes I and II significantly. The Directorate reviewed the various baseline data that needed to be collected and commenced work on the baseline studies for the overall evaluation of the impact of the Program. The listing for the GLSS5+ Survey that should have been completed before the Compact came into force, had to be undertaken by ISSER and GSS, under very stressful conditions.

A second major activity was to bring Project Implementers up to speed on MCC's stringent requirements. This proved to be a major challenge, as some of the Implementers were not fully exposed to control parameters, like MCC's. These Implementers considered the requirements to be excessive, repetitive, time consuming and expensive and were therefore generally critical of the information and reporting needs of MiDA and the MCC. The capacity-building and follow-up hands-holding arrangements provided by the M&E Staff helped to elicit their cooperation in overcoming some of the bottlenecks.

Assessment of the Role of Partners in Overall Implementation

All the partners working on the M&E component of the Program completed the tasks assigned to them successfully. These were:

(a) Ghana Statistical Service (GSS)

The Implementing Entity Agreement (IEA) signed with GSS, required the Service to carry out two rounds of baseline data collection and processing in 2008 and 2011. MiDA decided to push the second round of data collection to the post-Compact period because of the late implementation of projects. Thus only the first round (baseline) activity was carried out within the Compact Term.

The Service committed all the necessary resources needed for the Ghana Living Standards Survey Five Plus (GLSS 5+) baseline data collection and processing. The data collection took longer than planned; (seven (7) months instead of five-and-a-half (5.5) months) because of the need to carry out field measurements with GPS instruments.

(b) Institute of Statistical, Social and Economic Research (ISSER) of the University of Ghana

ISSER was originally awarded the Contract to assess the impact of the overall Program (using results of two rounds of GLSS 5+) and the Commercial Training Activity (through three rounds of FBO surveys). Due to the late completion of some key projects the second round, (i.e. the follow-up to measure impact of interventions), was excluded from the Contract. The first round (i.e. baseline) data collection for GLSS 5+ was completed and the Descriptive and Analytical Reports produced. The Impact Study of the Farmer Training was completed and the Descriptive and Analytical Reports provided.

(c) Statistics, Research and Information Directorate (SRID) of MoFA

The SRID, under an Implementing Entity Agreement with MiDA, successfully carried out three rounds of crop-cutting exercises to obtain objective measurements of yields that will be used to measure the impact of the MCA Program on the productivity of selected crops.

(d) Ministry of Roads and Highways (MRH)

The Ministry successfully carried out Studies to measure the Annualized Average Daily Traffic (AADT) and International Roughness Index (IRI), which are key outcome indicators for the N-1, Trunk Roads and Feeder Roads Activities. Due to the late completion of the road projects, the measurements took place in the Compact closure period. The Work was carried out under an Implementing Entity Agreement.

(e) National Opinion Research Centre (NORC) at the University of Chicago

NORC carried out the impact evaluation of the Feeder Roads Activity. The original plan was for the Consultant to carry out three rounds of data collection needed for the exercise. As a result of the completion of the roads close to the end of the Compact, only two rounds of the data collection could be carried out. The Contract was varied to enable NORC to collect the first round of data for the measurement of the impact of the Water and Sanitation Sub-Activity. All the assignments were successfully completed.

(f) Masdar (UK) Ltd

Masdar completed the contracted work of carrying out three rounds of data collection for the measurement of specific performance indicators under the Land, Procurement Capacity and Community Services Activities, 2009/10, 2010/11 and 2011/12.

(g) Centre for Remote Sensing and Geographic Information Systems (CERSGIS)

CERSGIS of the University of Ghana completed the task of developing initial maps for MiDA's Intervention Districts, showing the locations of MiDA interventions.

(h) Vision Consult

This Consultant was hired to assess the quality of data reported by MiDA's Project Managers and the Implementing Entities and Consultants they worked with. They successfully carried out the assessment, based on the five cardinal standards: validity, reliability, timeliness, precision and integrity - for data quality reviews required by MCC's Policy for Monitoring and Evaluation of Compacts and Threshold Programs.

(i) Pentax Management Consultancy Services

Messrs Pentax Ltd. of Ghana carried out training programmes intended to build the capacity of Implementing Entities to collect and report data in order to meet the rigid standards of the MCA Program.

(j) IMPAQ International

Messrs IMPAQ International, of the USA, was awarded a Contract to carry out the mid-term evaluation of the MCA-Ghana Program.

Program Assessment and Evaluation**Impact Evaluation**

MCC promoted the rigorous statistical tools and Program design techniques and types of evaluation, *(such as the randomization of beneficiaries (treatment) and comparison (control) groups*. By policy, MCC required that each Project Activity above the US\$1.0 million threshold must be evaluated. In view of this, MiDA had to re-introduce some Indicators that had been taken out of the M&E Plan and added those activities that had budgets above the one million dollar threshold. This brought the number of Evaluation Surveys to 14.

The Program-wide Impact Evaluation, to be carried out by MCC post-Compact, would be based primarily on data from the GLSS5+. However, the Evaluators will utilize results of other Surveys carried out by other Contractors, such as the FBO and Market Surveys (*related to road investments*).

The World Bank and ISSER undertook a rigorous evaluation of MiDA's Pilot Land Title Registration Project in the Awutu Senya Pilot District. As this evaluation took place before the implementation of the World Bank's Second Land Administration Project (LAP-2), it would provide vital evidence for use by Government and donors as they consider scaling up these projects, and would influence the overall direction of land policy in Ghana. Furthermore, since global evidence on such Projects was scarce, this evaluation exercise will provide evidence for policy formulation in some other countries.

The Baseline and Follow-up Surveys were carried out in 2010 and 2011 respectively. MCC funds were used to support the follow-up data collection exercise, whilst the Baseline Study was entirely funded by the World Bank. A Report on the Study was submitted in December 2011. A third round of data collection was timed for the period after the Compact.

Performance Assessment

Performance assessments were undertaken on a regular basis to systematically analyze monitoring data, identify areas where follow-ups were required and also to highlight successes.

Quarterly Reports

Before the preparation of Quarterly Reports, a Quarterly Review Session was held at the national level, facilitated by the M&E Directorate. The composition of the membership of the Quarterly Review Meetings included MiDA's M&E POCs, MiDA Project Managers, Implementation Consultants, Project Management Support Consultants, Project Support Consults and Implementing Entities. Outputs of the Quarterly Review Sessions were used to enrich the QPR and to update and alert Management on burning issues.

Mid-Term Compact Program Review

MiDA hired an external Consultant, **Impaq International** to carry out the Mid-Term Review of the Program. The Review pulled together all Performance Reports and Analyses prepared to date and augmented this information with field trips. Unfortunately, at the time of the review, none of the project-specific evaluations had been completed. Even then, the review exercise brought out areas that needed to be improved in order to achieve the objectives of the Compact and its Projects and related activities.

Program Completion Report

Before the Compact closed on 15th February, 2012, MiDA hired a team of Consultants to conduct a Program Completion Review and prepare the Program Completion Report (PCR) in accordance with MCC's Guidelines. This Draft Report was finalized by MiDA's Management Staff after the end of the Compact and was submitted to MCC in June 2012.

V. Changes in Implementation vis-à-vis Results Framework

- ***Development of Geographic Information System (GIS)***

Even though the use of the GIS was not anticipated from the very beginning, it provided spatial information for the whole Program and served as a source of information, directly linked to spatial data.

- ***Development of Performance Alert System***

The Performance Alert System (PAS) developed by the M&E Directorate provided graphic presentations of traffic signals and flags on Program Performance using Key Indicators and was therefore very useful as an early warning system for management on the progress of Work.

- ***Incomplete Evaluations***

Some of the evaluations could not be carried out as originally planned because most of the projects and interventions slipped on their original timelines and were therefore completed close to the end of the Compact.

The original plan to implement major evaluations within the Compact Period was very ambitious. Coupled with the delay in implementing many of the projects, and the late decision by MCC (due to a change in Policy), to evaluate all projects activities with values above one million dollars (US\$1.0 million), only the evaluation of the Pilot Land Title Registration Sub-Activity (carried out by the World Bank and jointly funded by the MiDA/World Bank) and the Farmer and Enterprise Training Evaluation occurred within the Compact period. Two rounds of evaluation, including the MiDA-sponsored second round, of the Land Sub-Activity were completed within the Compact period. However, the World Bank's intention was to do a third round of data collection to complete the evaluation process. This was to be done in 2013.

Following that change in Policy by MCC, all of MiDA's Project Activities and Sub-activities, qualified to be evaluated. It was therefore not easy to come by appropriate methodologies for some of the evaluations, as the Projects had already began, making it difficult to get the necessary baseline data for them. A simple, before-and-after methodology had to be adopted for some of them, even though these were not rigorous enough.

- ***Changes in M&E Criteria, Policies, Procedures and Practices***

MiDA's M&E functions and processes continued to change as MCC Policies and Procedures evolved. Therefore a number of changes were made in procedures, practices and in policies. One of such policy changes, involving the need to evaluate all projects above US\$1.0 million, has been mentioned above.

VI. Summary of Results - Project Activity Level

- **Program Level Output Indicators**

The Indicators used to track the performance of the MCA-Ghana Program were at the process, output and outcome levels. The process indicators were to track progress towards achieving specific targeted outputs, while the outcome indicators were to track the immediate outcomes of the outputs from the Program. Thus, the success in meeting targets was primarily measured by the extent to which the output targets were achieved, while the impact was determined more by the Program design and the prevailing external factors.

Table 4.6 and Figure 4.2 below provide a Summary of the performance of the MCA-Ghana Program in relation to Output Indicators. The details are provided in the Table 1.12 in the Appendices.

Overall, 57% of the targets set for 40 Output Indicators were exceeded at the end of the Compact period. This increases to 62% if a 90% achievement is included⁷⁵.

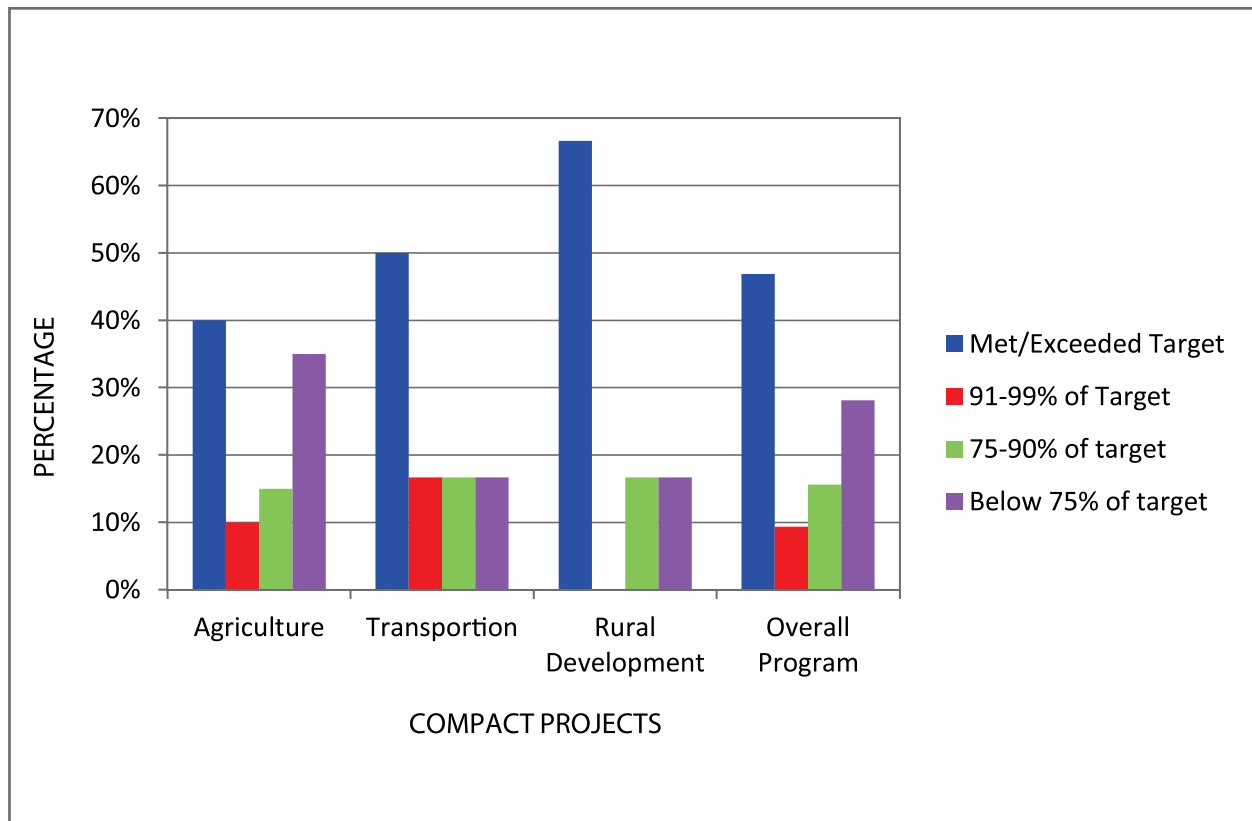
The Transportation Project recorded the best performances, followed by the Rural Development Project.

The challenges with the timely completion of the irrigation and post-harvest facilities and the difficulties encountered in the disbursement of agricultural credit, explain why a significant percentage of the targets of output Indicators (55%) under the Agricultural Project, could not be met.

Table 4.6: Summary of Project Performance - Output Indicators

Activity	Number of Output Indicators	Percent of Output Indicators by Performance Category			
		Met/Exceeded Target	91%-99% of Target	75%-90% of Target	Below 75% of Target
Agriculture Project	22	45	5	18	32
Transportation Project	8	75	0	12.5	12.5
Rural Development Project	10	67	11	11	11
Total Program	40	57	5	15	23

⁷⁵ This is on the basis that a 10% deviation from the target is an acceptable achievement.

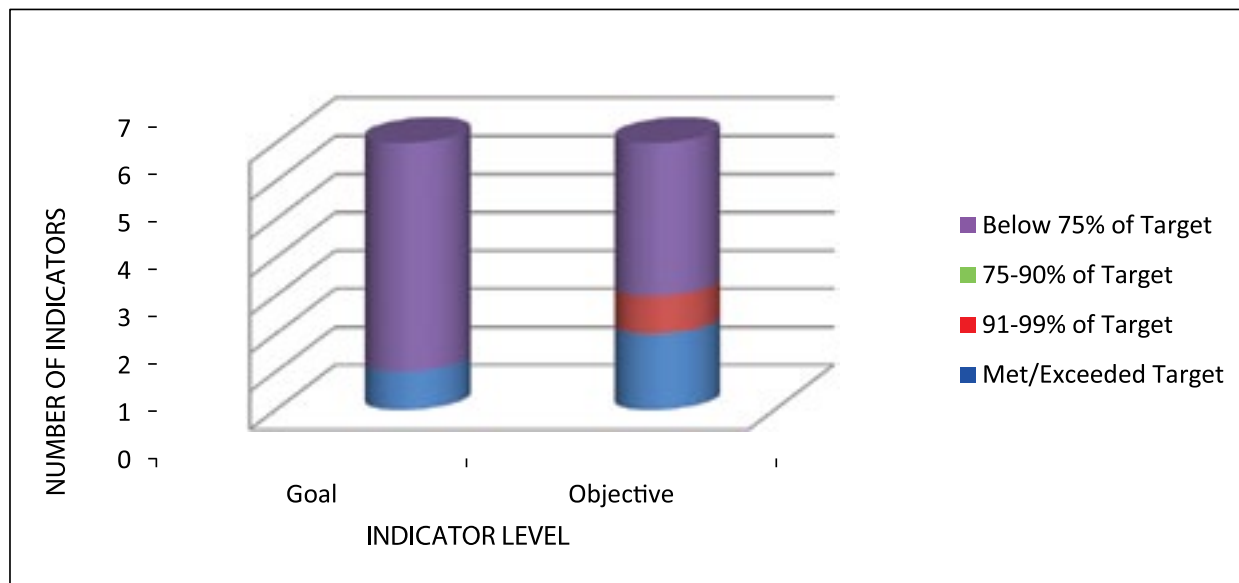
Figure 4.2: Summary of Project Performance – Percent of Output Indicators

Goal Level Indicators

At the Goal level, where the Performance Indicators are income-based and indicate long term impact, six out of the seven Performance Indicators (about 86%), were yet to meet the targets set. The picture at the Program Objective level was not different for five of the seven indicators, (about 71%).

At the end of the Compact, each of the six-goal level indicators and four objective-level indicators had achieved below 75% of their respective targets. This notwithstanding, the Indicator, Crop Income from High-value Crops, (e.g. pineapples and mangoes), which is measured at the goal level, exceeded its target by about 39%.

Figure 4.3 provides an overview of performance at the Goal and Objectives levels of the Results-chain.

Figure 4.3: Compact-wide Performance Indicators (Higher Level)

Milestones of M&E Directorate

- **Process**

In the Indicator Tracking Table (ITT), there were four process level Indicators for monitoring the activities of the Directorate. These are shown below. Two were achieved on schedule, whilst the other two were met in the ensuing quarter.

Indicator/Milestone	Target Date	Date achieved
Clean GLSS5+ Baseline Data Received by MiDA	31-May-2009	28-May-2009
FBO Survey Launched	1-Nov-2008	4-Nov-2008
FBO Baseline Data Received by MiDA	31-May-2009	21-Aug-2009
Feeder Roads Investment Evaluation Contract Signed	18-Nov-2008	30-Mar-2009

- **Impact**

MiDA's M&E activities had a significant impact on project monitoring as practised by the Implementing Entities who worked with MiDA. These Organizations included MoFA and MRH; who worked on the management of information at the District level and data cleaning for traffic count respectively.

Lessons learnt included the importance of cleaning and exploring data before proceeding to any analysis and the need to adhere strictly to data quality standards.

- **Financial Performance of the Project**

The M&E Directorate utilized 66.90% of its final budget of \$10,376,840.⁷⁶

⁷⁶This figure excludes about \$180,000 spent under the CIF budget

VII. Long-Term Sustainability

- MiDA's M&E Department worked closely with a number of MDAs. These were the GSS, MoFA, the Judicial Service, Lands Commission, MOE, MRH and PPA. The linkages with M&E Units of MDAs that worked with MiDA were strengthened as emphasis was placed on monitoring the Indicators reported on by Consultants and ensuring data quality.
- The GSS collected baseline data for the GLSS5+. This included modules added by MiDA and MCC to elicit specific information from GSS's Panels in FBO communities. The Service would be available to collect follow-up data, post-Compact, should MCC opt for that. The GSS has the mandate to undertake frequent rounds of the Ghana Living Standards Surveys. However, these Surveys on their own do not include modules added on to the GLSS5 to collect data of interest to the MCA Ghana Program.
- The Statistics, Research and Information Directorate (SRID) of MoFA carried out three rounds of Crop-Cut Exercises on the fields of some FBO members trained under the Program. The data was to measure crop yields. This was an activity within the mandate of MoFA. However, future exercises will not necessarily cover the panel of farmers whose fields were measured under the MCA Program, unless the sampling is adapted to include them.
- The Ministry, through her Agencies, viz: GHA, DUR and DFR has been involved in the road projects from the design stage up to their completion and post-completion data collection. It was expected that the MRH will continue to collect data to measure AADT and IRI on the MiDA-constructed roads as part of their normal activities.
- MiDA worked with Public Procurement Authority (PPA) through a Consultant hired under the MCA Program, but who was resident in the Authority's Offices. Data to monitor the progress of beneficiaries of the Internship Program was collected by an Independent Consultant. In the absence of these Consultants, PPA has become responsible for the monitoring of this activity.

The following arrangements are proposed for sustaining the M&E activities beyond the Compact.

- Formalise existing relationships with Departments and Agencies like MOFA's SRID and District Offices, Lands Commission and PPA in which MiDA has built capacity in monitoring.
- Take steps to pass on responsibilities to M&E Units of MDAs that do not have close working relationship with MiDA's M&E Directorate. These include MoFA's PPMED, MOE and the MLGRD.

VIII. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

Notwithstanding the elaborate M&E Plan and implementation systems and arrangements adopted under the Program, a number of key issues and gaps have been identified, which given the opportunity for another Compact, could be done differently to enhance the yields/output of M&E activities. These findings include:-

- **Performance Monitoring Data**
 - Responsible entities, (as per the PMP (Annex I of the M&E Plan), who will provide detailed datasets to support any reported Summary Result, especially in the ITT, must provide assurance of the integrity of the reported Results. To enforce this imperative, it should be incorporated into Project Contracts and IEAs signed with Consultants and MDAs respectively.
- **Participatory Monitoring**
 - The Participatory Monitoring and Evaluation (PM&E) Activity, was limited only to the Citizen's Satisfaction Score Card on Local Governments' Service delivery. It was undertaken to measure the perceptions of beneficiaries on the quality, efficiency and adequacy of the different local services provided by the various Local Government entities and other Implementing Agencies. This information was to contribute to corrective action and provide an opportunity to deepen public accountability. It was also to provide valuable feedbacks to the beneficiaries on the strengths and weaknesses of the various interventions.

However, there were limitations to feeding back the results into the planning and implementation of activities, as the implementation strategy for Projects did not take account of this, as a result of the limited timeframe within which MiDA had to complete Projects. Most of the interventions to improve Local Government's social services, (e.g. provision of education and water facilities), were completed towards the end of the Compact period. There was therefore no opportunity to elicit opinions from beneficiaries on the access to and use of the facilities.

- **Results Based Monitoring**
 - MiDA adopted a result-based monitoring approach, as evidenced by the link between actual delivery and disbursement of funding, to capture the burn rate of Compact funds`. For results-based monitoring systems, the results serve as the starting point and the planning and management of Project Activities take place within the context of how best to meet these results. Ongoing monitoring of projects requires that the data collected respond to management requirements for decision making in a timely manner and correspond to the expected fast pace of results delivery. The inclusion of Process Indicators tended to swell up the number of Indicators to report on, but was useful in monitoring the process leading to actual outputs.
- **Monitoring Implementation**
 - In view of the integrated approach to implementation that was adopted for the Program, it was important for the monitoring exercise to focus on both the indicators

and implementation milestones, particularly the extent to which the various parts of the planned interventions moved together.

- **Adequacy of Indicators**

- While environment and social impact and health and safety issues were given prominence in the implementation of Projects, there were no Indicators targeting these issues. Despite the very high number of Indicators that were being monitored in the Program, some key Indicators on these cross-cutting issues could have been added.

- **Timeliness of Reporting**

- Basic information on Projects was mainly disseminated from MiDA to MCC through Narrative Reports and through Quarterly Performance Reports from the Consultants (including PMSCs) to MiDA. Internally, Monthly Reports (Weekly Reports at the initial stages of Compact implementation), were submitted by Project Managers to aid Senior Management's decision making. All the Reports were always available on time. There were also Quarterly Progress Reports prepared by MiDA. These Reports are submitted to the Directorate by the Project Managers at the end of each Quarter.

However, it took additional time for the Reports to be finalized and disseminated within MiDA and made available to the public (on the website), due to the large numbers of Indicators to be reported on. This delayed dissemination and therefore risked undermining the relevance of the Quarterly Reports for the public.

Challenges

- **Data Issues:** Obtaining detailed data that support the Indicators in the ITT from the implementing partners, for verification and validation prior to Quarterly Review Meetings, and the compilation of the final Narrative and ITT Reports, was very challenging. Though Implementing Partners were on several occasions reminded about this requirement, figures in the Narrative and ITT Reports continued to come in without some specific details. To meet the MCC deadlines, the M&E Directorate was sometimes torn between not reporting anything for such Indicators and reporting the figures without the supporting detail data.
- **M&E Plan Revision:** The Draft M&E Plan that preceded the entry into force of the Compact did not have accompanying documents to describe how baseline figures and targets indicated in the Plan were arrived at. This posed a challenge for follow-up data collection and analysis and M&E Plan updates.
- **Reporting by Entities:** A number of cases were observed where details did not add up to the reported Summaries.
- **Use of ERR Assessment during Implementation:** There are merits in using the Economic Rate of Return (ERR) to prioritise the selection of projects for implementation. All things being equal, projects with higher ERR estimates should be preferred over the others. However, there were cases in the roads sector when it became difficult to apply this principle after decisions had been made, based on previous costs and benefit variables.

- The Program encountered cost over-runs for the Infrastructure Projects, particularly under the roads activity. As a result, some roads that had been selected and earmarked for construction/rehabilitation had to be dropped. However, where plans had advanced on road segments which had low economic rates of return, in the face of current costs and benefit variables, it became difficult to drop them due to the usually high expectations of stakeholders, including Government.
- **Addition of Indicators during Implementation:** The decision by MCC to add new Indicators that should cut across all MCA Programs, (referred to as Common Indicators), in the middle of implementation of the Program, necessitated changes to the M&E Plan and also posed challenges to data collection. This resulted from the fact that it became difficult to get Consultants to provide data that were not initially in their Work Plans.

General Recommendations

- **The M&E Plan**
 - There was the need to maintain a high level of institutional memory with respect to the preparation of M&E Plans. If possible, key persons involved in the preparation should be available at the initial stages of Program's implementation and be involved in all consultations. At the Compact Preparation Stage, the M&E Plan should provide information on the processes that supported key decisions in order to guide newly hired M&E Staff.
- **Data Reporting**
 - An ICT-based Reporting System should be in place at the beginning of implementation. Summaries should always be supported by the details at the time they are reported. Consultants/ Contractors, who have responsibilities for reporting on Indicators, should have this clearly stated in the terms of reference of their Contracts, and be tied to payments just like other key deliverables.

Entities (*Consultants and MDAs*) working with MiDA must have designated M&E Contacts with the requisite qualification.

Specific Recommendations - (*for Donors, Government Agencies, Compact 2, etc.*)

- **Timeliness of Reporting**
 - Reports meant to provide information to the general public should focus on Key Achievements that could be reported on a timely basis. The Quarterly Reports could still be posted on the MiDA website for the benefit of Stakeholders who require further information.
- **New Indicators**
 - Whenever MCC decides to introduce new Indicators, (*especially those reported by multiple MCAs*) during implementation, countries that are already well into implementation must not necessarily make these changes in their M&E Plan, especially where it would adversely affect data collection.

4.6: Capacity-Building

Capacity-building was central to many of MiDA's activities. MiDA engaged with Government departments, agencies and public institutions, by entering into IEAs or MOUs with some 13 of them, to ensure the successful prosecution of the Program. These departments and public institutions included MOFA, ISSER, the Ghana Statistical Service (GSS), the Lands Commission (LC), Ministry of Education (MoEd), Ministry of Energy (MoEn), Ministry of Roads and Highways (MRH), BoG, ARB Apex Bank and other Financial Institutions (FIs), VRA, the Volta Lake Transport Company and the Public Procurement Agency (PPA).

Capacity-Building of Government and Public Institutions

All the departments and public institutions needed some form of capacity enhancement support to be effective in carrying out monitoring and evaluation exercises, ensuring the sustainability of all project activities in general and reporting on the Ghana Program, in particular. In some instances, the requirements were very significant.

Critical public institutions such as GSS and MOFA, lacked facilities such as vehicles, equipment and the technological resources to perform their roles. MiDA therefore provided the resources required to strengthen several of them, before and/or during implementation.

Capacity-building in the public sector consisted of allocations of Program assets, in the form of furnished office buildings, vehicles, advanced mapping and survey equipment and information and technology systems. Institutions that received these capacity improvements included the following:

- GSS received a large fleet of vehicles for the GLSS5 Survey;
- MOFA was provided with GPS Systems for farm size measurements;
- The Lands Commission (LC) received modern survey and mapping equipment and vehicles, in addition to furnished and equipped office buildings;
- The Judicial Service (JS), obtained computers and recorders to speed up the disposal of land cases pending before the Courts;
- Three institutions, the Building and Road Research Institute (BRRI), the Ghana Standards Authority (GSA) and the Plant Protection Regulatory Services Department (PPRSD), benefitted from a budget of \$4.0million under the Commercialization of Agriculture Activity, towards the rehabilitation of their laboratories and purchase precision equipment and reagents.
- MRH was given \$770,689.77 in 2012 for monitoring of Works, Traffic Data Collection and measurement of International Roughness Index (IEA, December 13, 2007, Table 11).

Capacity-building in some of the Institutions, including MOFA, Lands Commission, the Judicial Service and Financial Institutions was complemented with staff training. The Staff of MOFA, the JS and LC for example, received training to implement the Program and MiDA itself trained some of its personnel to prepare them for various roles in the Land Activity.

The Procurement Capacity Activity was to support the development of procurement professionals and to strengthen the capabilities of various Procurement Entities under the Government to procure goods, works and services with greater economy and efficiency, applying the Public Procurement Act. This major intervention has laid the foundation for enlarging the procurement capacity within many public institutions.

Capacity-Building in the Smallholder Sector

Several smallholders and SME proprietors, who were targets of the Program, had their operating capacities and productivity levels enhanced as follows:-

- training in farming methods, produce marketing and organizational skills. Starter Packs that followed the training in commercial agriculture, contributed to technology adoption and increases in farm yields;
- access to loans under the Credit Activity;
- the construction of Public Pack Houses to add value to export crops;
- the availability of rural electrification has empowered processors;
- the operation of the post-harvest handling facilities will increase the business capacities of the managing companies and develop smallholders who will receive further training in farming methods and other farm services.
- Schools constructed under the Program have provided opportunities to many young children to acquire formal education;
- the provision of potable water to rural communities has reduced the drudgery on women who performed this chore and enhanced the production capacities of the people in general.

Capacity-Building in the Private Sector

Private Sector stakeholders, including trainers, surveyors, engineering consultants, contracting firms and a host of individuals with specializations across a wide range of professions, have also improved their capacities through their interaction with MiDA and involvement in its processes. Some Ghanaian entities improved their capacity to undertake bigger contracts and to offer services to MiDA and the Government, through partnership arrangements with foreign companies.

Technical Training Service Providers (TTSPs), enhanced their capacity to train local farmers, becoming more familiar with new and advanced training modules for improving farming methods and business management. Some gained experiences from training large numbers of farmers in challenging rural environments; while many improved not only their human resource-base, but also their financial resources, acquiring assets, such as vehicles and equipment to aid training delivery.

As part of the construction of ferries under the Ferry Activity, ten (10) Ghanaians have been trained and internationally certified as Germanischer Lloyd-certified welders, while many of VLTC's technical staff received further training in ferry handling and maintenance at the Maritime Academy.

In the Financial Institutions, in addition to staff training in the management of agricultural credit, capacity-building had originally included capitalization to the tune of 50% of the funds received for disbursement for banks that successfully retrieved all their loans. This Scheme was however not implemented, although it can be said that a few banks increased their net worth through their participation in the Agriculture Credit Program.

4.7: Gender

During the process of Compact development and earlier in its implementation, MCC did not have a Gender Policy or any Guidelines on the management of gender issues for adoption by MiDA. As a result, gender analysis and mainstreaming activities were not properly integrated during the implementation of activities under the CDFO. In spite of the lack of any clear-cut arrangement for gender mainstreaming, women freely participated in and benefited from MiDA's CDFO-funded activities, with the gender balance, almost even across the relevant Projects.

The processes towards the priming and mobilization of farmer groups were gender neutral and did not restrict any sex from participating in the Program. However, women represented 48% of the farmers who participated in the training and skills improvement activities. Of the 66,930 farmers trained, 31,902 were women, (representing 47.66%). Within the FBO Groups, 23 FBOs were female-only groups, while 36 groups had very few male members.

Success by female groups was clearly evident as a result of the free training offered under the CDFO. For instance, an all female FBO Group, called Enso Name Ye, located at Kobriti in the Ejura-Sekyedumasi District, have reported improvements in their agricultural activities through the MiDA capacity-building training and the use of the Starter Packs. More importantly, the Group indicated that they had been empowered to take up organizational responsibilities by themselves. The Group has acquired a tractor through their individual contributions, (in the form of bags of grains) and had travelled to other Districts to work during the lean season in order to raise funds. Considering what the Group has gained from relying only on the Starter Pack, they felt no need to apply for the cash credit, which attracted higher rates of interest.

Under the Land Activity Component, it was anticipated that the introduction of a Rural Land Title Registration Programme that equally benefited landlords and tenants, could initially make women more vulnerable, especially on inheritance rights following the demise of their spouses. Instances were cited where women had voluntarily withdrawn cases of disputes to avoid 'unnecessary troubles' from spouses' families and community members. To forestall this, a strong sensitization and education component was embedded in the Pilot Land Title Registration programme. A Gender Guidance Document was prepared to that effect. This and the efforts to use Alternative Dispute Resolution (ADR) mechanisms to resolve such issues have helped to avoid any gender-related vulnerabilities. About 25% of Certificates issued as at the close of Compact in February 2012, were for women farmers.

Access to water took up a large portion of the productive hours of women in most communities in rural Ghana. The provision of water systems and facilities under the Community Services Activity, reduced the distances covered by women and children in accessing water for their households, leaving them time to do other things.

In addition, the provision of gender-sensitive sanitation facilities enhanced girls' school attendance rate, as it provided the privacy they required while at school.

The assessment of Gender Integration was done towards the end of the Compact; for this reason, there were no mitigation measures initiated, as most activities had been completed or were nearing completion when the Compact ended.

4.8: Communications and Public Outreach

Objective

The Communication and Outreach components of the Program supported the implementation of all activities under the Compact, by:

- Providing a platform for continuous consultations with the public and private sector organizations/institutions, civil society, local and regional governments and other related stakeholders.
- Encouraging representatives of the private sector, civil society, local and regional governments to provide advice and inputs to MiDA, regarding the Implementation of the Compact Program.
- To update the general public about the progress of work on various Project Activities embarked upon from the onset of the Program.

The depth of consultations with various stakeholders before the Program started was commendable. However, this created high expectations in the beneficiary communities, especially as GoG presented Ghana's selection for the Compact Program as a great political achievement and a significant endorsement of the country's efforts to reduce rural poverty.

The Directorate carried out a number of key activities to support the achievement of the Objectives of the Program. These included the following:-

- **Facilitating District Advisory Committee (DAC) Meetings:** The Communication Directorate had responsibility to ensure that DAC Meetings involving representatives of the private sector, civil society and local and regional governments were held regularly in order to meet the requirement of the Governance Agreement, i.e. to hold at least two Meetings per year; and to provide opportunity to provide advice and input to MiDA regarding the implementation of the Compact. A total of 8 meetings were held and report were posted on the MiDA website.
- **Ongoing consultations with Civil Society and the NGO Community:** Spearheaded by the Ghana Association of Private Voluntary Organizations in Development (GAPVOD), This reviewed the manner in which each Project was being implemented and was held twice a year, starting from 2008. This was maintained throughout the Compact Term.
- **Carrying out extensive publicity on Resettlement of Persons affected by the construction of the N-1 Highway.** Fuel Stations, temporary and permanent structures and other business premises on the road corridor, were decommissioned or demolished. This exercise benefited from excellent cooperation from the public, as publicity and communication had been very effective. All construction and resettlement activities on the N.1 Highway were widely publicized through press releases, publications in the print media, person-to-person contacts and Radio/TV announcements.
- **Media Encounters:** A number of media encounters, at the national and regional levels were organized to throw more light on MiDA's activities. Press Conferences were held on every anniversary of the EIF of the Compact, to inform and update the general public and the direct beneficiaries on the progress of the Program and its Project Activities.

- **Creating and Sustaining Public Awareness for MiDA's Activities:** The Unit arranged specific Programs in the broadcast media to inform the public about the activities of MiDA. In addition, the CEO and other Senior Management Staff of MiDA delivered public lectures on different occasions to showcase the MCA Ghana Program, as a new and ideal model for rural development and an excellent vehicle for poverty reduction. Visits to the various Project Sites, such as the N-1 Highway by Ghana's President and other key figures in Government, in connection with sod-cutting or project inspection, were used as occasions for generating media and public interest in what MiDA was doing.
- The Unit also enhanced publicity in both the print and electronic media on various activities undertaken by MiDA. There were regular Radio and TV Interviews with the CEO and Project Managers on the status of various Projects.
- **In-house Journals:** The key to bringing the public abreast and sustaining their interest in the activities of MiDA, has been the production of the - In House Journal; MiDA News. This was issued two times in a year and distributed extensively within the Program's Intervention Zones and also among Stakeholders and Partners.
- **Consultations with Parliament/CSOs/NGOs:** Consultative Meetings were held with members of the Legislature and CSOs/NGOs to brief them on MiDA's activities, empower them as partners and advocates, solicit for feedback and use them as channels for more extensive dissemination of Key Messages.
- **Maintaining MiDA's Website (www.mida.gov.gh):** The Website was monitored daily and information uploaded onto it periodically. The Homepage was revamped monthly to present Information on a friendlier basis to users.

Challenges

- A major challenge to the outreach and communication arrangements was the mixed messages, particularly from political commentators that sought to portray the MCA Program as a government policy. This tended to raise expectations among the citizenry.
- **Budgetary Constraints:** The Unit was accommodated within the Program Administration. Consequently, it tended to suffer cuts several budget whenever there was a squeeze on the Program's Budget. The Unit was generally poorly resourced.

Recommendations

- Being structurally considered as a Directorate, the Unit should have had its own delineated budget line, like the other Directorates, viz: M&E and Environmental and Social Impact Department.
- Generally low levels of communication on the significant achievements of the Program were unrepresentative of the immense efforts by MiDA and all stakeholders to meet Compact Objectives, to embed the MCC Effect and to demonstrate the capacity to utilize donor funds. A special effort, backed by funds from either MCC or GoG is needed to keep the Projects alive on the general public's mind.
- The sheer volume of communication-related activities ought to have been facilitated.

4.9: Procurement

I. Identifying Information

Objective

The Procurement Directorate was responsible for selecting Consultants, Contractors and Suppliers, awarding Contracts and subsequently administering the Contracts.

The function operated based on clearly defined guidelines and fair and competitive procedures, applied in a transparent manner to solicit, award and administer contracts for the procurement of goods, works and consultancy and non-consultancy services.

- **Performance Period**

1st August 2006 to 15th June 2012 (*includes the Compact Completion Period*).

- **Geographic Area**

All the 30 Districts located within the three (3) Intervention Zones.

- **Financial Issues**

MCC Funding:

A total of \$5,153,205 of Compact and GoG funds was used to administer the procurement function; in the form of fees for the Procurement Agent.

Host Country Contributions:

Based on an agreement with MCC, the Government of Ghana approved and advanced US\$ 25.1 million to pay for additional works and services rendered on Projects initiated under the Compact, for Projects which remained uncompleted post-Compact; and for the relocation of utilities and payment of RAP compensations.

- **Implementation Partners: Procurement Agents**

MiDA's Procurement Directorate was supported with services contracted from a Procurement Agent, Charles Kendall and Partners (CKP) and a local firm, Project and Procurement Management Services (PPMS).

II. Background

The Procurement Unit within MiDA was established at the beginning of the Compact. MiDA's Procurement function provided for an independent Procurement Agent, with responsibility for managing the procurement function. The Agent's work was supervised by an in-house Procurement Directorate, headed by a Procurement Director.

Before the signing of the Compact on 1st August 2006, MiDA had engaged the services of a Procurement Agent under an Agreement signed between Charles Kendall and Partners (CKP of UK) and Project and Procurement Management Services (PPMS, Ghana) and the Government of Ghana, acting through the then Ministry of Public Sector Reform.

The Procurement Director and the Procurement Agent Manager were the main operators of the Procurement systems that followed the Procurement Guidelines provided by MCC. They provided all advice pertaining to procurement matters and direction to the CEO, Project Managers and MiDA's Board of Directors.

The Procurement Agent's Contract covered a Base Year, with options for annual extensions. The Contract was initially extended from 1st August 2009 to 31st July 2011 and subsequently to 16th June, 2012. The latter extension was intended to cover the final procurements and Contract Administration and Reporting requirements, from August 2011 onwards, as well as the management of the Compact Closure Period.

A number of issues confronted the Procurement Directorate and CKP, leading to delays in carrying out some necessary functions on schedule. From the onset of the Compact, MiDA did not have any MCC-approved Standard Solicitation Documents and Templates. This was because MiDA, as a new Organization and with MCC still in the process of developing its own established systems, Standard Bidding Documents and Templates were still being developed.

Developing templates and initiating procurement processes using the Standard Solicitation Documents took time and delayed crucial processes and arrangements regarding reporting on procurements. With MCC's approval, MiDA developed Templates for IDIQ Contracts and Blanket Purchase Agreements (BPAs). These made it possible for MiDA to speedily procure all the Consultants and Contractors required for agricultural training, (i.e. the Training and Technical Service Providers (TTSPs) and the numerous smaller Community Services Contracts.

MiDA went through a very short pre-implementation planning period. This contributed to the unusually long time needed to establish the required processes and structures that will ensure effective management of the procurement activity. Even though a Compact Implementation Fund of \$10.37million was provided by MCC for preparations towards the commencement of Compact projects, the funds became available too close to the 'entry into force' of the Compact; to the extent that the Pre-implementation Team were not provided with sufficient personnel and resources to undertake the requisite needs assessments, planning and other preparations, prior to implementation. The CIF component was later integrated into the Compact amount and the activities of each fund run parallel to each other.

The first Request for Proposals (RFPs) on consultancy services was issued on 30th April 2007, with a submission date of 13th June 2007. As there was no approved template for Proposal Evaluation Reports, a lot of time was spent by the Procurement Agent and MiDA in drawing up and finalizing a template for Consultancy Services, which would serve as the base document covering all evaluations, allowing for changes as necessary for the procurement of goods, services and works.

The Procurement Agent, in conjunction with MiDA's Procurement Team, presided over the Proposal Opening formalities; all conducted in public and explained the format of the Evaluation Report to the Panel of Evaluators. All these were done in accordance with MCC's Guidance

To ensure a better appreciation of their roles, the independent Proposal Evaluation Panels (PEP), made up of subject matter professionals, received a full briefing on the Compact from MiDA. This included an explanation of the Declaration of Confidentiality and Impartiality from MiDA's Legal Counsel and a description of the specific activity being procured by the relevant MiDA Project Manager.

Bid and Performance Evaluations

The evaluations for the Central Management Consultant (CMC) for the CDFO Project Activity, Consultants for the Strategic Environmental Assessments (SEA) and the N-1 Highway Consultant, commenced on 23rd July, 2007 for the SEA and the CMC and for the N-1 Consultant on 25th July 2007. The Reports were finalized for MiDA and MCC's approval on the 8th, 17th and 23rd October, 2007 respectively.

In addition to the Award of Contracts and based on the advice of MCC, MiDA's Procurement Directorate evaluated once a year the "past performance" of consultants, contractors and suppliers, with contract values in excess of US\$100,000, using the Contractor Past Performance Reporting System (CPPRS). Considering the sheer volume of Contracts that qualified for such a Report, MiDA obtained a waiver from MCC, so that only Contracts from US\$2.0 million and above in value were subject to the Contractor Past Performance Report System.

III. Project Activity Implementation Partners

The initial delays notwithstanding, procurement processes were based on MCC's rigid Procurement Guidelines. All procurement decisions were taken by MiDA's Procurement Director and MiDA Management on the advice of the Procurement Agent. MiDA's own Procurement Team worked closely with the Procurement Agent's Team to manage the MCA Procurement System.

Procurement Manuals: To guide MiDA's internal procurement and contract administration operations, two Manuals were developed by the Procurement Agent, namely: - the Procurement Operations Manual (POM) and the Contract Administration Manual (CAM). Both documents were approved by MCC on 9th December 2009 and on 19th March 2010, respectively.

Procurement Process

Procurement for any Project Activity followed the underlisted arrangements:

- a request to Project Managers to provide details of procurements that will be undertaken in the next six months.
- The information was consolidated into a six-month 'Procurement Plan', which was presented to MiDA's Board of Directors and MCC for approval.
- After the approval of the Plan, a detailed Procurement Implementation Plan (PIP), with timelines was developed to guide the subsequent procurement actions.
- Monthly and Quarterly Reports were issued throughout the Compact period.

From April 2008 onwards, Procurement Updates and a Schedule of Procurement Actions were prepared on a regular basis for discussions with MCC.

MiDA's procurements were competitive, transparent and fair. Following MCC's directive on "no country preference", bids for contracts followed the International Competitive Bidding arrangement and were open to bidders from countries which were not excluded from using MCC funds⁷⁷. The Evaluation Panels for all large procurements were independent of MiDA and operated as Independent Evaluation Panel Members, who were at all times, experts in their relevant fields. The performance of the Evaluators was generally very satisfactory and accounted for the very high integrity of MiDA's procurements.

⁷⁷ MCC Funding excluded firms or individuals from any country subject to sanctions or restricted by Law or Policy of the United States of America, Government-Owned enterprises or by a decision of the United Nations Security Council, taken under Chapter VII of the UN Charter. The following countries were not eligible to bid for any MCC Funds during the Compact period: Cuba, Iran, North Korea, The Sudan and Syria.

Procurement Performance Report

Procurement Performance Reports (PPR), which were issued quarterly and approved by the MiDA Board and MCC, provided details of all contracts awarded, procurement-related activities that were on-going; the targeted completion datelines and actual achievement of each Activity.

In line with the very ambitious and complex Program, MiDA awarded a total of 855 Contracts, (including BPA and IDIQ Task Orders and IDIQ Works Orders) valued at USD 512,783,943.22.

The breakdown of Contracts/Task Orders/Works Orders is shown in Table 4.7 and Table 4.8.

Table 4.7: Contracts: Summary by Type of Contract

No.	Type	Total	Total (US\$)
1	General Contracts	452	462,164,816.71
2	TSP Blanket Purchase Agreement Head Contracts	29 ⁷⁸	No Value
3	TSP Task Orders	240	21,537,951.17
4	IDIQ Works Head Contracts	51	26,852.80
5	IDIQ Works Orders	63	25,804,670.88
6	IDIQ Consultancy Head Contracts	4	40,000.00
7	IDIQ Consultancy Task Orders	16	3,209,651.66
No. of Contracts Awarded		855	512,783,943.22

Table 4.8: Contracts: Summary by Country

Distribution by Country (Summary)	Number and %-Age of Contracts Awarded		Value and %-Age of Contracts Awarded	
	# Contracts	% Contracts	# Contracts	% Contracts
Number of Ghanaian Firms	704	82	\$187,145,708.55	36
Number of American Firms	37	4	\$33,628,365.42	7
Firms from Other Countries	114	13	292,009,869.25	57
No. / Value Of Contracts Awarded	855	100	\$512,783,943.22	100

Contract Administration and Procurement Status Reports

From 15th April 2007 to 31st July 2008, the Procurement Directorate produced thirty five (35) Procurement Status Reports to MiDA Board. These Reports covered procurements that were in the pipeline at the time.

Procurement Implementation Plan

From the August Report, dated 3rd September 2008, the Procurement Department produced a Procurement Implementation Plan (PIP) which indicated the timelines for the actual procurements as they took place, as against the original timelines, so that all could ascertain whether procurements were being completed in line with Plan.

⁷⁸ Originally, there were 29, but Messrs Technoserve was dropped after the first round of training of FBOs.

Compact Administration System

A paper-based Narrative Contract Administration System was put in place from 19th January 2010 onwards. The first Narrative Contract Administration Report, covering live Contracts in each Compact Project, was issued on 2nd February 2010. From March 2010 onwards, the Procurement Directorate issued a Monthly Contract Administration Report, until the Final Report was issued on 16th December 2011.

Supplementary Agreements

At the end of the Compact, some Contracts remained outstanding or were incomplete, while others needed some additional Works to make them complete. To enable Contracts to continue from 17th February 2012 onwards, MiDA entered into Supplementary Agreements with the relevant Consultants and Contractors (both *Government of Ghana funding*), to enable work to continue. (See Table 1.10 in Appendix 1 for the list of Supplementary Agreements).

Variation Orders (VOs)

MiDA issued a little over 200 Variation Orders (VO) on various Contracts for goods, works and services. There were as many as 134 VOs on the Transportation and Agricultural Infrastructure Projects, covering Consultancies and Works. The large numbers of VOs issued were necessitated by a number of reasons, namely:

- Most of the VOs were for EoT due to delays in the execution of Contracts by the Contractors and Consultants. It must be emphasized that most of the VOs for EoT, were without costs.
- Some VOs for EoT were due to the delay in submitting Claims by Consultants and Contractors and the Fiscal Agent's decision that all Contracts that had expired needed to be extended before he could make final payments. This interpretation of Policy resulted in the issuance of a lot of VOs for EoT with no costs, to enable the Fiscal Agent to effect payments.
- Some EoTs resulted from the unusual heavy rains and floods in 2011 that significantly delayed construction and in some cases washed away work done.
- Other VOs were due to additional Works that were unforeseen during the design stage; revisions in the Payment Schedules; replacement of key personnel and contract management challenges.

Performance Guarantees

Performance Guarantees on all closed-out Contracts have been released to the respective Contractors. MiDA held on to the Guarantees on Contracts yet to Close Out and extended some Guarantees covering Contracts that had not closed out.

Before the end of the Compact, MiDA advised all Contractors to issue On-Demand Guarantees for all the funds held in retention, to ensure that work done will be paid to the Contractors from Compact. This was a prudent measure as it greatly reduced the financial spill-over to the Government of Ghana, from Compact activities.

Contractor Past Performance Report System (CPRS)

In view of the number of contracts that were executed by MiDA, a waiver was obtained from MCC so that only Contracts of US\$ 2 million and above in value would be subject to a CPRS Reporting.

Table 1.11 of Appendix 1, provides a list of Contractors issued with CPRS at the time of Compact Closeout.

IV. Lessons Learnt, Challenges and Recommendations

Lessons Learnt

- The Close-Out Period of 120 days was grossly inadequate for Ghana's very complex Compact.
- When all due processes are diligently followed, it becomes easier to prevent Bid Challenges. For this reason, MiDA ensured that the processes towards Project evaluation were strictly followed and transparent. In addition, MiDA ensured that bidders understood why they lost a Bid. 855 Contracts were awarded without any bid challenge.
- The idea of having a Procurement Agent (PA) "external" to the Organization should be adopted as "best practice". This is because it has among others, helped to prevent unnecessary interference and ensured the integrity of the procurement process, and the success of the Compact.
- Publishing the list of Contracts awarded every quarter on the Website, in the local dailies, etc. allowed for greater transparency.

Challenges

- **Outdated Budgets:** Budgets were outdated by the time Contracts were rolled out. The Compact Budget was drawn up in 2005, so the bases for the computation of many of the proposed budget amounts were already out of date by the time major procurements were being finalized late in 2007 and 2008. This triggered the process of re-scoping and the cancellation of some advertised Projects.
- **Competitiveness of MCA Contracts:** Some contracts were awarded at comparatively higher costs than projects of similar nature. MiDA's Projects in all cases were designed to the highest quality and specification. This high level of design, plus the stringent contract management policies in our Bid Documents and as demanded by MCC, provided for good quality services and works, which ensured value for money,
- **Lack of Standard Bidding Documents:** From the onset, MiDA had no Standard Bidding Documents and had to develop its own Templates for the solicitation of bids and to evaluate bids. Unfortunately, MCC was still developing their own Standard Bidding Documents and later had to rely on some of the Templates that had been developed by MiDA. The absence of templates hampered the speedy take off of all procurement actions at the beginning of Compact Implementation. As at the end of Compact term, MCC did not have Standard Templates for the Final Procurement Performance Report required for Compact Close Out.

- **CIF Funds:** The above issues were further compounded by the fact that the \$10.37m (provided under the Compact Implementation Fund) and meant to cover the cost of preparations towards the implementation of the Compact Activities, were released too close to the coming into force of the Compact, to the extent that the Pre-implementation Team Members did not have access to a fuller complement of experts, own personnel and other resources to carry out some organizational needs assessments, planning, procurements, etc. prior to implementation.
- **Procurement Planning:** In respect of Procurement Planning, some of the positive practices in some Compact countries should be taken into consideration instead of the blanket one-size-fits all prescription. Smaller packages are good as they may provide jobs to local Contractors, but could be affected by poor performances from the smaller Contractors. However, it may also be wise to spread costs and avoid the risk of an untimely completion of the Projects, over a number of small Contracts, as against two or three large Contracts.
- **New MCC Policies:** Insertion of new MCC Policies, like the exclusion of Government Owned Enterprises (GOEs) and Trafficking in Persons (TIP) in Standard Bid Documents should be discouraged. They may remain MCC Policies, but should not be forced into the already burdensome and complicated Bid Documents, with Conditionalities that are often seen as barriers to competitive bidding.
- Despite the intention to embed the “MCC Effect” in the local procurement processes, it was evident that local Bidders considered even the short-form RFP used for consultancies under US\$100,000, too cumbersome to cope with. The bulkier the RFP or Bid Document the more likely will Bidders be put off.
- **CPPRS Evaluations:** MCC appears to over-emphasise CPPRS Evaluations. Project Managers considered the number of Annual Reports to be submitted to be rather too many, in view of considering the number of Contracts they handled. MCC’s use of CPPRS Reports, produced early in the life of a Contract, may prove to be unproductive. We suggest an increase in the threshold for CPPRS Reporting to a minimum of \$5million and to have them presented at mid-term and on the completion of Contracts. If a contracted party is found not to be performing, then an interim CPPRS should be issued and the findings combined with a Cure Letter.
- **Information Flow:** The flow of information between MCC and Procurement Teams of MCAs would benefit from some improvement. On some occasions, MCC puts new changes into the SBD on MCC’s website, without informing the MCAs or PAs.
- **The 5-year Compact term** needs to be carefully reconsidered. For Compacts with large infrastructure Projects, like the N-1 Highway, the 5-year may not be enough to cover the design and construction periods and also take care of the Defects Notification Period. This is what led to several Supplementary Agreements and the issuance of payment retentions backed by guarantees, before the Contract end date. This puts a lot of pressure on the Contractor’s financial resources.

Recommendations

- The Contract **Administration Systems** should be put in place at the beginning of all Compacts or as soon as procurements have began. This will ensure effective Contract Management and allow for efficient Contract delivery.
- **Insertion of various MCC Policies into Standard Bid Document:** The Bid Documents are already burdensome, complicated and replete with conditionalities that are seen as barriers to participation especially for local bidders. Insertion of new conditionalities, such as the recent one on the exemption of Government Owned Enterprises (GOEs) and Trafficking in Persons (TIP) should be far and few between.
- In the absence of a **policy on blacklisting contractors, etc.**, the resort to elaborate CPPRS Evaluations needs to be reviewed, to ensure its relevance to the MCA's operations.
- **MCC needs to redesign the PPR** to ensure that it is user-friendly and captures only relevant but key information.
- **Weekly Teleconferences** with MCC counterparts were very useful. However, there is the need for more regular interactions to improve information flow between MCC and MCA Procurement Teams.
- For a large Compact like Ghana's, the **direct purchases threshold** of \$2,000 should be reviewed upwards to between \$3,000 and \$5,000. This would allow MCAs to undertake small value but urgent procurements, without having to go through the usually lengthy procurement processes.
- The selection of members for the independent Procurement Evaluation Panels must be carefully managed to ensure the integrity of the procurement activity.
- MCC Officials must avoid any tendencies to **micro-manage** the procurements of MCAs. In some cases, MCC may not fully appreciate local situations, but takes the lead in making related decisions. For instance, MCC's packaging of procurement activities into very large lots, which may not be convenient in the local situation, e.g. it was considered expedient to package the N.1 into 3 Lots to speed up construction, a Proposal which MCC disagreed with.

CONCLUSION

It is generally acknowledged that the high incidence of poverty in many rural communities in Ghana can best be eradicated through interventions that would modernise policies and practices; and transform the institutions and facilities applicable to the agriculture sector, a vital growth pole in Ghana's economy.

Ghana's first Millennium Challenge Account Compact, designed by local experts and implemented by Ghanaians, supports the assertion that the agriculture sector must benefit from investments in other sectors of the economy, if it must play its transformational role effectively. For this reason, the Compact Program has identified a number of productivity enhancing interventions and incentives that need to be provided along the agricultural value-chain, in a timely and holistic manner, in order to remove the roadblocks that have constrained sustainable value creation and the speedy development of the sector.

The continued provision of these investments in a piecemeal and uncoordinated manner, has presented Ghana's agriculture sector as a stand-alone industry. This has reduced the overall impact of the numerous interventions by Government, development partners and other investors, all aimed at improving and accelerating the development and growth of the sector.

With a key focus on agriculture, transport infrastructure and rural development, the Compact represents a refreshingly new strategy for the transformation of agriculture as practised across Ghana. It targets sustainable economic growth and rural poverty reduction among the majority of rural dwellers who rely on agriculture for their livelihood.

The concentration of the MCC-funded investments in three Intervention Zones, viz:- Northern Agricultural Zone, Afram Basin Zone and the Southern Horticultural Zone and the selection of only 30 Districts for piloting the investments needed for the expansion, diversification and intensification of agriculture in order to enhance production volumes, assets and resource productivity and the overall competitiveness of the sector, are laudable, as the arrangement allowed each beneficiary District, a fair share of the Compact's budget.

The innovative Program implemented by the Millennium Development Authority (MiDA), demonstrates how concerted efforts at utilizing donor funds on activities critical to the success of the agriculture sector and implemented within clearly defined timelines, could result in increased on-farm productivity, improved crop value-chains and enhanced farmer/household incomes; all of which are necessary for the long-term and sustainable growth of food and cash crops.

The result is the very significant return on investments in a transformed and competitive agricultural sector, speedy growth of the rural economy and a lower incidence of poverty among smallholder farmers.

It is the expectation of Government, MiDA, the MCC and the general public, that the Ministries, Departments and Agencies to whom the Projects and Compact Assets have been entrusted, will manage and safeguard them in order to prolong their usefulness and thereby embed their benefits and values into the sector. These include:-

- the improved entrepreneurial and technical skills of farmers and their businesses;

- improved outputs of high quality products from new processes and facilities, in order to ensure food security and enhance household incomes.

For these reasons, it is recommended that Government makes available, post-Compact, additional resources to be used in anchoring the achievements of the Compact and ensuring the sustainability of the Projects handed over. Working with MDAs, farmers groups, School Authorities, Communities and other stakeholders to appreciate the new ideas and understand the workings of new systems, facilities and infrastructure provided under the Compact, will be key to the complete success of the Program.

As an evaluation strategy, it will be desirable for the Office of the President to initiate arrangements towards the Annual Review of the Compact Program, in order to realise the full potential of the considerable grant funds, provided by the Government and people of the United States of America.

Finally, the many lessons learnt and recommendations in this Report add a significant body of knowledge to other existing policies and ideas available to MoFA and farmers. MiDA remains hopeful that these will serve as additional impetus for putting in place sustainable arrangements towards the improvement in the volumes produced and the competitiveness of Ghana's foods and cash crops in the local, sub-regional and international markets.