Millennium Challenge Account - Mozambique

COMPACT COMPLETION REPORT

Projecto de Abastecimento de Água e Saneamento | Water Supply and Sanitation Project

Projecto de Estradas | Roads Project

Projecto de Acesso Seguro à Terra | Land Tenure Service Project

Projecto de Apoio à Renda do Agricultor | Farmer Income Support Project

September 2013

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS:

AIAS	Water Supply & Sanitation Infrastructure Authority	Administração de Infra-estruturas de Água e Saneamento
AIDS	Acquired Immune Deficiency Syndrome	Síndrome da Imunodeficiência Adquirida
AMP	Activity Monitoring Plans	Monitorização de Atividade de Planos
ANE	National Roads Administration	Administração Nacional de Estradas
BDF	Business Development Fund	Fundo de Desenvolvimento de Negócios
BOQ	Bill of Quantities	Conta de Quantidades
CACM	Center for Arbitrage, Reconciliation and Mediation	Centro de Arbitragem, Conciliação e Mediação
CBO	Community-Based Organization	Organização à base de Comunidade
CAPT	Land Project Advisory Committee	Comitê Consultivo de Projeto de Terra
CED	Compact End Date	Data de Fim de Compact
CENACARTA	National Remote Sensing and Cartography Centre	Centro Nacional de Cartografia e Teledetecção
CEPAGRI	Centre for Promotion of Agriculture	Centro de Promoção de Agricultura
CFJJ	Legal and Judicial Training Centre	Centro de Formação Jurídica e Judiciária
CFPAS	Professional Training Centre for Waters and Sanitation	Centro de Formação Profissional de Águas e Saneamento
CIF	Compact Implementation Fund	Fundo de Implementação do Compacto
CLF	Community Land Fund	Fundo Comunitário de Terras
CLYD	Coconut Lethal Yellowing Disease	Doença de Amarelecimento Letal do Coqueiro
COP	Chief of Party	Chefe de Partido
CP	Conditions Precedent	Precedente de Condições
DANIDA	Danish International Development Agency	Agência de Desenvolvimento Internacional Dinamarquesa
DAR	Rural Water Directorate	Departamento de Água Rural
DAU	Urban Water Directorate	Departamento de Água Urbana
DCI	Development Cooperation Ireland	Cooperação de desenvolvimento Irlandês
DFID	Department for International Development	Departamento de Desenvolvimento Internacional
DHS	Demographic Health Survey	Pesquisa de Saúde Demográfica
DINAPOT	National Directorate of land planning and territorial rule	Direcção Nacional de Planeamento e Ordenamento Territorial
DNA-DAR	National Directorate for Water - Rural Water Department	Direccao Nacional de Águas - Departamento de Água Rural

DNA-GOH	National Directorate for Water - Hydraulic Works Authority	Direccao Nacional de Águas - Gabinete de Obras Hidráulicas
DNSA	National Directorate for Agricultural Sanity	Diretório Nacional de Sanidade Agrícola
DNEA	National Directorate for Agricultural Extension	Diretório Nacional de Extensão Agrícola
DNP	Defects Notification Period	Período de Notificação de Defeitos
DNTF	National Directorate of Lands and Forests	Direcção Nacional de Terras e Florestas
DPAs	Provincial Directorate of Agriculture	Direcção Provincial de Agriculturas
DQR	Data Quality Review	Revisão da Qualidade de Dados
DUAT	Land Use Property Rights Certificate	Direito de Uso e Aproveitamento de Terra
EIA	Environmental Impact Assessment	Avaliação do Impacto Ambiental
EDM	Electricity of Mozambique	Eletricidade do Moçambique
EHS	Environment, health and safety	Ambiente, saúde e segurança
ESIA	Environmental and Social Impact Assessment	Avaliação de Impacto ambiental e Social
EMP	Environmental Management Plan	Plano de Gerência Ambiental
EMUSA	Municipal Company for Water and Sanitation	Empresa Municipal de Água e Saneamento
ESMP	Environmental and Social Management plan	Plano de Gerência Ambiental e Social
ESO	Environmental Site Officer	Oficial de Sítio Ambiental
ERR	Economic Rate of Return	Índice de Retorno Económico
FIDIC	International Federation of Consulting Engineers	Federação Internacional de Consultar Engenheiros
FIPAG	Water Supply Investment Fund	Fundo de Investimento para o Património de Abastecimento de Água
FISP	Farmer Income Support Project	Projecto de Apoio ao Rendimento do Agricultor
GDP	Gross Domestic Product	Produto Interno Bruto
GIS	Geographic Information System	Sistema de Informações Geográfico
GIMS	Geographic Information Management System	
GOH	Hydraulic Works Authority	Gabinete de Obras Hidráulicas
GoM	Government of Mozambique	Governo de Moçambique
GPS	Global Positioning System	Sistema de Posicionamento Global
HDM-4	Highway Development and Management Tools	Desenvolvimento e Instrumentos de Gerência de Estrada
HIV	Human Immunodeficiency Virus	Vírus da Imunodeficiência Humana
HSO	Health and Safety Site officer	Saúde e Segurança Situam oficial

HSP	Health and Safety Plan	Saúde e Plano de Segurança
H&S	Health and Safety	Saúde e Segurança
IAE/ABS	Annual Business Survey	Inquérito Anual às Empresas
IE	Implementing Entity	Entidade de Implementação
IEA	Implementing Entity Agreement	Acordo com Entidades de Implementação
ICS	Institute of Social Communication	Instituto de Comunicação Social
IFC	International Finance Corporation	Corporação de Finanças Internacional
IIAM	Mozambique Agricultural Research Institute	Instituto de Investigação Agrária de Moçambique
INE	National Institute of Statistics	Instituto Nacional de Estatística
IOF	Household Income Survey	Inquérito ao Orçamento Familiar
INFATEC	National Institute for Land Administration and Cadastre Training	Instituto Nacional de Formação em Administração de Terras e Cadastro
IRI	International Roughness Index	Índice de Regularidad Internacional
KAP	Knowledge, Attitudes and Practices Survey	Conhecimento, Atitudes e Pesquisa de Práticas
ITC	Communitarian Land Initiative	Iniciativa de Terra Comunitária
ITT	Indicator Tracking Table	Rastreamento de Mesa de Indicador
LIMS	Land information management system	Sistema de Informação sobre Gerência de Terra
LCF	Land Consultative Forum	Fórum Consultivo de terra
LPCF	Land Policy Consultative Forum	Fórum Consultivo sobre Políticas de Terras
LTR	Land Tenure Regularization	Regularização da ocupação da terra
M&E	Monitoring and Evaluation	Monitoria e Avaliação
MCA	Millennium Challenge Account	Conta dos Desafios do Milénio
MCC	Millennium Challenge Corporation	Millennium Challenge Corporation
MCDR	Monthly Commitment and Disbursement Report	Relatório de Desembolso e Compromisso Mensal
MIS	Management Information System	Sistema de Informação sobre Gerência
MSU	Michigan State University	Michigan State University
MICOA	Ministry for Coordination of Environmental Actions	Ministério para a Coordenação da Acção Ambiental
MICS	Multiple Indicator Cluster Survey	Inquérito de Indicadores Múltiplos
MINAG/DE	Ministry of Agriculture/Dept of Economics	Ministério da Agricultura/Depto. de Economia
MIPAR	Manual Implementation of Rural Water Projects	Manual de Implementação de Projectos de Água Rural
MIS	Management Information System	Sistema de Gestão de Informação
MoA	Ministry of Agriculture	Ministério de Agricultura
MOPH	Ministry of Public Works and Housing	Ministério da Obras Públicas e Habitação

MPD	Ministry of Planning and Development	Ministério de Planejamento e Desenvolvimento
NGO	Non-governmental organization	Organização não governamental
NLPAG	National Land Project Advisory Group	Grupo de Trabalho de Terras
PC	Public consultation	Consulta pública
PAP	Project Affected Person	Pessoa Afetada de Projeto
PARPA I	Action Plan for the Reduction of Absolute Poverty; 2001-2005	Plano de Acção para a Redução da Pobreza Absoluta; 2001 - 2005
PARPA II	Action Plan for the Reduction of Absolute Poverty; 2005-2009	Plano de Acção para a Redução da Pobreza Absoluta; 2005 - 2009
PEDSA	Strategic Plan for the Development of the Agricultural Sector	Plano Estratégico do Desenvolvimento do Setor Agrícola
PCR	Program Completion Report	Relatório Final do Programa
PIA	Project Implementation Agreement	Acordo de Implementação de Projeto
PIC	Prior Informed Consent	Consentimento Informado Prévio
PIL	Project Implementation Letters	Cartas de Implementação de Projeto
POPs	Persistent Organic Pollutants	Poluentes Orgânicos Persistentes
PIREP	National Reform of Technical Education Programme	Programa Integrado da Reforma da Educação Profissional
PSCs	Provincial Steering Committees	Comitês de Direção Provinciais
QAP	Quality Assurance Plan	Plano de Asseguramento da qualidade
QDRP	Quarterly Disbursement Request package	Pedido de Desembolso Trimestral
RAP	Resettlement Action Plan	Plano de Ação de Restabelecimento
RDF	Research and Development Fund	Fundo de pesquisa e desenvolvimento
RNE	Royal Netherlands Embassy in Mozambique	Embaixada de Países Baixos real no Moçambique
RSS	Road Sector Strategy 2007 – 2011	Estratégia de Setor de Caminho
RWPIP	Rural Water Point Installation Program	Programa de Instalação de Ponto de Água Rural
SATCC	Southern Africa Transport and Communications Commission	Comissão de Transporte e de e Comunicações a África do Sul
SDC	Swiss Agency for Development and Cooperation	Agência Suíça de Desenvolvimento e Cooperação
SIDA	Swedish International Development Agency	Agência de Desenvolvimento Internacional Sueca
SEA	Strategic Environmental Assessment	Avaliação Ambiental Estratégica
SEN	National Statistical System	Sistema Estatístico Nacional
SMEs	Small and Medium Enterprises	Empresas Pequenas e Médias
SP	Service Provider	Abastecedor de Serviço
SPGCs	Provincial Cadastral Services	Serviços Cadastrais Provinciais
SPSS	Statistical Packages for the Social	Pacotes Estatísticos das Ciências

	Sciences P. 48 not sure	Sociais
SSSS	Small Scale Solar Systems	Pequena Escala Sistemas Solares
TA	Technical Assistance	Assistência Técnica
TDM	Time Division Multiplexing ?? OR Telecommunications of Mozambique NOT SURE	TO CHANGE INSIDE THE TEXT according to your answer
TIA	National Agricultural Survey	Trabalho de Inquérito Agrícola
USEPA	United States Environmental Protection Agency	Agência de Proteção do Meio Ambiente de Estados Unidos
VOC	Vehicle Operating Cost	Custo de operação de viatura
WASH	Management of the Water, Sanitation and Hygiene Program	Água, Saneamento e Higiene
WSS	Water Supply & Sanitation Project	Projecto de Abastecimento de Água e Saneamento
WTP	Willingness to pay	Vontade de pagar

1. EXECUTIVE SUMMARY

The Millennium Challenge Corporation, on behalf of the United States Government, and the Ministry of Planning and Development (MPD), on behalf of the Government of the Republic of Mozambique signed a Compact Agreement for a US $506.9 million to be implemented over a 5 year period. The Compact was signed on July 13, 2007 and entered into force on September 22, 2008. It ended in September 21, 2013.

The partnership with the Millennium Challenge Corporation (MCC) was based on the recognition that the Government of Mozambique is committed to policies that support economic growth through the creation of an attractive investment environment, good governance, improving infrastructure and improving the lives of the people of Mozambique through the reduction of poverty.

Through the partnership, both parties committed to the shared goal of reducing poverty through economic growth in the four Northern Provinces of Mozambique (Niassa, Cabo Delgado, Nampula, and Zambézia), strengthening governance, economic freedom, and investments in the people of Mozambique.

The MCC model provided the Government of Mozambique with the opportunity to select projects in priority areas that would address key obstacles to economic growth and poverty reduction. A decision to focus on Mozambique's Northern region was made in order to address the half of the population which has lagged economically behind in comparison with the rest of the country.

Through the Compact, Mozambique has invested in improving water, sanitation and transport infrastructure, strengthening land rights and supporting coconut farmers as they battle a disease devastating their crops. These investments represent an important contribution to providing the citizens of Mozambique with the necessary resources and tools to take advantage of new opportunities for increased economic activity.

The partnership with MCC has provided a rich learning opportunity for the Government of Mozambique in new ways of cooperating and doing business as the strict timeline for implementation and the size of the budget require strong program and contract management skills and oversight. One of the key challenges was the limited institutional capacity to manage this kind of program, a weakness that, with the support of MCC and its technical and advisory role, was turned into a learning and capacity building exercise for the Government of Mozambique.

A key challenge for the Government of Mozambique was to implement such a large Project within a five year period, in particular, given that the time needed to carry out the feasibility studies was included in the period of implementation therefore reducing the time available to carry out the works. The Government of Mozambique, through MCA, made a

recommendation to MCC to allow for feasibility studies to be carried out prior to the 5 year implementation period.

Although most of the Compact activities have been carried out, unfortunately, some of the works foreseen under the Compact were not completed on time. Given the time-bound nature of MCC funding, and the importance of the priorities set in the Compact for Mozambique's economic development, the Government of Mozambique has committed to bring the Compact to a successful close with its own funds after the Compact closure, a commitment applauded by MCC. Government resources will focus on the finalization of the Nacala Water Supply Activity and part of the Roads project.

Nonetheless, the percentage of realization of the Mozambique Compact is well above the vast majority of aid projects, clearly demonstrating the efficiency of the MCC model. And already today, the Compact funded by the Government of United States of America through the people of the United States of America has made a deep and lasting contribution to the people of Mozambique, contributing beyond other donors to the goal of reducing poverty through economic growth and changing the lives of an important part of the population of Mozambique.

The Compact was implemented through **four projects:**

1. The Water Supply and Sanitation Project which aimed to increase access to reliable sources of potable water supply and improved sanitation facilities;
2. The Roads Rehabilitation Project which aimed to increase access to productive resources and markets while reducing transport costs;
3. The Land Tenure Services Project which aimed to establish efficient and secure land access for households, communities, and investors; and
4. The Farmer Income Support Project which aimed to protect and restore healthy coconut supply, and diversity farmers' income.

Through these four projects, the Compact intended to increase regional Gross Domestic Product (GDP) across four targeted northern Mozambique provinces – Cabo Delgado, Nampula, Niassa and Zambézia – by nearly US$75,000,000 in 2015 and US$180,000,000 in 2025 and to reduce the projected poverty rate by over 7 percent by 2015 and by over 16 percent by 2025. More than 270,000 persons are forecast to lift out of poverty by 2015 and 440,000 persons by 2025.

By 2015, the Compact is expected to have benefitted nearly 2,473,396 million people both poor and non-poor, and 3,412,031 by 2028. Over half of all the beneficiaries reside in Nampula, while the rest reside in the other provinces. Activities specifically targeted to rural areas accounted for around one third of Program beneficiaries, while those focused specifically on urban areas accounted for another one third.

The Water Supply and Sanitation Project (WSS) intervened in rural and urban water supply, sanitation and drainage, capacity building and institutional strengthening for water sector entities. Its overall goal was to improve access to safe, reliable water supply and sanitation services by increasing productivity and reducing water-borne diseases in the northern part of Mozambique. Project activities included the enforcement of the capacity of local institutions to develop policies and manage programs; improve water supply networks in selected urban towns and small towns; repair and raise the Nacala Dam and reservoir; expand wastewater treatment and install rural water supply points.

The feasibility studies carried out at the onset led to some modifications to the Compact. As a result, the Water and Sanitation Project was implemented through the following priority interventions:

1. Technical Assistance & Capacity Building to Water Supply and Sanitation Institutions
2. Rehabilitation and Expansion of Nampula City Water Supply System;
3. Rehabilitation and Expansion of Nacala City Water Supply System;
4. Mocuba Water Supply Emergency Works;
5. Rehabilitation of the Nacala Dam;
6. Rehabilitation and Expansion of Storm Water Drainage System in Quelimane City;
7. Rehabilitation and Expansion of Storm Water Drainage System in Nampula City;
8. Construction of 600 water points in Nampula and Cabo Delgado Provinces.

The WSS Project supported the refurbishment, upgrade and expansion of water supply, sanitation and drainage infrastructures in three Northern Provinces of Mozambique (Cabo Delgado, Nampula and Zambézia). In particular the WSS project enhancing sanitation systems by investigating feasible opportunities to expand wastewater treatment, improved the piped sewage network, and increased the usage of septic systems in the urban centers and latrines in the peri-urban areas. In addition, storm drains were also rehabilitated or added to improve drainage efficiency which protects urban land usage.
As part of its Water Supply and Sanitation Program, Technical Assistance (TA) was provided to strengthen the capacity of the municipalities of Nampula and Quelimane for the management of the Water, Sanitation and Hygiene (WASH) Program. More specifically, the TA Component: i) assisted the two Municipalities to establish the autonomous Municipal Sanitation Company; ii) provided support to the newly established Municipal Company for Water and Sanitation (EMUSA) to carry out its functions as manager of the Water, Sanitation and Hygiene program; iii) built the capacity of the Water Supply & Sanitation Infrastructure Authority (AIAS) and other public institutions, NGOs, private sector and communities to efficiently support improved and sustained access to sanitation in the peri-urban areas; iv) supported the provision of sanitation and hygiene promotion services in a sustainable and integrated manner in the peri-urban areas of the two cities; and v) supported the creation of management systems for sanitation facilities in schools and markets being constructed under a separate MCA contract.

Significant **results** were achieved during the WSS implementation, which can be listed as follows:

- Contracts worth $40.4 million (72% of Compact target) signed for construction of municipal sanitation and drainage systems;
- $24.8 million (62% of Compact target) disbursed for municipal sanitation and drainage construction contracts;
- 611 (102% of Compact target) water points with hand pumps constructed in Nampula and Cabo Delgado;
- Eight small-scale solar systems in Cabo Delgado province completed
- 8,484 persons (118% of Compact target) trained in hygiene and sanitary best practices.

By 2028, the WSS Project will have assisted around **1.2 million beneficiaries** through access to improved water systems, storm water drainage and low cost sanitation facilities (of which nearly 1.0 million beneficiaries live in Nacala, Nampula, and Quelimane). Access to improved water sources will be provided for 308,000 beneficiaries through the installation of hand pump and small scale solar system water-points in rural communities in the Cabo Delgado and Nampula provinces. These improvements will reduce the incidence of disabling diarrhea and save time for women and girls, primary water gatherers, to have more time to spend in productive activities when sources of water are closer to home, either through house connections or neighborhood water points. Children and the elderly who are more susceptible to morbidity and mortality from diarrhea and malaria will likely experience improved health outcomes too. Adults will spend less of their time caring for sick family members.

The Roads Project consisted in interventions to rehabilitate 253 kilometres of high-priority roads (the Estrada Nacional/National Route 1) in three provinces. It includes activities such as the design and the construction of drainage structures and new bridges; the posting of signage; and the incorporation of other safety improvements.

The Project comprised the rehabilitation of the following road segments on National Road (N1), namely:

a) **Lot 1:** River Ligonha – Nampula (103 Km);
b) **Lot 2**: Namialo – Rio Lúrio (150 Km), divided into two projects, Namialo – Mecutuchi Bridge (75km) and Mecutuchi Bridge – Lúrio river (75km).

The Roads Project aimed to:

(a) improve access to markets, resources, and services,
(b) reduce transport costs to facilitate investment and commercial traffic;
(c) expand connectivity across the northern region and southern half of the country;

(d) increase safer public transport access for individuals to take advantage of job and other economic opportunities through the rehabilitation of the following N1 primary road segments 1) Rio Ligonha – Nampula, 2) Namialo – Rio Mecutuchi and 3) Rio Mecutuchi – Rio Lúrio, with a total length of about 253 km.

In terms of **achievements**, the Roads Project will lead to the improvement of the access to productive resources for national and international markets through the rehabilitation of 253 km of the National Road (N1), established rehabilitated road infrastructure ensuring an expanded connectivity, reduced vehicle maintenance and increased safety and reliability of public transportation for individuals. The rehabilitated road infrastructure ensures expanded connectivity, reduced vehicle maintenance and increased safety and reliability of public transportation for individuals. Also no mention that the roads were incomplete by CED but planned completion date is by … Finally: it seems to me that this is a good place to insert the total cost of the project (including both MCC and GOM inputs).

In the long run, the following results are expected:

- Namialo-Rio Lurio Road average annual daily traffic volume anticipated to increase from 622 to 720 vehicles per day;
- Rio-Ligonha-Nampula Road average annual traffic anticipated to increase from 4,598 to 5,477 vehicles per day.

The project also resulted in reductions in the prices of goods and improvement in farm-gate prices and in the enhancement of public transportation. Bus operations are also expected to become more efficient and the population is now secured access to health, education, and employment; this last one being a fundamental element as over half of the population is of working age thus be able to take advantage of improved employment opportunities.

The technical assistance component of the Roads Project ensured the **capacity building of Implementing Entities** and **Management Unit** staff with particular emphasis to the holding of trainings on contract management by the International Federation of Consulting Engineers (FIDIC) involving infrastructure project managers, MCA senior management and Procurement staff. In addition to that, four M&E and Roads project staff attended a professional training on Highway Development and Management Tools (HDM-4) in England and MCA staff also attended three MCC Colleagues namely on Communications and Finance.

The Land Tenure Services Project aimed to establish more efficient and secure access to land in four provinces by strengthening three main activity areas: the “Policy Activity”, which supports a better policy environment and an improved existing land law; the “Capacity Building Activity", which covers the institutional capacity to implement policies and provides quality public land-related services and, lastly, the “Site Specific Activity”, which aims at supporting people and business with access to information, formalization of land rights and mechanisms for resolution of commercial disputes, thereby improving the policy

environment, upgrading the public land administration agencies (title registry and cadastre), and facilitating site-specific land access in Mozambique.

With an overall budget of USD 40.1 million in Compact funds, the Land Project aimed to establish efficient and secure land access for households, communities, and investors. The Land Project aimed to establish efficient and secure land access for households, communities, and investors, particularly in the Northern Provinces and 10 municipalities targeted by the Project (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga, Cuamba, Metanga, Metangula and Montepuez) and twelve districts (Morrumbala, Nicoadala, Mocuba, Moma, Monapo, Malema, Mecúfi, Montepuez, Mocimoba da Praia, Chimbonila, Majune and Lago).

FIGURE 1: ANDREW MAYOCK, MCC, HANDING OVER TITLE DEED TO COMMUNITY

The Project comprised three components:

Component 1) "Support to the National Policy Monitoring Process" aimed at enhancing policy environment, including addressing implementation problems for the existing land law and engaging in regulatory review to improve upon it. Activities included a) Support to the National Policy Process of Review and Monitoring of Policy; b) Support to Civil society organizations; and c) Education, communication and public information.

Component 2) "Institutional strengthening of the National Land Administration System" otherwise referred to as "Land administration Capacity Building" aimed at building the institutional capacity to implement policies and provide quality public land-related services. It was implemented through the following activities: a) Institutional Strengthening of the National Land Administration System at Central level; b) Institutional Strengthening of the Provincial Cadastral system in the target Provinces; and c) Support to Cadastral Development in the Northern target Municipalities.

Component 3) "Site Specific Facilitation of Land Access in Selected Areas" aimed at facilitating access to land use by helping people and business with i) clear information on land rights and access; ii) resolution of conflict with more predictable and speedy resolution of land and commercial disputes – which in turn creates better conditions for investment and business development; and iii) Registering their grants of land use (land titles to long-term or perpetual-use rights). It was implemented through the following activities: a)

Support to Strategic Delimitation of Community Land; b) Support to Land use Inventory and Mapping; and c) Streamlining of land access in selected areas.

According to economic projections, it was expected that access to secure land tenure will benefit more than **1.9 million beneficiaries** by 2015 and **2.6 million people by 2029**. The value of investment on land affected by the Project was expected to increase and the number of calendar days to register a land use right was expected to be reduced. In addition, the Project will have contributed to significantly improve the national land administration system with the establishment of a Land Management Information System (LIMS) and the creation of the Land Forum.

Smallholder and investors **access to land tenure** was enhanced thanks to the training - by the project - of 475 (160 female and 313 male) paralegals. The investment of approximately US $2,144,000 of Community Land Fund (CLF) grants on projects benefited Natural Resource Management Committees, Associations of producers and interest groups in 124 communities in Zambézia, Nampula, and Niassa.

Gender equity was also significantly improved thanks to the Land and Cadaster Training, which led to: a) the construction of a female dormitory in the country with an intake capacity of more than 60 students, b) the refurbishing and equipment of a library, c) provision of cadaster and geodesic equipment and d) curriculum development at the Institute for Land and Cadaster Training in Maputo. Additionally, as part of LTR, gender equity was fostered through co-titling of Land Use Property Rights Certificate (DUAT). MCA may want to include the final figures here for co-titling DUATs as well as number of DUATs issued exclusively to women

One major accomplishment, under this project, was the **engagement of policy makers** and the general public on the land policy dialogue in the country. At the same time, this project helped specific beneficiaries meet their immediate needs for registered land rights and better access to land for investment. It supported the national policy monitoring and review process by introducing improved approaches to **land registration** and **records management**.

The Farmer Income Support Project (FISP) was dedicated to the enhancement of coconut productivity and the support of diversification into cash crop. It intended to contribute to the elimination of biological and technical barriers hampering economic growth among farms and targeted enterprises located in the eastern coastal belt of Mozambique. With an overall budget of USD 19.1 millionThe Farmer Income Support Project aimed to:

1. Control and mitigate the spread of CLYD (Coconut Lethal Yellowing Disease) in commercial and smallholder coconut farms;
2. Improve productivity of coconut products and encourage diversification into other staple and cash crop production coastal areas of eight districts (Chinde, Inhassunge, Nicoadala, Namacurra, Maganja da Costa, Pebane, Moma and Angoche) of Zambezia and Nampula provinces.

Through its two Components, i) CLYD Control and Mitigation Services and ii) Technical Advisory Services – the project assited farmers in controlling the spread of CLYD through felling and burning diseased trees and delivered services to farm enterprises to significantly improve and sustain incomes derived from coconuts and newly introduced crop diversification options. It further helped to develop the capacity of responsible public and private institutions and applied plant protection protocols to ensure the viability and sustainability of key agriculture value-chains for future generations as well as to monitor and manage social risks that could emerge during the implementation of the disease control strategy.

This project was mainly conducted following a process of **community/small farmer participation** in design, awareness, and monitoring of service delivery. These activities were carried out in accordance with MCC Environmental Guidelines and Gender Policy, as well as Mozambican environmental laws and regulations. The activities incorporated the relevant components of MCA-Mozambique's **gender integration strategy.**

In terms of **results**, the Project significantly reduced biological and technical barriers hindering economic growth among coconut farms and targeted enterprises located in the Compact area's eastern coastal belt. Through the introduction of **crop diversification** and **improved farming practices**, it helped to recover incomes lost to CLYD in the short-term while re-establishing coconut production as an important household income source, in combination with alternative crops, in the long-term.

Overall, the FISP project achieved its **targeted results** as follows:

a) **Elimination of infected palm trees in epidemic Areas:** short-term control measures such as monitoring, detection and timely eradication of CLYD infected palm trees were implemented in seven (7) districts in the Zambezia province (Chinde, Inhassunge, Nicoadala, Quelimane, Namacurra, Maganja da Costa and Pebane) and two (2) districts of Nampula province (Moma and Angoche). After properly identify infected trees and having obtained the consent of the owner, the next step is felling, cutting and burning of the trunks (in the case when these are not requested for immediate use by their owners). The burning of the trees has a double advantage as it not only eliminates remnants of the infected plant but it also reduces propagation of the rhinoceros beetle (oryctes spp.), locally know as nampuim. Prior to project implementation, rhinoceros beetle control was based on manual removal of adult beetles from dead or dying trees and only undertaken in a very limited manner. The lack of a consistent, large scale effort to control propogation ofthe rhinoceros beetle during the last decades, associated with the Coconut Lethal Yellowing Disease, are the main causes of the increase in their prevelance..
b) **Establishment of the Phytosanitary Barrier of contention of the disease:** one of the measures to contain the spreading of the disease was the establishment of the

phytosanitary barrier, which was defined by the incidence of the disease below 10% (epidemic area), stretching out from Pebane to Chinde;

c) **Improved capacity of Mozambique's Research and Development capacity** to redress the Coconut Lethal Yellowing Disease has been strengthened with MCA-Mozambique´s FISP investment in establishing a laboratory specializing in phytosanitary investigations of CLYD and resistant coconut varieties in Zambézia and Nampula provinces.

By 2028, it is estimated that the FISP will have benefitted around 277,763 smallholders in the coconut belts of the Zambézia and Nampula provinces. FISP provided targeted technical assistance to over 3,000 smallholders in order to mitigate significant income loss due to the disease and to assist them in improving the productivity of other crops planted on their parcels. Including family members, it is estimated that 158,390 individuals benefit from interventions in the epidemic areas and 119,373 individuals benefit from interventions in the endemic areas.

Cross-cutting issues

During the implementation of the Compact, MCA-M aimed at achieving sustainable economic development through minimizing environmental and social and health risks as well as enhancing natural resource protections as highlighted in MCC's Environmental Guidelines. The Environmental Management component, therefore, allowed greater organizational transparency and accountability during the implementation of the projects by identifying areas where economic growth did not adequately address the associated risks of environmental degradation and its consequences on particularly vulnerable groups.

Environmental and Social Assessment, being a cross-cutting issue considered throughout the compact projects, minimized the potential environmental and social effects associated to the implementation of the Compact's projects. Environmental considerations for projects were taken into consideration from the early stage of the Compact, both to meet the MCC requirements and Mozambican Environmental Law. Each project which was considered to be likely to result in environmental and social effects was subject to **Environmental and Social Impact Assessment (ESIA)**. This included the two infrastructure projects and the FISP Project, for which MCA hired independent consultant to prepare the ESIAs for the projects and reports that were approved by the Ministry of Environment and Environmental License issued for each project.

Typical ESA activities covered: awareness-raising; sensitisation, compliance verification; community education etc., Environmental Site Officer (ESO) and Health and Safety Site officer (HSO) training and review of ESIA, Environmental and social management plan (ESMP), HSP, Method statements and other relevant documents.

Monitoring and Evaluation was a key component of the Compact, aiming to significantly enhance the quality of project planning and management by assessing the extent to which project objectives were achieved. M&E was a key tool in MCC's approach as set out in its "Policy for Monitoring and Evaluation of Compacts and Threshold Programs"[1]. The M&E plan was used in conjunction with other tools such as work plans, procurement plans, and financial plans, and it specified: a. how progress toward the program goal and Program Objective had to be monitored ("Monitoring Component"); b. process and timeline for the monitoring of planned, ongoing, or completed Project activities to determine their efficiency and effectiveness; and c. a methodology for assessment and rigorous evaluation of the outcomes and impact of the Program ("Evaluation Component").

The **Economic Analysis** also formed the key pillar of the M&E Plan by evaluating the need for a project and its impact on the overall national welfare of the country.

[1] Available at: http://www.mcc.gov/documents/guidance/policy-050112-monitoring-and-evaluation.pdf

2. COMPACT DESCRIPTION

2.1. ORIGINAL COMPACT SCOPE AND KEY MODIFICATIONS MADE

The Millennium Challenge Account Compact Agreement was signed on 13 July 2007 between the Governments of the United States of America acting through the Millennium Challenge Corporation, a US Government Foreign Aid Agency and the Government of the Republic of Mozambique for the amount of 506,9 million US dollars. The Compact came into force and activities began on 22 September 2008 for a duration of five years. The end date of all implementation activities is scheduled for the 22 September 2013.

The Compact's objective - as stated in Section 1.1 of the Compact Agreement - is to reduce poverty through economic growth by increasing the productive capacity of the population in the selected districts and municipalities of Mozambique's Northern Provinces of Niassa, Cabo Delgado, Nampula, and Zambézia.

More specifically, the Compact aims to increase the productive capacity, increasing household income and reducing chronic malnutrition of the population in selected provinces in Northern Mozambique by focusing on the following Project **objectives**:

a) increasing the accessibility, reliability and quality of water and sanitation services;
b) improving access to productive resources and markets;
c) establishing more efficient and secure access to land, particularly in the four provinces included in the Program; and
d) improving productivity of coconut products and encourage diversification into other cash crop production.

The Compact document was developed on the basis of needs identified by the Government of Mozambique and approved for funding by the Government of Mozambique. There were no modifications made to the needs identified by the Government of Mozambique for the interventions so that the objectives of the Compact remained the same. However, the scope of the interventions had to be prioritized following the Economic Analysis (ERR) and feasibility studies which led to the conclusion that there were insufficient funds available for all the works as planned in the original Compact document.

Accordingly, interventions had to be reorganized, giving priority to the most relevant works for Mozambique in the light of the Compact's poverty reduction objective through economic growth. Prioritization was also carried out with respect to timeline considerations so that works that needed the longest period of time to be carried out were to be done first, and those which required less time were to be done at a later stage, thus enabling strategic planning of the works' agenda.

This prioritization exercise led to changes in the planning and timeline of the works to be done. Those works that could not be carried out with MCC funding under the Compact remained a priority to be funded with other sources of funding such as governmental or donor sources.

Modifications made to the Compact Agreement between the Government of Mozambique and the Millennium Challenge Corporation had to be agreed upon and formalized through co-signed Project Implementation Letters (PIL). Those modifications led to the prioritization of the following activities under the Compact:

A. Modification of the Water and Sanitation Project

Following the feasibility studies, and a need to re-asses targets against funds available, some activities had to be set to a lower priority under the objectives of the Compact. To offset this, the Government of Mozambique engaged in negotiations with other donors to explore donor complementarity in the sector and came to an agreement with the World Bank which enabled some of the de-prioritized activities to be implemented through World Bank funding.

More specifically, four modifications were made to the Compact as regards the WSS project:

1. The objective to "Improve water supply networks of Nampula, Pemba and Quelimane" was replaced with the objective to "Improve the water supply network of Nampula and conduct limited water source investigations for Pemba and Quelimane";
2. The budget required for the implementation of the objective to "Repair and raise the Nacala Dam and reservoir" was raised, after the feasibility study from USD 9 million to USD 21 million.
3. The budget required for the implementation of the Urban Water five cities sub-activity was reduced by USD 12 million.

B. Modification to the Roads Project

Originally, **four road segments** totalling 491 kilometres were planned to be addressed under the Compact Agreement. However, following the feasibility studies, it became clear that the budget available could not address all four segments, hence, a prioritization was discussed in a workshop and it was decided to focus first on **two road segments**:

1. Rio Ligonha – Nampula (103 km)
2. Niamalo – Rio Lúrio (150 km)

C. Modifications made to the Land Tenure Services Project

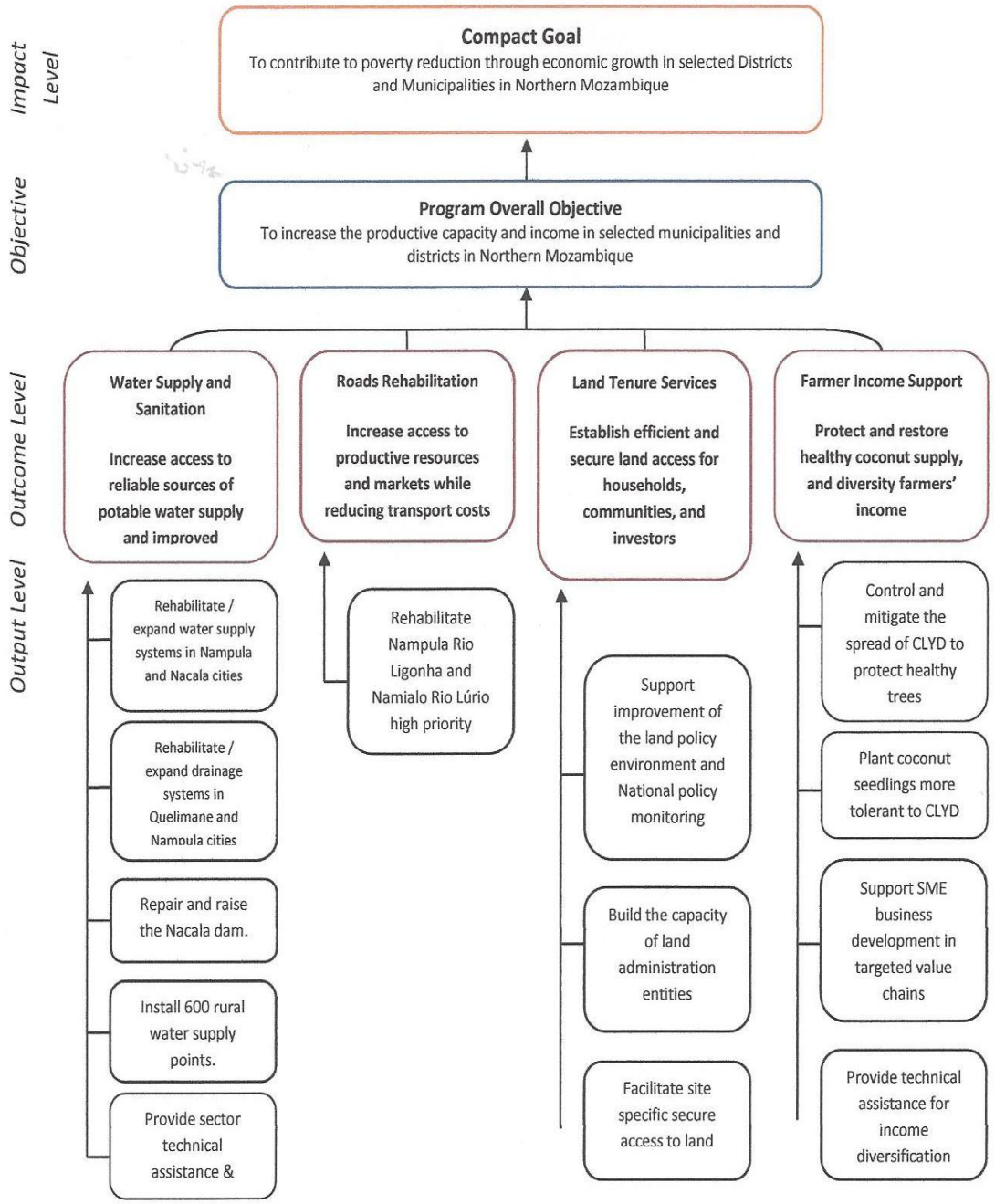
No major modifications were made to the Land Project.

D. Modifications made to the Farmer Income Support Project (FISP)

No major modifications were made to the Land Project.

2.1.1.. COMPACT STRUCTURE AND KEY PROJECTS

The Mozambique Compact consists of four independent and complementary projects which together are expected to benefit 3.4 million persons by 2028. The flowchart below gives an overview of the structure of the Compact, from its goals to its objectives with corresponding outputs outcomes and impact expected:



The Compact addressed its overall objective through the four following projects:

I) **The Water Supply and Sanitation Project** – USD 207.4 million, the objective is to increase access to reliable sources of potable water supply in selected districts and municipalities and improved sanitation in selected districts and municipalities in Northern Mozambique;
II) **The Roads Project** – USD 176.3 million, the objective is to increase access to productive resources and markets while reducing associated transport costs in areas served by two road networks in Nampula Province;
III) **The Land Tenure Services Project** - USD 40.1 million, the objective is to establish efficient and secure land access for households, communities, and investors;
IV) **The Farmers' income Support Project** - USD 19.3 million, the objective is to protect and restore income from coconuts and their derivatives and expand farmers' productive capacity through income diversification.

Overview of Projects

The Water Supply and Sanitation Project (WSS) intervened in rural and urban water supply, sanitation and drainage, capacity building and institutional strengthening for water sector entities. Its overall goal is to improve access to safe, reliable water supply and sanitation services by increasing productivity and reducing water-borne diseases in the northern part of Mozambique. Project activities include the enforcement of the capacity of local institutions to develop policies and manage programs; improve water supply networks in selected urban towns and small towns; repair and raise the Nacala Dam and reservoir; expand wastewater treatment and install rural water supply points.

The Roads Project consisted in interventions to rehabilitate 253 kilometres of high-priority roads (the Estrada Nacional/National Route 1) in three provinces. It includes activities such as the design and the construction of drainage structures and new bridges; the posting of signage; and the incorporation of other safety improvements.

The Land Tenure Services Project (the "Land Project") works on improving policy, upgrading the public land administration agencies (the title registry and cadastre), and facilitating site-specific land access. Its objective is to establish more efficient and secure access to land in four provinces by strengthening three main activity areas: the "Policy Activity", which supports a better policy environment and an improved existing land law; the "Capacity Building Activity, which covers the institutional capacity to implement policies and provide quality public land-related services and, lastly, the "Site Specific Activity", which aims at supporting people and business with access information, land rights and commercial disputes.

The Farmer Income Support Project was dedicated to the enhancement of coconut productivity and the support of diversification into cash crop. It intended to eliminate

biological and technical barriers hampering economic growth among farms and targeted enterprises located in the eastern coastal belt of Mozambique. Essentially, the project aimed to control and mitigate the spread of CLYD (Coconut Lethal Yellowing Disease) in commercial and smallholder coconut farms and to increase incomes lost to CLYD through crop diversification and improved farming practices.

In the long run, the Compat is estimated to contribute to the following results and impact as aggregated in the table below: If MCC is required to verify these figures, recommend that ECON confirm per most recent beneficiary/ERR work

Project/Activity/Sub-Activity Name	Estimated Number of Beneficiaries 2015	Estimated Number of Beneficiaries 2028	PDV Benefits 2028	Estimated Increase in per Capita Beneficiary Income 2028
Farmer Income Support Project	188,519	277,763	$31,019,531	$111.38
Land Tenure Services Project	1,129,318	1,129,318	$6,666,585	$5.90
Nacala Urban Water Supply (after 20 Years)	20,072	56,830	$78,939,150	$1,389.03
Nampula Urban Water Supply (after 20 years)	29,519	83,574	$61,831,301	$739.84
Nampula Storm Water Drainage (after 20 years)	402,928	684,415	$17,865,188	$26.10
Quelimane Storm Water Drainage (after 20 years)	189,382	256,579	$17,254,868	$67.25
Rural Water Points (after 20 years)	308,000	453,807	$14,634,792	$73.92
Namialo-Rio Lúrio Road Segment (2030)	272,677	368,477	$24,040,031	$65.24
Nampula - Ligonha Road Segment (2030)	554,810	869,257	$16,066,984	$18.48
TOTAL	**2,473,396***	**3,412,031 ***	**188,621,941**	**$55.28***

2.2. PROGRAM ADMINISTRATION AND OVERSIGHT

2.2.1. THE IMPLEMENTATION FRAMEWORK

The Compact's implementation framework for ensuring adequate governance, oversight, management, monitoring and evaluation and fiscal accountability for the use of MCC Funding is composed of the following entities:

- The Government of Mozambique;
- MCC;
- MCA management as supported by implementing entities and the fiscal and procurement agents.

The Government of Mozambique

The Government had principal responsibility to oversee and manage the implementation of the Program. MCA-M was created as a public institution by the Government of Mozambique through its Ministries of Planning and Development in conjunction with the Ministry of Finance as the Accountable Entity authorized to act on behalf of the Government in order to manage and oversee the implementation of the Compact and the Program.

MCA-M, headquartered in Maputo, engaged a fiscal agent to undertake expenditures and to account for them and a procurement agent to act on behalf of MCA-M to manage the acquisition of the goods, works and services to implement the activities funded by this Compact.

The Minister of Planning and Development had oversight authority over MCA-M to ensure that this last one would comply with the terms of the Compact, fulfilling the Government's responsibilities under the Compact.

MCC - oversight and support

MCC provided technical oversight, support and accountability for the implementation of the Program. To do so, MCC established a small office in Mozambique, designed to provide feedback and increased communication between MCC and the Government throughout Compact implementation. The MCC office in Maputo provided daily support and oversight to MCA. This way, issues, challenges and problems got addressed rapidly, ensuring that the implementation of the Program was not confronted with undue delays.

In terms of **oversight**, MCC required prior approval of certain transactions, activities, agreements and documents, as described in the Project Implementation Agreement (PIA). In terms of **support**, MCC provided the necessary technical assistance for MCA to be best capacitated to implement the Compact effectively.

MCA's perception of MCC's oversight and support role is positive and generally considered as beneficial and constructive to the sound implementation of the Compact. Contrary to other donors, MCC provides funding coupled with technical assistance to support the implementation of the program. This, in practice, means that MCA, as the implementing agency, could rely on MCC's strategic guidance and technical support at every stage of the implementation process. This enabled decisions to be advised and made swiftly as well as problems to be promptly dealt with and resolved. MCC's support is considered to deliver a real advantage in terms of donor effectiveness, and perhaps even a role model for other developing agencies. The MCC model also provides a key learning opportunity for the beneficiary government.

FIGURE 2: AMBASSADOR DOUGLAS GRIFFITHS AND ANDREW MAYOCK, MCC DEPUTY VICE PRESIDENT FOR COMPACT OPERATIONS FOR EAST AND SOUTHERN AFRICA - PRESS CONFERENCE NAMPULA

MCA Management

MCA-Mozambique is composed of:

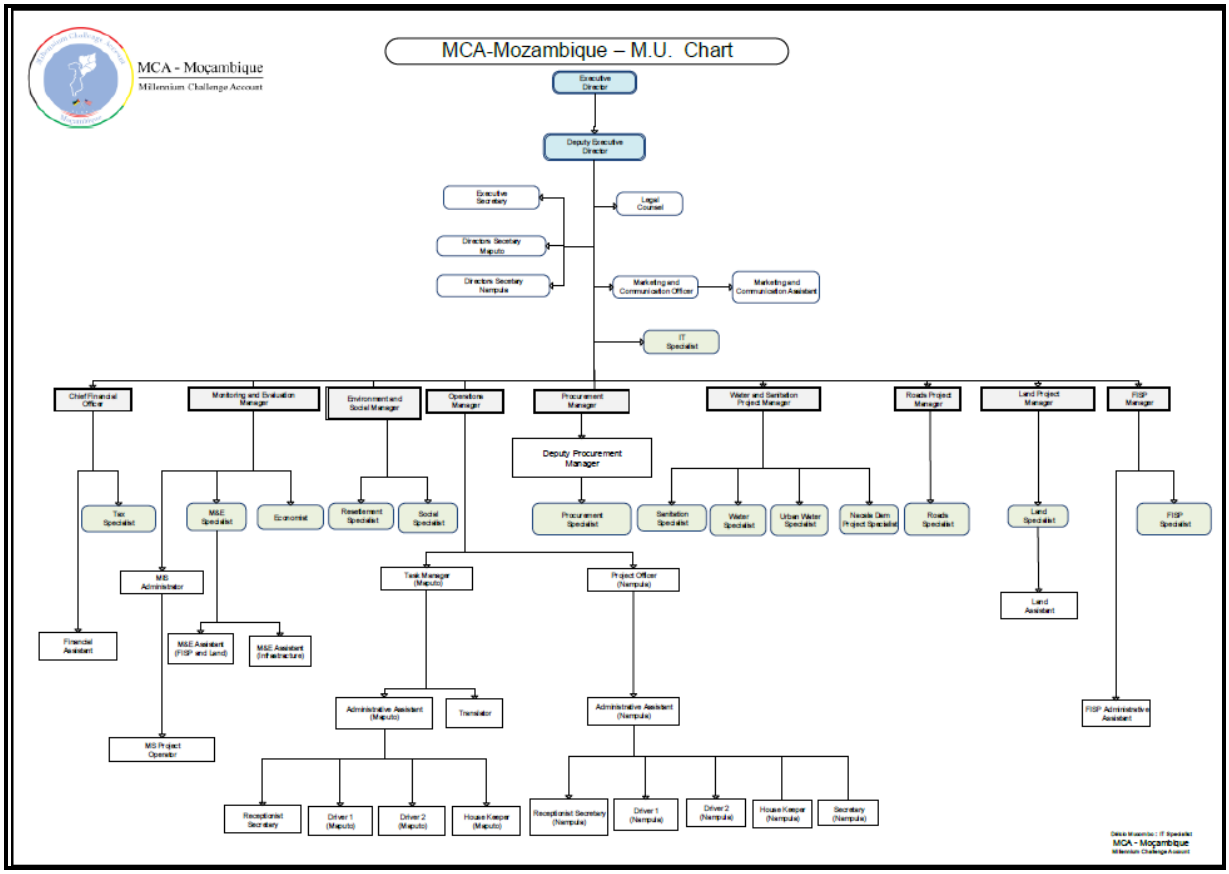
a. The Board of Directors as supervisory decision-making body. The Board of Directors is composed of nine voting members; six of which are governmental representatives, two civil society representatives and one private sector representative. There are three non-voting members, consisting of an MCC representative, a representative from an environmental NGO and the executive director of the Management Unit. The governmental representatives are Ministers from Ministries involved in the Program, as agreed and defined in the Internal Regulations. The Minister of Planning and Development serve as the chair of the Board, while the executive director of the Management Unit serve as secretary. The Board was responsible for exercising oversight and taking key decisions, such as approving annual implementation plans, disbursement requests, annual progress reports, key contracts and policy reforms;

b. The Executive Committee as working group of representatives from the Board. The Executive Committee was composed of seven members representing certain Ministries and organizations. The Secretariat of the Executive Committee

acted as the executive director of the Management Unit. Governmental members on the Executive Committee were represented by the relevant Ministries' National Director. The Executive Committee, located in Maputo, was empowered to take certain limited actions normally required to be taken by the Board, such as approving quarterly implementation plans, quarterly progress reports, certain procurement decisions, as well as other actions defined in the Internal Regulations and met as often as necessary to adequately perform its functions and;

c. The Management Unit as the day-to-day management body. The Management Unit was the responsible entity for assisting the Board and the Executive Committee in managing and overseeing the day-to-day operations of the Program. It was composed of staff competitively selected. Key staff members of the Management Unit included the executive director, deputy director, chief financial officer, M&E/planning officer, procurement officer, environmental and social manager, legal advisory service, and Project managers for each of the four Projects as defined in the Internal Regulations. Located in Maputo, the Management Unit's roles and responsibilities were to provide "back office support" services, such as financial management, legal, procurement, administrative, public relations and other activities defined in the Internal Regulations. The Nampula office and Quelimane offices were established as part of the Management Unit to provide direct support to the projects being implemented in the provinces.

MCA Organigram



Stakeholder Participation

Stakeholders were continuously involved and participated throughout the Compact implementation. Through semi-annual and/or annual review and planning meetings, stakeholders were able to provide feedback to the overall program (the "Stakeholders Forums"). In addition, the mechanisms for ensuring this consultative process was structured at a project-level, allowing representatives of the implementing entities, service providers beneficiaries, civil society, MCC and the government at central, provincial, district and municipality levels to provide advice and inputs to MCA-M.

- Under the WSS Project, Provincial Water Boards were created incorporating stakeholder participation in the boards.
- Under the Roads Project, stakeholder participation was integrated through the Stakeholders Forums.
- Under the Land Project, there were two forums designed to facilitate feedback and input from interested stakeholders. First, the Land Consultative Forum (LCF) comprised of relevant governmental ministries, civil society organizations and academic and research institutions on land conducting regular annual meetings. Secondly, the Land Project Advisory Committee (CAPT) provided a forum for both national and local governmental representatives to provide meaningful feedback throughout Compact implementation.
- Under the Farmer Income Support Project (FISP), stakeholder participation was incorporated through the Coconut Working Group and the MCA Annual Review and Planning meetings whereby relevant governmental agencies, service provider, the private sector and civil society organizations provided regular input to the implementation of the project.

Further mechanisms adopted throughout the Compact implementation included:

(i) MCA's Executive Committee

(ii) Board of Directors meetings, encompassing the ministries of Planning and Development (the chair), Public Works and Housing, Agriculture, State Administration and finance, as well as civil society and MCC.

These forums discussed strategic and implementation issues that required government level decision to shape the Program implementation and its outcomes.

2.2.2. ENVIRONMENT AND SOCIAL ASSESSMENT (ESA)

The Environmental Management component is a cross-cutting issue considered throughout the compact projects. Its aim is to minimize the potential environmental and social effects associated to the implementation of the Compact's projects. Environmental considerations

for projects were taken into consideration from the early stage of the Compact, both to meet the MCC requirements and Mozambican Environmental Law. Each project which was considered to be likely to result in environmental and social effects has been subject to ESA. This includes the two infrastructure projects and the FISP Project. MCA hired independent consultant to prepare the ESIAs for the projects and reports were approved by the Ministry of Environment and Environmental License issued for each project.

ESA evaluated the integration of internationally-accepted principles of environmental and social sustainability into the design and implementation of the MCA-M Compact, by guaranteeing that the Compact activities were carried out in an environmentally sustainable manner. MCC has adopted the World Bank's safeguards for ESA as well as IFC's performance standards. ESA is an essential mainstreaming tool for integrating environmental and social concerns into strategies, policies, programs and projects as it examines the performance of the projects within the areas of sustainability.

With the support of MCC, MCA-M aimed at achieving sustainable economic development through minimizing environmental and social and health risks and enhanced natural resource protections as highlighted in MCC's Environmental Guidelines. In other words, ESA allowed for greater organizational transparency and accountability during the implementation of the projects by identifying areas where economic growth did not adequately address the associated risks of environmental degradation and its consequences on particularly vulnerable groups.

ESA activities relied on the Environment Management Plan (EMP), the Health and Safety Management Plan, as well as the Gender Integration Plan and the Community Liaison Strategy for each project developed. These Plans and Strategies were evaluated monthly by audits and reviews collected through monthly environmental progress reports. The contractual obligations of the contractors and sub-contractors were to prepare an Environmental and Social Implementation Plan based on the original ESMP, as requirement for effective implementation of Environmental Management issues as identified in the ESIA. The aim of the ESMP Implementation Plan is to put in place workable systems, structure and tools in order to achieve the objectives of the ESMP.

Typical ESA activities covered:

- Awareness-raising;
- Sensitisation;
- Compliance verification;
- Community education etc.
- ESO and HSO training
- Review of ESIA, ESMP, HSP, Method statements and other relevant documents.

The MCA-M encompassed four main projects, for which MCA-M had developed a **Risk Assessment Matrix**. Each project had a detailed Environmental and Social Data Sheet developed which could guide the MCA-M ESA team in conducting appropriate risk management researches. Each project was subjected to an ESIA in order to obtain an environmental licence. Obtaining the licence was a CP for the implementation of each Project.

2.2.3. PROCUREMENT

MCA Procurement Unit was responsible for ensuring that the procurement of all goods, consultancy and non consultancy services by the Government or any Provider under this Compact would be consistent with the "MCC Program Procurement Guidelines" such as:

- open, fair, and competitive procedures must be used in a transparent manner to solicit, award and administer contracts and to procure goods, works, consultancy and non consultancy services;
- solicitations for goods, works, consultancy and non consultancy services must be based upon a clear and accurate description of the goods, works and services to be acquired;
- contracts must be awarded only to qualified contractors that have the capability and willingness to perform the contracts in accordance with their terms on a cost effective and timely basis; and
- no more than a commercially reasonable price, as determined, for example, by a comparison of price quotations and market prices, will be was paid to procure goods, works and services.

MCA Procurement Unit was assisted in its work by the **Procurement Agent** (service provider: Cardno) to manage the procurement of goods, works, consultancy and non consultancy services to implement the activities funded with MCC Compact Funding. In this role, the Procurement Agent, under the responsibility of the MCA Procurement Unit, oversaw, discharged and performed all services necessary to achieve the optimum value for the monies expended by MCA-M, while ensuring that all procurement transactions were conducted in compliance with the principles, rules and procedures set out in the MCC Compact and any Supplemental Agreements as defined in the Compact.

MCA Procurement Unit and the Procurement Agent together ensured, inter alia to:

(a) Plan, schedule, and prioritize the procurement functions, including plans for the efficient and effective procurement of goods, works, consultancy and non consultancy services for day-to-day operations of MCA-M and/or of the Procurement Agent.

(b) Manage and administer effectively the purchase of a wide variety of goods, works and consultancy services or non consultancy services as requested by MCA-M to implement Compact funded procurements.

(c) Analyze market conditions in order to optimize the success of the procurement activity.

(d) Execute the procurement functions necessary to acquire efficiently the goods, works, consultancy and non consultancy services requested on time.

(e) Ensure that the documents describing the objects of the procurements, including the scopes of work, statements of requirements, specifications, terms of reference, bills of quantities, engineering designs and drawings are adequately prepared by MCA-M and finalized in a reasonable and balanced manner without being overly restrictive.

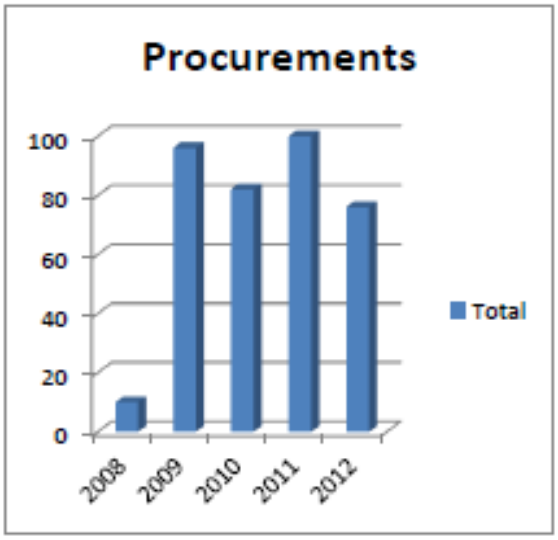
(f) Conduct procurements in a manner that provides open competition to the maximum extent practical in order to assure advantageous prices for MCA-M and equal and fair access for eligible suppliers, consultancy services and contractors.

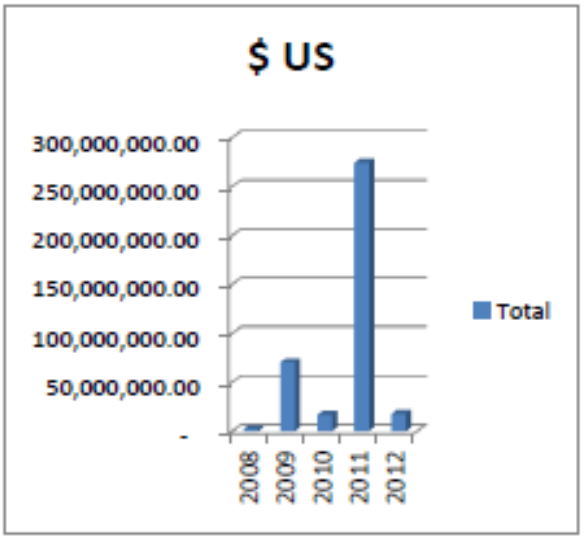
Performance and achievements

Key achievements of the Procurement activities (at time of writing):

- ✓ Contracts signed: **383**
- ✓ Addenda: **89**
- ✓ Contracts so far in 2013: **32**
- ✓ MCA-M only had 2 bid challenges over entire duration of the project, without any consequence for MCA-M.

The charts below provides an overview of procurements and contract values per year, up to 2012. The spike in 2011 reflects the fact that the large majority of contracts were signed that year:





Challenges

One of the major challenges affecting the work of the Procurement team was that Implementing Agencies and service providers did not appreciate that implementation period of the Compact was strictly limited to 5 years' duration. Most stakeholders believed that the Projects would be extended as it is the case with most donor-funded projects. To address this issue and mitigate its negative effects, outreach sessions and pre-bid meetings were organised as training sessions on the MCC context along with sessions on how to submit proposals. As a result, the quality of proposals increased drastically throughout the Compact. Procurement Planning continued to be a challenge up to the Compact Completion period.

2.2.4. FINANCE

The MCA-M Compact was signed for an amount not to exceed 506.924,053 USD to be expended for Compact-related activities only and accounted for in the annual budget of Mozambique on a multi-year basis.

The **Multi-Year Financial Plan Summary** (or Compact budget) set forth the estimated annual contribution of MCC Funding for Program administration, Program monitoring and evaluation, and implementing each Project. The Government's contribution of resources consisted of "in-kind" and other contributions or amounts required effectively to satisfy the requirements of Section 2.5(a) of this Compact.

Quarterly financial plans were developed and adopted by the Government and approved by MCC during the Compact implementation, setting forth annual and quarterly funding requirements for each as well as Compact administrative costs projected on a commitment and cash requirement basis.

Modifications in the designations and allocations of funds among the Projects or any activity under Program administration or monitoring and evaluation could be amended by written agreement between the parties to preserve administrative flexibility.

Under the Compact agreement, MCA and the Government of Mozambique agreed that all payments relating to (i) the Program; (ii) MCC Funding; (iii) interest or earnings on MCC Funding; (iv) any Project or activity implemented under the Program; (v) goods, works, services and other assets and activities under the Program or any Project; (vi) persons and entities that provide such goods, works, services and assets or perform such activities; and (vii) income, profits and payments with respect thereto were free from the payment of any taxes, duties, levies, contributions or other comparable charges.

The Compact Agreement foresaw the organization of **external auditing missions**. These were carried out as planned and considered to be useful to help improve the financial system through constant learning.

The separation of tasks among the MCA Finance Unit and the Fiscal agent was perceived as a useful tool to ensure independence and efficiency.

MCA Finance Unit's role was to:

- → To ensure that MCC's funds were used and accounted for in accordance with the Grant Agreement and all relevant Supplemental Agreements.
- → Prepare the quarterly budgets using the instruments provided by MCC. The Financial unit also prepared the quarterly financial reports, contributed to the procurement reports, to the conditions precedent reports, to the Fical Agents' certificates and MCA Board certificates etc.
- → Ensure that payments were made according to rules and the Fiscal Accountability Plan.
- → Prepare the Monthly Commitment Disbursement Report (MCDR) and the Data Call Report together with the Fiscal Agent.
- → Comply with all of MCC's audit requirements.

BUDGET

The total approved Compact budget amount, including the Compact Implementation Fund (CIF) for the MCA-M is $506.9 Million. Over the Implementation, the budget suffered various adjustments to reflect the actual approved programs.

The following table shows the original approved budget and the Actual (September 2013) approved budget

Projects	Original Compact Budget	Current Approved Budget
1. Water Supply and Sanitation	203.6	207.4
2. Rehabilitation/ Construction of Roads	176.3	176.3
3. Land Tenure Services	39.1	40.1
4. Farmer Income Support Project	17.4	19.3
5. Monitoring and Evaluation	8.2	8.2
6.Program Administration and Oversight	62.3	55.7

Total	506.9	506.9

It can be seen that the main adjustment was made to the Water Supply and sanitation project. The reinforcement of WSS project was made using Program Administration and Oversight fund. The main reason behind the adjustments is the fact that the initial projections were made back in 2006/2007 and many changes in the global economy has changed since then.

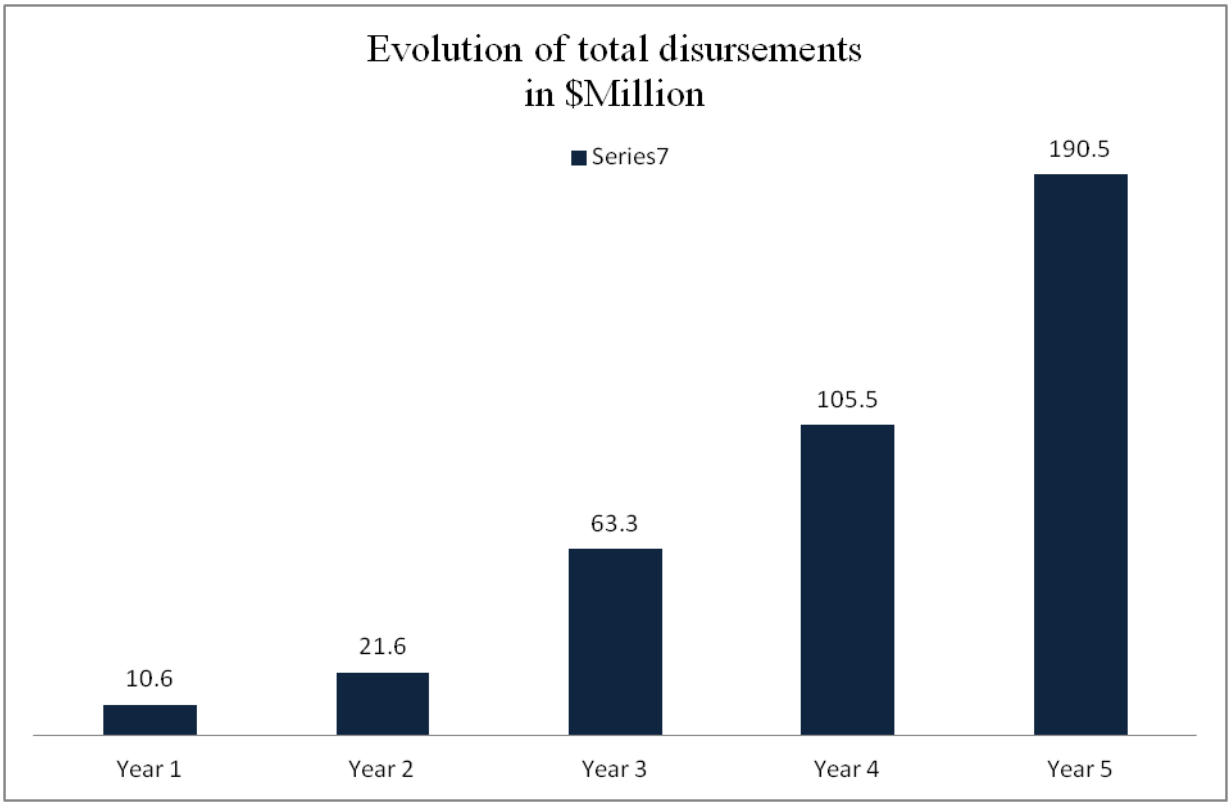
EVOLUTION OF DISBURSEMENTS

The overall Financial Execution as of 30 September 2013 was $391.4, which represents 77.2% of overall Compact approved amount. The following table depicts the disbursements per year:

Project (Main)/Activity (Sub)	Original Compact Budget	Current Approved Budget	Disbursements						% of Disbursements
			Year 1	Year 2	Year 3	Year 4	Year 5	Total Disb.	
1. Water Supply and Sanitation	203.6	207.4	1.2	4.4	20.0	53.1	96.4	175.2	84.5%
2. Rehabilitation/ Construction of Roads	176.3	176.3	0.3	2.9	23.8	26.8	65.5	119.2	67.6%
3. Land Tenure Services	39.1	40.1	0.8	5.2	7.5	8.9	13.4	35.9	89.7%
4. Farmer Income Support Project	17.4	19.3	1.1	2.8	4.1	5.0	4.0	17.1	88.8%
5. Monitoring and Evaluation	8.2	8.2	0.1	0.2	1.0	0.6	1.3	3.2	39.2%
6. Program Administration and Oversight	62.3	55.7	7.1	6.0	6.9	11.0	9.8	40.8	73.3%
Grand Total	**506.9**	**506.9**	**10.6**	**21.6**	**63.3**	**105.5**	**190.5**	**391.4**	**77.2%**

It can be seen that more than 75% of the disbursements are concentrated in the years 4 and 5. This is linked to the disbursements in the large work. It must be noted that, since MCA is working on cash basis, many activities performed in September were paid in October and as such, not reflected in the above disbursement figures.

The graph below gives the disbursement evolution over the Compact implementation years



Consider including a section to the commitment by the Government of Mozambique to fund incomplete work on Roads, Nacala Water and Nampula Water.

FINANCIAL PERFORMANCE PER PROJECT

1. Water Supply And Sanitation

For the Water Supply and Sanitation Project, MCC has approved the disbursement of $207.4 million distributed as shown in table below:

Water Supply and Sanitation Project	Current Approved Budget	Actual Disbursement	% Execution
Technical Assistance & Capacity Building	207.4	9.9	47.3%
Rehabilitation and Expansion of Water supply systems in urban areas	106.1	100.4	94.6%
Rehabilitation and expansion of six municipal sanitation and drainage systems	67.5	53.5	79.2%
Construction/ Re-construction of wells and bore holes (rural water points)	12.8	11.3	88.7%
Total	**207.4**	**175.2**	**84.5%**

The overall budget execution of the Water Supply and Sanitation Project as of 30 of September 2013 is $175.2 Million. This represents 84.5% of overall WSS approved budget. The Rehabilitation and Expansion of Water supply systems in urban areas Activity has almost spent all budgeted amount. And out of cycle request is being prepared for budget reinforcement as it is anticipated to have more expenditures under this activity.

It must be noted that in the above disbursement, the works done in September are not included as they were only paid in October and November.

2. Roads Construction/ Rehabilitation Project

For the Roads Construction/ Rehabilitation Project, MCC has approved the disbursement of $207.4 million distributed as shown in table below:

Rehabilitation/ Construction of Roads Project	Current Approved Budget	Actual Disbursement	% Execution
Technical Assistance for Roads Project	3.0	2.9	95.2%
Rehabilitation Costs	173.3	116.3	67.1%
Total	**176.3**	**119.2**	**67.6%**

Apart from Technical Assistance, this Project includes the rehabilitation of three out of four road segments in National Road N1. The low disbursement in the rehabilitation cost reflects the delay in contracts execution. However, over the last days this project has recovered and all roads are expected to be concluded in November. It must be noted that in the above disbursement, the works done in September are not included as they were only paid in October and November.

3. Land Tenure Services Project

For Land Tenure Services Project, it is planned $40.1 million during the Compact, distributed as shown in the table below:

Land Tenure Services Project	Current Approved Budget	Actual Disbursement	% Execution
Support for National Policy Monitoring Process	7.5	7.1	94.3%
Land Administration Capacity Building	17.0	15.5	91.3%
Site-specific secure land- access	15.5	13.3	85.7%

Total	40.1	35.9	89.7%

This project reached around 90% of planned amount. All activities planned under this project were executed. It is expected that by the Closure date the financial execution will reach around 100% as there are still some invoices to be paid.

4. Farmer Income Support Project (FISP)

For FISP, the current Compact approved budget is $19.3 million, distributed as shown in the table below:

Farmer Income Support Project	Current Approved Budget	Actual Disbursement	% Execution
Rehabilitation of endemic areas	8.7	7.9	91.1%
Control of epidemic disease	7.0	6.3	89.8%
Research and Development Support	2.5	2.4	96.1%
Improvement of productivity	0.04	0.03	88.0%
Business Development Support	1.0	0.4	43.8%
Total	**19.3**	**17.1**	**88.8%**

The Rehabilitation of endemic areas and Control of epidemic disease activities were outsourced to a Service Provider (ADCI/VOCA) and most of the payment were concentrated in payment to the Service Provider.

Regarding the Business Development Fund (BDF), it must be noted that the besides contracts were signed, there were some delays in handing over the goods to the beneficiaries in remote areas and this is the main reason for delay in disbursements as payments are only made once all goods are delivered. It must be noted also that the activities under BDF were finished and MCA is now finalizing the payment of last invoices.

5. Program Administration and M&E Financial Execution

For Program Administration & M&E Financial Execution, the b $63.9 million during the current quarter, distributed as shown in table below:

Program Administration and Oversight & Monitoring and Evaluation	Approved Budget	Actual Projected Expenditures	% Execution
Monitoring and Evaluation	8.2	3.2	39.2%
MCA- Mozambique	29.9	23.8	79.7%

Fiscal and Procurement Agent Services	21.1	16.3	77.0%
Bank Contract	0.0	0.0	0.0%
Auditing	4.2	0.2	5.6%
Environmental Management (MICOA)	0.5	0.5	99.4%
Total	**63.9**	**44.0**	**68.9%**

As can be seen above, the projected financial execution for Program Administration and Oversight & Monitoring and Evaluation, is expected to reach the rate of 69% the approved budget for the current quarter. Although, this activity continues over the close out period until January 2014, is it expected that the disbursement will not reach the total amount budgeted.

2.2.5. MONITORING AND EVALUATION

Monitoring and Evaluation of the MCA Compact aimed to enhance the quality of project planning and management by assessing the extent to which project objectives have been achieved. M&E is a key tool in MCC's approach as set out in its "Policy for Monitoring and Evaluation of Compacts and Threshold Programs"[2].

The process and rules for monitoring and Evaluation of the Mozambique Compact are set out in the M&E Plan which was mutually agreed on by the government of Mozambique and MCC as part of the Compact Agreement. The M&E Plan sets out the process of monitoring, evaluating and reporting progress of the MCA-M's Compact results. Information regarding the Program's performance, the M&E Plan, and any amendments or modifications, as well as progress and other reports are publicly available on the MCA-M Website. The M&E Plan which was an evolving document, modified as required and used in conjunction with other tools such as work plans, procurement plans, and financial plans specified:

a. how progress toward the program goal and Program Objective had to be monitored ("Monitoring Component");
b. process and timeline for the monitoring of planned, ongoing, or completed Project activities to determine their efficiency and effectiveness; and
c. a methodology for assessment and rigorous evaluation of the outcomes and impact of the Program ("Evaluation Component").

Economic Analysis is the tool used to calculate the initial beneficiary projections and also to define the program outcome indicators. They are based on projects logical frameworks and on the identification of corresponding benefit streams of project interventions. It is

[2] Available at: http://www.mcc.gov/documents/guidance/policy-050112-monitoring-and-evaluation.pdf

a cost-benefit tool that assesses the impact of the interventions on the overall economy. It provides the net benefit of the interventions and the economic rate of return which shows the discount rate that equal benefits to costs. They formed the key pillar of the Compact investment decisions by evaluating the need for a project and its impact on the overall national welfare of the country. For the Mozambique's Compact the initial Economic Rate of Return (ERR) threshold was based on the average of the country's economic growth rates for the three years prior to the Compact as per MCC ERR general guidelines. Projects with a lower ERR than the threshold, did not classify for funding, and projects with a rate above that, were selected

In substance, the M&E Plan distinguishes the "**Monitoring component**" from the "**Evaluation Component**". While monitoring identified baseline values and targets for indicators, and described plans for conducting data quality assessments; evaluations assessed, as systematically and objectively as possible, the completed projects with the aim of appraising data and information that could affect and enhance strategic decisions, with the objective of improving the projects in the future. Therefore, monitoring was as integral to evaluation.

Indicators

The M&E Plan, which is built on a logframe logic, distinguishes between different levels of indicators:

- Goal indicators providing a general contextual understanding of prevailing economic conditions in the country;
- Outcome indicators;
- Output indicators and;
- Process milestones.

Outcome, output and process level indicators represent the primary focus for measuring progress towards achieving intended results. They are subject the subject of routine data gathering, surveying and third party data quality review.

The M&E Plan detailed key requirements for each indicator and assumption and allowed the staff to track progress towards specific targets for better transparency and accountability of operations. The logic model helped the identification of strategic objectives and what resources were needed, the development of indicators able to measure progress and proposed results and the program's potential value. It also provided information for evidence-based management and was a support for the decision-making processes of national policy makers.

Monitoring

The **monitoring indicators** gathered were quantitative, objective and reliable data measuring the progress toward the achievement of the outcomes. Each Indicator had benchmarks that specified the expected value and the expected time by which that result had to be achieved ("Target"). M&E differentiated indicators into **impact indicators** ("Goal and Program Objective Level") which measured the results for the overall Program; **outcome indicators** ("Project Objective Level ") evaluating the final and the intermediate results of the Projects in order to monitor their success in meeting each of the Project Objectives, including results for the intended beneficiaries and, **output indicators** ("Project Activity Level") which appraised the direct outputs of the Project activities in order to provide an early measure of the likely impact of the Project activities. A forth level of indicators, **input and process indicators** ("Institutional Process Level") was included in the M&E Plan to measure the delivery of materials, goods and actions necessary to carry out the primary Project activities. It was also underscored that Indicators were identified in the M&E Plan as being disaggregated by sex and age.

In order to account for internal information needs and those of the Government of Mozambique and other stakeholders, MCA-M stretched out the monitoring indicators by developing **Activity Monitoring Plans (AMP)** in each project (i.e. The Water Supply and Sanitation Project, the Road Project, the Land Tenure Services Project, The Farmer Income Support Project). The Activity Monitoring Plans followed the objective tree of each project and their indicators emerged from local needs for information by various stakeholders other than MCC. The daily management of the AMPs was followed by the M&E Assistants, being the key for collection of data to report on each of the AMP indicators, and were not reported to MCC.

Data Quality Reviews (DQRs)

DQRs were a mechanism to review and analyze the utility, objectivity, and integrity of performance information. They covered a) quality of data, b) data collection instruments, c) survey sampling methodology, d) data collection procedures, e) data entry, storage and retrieval processes, f) data manipulation and analyses and g) data dissemination.

MCA-M undertook regular an internal data quality review, as opposed to two, as initially planned and periodic independent third party external reviews. For **internal data quality reviews**, MCA-M used quarterly assessments of performance data (data reporting Process and Output indicators accomplishment) reported on the Indicator Tracking Table (ITT) with the Quarterly Disbursement Request Package (QDRP). The data collection instruments used for reporting on these two levels of indicators was essentially Data Collection Forms used by the Service Providers and Implementing Entities where applicable as an institutional tool.

Therefore, DQR objectives assessed the extent to which data reported by MCA-M to Program stakeholders mainly MCC and the Government of Mozambique was relevant, accurate, timely, consistent, reliable and free from manipulations and biases. In total, two

DQRs were planned for the life of the Compact and three Data Quality Review exercise evaluated the impact of data quality across all four projects.

Evaluation

As per MCC's "Policy for Monitoring and Evaluation of Compacts and Threshold Programs", evaluation is the objective, systematic assessment of a program's design, implementation and results. The Evaluation Component comprised two different types of evaluations:

- **Project-Level impact evaluations**, that outlined rigorous design methods used to assess the impact of the Program's four based on in-country consultation with stakeholders and on different methodologies according to the nature of the project; and
- **Program-Level Impact evaluations**, which were used to assess Program and Project progress and effectiveness, where the time period demonstrating benefits and impacts was extensively considered. For these evaluations, different modalities of contracting staff were used, specific agreements between MCC and MCA were concluded and ad-hoc evaluations or special studies requested when necessary covering i) site specific facilitation of Land Access activity of the land Tenure Project whose data collection was carried out in 2010 by Michigan State University (MSU) in Nampula and Monapo and ii) the Construction of Wells and Boreholes of the Water and Sanitation Project.

Project Evaluations

A number of evaluations were foreseen at project level:

A. Evaluation of the WSS Project:

1) Technical Assistance and Capacity Building Activity;
2) Rehabilitation and/or Expansion of Urban Water Supply Systems Activity and;
3) Rehabilitation and/or/Expansion of Municipal Sanitation and Drainage Systems Activity following completion of the works.

A follow-up survey in the Nampula and Cabo Delgado Provinces was carried out for the Rural Water Point Activity. An impact evaluation study was carried out for the Rural Component of the WSS and implemented through an agreement with Stanford/VA Tech Cooperative.

B. Evaluation of the Roads Project

No impact evaluation was foreseen under the roads project. Instead, a HDM-4 Analysis will be conducted on MCC-funded road segments following the Government of Mozambique's completing the works according to approved designs. HDM-4 Analysis will generate ERR's and reduced vehicle operating costs. Accordingly, outcome level indicators such as a) reduced vehicle operating cost, b) total time

savings (expressed in millions of dollars), c) increases in average annual daily traffic volume and a post compact close-out ERR will not be reported until 12 months following the completion of the road works. Measured improvements in the international roughness index of rehabilitated road will be available upon completion of the works coinciding with issuance of "Take over certificates".

C. Evaluation of the Land Project

At the time of writing, Michigan State University (MSU) was:

1) Conducting a performance evaluation of the Land Institutional Administration Capacity Building Activity. The evaluation includes a) analysis of municipal, district and provincial land data (change in time, number of land transactions and number of land conflicts), as well as b) analysis of INFATEC (National Institute for Land Administration and Cadastre Training) enrolment, graduation and placement rates disaggregated by gender.
2) Conducting an impact evaluation of urban land titling regularization (LTR) using a difference in difference evaluation methodology. Two of eight intervention municipalities were surveyed; i.e., Monapo and Nampula. The evaluation of Monapo failed due the progressive loss of control areas. Circumstances for these losses are attributable to a number of factors including an accelerated pace of implementation activities, the political determination of the mayor to treat all municipal areas prior to the end of compact and a lack of effective coordination between the evaluation firm and land surveying/titling service provider. In 2012, there had been agreement to allow full LTR treatment of Monapo in order to "complete the land cadaster". However, in the end, the roll-out evaluation methodology did not provide for sufficient time between treatment and control groups. As such, the rigorous impact evaluation approach (use of counterfactual) was lost.

An International Donor Consortium is conducting a performance evaluation of joint MCC and Consortium funded Community Lands Activities. The consortium is composed of (1) UK Department for International Development (DFID), 2) Royal Netherlands Embassy in Mozambique (RNE), 3) Swiss Agency for Development and Cooperation (SDC), 4) Development Cooperation Ireland (DCI), 5) Swedish International Development Agency (SIDA) and 6) Danish International Development Agency (DANIDA).

D. Evaluation of the FISP Project

The following activities have been concluded for conducting a performance evaluation of the FISP Project:

i. the MCC/MCA-M Agricultural Specialists have confirmed the service provider's role and responsibilities in supporting a third party independent evaluation of its activities,
ii. the MCA-M Agricultural Specialist has completed consultations with Ministry of Agriculture and Nampula/Zambesia provincial governments to ensure that proposed evaluation questions respond to host country implementing entity needs/interests and
iii. the MCC Evaluation Review Committee has finalized the performance evaluation terms of reference and corresponding request for proposals.

A mixed methods performance evaluation of all five Farmer Income Support Project activities will be conducted focusing on:

- field validation of service provider Geographic Information System (GIS) maps and tables that demonstrate self-reported change in the incidence of CLYD infestation rates over the life of the project for the effective control and mitigation of the spread of CLYD disease in both the endemic and epidemic intervention areas,
- validation of self-reported 2010-2012 coconut seedling survival rates,
- forecast economic value of coconut production over the twenty year life of the investment given know average yields of dwarf and tall green coconut seedling varieties and trend in validated survival rates,
- focus group discussions and rapid field appraisals of Round 1 & Round 3 households receiving intercropping technical assistance and improved high value crop seeds,
- in-depth development of case studies of select small and medium sized enterprises funded by the Business Development Fund, e) a technical review of the research funded by the project for the selection and development of coconut seedlings more tolerant to CLYD, and
- influence of overall project activities on the development of a national agricultural program for coconut production.

Special studies and other tools

Four special studies were carried out in order to assess the benefits accruing o beneficiaries as a result of Compact implementation to date.

- A Demographic Health Survey (DHS) was conducted by INE in 2011 in Quelimane, Mocuba, Gurue, Nampula, Monapo, Nacala and Montepuez. The objective was to enable decision makers to be better informed of the health conditions of the population as well as socio-demographic conditions, mother-child healthcare etc.
- A socio-economic study on roads aimed at analysing the economic and social conditions of people living in the roads catchment area, differences in transportation-

use patterns between men and women, socio-economic expectations following roads' improvement works etc.

- A study on the impact of CLYD on household economics was carried out to establish the different scenarios which the population would be facing with respect to the spread of the disease
- An anthropological study was carried out under the FISP Project. It analysed the causes and effects of the lack of ownership by smallholders in coastal Zambézia and coastal Nampula.

The Management Information System (MIS) are being transferred to the Ministry of Planning and Development (MPD) which the Ministry will use for the preparation of its Economic and Social Plan.

2.2.6. COMMUNICATION

The **objectives** of communication and marketing activities under the Compact were to:

- Ensure that the Communications messages are disseminated to all entities such as Mozambican Government, the Government of the USA, Civil Society (Rural and Urban), International Community, Press, Private Sector and the contractors, service providers etc. in relation to all the projects; their progress and objectives to further communicate the results and benefits during the compact life highlighting the generosity of the American people for the people of Mozambique, through the funding of the Compact;
- Communicate and disseminate the main results and impacts achieved by MCA-M during the implementation and closure of the Compact including lessons learned.

The **activities** carried out to further these objectives were, inter alia, the creation of all internal and external messages, the production of pamphlets, books, brochures, newsflashes, T-Shirts, posters, the coordination of events, the coordination with the Press, the preparation of press-kits, the preparation and dissemination of promotional material, the production of Newsletters, the website and other electronic media, etc.

The **targets groups** for communication and marketing activities were:

- Mozambican Government at central, Provincial, District and Local level
- US Government and Tax Payers - Embassy of United States Of America
- Millennium Challenge Corporation
- Implementation Partners/entities
- Services Providers & Contractors
- MCA Staff - Directors (Internal)
- Donors, NGO´s and Other Diplomatic Entities (International and National)
- PRESS (National and International)
- Civil Society/General Public and Local Communities & Beneficiaries

- Private Sector

The tools used were:

Bilingual Newsletters distributed to a bulk mailing list of 15,000 readers, website, brochures, pamphlets, billboards, Videos-television, radio, informational booklets, roll-ups, T-Shirts, hats, flags, banners, newsflashes, MCA-M branded promotional items, pens, key rings, agendas, personal calendars, USB and community meetings.

2.2.7. CONDITIONS PRECEDENT

Section 7.2 of the Compact Agreement foresaw a number of **Conditions Precedent (CP)** to the entry into force of the Compact Agreement. Meeting the CP under section 7.2. is a necessary requirement for the Compact to take effect.

The CPs agreed to between the Government of Mozambique and MCC included issues such as the creation of MCA-M, the appointment of the fiscal and procurement agents, the adoption of laws for MCA-M and delivery to MCC, ratification of the PIA by the Council of Ministers, ratification of the Tax Agreement by the Council of Ministers etc.

In addition, a number of CPs were set at project level and captured in the PIA. Approximately 37 CPs were negotiated and agreed between MCA and MCC, most of which have been achieved. Two CPs were not achieved:

1. To address the impact of potential increase in trafficking in persons with the Roads Project, MCA-Mozambique shall (i) develop an Action Plan to incorporate anti-trafficking-in-persons awareness programs into the implementation of the Roads Project; and (ii) ensure implementation of these awareness programs during implementation of Roads Project and:
2. The CP concerning the transferability of land.

With respect to the transferability of Land, the CP in question required the “Government of Mozambique to adopt revised legislation and administrative procedures that allow land use rights to be transferred without undue delay or risk”. This CP has been the subject of discussions between MCA and MCC; the latter being of the opinion that the Government of Mozambique has not met this condition.

MCA however contends that this specific CP was formulated in haste, with insufficient analysis of the political sensitivity of land issues in Mozambique, in particular as regards the privatization of land. This CP was agreed to, together with the other elements of the Compact prior to the necessary debate on this sensitive issue. The debate, on the exact nature of the CP and options as to how to deal with it, is still ongoing at the time of writing.

3. WATER SUPPLY & SANITATION

3.1. PROJECT BACKGROUND AND OBJECTIVES

Mozambique experienced high population growth rates in urban areas in recent decades, a phenomenon which has overwhelmed the precarious existing sanitation infrastructure in urban and peri-urban areas. Poor sanitation/hygiene conditions, limited water access, cause the emergence of diarrhea, cholera outbreaks and an increase in mortality rates due to malaria.

Cholera is endemic in major urban areas mainly due to inadequate sanitation and sewerage services, compounded by poor water supply services. This prevalence of cholera and other health impacts caused by poor sanitation seriously jeopardizes meeting the Millennium Development Goal of reducing infant and child mortality.

Lack of access to water and sanitation is also a major barrier to growth and health, and this critical infrastructure is a major policy priority of the Mozambique Government. Mozambique has one of the lowest levels of per-capita water consumption in the world.

In addition, girls and women spend hours fetching water which leaves little time for child care, income-generating activities, or school attendance. Meeting the Millennium Development Goals is a major challenge for Mozambique as coverage levels for water and sanitation services would have to almost double for all categories by 2015. The precarious conditions of sanitation are also a factor in the drop out of girls from schools, since-most schools have no separate toilets for girls and boys.

Various programs and awareness campaigns have been carried out by the Government of Mozambique and its partners to promote hygiene and sanitation such as: the construction and use of latrines (toilets), washing hands with water and soap after using the latrine, pulverization of water puddles, rehabilitation and expansion of water supply and sanitation systems, as well as the rehabilitation, expansion and cleaning of drainage systems.

Despite these efforts, it was recognized that much remains to be done, and the big challenge for the success of sanitation programs, is through behaviour changes and the adoption of

strategies that take into account the environmental and socio-cultural aspects of populations, especially when the project requires resettling affected people.

It was under the partnership between the Government of Mozambique and the Government of the United States of America through the Millennium Challenge Corporation (MCC), that a cooperation agreement was signed with significant focus on the construction and rehabilitation of various infrastructures for water supply and sanitation in three provinces: Cabo Delgado, Nampula and Zambezia provinces.

The Water Supply and Sanitation Project aims at improving access to safe, reliable water supply and sanitation services and increasing productivity and reducing water-borne diseases – one of the causes of death in children under five – specifically benefiting women and girls. It provided support to the refurbishment, upgrade and expansion of water supply, sanitation and drainage infrastructures with the following objectives:

1) improving access to safe, reliable water supply and sanitation services;
2) increasing productivity and reducing water-borne diseases.

More specifically, the Project originally aimed at improving sanitation systems by investigating feasible opportunities to expand wastewater treatment, improve the piped sewage network, and increase the usage of septic systems in the urban centers and latrines in the peri-urban areas. In addition, storm drains were also rehabilitated or added to improve drainage efficiency which protects urban land usage.

Project implementation included both consultancy and contractor assignments. Consultancy assignments covered the studies for feasibility and design, the construction supervision and the Defects Notification Period (DNP). The Contractor assignments included construction and the DNP.

Key modifications made

A number of modifications were made to the originally planned activities as the feasibility studies revealed higher construction costs than originally anticipated. This prompted MCA-M to devise a Cost Overrun Strategy aimed at prioritizing the activities and assets earmarked in the Compact. MCC and MCA used the Economic Rate of Return and the potential benefits of each project to select the projects to be funded. As result of this prioritization exercise, the Water Supply and Sanitation Project was reorganized under Components II and III and **the following seven activities were approved to move to the construction phase in priority**:

For Component II:

9. Rehabilitation and Expansion of Nampula City Water Supply System;
10. Rehabilitation and Expansion of Nacala City Water Supply System;
11. Mocuba Water Supply Emergency Works;

12. Rehabilitation of the Nacala Dam;

For Component III:

13. Rehabilitation and Expansion of Storm Water Drainage System in Quelimane City;
14. Rehabilitation and Expansion of Storm Water Drainage System in Nampula City.

For Component IV:

15. Construction of 600 water points in Nampula and Cabo Delgado Provinces.

3.2. PROJECT IMPLEMENTATION

The WSS Project was structured into four distinct **components**:

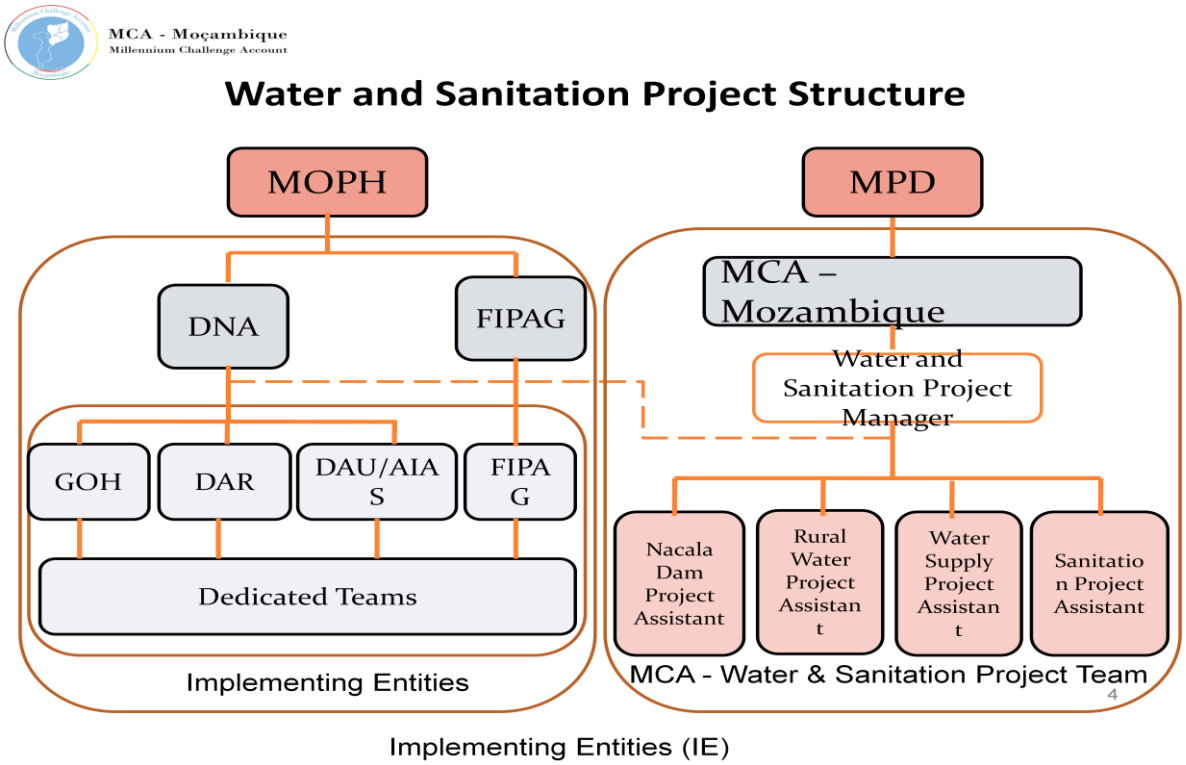
- → **Component 1**: "Technical Assistance & Capacity Building to Water Supply and Sanitation Institutions";
- → **Component 2:** "Rehabilitation and Expansion of Water supply systems in urban areas";
- → **Component 3:** "Rehabilitation and expansion of six municipal sanitation and drainage systems";
- → **Component 4:** "Construction/reconstruction of wells and bore-holes".

Four Implementing Entities (IEs) were responsible for the implementation of the WSS Project, namely:

- → **FIPAG**, Water Supply Investment Fund (Fundo de Investimento para o Património de Abastecimento de Água) for the four major cities (Pemba, Nampula, Quelimane and Nacala);
- → **DNA-GOH**, National Directorate for Water (Direccao Nacional de Águas) - Hydraulic Works Authority for the Nacala Dam Project;
- → **DNA-DAR**, National Directorate for Water (Direccao Nacional de Águas) - Rural Water Department (Departamento de Água Rural) for the rural Water Project;
- → **AIAS**, the Water Supply & Sanitation Infrastructure Authority (Administração de Infra-estruturas de Água e Saneamento) for the small cities water and all sanitation projects. In 2010, as required by the Compact Implementation Agreement, AIAS was created within Ministry of Public Works and Housing (MOPH) for urban water supply and wastewater services. It was empowered to manage assets, plan and oversee the execution of investments and, where feasible, engage private operators under delegated management contracts. In addition, it was responsible for the promotion of low cost sanitation.

Each IE had a dedicated team to oversee the overall management of the contracts. FIPAG managed most of the water supply interventions in cities.

The graph below describes the **project structure**:



Implementing Entities (IE)

3.2.1. COMPONENT I: "TECHNICAL ASSISTANCE & CAPACITY BUILDING TO WATER SUPPLY AND SANITATION INSTITUTIONS".

Component I focused on the provision of Technical Assistant to strengthen the capacity of the municipalities of Nampula and Quelimane for the management of the Water, Sanitation and Hygiene Program.

The main objective of the Water Supply, Sanitation and Hygiene (WASH) interventions of the two municipalities of Nampula and Quelimane was to increase the accessibility, reliability and quality sanitation services and promote hygiene best practices among the population of the peri-urban areas of the two cities; the overall goal being to reduce sanitation borne diseases and therefore increase livelihood and development.

In September 2012, MCA signed a 12 months contract with **HYDROCONSEIL** and **SCDS** for the provision of Technical Assistance (TA) to strengthen the capacity of the municipalities of Nampula and Quelimane for the management of the WASH Program which aimed at improving the sanitation coverage, help to reduce water losses and promote hygiene among the population of the peri-urban area focusing on the implementation of a water losses management education program; the implementation of a hygiene education and promotion program; the implementation of a low cost sanitation program covering the sensitization for construction of household and; public sanitation facilities in markets.

Technical Assistance was provided to:

- ✓ Assist the Municipality of Nampula to establish EMUSA – the autonomous Municipal Sanitation Company - and the Municipality of Quelimane to enhance the existing Municipal Sanitation Company to be funded funded via a dedicated sanitation charge place on the water bill per a CP;
- ✓ Provide support to the newly established EMUSA in Nampula and the Enhanced EMUSA in Quelimane to carry out its functions as manager of the Water, Sanitation and Hygiene program;
- ✓ Build the capacity of AIAS and other public institutions, NGOs, private sector and communities to efficiently support improved and sustained access to sanitation in the peri-urban areas;
- ✓ Support the provision of sanitation and hygiene promotion services in a sustainable and integrated manner in the peri-urban areas of the two cities;
- ✓ Support the creation of management systems for sanitation facilities in schools and markets being constructed under a separate MCA contract.

Implementation was carried out by a team of two full time Sanitary and Health Specialists (one in each municipality) and a pool of support specialists. The core project team mobilized immediately after signature of the contract and established a project office in Nampula and the Nampula Municipal Council provided workspace for the full time Sanitary and Health Specialist within the Municipal Department for Environment and Energy. This contributed to a close working relationship between the TA and the Department. In Quelimane, the project established a separate office for the TA, close to the Municipal Council, as suitable space was not available within the EMUSA buildings. Activities were carried out with a view to ensuring gender equality and community participation in line with MCC/MCA approach.

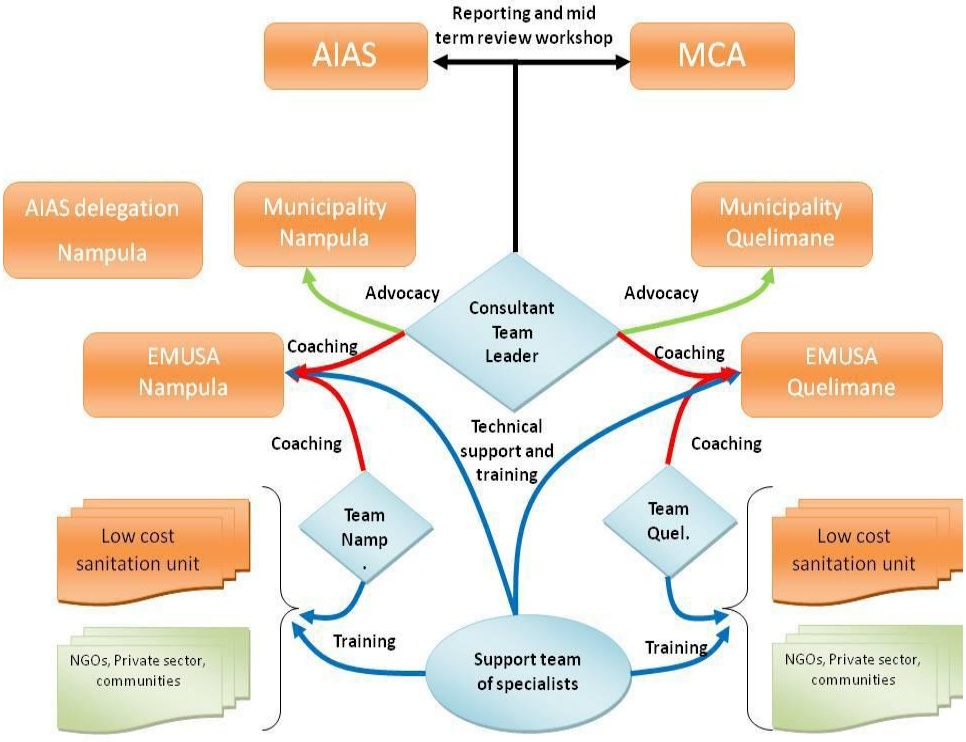


FIGURE 3: INTERACTIONS BETWEEN THE PROJECT STAKEHOLDERS

Early in the design of the project**, Knowledge, Attitudes and Practices (KAP)** surveys were conducted to define a target-oriented strategy for the introduction of changes in behavior related to health matters. The information obtained through the surveys was used to develop the hygiene promotion strategy and the water losses management education program.

The **services** and related **activities** that were implemented by the consultant comprised:

- **The Advocacy Plan for Water Sanitation and Hygiene Integration to the Municipal Management Structure** which included training activities, workshops, gender integration mainstreaming etc.;
- The establishment of the **Autonomous Municipal Sanitation Company within the Municipality** including support with the drafting of legal documents, internal regulations, the implementation of internal management procedures and systems and the prepare a tax proposal at Municipal level; an organizational assessment, support with the elaboration of EMUSA's responsibilities and organizational structures etc.;
- **A Human Resources Development Plan for capacity building and training**. The Consultant assisted in the development of a plan for capacity building and training for the different stakeholders (AIAS, CFPAS, EMUSA, Private sector, NGOs and communities) covering the key elements of the program: planning, community mobilization, latrine building, hygiene education, water losses management, monitoring and evaluation and IEC;
- **Capacity Building in the Municipality for Monitoring and Evaluation including conducting** baseline surveys and inventories of sanitation facilities and the development and implement of a monitoring and evaluation system;
- The development of **Guidelines for Program Implementation** which gradually evolved into strategies, manuals and policies;
- The **Planning and Budgeting for Implementation of the program,** assisting EMUSA to develop plans for implementation and the corresponding budgets;
- **Community Mobilization and Hygiene Promotion, assisting the** Municipality and NGO personnel in the use of communication materials for hygiene education and promotion.

The consultant coordinated with all stakeholders in the sector in order to maintain coherence, avoid duplication and ensure the use of available resources in the most cost-effective way. In particular, the consultant cooperated with other similar programs on-going in the implementation area in order to ensure coherence in the sector and with other interventions.

3.2.2. COMPONENT II: "REHABILITATION AND EXPANSION OF WATER SUPPLY SYSTEMS IN URBAN AREAS"

The Rehabilitation and expansion of Nampula City Water Supply System project aimed to enable the refurbishment, upgrading and expansion of the Water Supply schemes in the cities of Pemba, Nampula and Quelimane. Planned activities included the following:

- Assess the likely environmental, social public health and gender impacts, and through a process of iterative design, to minimize such impacts and define the accompanying mitigation measures;
- Provide a basis for the long term development of sustainable Water Supply Systems in the three cities; and,
- Prepare, in collaboration with FIPAG, the environmental, social and public health studies, in conducting gender-balanced public consultation, and in obtaining environmental regulatory approvals for all component works in the three cities.

After revision of the initial Compact objectives following the feasibility studies, the following activities were approved for implementation:

1) Rehabilitation and Expansion of Nampula City Water Supply System;
2) Rehabilitation and Expansion of Nacala City Water Supply System;
3) Mocuba Water Supply Emergency Works;
4) Rehabilitation of the Nacala Dam.

Status of the works per activity:

1) Rehabilitation and expansion of Nampula City Water Supply System

FIGURE 4: CONSTRUCTION OF VALVE CHAMBER

MCA entered into contracts with CMC-CETA J.V. in August 2011 for the construction of the works for the Rehabilitation and Expansion of the Nampula City Water Supply System. The works involved upgrades to existing pumping stations and the existing water treatment plant, and the construction of a new parallel water treatment plant, new pumping stations, transmission main and a storage reservoir. The overall project works were separated into two Lots, each with a separate contract, with contracts were awarded to the same contractor CMC-CETA J.V. Lot 1 covered: Intake and water treatment plant and **Lot 2**: Transmission main and distribution center

The effective construction commencement date was established as September 13, 2011 and the contractual times for completion of the works, which were amended through addenda signed during the construction period, expired on August 31, 2013 for Lot 1 and on June 30, 2013 for Lot 2.

Description of the works:

LOT 1:

- Retrofit of the existing intake and low lift pumping station
- Installation of a second 500 mm diameter raw water transmission main to a new treatment plant;
- Rehabilitation of the existing water treatment plant;
- Construction of a new water treatment plant with conventional chemically assisted filtration treatment;
- Decommissioning of an existing high lift pumping station;
- Construction of a new high lift pumping station for conveyance of water
- New automated control systems with radio communication connecting all the facilities;
- Upgrades to the existing pumping station
- New high lift pumping station for the conveyance to the new distribution centre and reservoir;
- Installation of water level sensors and radio communication equipment to transmit level information between the sites for the automation of pump control.

LOT 2:

- Installation of a new 600 mm diameter transmission main between EB1A and EB2/EB2A parallel to the existing 400 mm PVC transmission main, and the existing 400 mm diameter asbestos cement pipe;
- Installation of a new 600 mm diameter transmission main, to convey water from EB2A to EB5;
- Construction of a new distribution centre and reservoir (EB5) to provide for the existing underserviced area in the southeast area of Nampula, and to service future development.

2) Rehabilitation and Expansion of Nacala City Water Supply System;

The rehabilitation and expansion of the Nacala Water Supply System project which aimed to provide 25,000m³/day of treated water capacity was implemented through two separate Lots:

→ Lot 1: Intake, Water Treatment Plant, Transmission Main and Booster Station;
→ Lot 2: Grade Level and Elevated Reservoirs, Pumping Station and Distribution Main.

The contracts for the two Lots - which are based on FIDIC Red Book 1999 - were awarded to Technofab Gammon Joint Venture (TGJV) signed on 30th of September 2011 with an effective commencement date established at 28th of October 2011. Lot 1 was required to be completed by 18th of March 2013 and Lot 2 was required to be completed by 24th of December 2012. Burnside International was appointed as the "Engineer" with respect to the construction contracts. The respective budgets of Lot 1 and Lot 2, as amended, were US$ 18.2 million and US$ 10.4 million respectively.

Due to the lack of progress of the works by the Contractor within the time frame (work completion around 20% only), the contract with Technofab Gammon for the Rehabilitation and Expansion of the Nacala City Water Supply System was terminated by MCA. All works were to be terminated except for those instructed by the Engineer that were necessary for the protection of life or property or for the safety of the works. Close-out activities were documented in a close-out report prepared by the Engineer and included observations of deficiencies which will need to be rectified by the Contractor, prior to the demobilization from the site.

3) Mocuba Water Supply Emergency Works

MCA entered into contracts with PBG-SA (the contractor) for the construction of the Works and with R.J. Burnside Ltd. to provide construction inspection, supervision and contract administration services under the project.

The works for the Mocuba Existing Water Supply and Treatment Works Emergency Works involve upgrades to existing low lift pumping station and the existing water treatment plant.

The original contract value was $2,434,043.87. However, during construction, 9 variations were issued, 7 of which have been approved, and two remaining still outstanding for final approval. In The 7 variations increased the value of the contract up to $2,952,635.52 with the completion date amended to June 20, 2013. The 7 amendments to the original contract included: 1) additional ground water investigations and revision of the payment schedule in December 2010; 2) revision of payment schedule in November 2011; 3) implementation of the Nacala Water Project RAP in November 2011; 4) additional services for the design and reparation of the technical sections of RAP Implementation Component in August 2012; 5) additional services for the contract administration and the supervision of emergency works in January 2013; 6) additional services for the design phase, post design and tendering phase and additional supervision in Nacala and Mocuba in June 2013.

The construction works were supervised and inspected by the engineer R.J. Burnside International Limited. These were provided under Phase III of MCA Contract P046 for the feasibility Study, Environmental and Social Impact Assessment, Design and Supervision in Five Water Cities: Nacala, Mocuba, Gúruè, Monapo and Montepuez

The effective construction starting date was established as September 27, 2012 and the contractual time for completion of the works as amended, expired on June 20, 2013.

At the time of writing the report, the contractual time for completion of the works expired although the works have not been completed. On September 11, 2013, Burnside submitted a proposal to MCA in which it was proposed to prepare and submit an update to the completion report to reflect further the status of the works. The contractor is required to prepare and submit "as-built record drawings" of the works at least two weeks prior to the anticipated date of the issuance of the employer's taking over.

A number of works still remain to be completed and the deficiencies to be addressed once the taking over certificate has been issued by the GoM have been identified as follows:

For Activity 1 "Low Lift Pumping Station": there are some substantial items which have not yet been completed including the Restoration, Structural and Building, Mechanical and Electrical sectors.

For Activity 2 "RS1 Site": substantial items have not yet been completed in the Construction, Electrical, Cathodic Protection, Start and Commissioning areas. (e.g. installation of pipe, excavation and laying of pipe).

4) Rehabilitation of the Nacala Dam

The **rehabilitation of Nacala Dam** was part of the Government of Mozambique's efforts to solve the problems of lack of water to the population of Nacala city.

The Nacala Dam was built between 1968 and 1975 but it started to experience functioning deficiencies since the eighties due to the overtopping of the 1982 floods that caused infiltrations and settlement in the body of the dam.
With the emergence of new investments and population increase, Nacala city has been experiencing an increasing demand for water. The rehabilitation of Nacala Dam was designed to address these issues and help ensure access and increase the water availability to Nacala city.

FIGURE 5: CONSTRUCTION OF SPILLWAY

The works included the following activities:

- ✓ Heighten the dam by 4 meters;
- ✓ Permanently Detour the Nampula-Nacala (N12) Road;
- ✓ Build a new flood spillway with a capacity of 964m/s;
- ✓ Build a new water intake for water supply to Nacala;
- ✓ Build a new bottom discharge to guarantee ecological flow;
- ✓ Halt the water infiltration in the body of the dam;
- ✓ Resettling of 34 families and a private institution affected by the works.

The contract was signed on 26 May 2011 with **WBHO** enterprise, for an initial value of 26,212,132.95 USD then revised to 35,000,000.00 USD for a duration of 24 months, from June 2011 to June 2013. The supervising engineer was Jefferes & Green. The Implementing Entity was DNA-GOH.

3.2.3. COMPONENT III: "REHABILITATION AND EXPANSION OF MUNICIPAL SANITATION AND DRAINAGE SYSTEMS"

This component covered **two interventions**:

- the rehabilitation and Expansion of Storm Water Drainage System in Quelimane City and;
- the Rehabilitation and Expansion of Storm Water Drainage System in Nampula City.

1) Rehabilitation and Expansion of Storm Water Drainage System in Quelimane City

The objective of the project was the execution of priority works for the rehabilitation and development of the drainage system in the city of Quelimane. The project consisted of two components:

1-Rehabilitation and construction of the storm water drainage in the Cement city;

2-Rehabilitation and construction of priority works of the primary storm water drainage system in the peri-urban areas.

The project covered a total of four urban neighborhoods including: zona de cimento, 1º Bairro and, in the peri-urban area, Saguar A and B, Expansão Aeroporto; Aeroporto; Manhaua A and B; Brandão; Kansa; Piloto; 1º de Maio, 25 de Setembro, 17 de Setembro, Samague, Torono Novo, Chirangano and Janeiro neighborhoods.

FIGURE 6: CONSTRUCTION OF STORM WATER CHANNEL

The contract for the execution of the works was entrusted to CETA/CMC JV (Cooperativa Muratori E Cementisti – CMC Di Ravenna e CETA – Construções e Serviços, SA) for a value of USD 28.562.083,29 [VAT excluded] and a duration of 20 months. The works started on 24 October 2011 and ended on 30 August 2013. Louis Berger was contracted as engineer. The Implementing Entity responsible for the project is AIAS. The scope of the works included pipes and galleries in urban area and channels in peri-urban areas. The Taking-over certificate was issued on 18 September 2013.

2) Rehabilitation and Expansion of Storm Water Drainage System in Nampula City

The main objective of the project for the rehabilitation and expansion of storm water drainage system in Nampula is to reduce flooding in the urban areas and also to reduce stagnant water, significantly contributing to the reduction of water-borne diseases. The contract for the execution of the works was signed with Construções Gabriel A. S. Couto, S.A. for a value of USD 12.560.518,15 and for an initial duration of 12 months which was further extended by four months. Works started on 2 May 201 and ended on 30 August 2013. Louis Berger was contracted as engineer. The scope of the works included pipes and galleries in urban area and channels in peri-urban areas.

FIGURE 7: TRANSMISSION MAIN

The project covers six administrative neighborhoods namely: the Bairro Central, and in peri-urban area, the neighborhoods of Muatala, Muhala, Namicopo, Napipe and Natikiri, which will directly benefit about 470,000 inhabitants. For the implementation of this project, the works will affect 273 properties which will be properly compensated for.


FIGURE 8: CONSTRUCTION OF DRAINAGE CHANNEL

The works consist of the construction and rehabilitation of 8.2 km of lined storm water drainage open channels in the peri-urban areas, replacement 10.5 km of storm water drainage pipes and galleries in the urban areas and replacement of 9.5 kms of storm water drainage pipes and galleries in the urban area. The physical progress by end of June 2013 was 93%. At the time of writing of the report, it was expected that the Project will complete within the Compact timeline.

3.2.4. COMPONENT IV: "CONSTRUCTION/RECONSTRUCTION OF WELLS AND BORE HOLES (RURAL WATER POINTS)"

Poor access to water supply and sanitation services is one of the key constraints to socio-economic development in Mozambique. Accordingly, the GoM aims is to ensure that the population living in rural areas, especially women and girls, do not have to walk long hours looking for drinking water.

The Rural water Supply Project aimed to contribute to the basic needs of the population living in rural areas of 13 districts in the provinces of Nampula and Cabo Delgado. To improve the rural water supply situation in these provinces, the project planned to drill 600 rural Water Points: 350 in Nampula and 250 in Cabo Delgado. This was the MCC funded Rural Water Point Installation Program (RWPIP).

As for the activities of the project, the consultant completed the design and tender documents for installation of pumps and connections in Nacala and Pemba, and for the 10 small scale solar systems (SSSS), standard design used for the 8 NO of SSSS implemented in Nangade were used. Also, site locations for additional water points were completed, including geophysics survey.

The Rural Water Supply Project intended to reduce poverty and ensure the economic growth of the population in the above mentioned regions of the country, maximizing all the benefits of public health from hygiene to sanitation and education.

This project followed an approach based on **principle of demand**. (Demand Driven Approach), in the light of the guidelines in the Manual Implementation of Rural Water Projects (MIPAR).

The local authorities, NGOs and the private sector of small scale had key roles in playing a supporting role towards community management of water and sanitation services. Also, cross-cutting issues such as gender equity, environmental and social issues were integrated and evaluated as essential during the whole implementation of the project. Above all women, as key players in the provision of water to the community level, were involved as main actors and participated in decision-making at all stages of the project cycle.

The **districts** that were covered are:

- Nampula Province: Meconta, Mogovolas, Moma, Mogincual, Murrupula, Nampula Rapale and Monapo.;

- Cabo Delgado Province: Distritos de Palma, Mocímboa da Praia, Mecúfi, Pemba Metuge, Nangade and Chiúre.

The Water Source Project was executed in three distinct phases (1st phase -150; 2nd phase - 250 and 3rd phase - 200).

The implementation of the RWPIP was followed closely by the coordinator **DNA-DAR**. This last one monitored the progress of construction works and reported on budget and schedule performance for RWPIP. DNA-DAR made sure that all water points were delivered to the beneficiaries before project closure and that provincial, district and local NGO's **capacity building** would be put in place to ensure long term sustainability, also providing inputs for the improvement of the strategy and development of the sector policies. It also ensured the completion of all contractual matters: retention, guarantees; management of the project assets (vehicles, equipment, furniture) and Liability Period after Project Closure (guarantees).

FIGURE 9: WOMAN OPERATING HAND PUMP

DNA-DAR:

- assisted the District and Provincial Government Authorities to carry on monitoring and evaluation activities;
- monitored the contracts technical record keeping and assisting the Project Coordinator with the overall administration of the works contracts, with an emphasis in Cabo Delgado Province;
- monitored the overall technical issues regarding the operation and maintenance of SSSS;
- provided support to the **Social & Community Development Specialist** with the overall administration of the contract regarding community activities and water points hand over to the beneficiaries.

The activities which were **complementary** to the implementation of the project can be listed below as follows:

- Implementation activities related to social and hygiene education component of the Rural Water Program;
- Community participation during the WP handover;
- Monitoring the capacity needs assessment for each community to be undertaken by the Consultant;

- Assistance to the artisans and local mechanics to ensure they were prepared to carry on the major repairs;
- Ensuring that the communities would propose corrective measures.

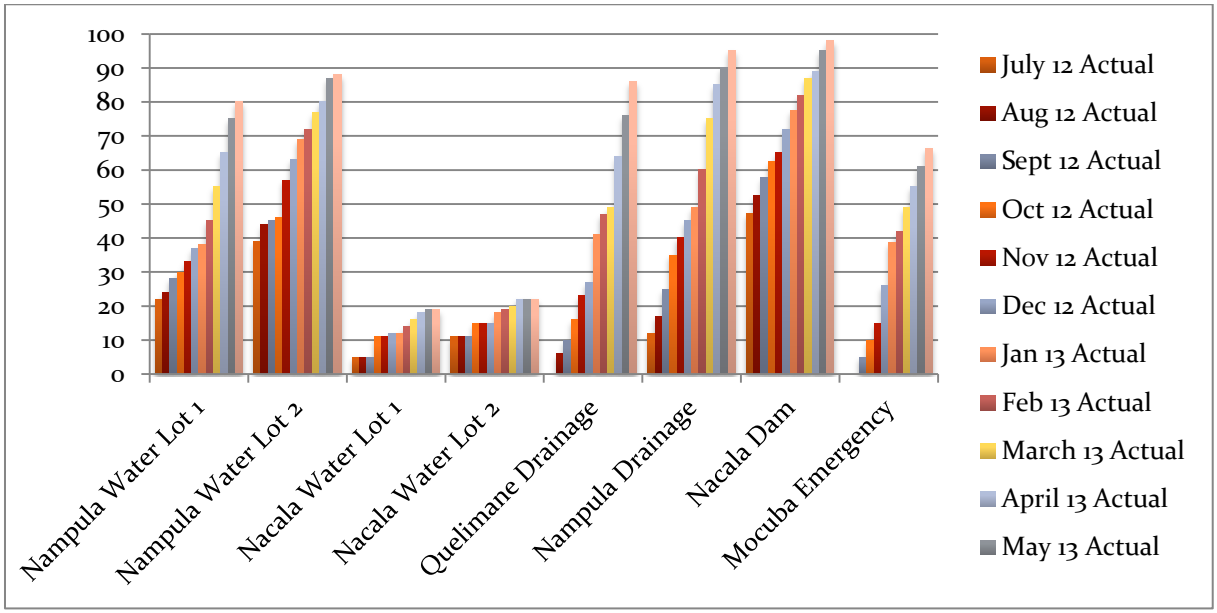
3.3. PROJECT RESULTS AND BENEFICIARIES

Thanks to MCC's financial support, over 1 million Mozambicans now benefit from the refurbishment, upgrading and expansion of the water, sanitation and drainage infrastructures in Cabo Delgado, Nampula and Zambézia Provinces with increased accessibility, viability and quality services. Key results under the Water Supply and Sanitation Project include the rehabilitation of the Nacala Dam, the provision of urban and rural water supply, and capacity building and institutional strengthening for water sector entities.

More specifically, the following results were achieved under the Water, Supply and Sanitation Program:

- Construction of 600 boreholes and manual pumps and 8 small-scale solar systems in our Rural Water project that will benefit 308,000 beneficiaries. It is foreseen that this project will serve 453,807 beneficiaries in 2028.
- Rehabilitation of the Quelimane and Nampula Drainage systems;
- Rehabilitation of Nampula water supply systems; and
- The Rehabilitation of the Nacala Dam.
- Emergency works in Mocuba Water Supply Project

Progress on the different components was partly unequal with some projects performing better than others. The table below illustrates progress as of June 2013:



Results achieved under Component I:"Technical Assistance & Capacity Building to Water Supply and Sanitation Institutions.

The following results: were achieved under the Technical Assistance Component:

- ✓ **Creation of autonomous Municipal Sanitation Companies.** Before this project, the Municipalities of Nampula and Quelimane did not have the necessary capacities to meet the sanitation needs of the peri-urban areas of the two cities;
- ✓ **Management of the water, Sanitation and Hygiene Program.** The Component developed guidelines for the management of the WASH program for each of the two EMUSA**.** These guidelines were the basis for the on-the-job training of the municipal and EMUSA staff in undertaking the program, especially the annual planning and budgeting of the promotional activities, detailed planning of specific community mobilization and education activities; sanitation programs at schools and markets and the management of public facilities. In both cities, the functions of these units were extended to include community mobilization for good practices in relation to drainage facilities and for the use of public sanitation facilities;
- ✓ **Capacity building to support sanitation in the peri-urban areas** which involved the adoption of a social marketing strategy approach to promote sanitation in the peri-urban areas under the slogan of "Intelligent Choice" or "Escolha Inteligente". The innovative sanitation options selected for promotion cover an affordable range of sanitation solutions;
- ✓ **Provision of sanitation and hygiene promotion services in the peri-urban areas** involving the adoption of an "Integrated Communication Strategy for Sanitation and Hygiene Promotion in Nampula & Quelimane;
- ✓ **Management systems for sanitation facilities in markets** including the construction of new public toilets in market places in each of the two cities of Nampula and Quelimane. Market places are very busy areas of the city, where there is a constant high demand of sanitation services due to high density of people working in such areas.

Results achieved under Component II: "Rehabilitation and Expansion of Water Supply Systems in urban areas".

The results under the Urban Water Supply Systems are as follows:

- Construction of a new water treatment plant rehabilitated the existing water treatment plant and improve the water supply to Nampula City through the construction of 16 km of transmission main and new distribution center
- Rehabilitation and increasing capacity of the Nacala Dam, expanding the water systems through the replacement of 31 km of pipelines and construction of four pumping stations, two distribution centers and four underground water holes/wells and a new water treatment station
- Rehabilitation and replacement of 19.5 km pipes and galleries in urban area and eight

km of new drainage canals in the peri-urban areas of Nampula City.

More detailed results, per activity, are listed below.

1) Rehabilitation and expansion of Nampula City Water Supply System:

By September 15, 2013, the Contractor had not completed the works to a sufficient level for the engineer to determine that the taking over is to occur and taking over certificate has not yet been issued. Works have to be completed and "as-built" drawings addressing the deficiencies have been identified. The engineer proceeded to conduct an internal check. On the different sites the status the status of the works is unfinished including for:

- Structural and Building Related, as for example exterior paintings, doors and windows (at the ETA and ETA 2 site work); exposed steel on concrete walls and leaks on the walls (at ETA 2 filters); piping not completed and local water service (at ETA 2) not installed; or surge tank not anchored to base and missing concrete stairs (at EB2/EB2A).
- Mechanical aspects, which are unfinished to a great extent, such as fuel tank piping valve not installed; no retrofitting of existing filters occurred and new compressors need to be wired and installed (at ETA site); wash water stations incomplete and raw water sample tap and supply to analyzers (at ETA2 site); tanking and piping not installed (at EB2/EB2A).
- Electrical aspects are often incomplete (missing lights, outlets and pull boxes not installed) and if installed, not tested. Inspections report unsafe connection of grounding system and the need to improve cable lying (at ETA site); service to panel board not placed (at EB2/EB2A).
- Instrumentation and control often includes incomplete control wiring, unprotected magmeter cabling; drainage outside buildings and unfinished analyzer installation.
- Tetsing/Start-up/Commissioning is clearly incomplete and very often involves missing start-up reports e.g. the start-up report on raw water pumps.

2) Rehabilitation and Expansion of Nacala City Water Supply System:

The contract for the works was terminated as a result of the Contractor's failure to deliver results within the set time frame. At the time of cancellation, only 20% of the works had been completed.

3) Mocuba Water Supply Emergency Works

The civil works under this project experienced a slow start and a number of activities could not be completed by the end of the Compact. Three quarters through the duration of the project, only around 50% f the works had been completed. Works on the Distribution main and the rehabilitation of the water treatment plant in particular were slower than expected. An extension was agreed to enable further progress with the works.

The major activities carried out are as follows:

- Pipes and accessories for spillways commissioned and in the process of manufacturing;
- The concrete power house is operational;
- Completed the laying of steal bedding for the decanters.

4) Rehabilitation of the Nacala Dam

The project for the rehabilitation of the Nacala Dam was fully implemented and as a result, increased the availability of water to supply to Nacala city and ensure the safety of the dam. With the achievement of these objectives, the carrying capacity of the reservoir increased from 4.2 m³ to 6.6 m³ and still ensures 25.000m³/day water availability to supply the city of Nacala. Moreover, with the filling up of the water reservoir some crop fields were rapidly compensated for.

Results under Component III: "Rehabilitation and Expansion of Six Municipal Sanitation and Drainage Systems".

1) <u>Quelimane Drainage Rehabilitation Project</u>

The Quelimane Drainage Rehabilitation Project will contribute significantly to the reduction of water borne diseases. After the completion of civil works, it is expected that there will be a significant reduction of the negative impacts associated with urban floods, reduction of groundwater level which is quite high above the sea level and considerable reduction of inundations caused by stagnant water which frequently occur in Quelimane city and surrounding areas. The System will benefit about 200,000 inhabitants.

The Small Rehabilitation was undertaken along existing pipe drains to clean, inspect, provide a CCTV record, and where necessary provide new manhole accesses. This work was undertaken along Discharge S11A (222 meters of 450mm diameter pipe), Discharge S10 (79 meters 500mm diameter pipe), Discharge S10 and S11A (278 and 179 meters of 600mm diameter pipe) and Discharge S8 (89metres of 700mm diameter pipe).

The Medium Rehabilitation was undertaken along existing gallery drains, to clean, inspect, provide a CCTV record, and where necessary provide new manhole accesses. This work was generally undertaken upstream from the 'Marginal' outfall of the galleries and included Discharge S2 (396 meters of size 1200x1200mm to 1100x950mm gallery), Discharge S3 (292 meters of size 1500x1200mm to 1700x1000mm to 1000x1500mm gallery), Discharge S4 (237 meters of size 1400x1200mm to 1100x1200mm gallery), Discharge S5 (386 meters of size 2300x1750mm to 1200x1000mm gallery), Discharge S6 (453 meters of size 2400x1750mm to 1200x800mm gallery), Discharge S7 (253 meters of size 1700x1200mm to 1200x1000mm gallery) and Discharge S8 (178 meters of size 1200x1000mm gallery).

The new Pipeline/Culvert Drainage Works within the Cement City area of Quelimane, included the construction of an additional 10 lines of culverts/pipes to reinforce the existing drainage system. Most of the formal drainage system within the Cement City runs north to south, to outfall into the Bons Sinais River. However, one of the new lines (S12) runs east to west, around the northern edge of the Cement City, to outfall into one of the upgraded Peri Urban drainage channels. The new Channel Drainage works within the peri-urban area of Quelimane included the construction of seven existing earth bank primary drainage channels, as reinforced concrete lined channels.

A detailed review of the Works was undertaken with the Employer (MCA), the Contractor, the Beneficiary (AIAS) and the Operator (Quelimane Municipality) at the time of taking-over of the Works. Some ongoing and outstanding Works were identified. Numerous minor 'snagging' issues were also identified. The Taking-Over Certificate required that all the defects be addressed, by the Contractor, by 20 November 2013. For the channels, the Channel name, chainage, defect category, brief description, comments, etc, were recorded on sheets, which were then signed and dated by the parties carrying out the inspection.

For the discharges, the Discharge name, manhole number, defect category, brief description, comments, etc, were recorded on sheets (set out more by way of a checklist sheet) and the sheets were then signed and dated by the parties carrying out the inspection. Sheets were prepared for all the manholes constructed (269).

For the general defects, the Snagging List generally identified outstanding work or work that had not been completed. Some outstanding environmental 'clean-up' issues were also identified. For these issues, the location, relevant Technical Specification clause of Site Instruction was identified, brief description, comments, etc, were recorded on sheets and the sheets were then signed and dated by the parties carrying out the inspection. Four sheets of issues were prepared. For the Murropué houses, the location, house number, brief description, comments, etc, were recorded on sheets, which were then signed and dated by the parties carrying out the inspection.

2) <u>Nampula drainage</u>

The following works have been completed:

- ✓ Small Rehabilitation was undertaken along existing pipe drains to clean, inspect and provide a CCTV Record. This work was undertaken along the Eduardo Mondelane Avenue (816m) and Viveiros Street (220m);
- ✓ Medium Rehabilitation was undertaken along an existing gallery (Discharge of the Basin S14) to clean, inspect and where necessary provide new manhole accesses. The Gallery with dimensions 2000 x 2000 mm and length 420 m was rehabilitated, with interventions in the bottom slab, walls and ceiling;
- ✓ The works related to New Stormwater – Pipes and Galleries within the Cement City area of Nampula have been completed;

- ✓ The New Channel Drainage Works within the Cement City and peri-urban area of Nampula including the construction of seven existing earth bank primary drainage channels, as reinforced concrete and Gabions lined channels;

As of the date of the Taking-over certificate for the works (15 September 2013), all the main items of the works have been completed (i.e. pipelines, culverts and channels). By the Compact completion date (22 September 2013), the Contractor had demobilized about half his site personnel.

FIGURE 10: CONSTRUCTION OF STORM WATER PIPE SYSTEM

As of 15 September 2013, the outstanding works left were generally the snagging items and the provision of some further safety items including: central line and road junction road markings, safety kerbing, road marking at "Unidade" street and assembly and erection of the channel safety warning signs. These outstanding works were the subject of ongoing and Contract modification approvals. At the two 'in-kind houses', all the works had been completed, including the fence and kitchen.

Results under Component IV: "Construction/Reconstruction of Wells and Boreholes".

The Rural Water Project which benefits 308,000 beneficiaries (453,807 beneficiaries expected by 2028) achieved the following results:

- ✓ Construction of 600 boreholes and manual pumps constructed in Nampula and Cabo Delgado;
- ✓ Eight small-scale solar systems in Cabo Delgado province completed;
- ✓ 8,484 persons (118% of Compact target) trained in hygiene and sanitary best practices;
- ✓ 22.5% (102% of Compact target) of the rural population in the six intervention districts now have access to improved water sources.

Prior to the construction of the wells, most people from the district needed to walk at least 6 km per days to get water; spending around between 5 and 7 hours to get 25 liters of water in shallow wells and in temporary rivers close to mountains. This situation was even more critical during the dry season when it is difficult to find underground water. During the raining season, although water is abundant, it is not safe for drinking and it can cause diarrhea and other water born diseases.

FIGURE 11: COMMUNITY AROUND A WATER POINT

These water points led to a huge change in the life of people, bringing both health benefits as the diarrhea and malaria reduced drastically and economic ones, allowing a great variety of crops, such as groundnuts, maize, cassava, cowpeas, pumpkins and bananas.

M&E and Rural Water conducted a combined KAP to assess the communities´ sense of ownership of the boreholes constructed by the project, adoption of improved hygiene and sanitation measures and strategies put in place for sustainability of the boreholes in Mogovolas, Nampula-Rapale and Meconta districts in Nampula Province.

The baseline training and data collection phases for rural water project impact evaluation were carried out by Stanford University/Virginia Tech consortium. The survey was carried out in Nampula.

The survey showed that there was an increasing sense of ownership of the boreholes by the communities, thanks to the **participatory methods** and demand driven approach used to involve the communities in the project. This ownership is further prompted by community fee paid by as their contribution to the outlet. As far as sustainable measures put in place, all communities surveyed have shown live records of existing funds resulting from community members´ contribution for the maintenance of the boreholes.

Women resulted to be the major beneficiaries. They no longer have to travel long distances in search of water for hygiene and family for various domestic purposes; therefore they have more time for other activities. Another significant advantage is that the SSSS secured jobs, particularly for women who are to be entrusted with the task of collector. In almost all the fountains, there are women working as collector, which helps minimize the economic imbalance between man and woman.

3.4. RISKS, CHALLENGES AND MITIGATION MEASURES

3.4.1. Component I: "Technical Assistance & Capacity Building to Water Supply and Sanitation Institutions"

The identified constraints and risks encountered under this component are listed below, along with the mitigation measures that were anticipated and adopted:

Risk: Different expectations of the stakeholders regarding the project results.

→ **Mitigation measure:** The technical assistance team found at the beginning of the project that Municipalities and AIAS/MCA had **different expectations** regarding EMUSA's mission. The municipalities wished that the EMUSA would take care of the solid waste whereas AIAS/MCA wished that it would concentrate its work on the drainage maintenance and the peri-urban sanitation. In order to reach a consensus which was essential for the success of the project, the TA mitigation strategy was to produce several scenarios for EMUSA providing multi-sectorial analysis (legal, financial, organizational) in order to enable stakeholders to be as much informed a possible and to reach an up to date consensus. This proved to be successful and the two final workshops presenting EMUSA's proposals met a large consensus in each municipality.

Risk: Political support from the municipalities to create and maintain the autonomous entity for sanitation, i.e. EMUSA.

→ **Mitigation measures:**
- Advocacy through activities in the **advocacy plan** towards the municipalities, emphasizing the objectives in National Strategic Plan of Water and Sanitation (2011-2025), i.e. to strengthen EMUSA as Municipal Company as an administrative and financial autonomous;
- Solicit strong advocacy support from GoM (AIAS/MCA);
- Connect the creation and capacity development of EMUSA with grants for start-up activities, funded via AIAS/MCA.

Risk: Conflict between EMUSA needing revenues and the public health needing pro-poor policies.

→ **Mitigation measure**: While setting-up EMUSA in Nampula and restructuring EMUSA in Quelimane, two ways to assure financial sustainability and to reduce costs while increasing revenue were thought:
- the EMUSA should be streamlined in relation to HR as to reduce the total salary expenditure;
- a considerable part of the income generation from taxes and/or surcharge should be used for cross-subsidization of pro-poor policies;
- the collection fee of solid waste included in the electricity bills should be transferred to EMUSA;
- advocacy for changing the flat rate fees into a %-wise system linked to both water and electricity bills.

Risk: Sewerage water fees directly linked to clean-water consumption**.**

→ **Mitigation measures:**

- An additional pro-poor sanitation tax should be added to the various property taxes (e.g. FORO, DUAT, IPRA, and Urbanization tax), i.e. the more property is owned, the more tax is paid;
- Lack of land tenure in peri-urban areas prevents families to invest in sanitation;
- Title deed, such as DUATs should be promoted;
- Promotion of models of slabs that can be moved with the family.

Risk: Plots subject to flooding and/or high water table inhibiting the construction traditional sanitation solutions.

→ **Mitigation measure:** Introduction of low-cost sanitation designs fit for flooding and/or high water table.

Risk: The most vulnerable households cannot afford even the cheapest models of sanitation solutions.

→ **Mitigation measures:**
- Development of a method to differentiate between target groups according to type of income and poverty level;
- Advocate for a solution for the most vulnerable households: which should be sought by involving the intermediate actors to help identify and reach the poor e.g. CBO, NGO, local administration, traditional leaders, religious leaders;
- Cross subsidization.

Risk: Geographical mobility (seasonal movements, etc.) inhibits investment in sanitation facilities.

→ **Mitigation measures:**
- As per CLTS and Total Sanitation concepts, it could be used the local management structure in the communities to enforce construction of low-cost sanitation solutions for all;
- Promoting slab that can be moved from site to site and reused time after time.

Risk: Shortage of qualified human resources to staff EMUSA.

→ **Mitigation measure:** Strengthen the qualifications at all levels through capacity building, promoting formal study programs and short term courses.

Risk: Insufficient budget to implement various activities related to the creation of EMUSA and capacity building.

→ **Mitigation measures:**
- Secure internal and external funding to allocate for proposed budget for social mobilizations, trainings, workshops, etc.;
- Train EMUSA staff to find external funding for projects;

- Funding is necessary for capacity development for ;the private sector to deliver sanitation parts and services in relation to the innovative sanitation solutions
- Presentation of demonstration models;
- An initial fund is necessary for buying equipment and material for demonstration and start-up production.

Furthermore, with respect to EMUSA, the main difficulty observed was due to the lack of **financial and administrative autonomy**. Only 4.7% of the income was directly under the control of EMUSA and did not depend from the Municipal council. As a consequence, the main problem related to this situation is EMUSA's impossibility to make decisions concerning staff (which is the higher cost: 68.7%). The staff was directly employed by the Municipality, and the company could not practice any policies of staff reduction or staff restructuring in order to lower costs and increase efficiency. EMUSA's incentive to improve and diversify services in order to increase the own income was also kept low due to the dependency from the Municipality for most of the budget and also due to lack of administrative autonomy which precluded EMUSA's direction from making any strategic decision.

In January 2012, the EMUSA had 272 workers (42% women). These were also a certain number of these workers that were counted as EMUSA's staff but were in reality working for other municipal services (ex. in market places, the cemetery, the social assistance municipal office, the residence of the Governador and the municipal store room). As a consequence, the **operational workers** in EMUSA were not many and their number was insufficient to enable EMUSA to exercise its mandate effectively. EMUSA's services were therefore limited to the city center (cement city) and did not cover the outskirts. Even in the city center, the services were insufficient: for example, out of the 28 streets existing, the sweepers only covered 19 streets.

In addition to a **problem of human resources availability**, there were also difficulties in terms of human resources quality, since the great majority of staff, including medium and high-level technicians, did not have the formal competencies and profile required to exercise their job. For example, there were about 20 workers in the mechanic garage, but none had a formal training in mechanics. The issue of the training of the human capacities was also present at the level of higher staff. EMUSA did not have, among its personnel, a sanitation engineer for the management of the wastewater systems, a biologist or a chemist technician to analyze pollution in wastewater, etc. Most of the management team also lacked specific formal competence in sanitation.

Available means and **equipment** for EMUSA were limited and insufficient for the correct functioning of the service. Available vehicles for waste collection were extremely limited (3 trucks and 7 tractors, with variable degrees of « functionality »). The garage to repair vehicles was not very operational due to lack of repairing material, tools and spare parts. For the social mobilization activities and maintenance of drainage systems, only 1 car was available. Due to limited budget, it was not possible to acquire new vehicles and tools which were very much needed.

EMUSA did not have a department for planning and a department for monitoring **and evaluation**. These were serious gaps in the functioning of the structure. Planning was therefore not done on an annual basis (but weekly or according to the circumstances) and there was no regular procedure to check if planned activities were implemented or not.

EMUSA did not have a **database** with information on the sector: no data were available at their level on the sanitation situation in Quelimane, on existing drainage or wastewater networks (no maps, no data on the mileage for vehicles and the material, etc.). There were also no data on access to sanitation (septic tanks, number of latrines in the peri-urban areas, problem of open-air defecation), on actors involved in the sector (ex. no inventory of NGOs and CBOs) and projects/activities implemented in the sector outside of EMUSA area.

3.4.2. Component II: "Rehabilitation and Expansion of Water Supply Systems in Urban Areas"

The identified constraints and risks encountered under component 2 are listed below, along with the mitigation measures adopted:

Risks: Delay in finishing the WTP (Willingness To Pay) study.

→ **Mitigation measures:**

- To harmonize and approve the materials for the field work between the responsible FIPAG, MCA, Burnside;
- to ask for and approve the updated and feasible schedule for the realization of the activities;
- To promote regular meetings with Burnside to supervise the progress of the activities;
- To closely monitor the date of delivery.

In relation to the Rehabilation of **Nacala Dam**, two major risks were found:

Risk: Weak understanding of the Project of the community close to the Dam.

→ **Mitigation measures:**

- To carry out a preparatory session with the Social and Environmental team for a second round of PC;
- To secure the spread of the objectives of the project, during the second round of PC;
- To secure the functioning of the community liaison;
- To ask for and approve the Place, Methodologies and Materials to be used in the PC;
- To monitor the possible change of perception towards the project of the included communities.

Risk: Lack of conditions to supply the communities of the dam and surroundings during the phase of studies.

→ **Mitigation measures:**

- To sensitize FIPAG on the necessity of guaranteeing improvement of the conditions of supply of water to the communities close to the Dam;
- To draw strategy to integrate these actions in the Communitarian Development Plan, so that they can be implemented during the feasibility study.

3.4.3. Component III: "Rehabilitation and Expansion of Municipal Sanitation and Drainage Systems"

Risk: Inconsistency in the project

→ **Mitigation measure:** Supervisor anticipate the places of conflicts e.g., side connections, pedestrians' passage and water supply;

Risk: Additional works to do.

→ **Mitigation measure:** MCA to define the fastest mechanism for the approval of the orders of variation;

Risk: Erosion of the grounds.

→ **Mitigation measure:** Louis Berger should instruct the CETA/CMC JV for the stabilization of the berms of the channels;

Risk: Budgetary suitability.

→ **Mitigation measure:** MCA and Louis Berger ensure the costs for the execution of the works to the end of the work;

Risk: Compensation of the PAPs principally in the urbane zone.

→ MCA should clarify the situation of the PAPs when the amount and present present the variations of the quantities in the contract.

Other challenges faced were:

- lack of responsibility and supervision on works on the part of the contractor;
- little flexibility in the approach of the prices of the VO because of the Partnership CETA/CMC; area of work is not totally secured;
- unsatisfactory performance of the Inspection;
- problems of Hygiene and Security in the work;
- poor quality of the works and delay in the activities of replacement of the asphalt.

3.4.4. COMPONENT IV: "CONSTRUCTION/RECONSTRUCTION OF WELLS AND BORE HOLES (RURAL WATER POINTS)"

Risks:

- the possibility that the boreholes would become dry during the dry season;

- the non completion of the targeted number of boreholes due to hydrogeological conditions and accessibility of communities in Nangade Districts.

Mitigation measures:

- Ensure good geophysical surveys and planning
- Prioritize additional boreholes in the communities with high population and good hydro-geological conditions
- Plan drilling in the communities with poor accessibility during dry season
- Reallocate the boreholes to other districts: Palma or Mocímboa da Praia.

3.5. ESA issues

According to the Ministry of Environment of Mozambique and MCC Environmental Guidelines[3], WSS was classified as "Category A" due to potential impacts associated with its activities. However, within the WSS project, only the Rural Water Supply Project and Emergency works made in Mucuba have been classified as "Category C", which means that they did not require a full ESIA. For this project, MCA-M ensured environmental and social sustainability through ongoing PC and by including in the bidding documents the environmental and social assessment aspects. Its positive social impact was maximized in relation to Gender Policy as well, i.e. throughout the development of a gender integration plan that organized inclusive consultations with women and vulnerable/underrepresented groups.

With respect to the technical assistance component, the TA team established early in the project a gender and **HIV/AIDS strategy** for the project and the future WASH program in line with national legislation and the MCA strategies. Both Municipalities established gender promotional commissions and the TA teams provided training to members of these commissions. All the training and documentation was reviewed by the gender specialist, especially in relation to preparation of the terms of reference and the Code of Conduct for Managers and Employees of the two EMUSA.

Under the Rehabilitation and Expansion of Storm Water Drainage System in Nampula, approximately 305 compensation payments were made to "People Affected by the Project" (PAPs), who had been variously affected among the channels due to the loss of houses, kitchens, toilets, septic tanks, trees and crops, along the Site Working Width (2m in either side of the channel) as well as for relocation costs and new plot DUAT costs (where appropriate).

[3] A project is classified as Category A if it has the potential to have significant adverse environmental and social impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. Category A, in principle, includes projects in sensitive sectors or located in or near sensitive areas. A project is classified as Category B if its potential environmental and social impacts are less adverse than those of Category A projects. Typically, these impacts are site-specific, few if any of them are irreversible, and mitigation measures are more readily available. Available at: http://www.mcc.gov/pages/about/policy/environmental-guidelines.

For the implementation of the Rehabilitation and Expansion of the Storm Water Drainage System in Quelimane city, it was necessary to resettle about 423 people who had their properties affected by the rehabilitation and expansion works of the Drainage System in Quelimane. The construction of the Peri Urban channels was carried out in areas that had experienced intensive encroachment of housing, some blockwork, but most precarious, in recent years. To construct the Channels, the design had stipulated a Working Width of the channel footprint plus a 2 meter wide strip on one side and a 5 meter wide working/access strip on the other.

The design phase Resettlement Action Plan had identified 431 Persons Affected by the Project (PAPs) of whom 26 were considered 'socially vulnerable', and for whom, 'in-kind' replacement houses were to be provided at the Quelimane Municipality expansion area of Murropué (about 7 kilometers from the centre of Quelimane). In the end, only 4 PAPs elected to take 'in-kind housing' the remainder requesting money to purchase a replacement house closer their existing channel affected property (houses pre-viewed by the Engineer's team and MCA to Rehabilitation and Expansion of Storm Water Drainage System in the Cement City and Peri Urban Area of Quelimane City confirm suitability). The four 'in-kind houses' (one T4 and three T3) were constructed on adjacent plots at the Murropué and transferred to the ownership of the PAPs.

4. REHABILITATION PROJECT AND ROADS CONSTRUCTION

4.1. PROJECT BACKROUND AND OBJECTIVES

Two-thirds of Mozambique's population depends on agriculture for its livelihood. The importance of roads in agriculture is highlighted in the World Bank's Mozambique Agriculture Strategy (2006) which notes that "rebuilding roads and bridges is now a priority

FIGURE 12: ROAD WIDENING

and a necessary condition for any growth in the agriculture sector." Investments in high-potential sectors are limited because of lack of infrastructure including poor road conditions, as it is the case for the extraction of timber which has a high development potential due to the richness of its quality. Other cash crops grown include sugar-cane, tea, tobacco and coconut.

Fisheries, particularly shrimp and prawn, are of importance, with a high potential for production increases. Mozambique has considerable mineral resources, such as coal, tantalite, ilmenite, graphite, iron ore, bauxite, salt, and potentially developable resources such as gold, petroleum, and gas. All of these sectors depend upon reliable transportation networks and roads in particular.

The National Roads Administration (ANE) and the the Roads Fund (Fundo de Estradas), an independent agency that manages road maintenance funding, prepared a Road Sector

Strategy 2007 – 2011 (RSS) report. That strategy lays out the Government's plan to enhance, improve, and preserve the classified road network of the country.

FIGURE 13: CRUSHED STONE BASE CONSTRUCTION

The RSS indicates the economic development of the country as a variable that depends on the compatibility of plans and development policies in different sectors, with significant emphasis on the Roads Sector. A good road network maximizes profits on investment, reduces transportation costs and production which is a dynamic factor of marketing, and facilitates the movement of people and goods between different regions of the country. The aim is to **maximize the economic returns** for investments in the road network while minimizing the total cost of Road Transport Sector. The RSS therefore presents a broad structure for the development of the sector for the country as a whole. Based on this strategy, the Government of Mozambique through the MPD, and the Government of the United States of America, through the MCC, signed an agreement on financial cooperation that includes investments in the areas of water supply, sanitation and roads.

The **objectives** of the Rehabilitation and Roads Construction Project were to increase access to productive resources and markets while reducing the associated transport costs. In particular, the Project aimed to:

- → improve access to markets, resources, and services,
- → reduce transport costs to facilitate investment and commercial traffic;
- → expand connectivity across the northern region and southern half of the country;
- → increase safer public transport access for individuals to take advantage of job and other economic opportunities through the rehabilitation of the following N1 primary road segments 1) Rio Ligonha – Nampula, 2) Namialo – Rio Mecutuchi and 3) Rio Mecutuchi – Rio Lúrio, with a total length of about 253 km.

Key modifications made:

The Roads project, as signed in the Compact Agreement originally foresaw the project the reconstruction of 493 kilometres of paved roads as follows:

1) From Chimuara to Nicoadala in Zambézia Province (165.5 kilometres);
2) From Ligonha River to Nampula in Nampula Province (102 kilometres);
3) From Namialo to Lúrio River in Nampula Province (150 Kilometres);
4) From Lúrio River to Metoro in Cabo Delgado Province (74.8 kilometres).

Original Project

Road name	Province	Length (Kms)
Chimuara-Nicoadala	Zambézia	165.5
Rio Ligonha-Nampula	Nampula	103
Namialo-Rio lúrio	Nampula	150
Rio lúrio-Metoro	Cabo Delgado	74.8

However, due to the high costs of construction identified during the feasibility studies, only 253 kilometers of road are being reconstructed.

In November 2010, due to increasing cost estimates for the works, the IMC requested a revised economic analysis to be conducted on the roads project with the intention to inform a final investment decision. Thus, from the initial 491 total kilometres of roads that were planned to be rehabilitated under the Compact, only half (253 km) was effectively covered including the rebuilding or rehabilitation of bridge structures. Two roads namely Chimuara – Nicoadala and Rio Lúrio – Metoro were dropped from the Compact due to insufficiency of funding amidst construction high costs. The rehabilitated roads are:

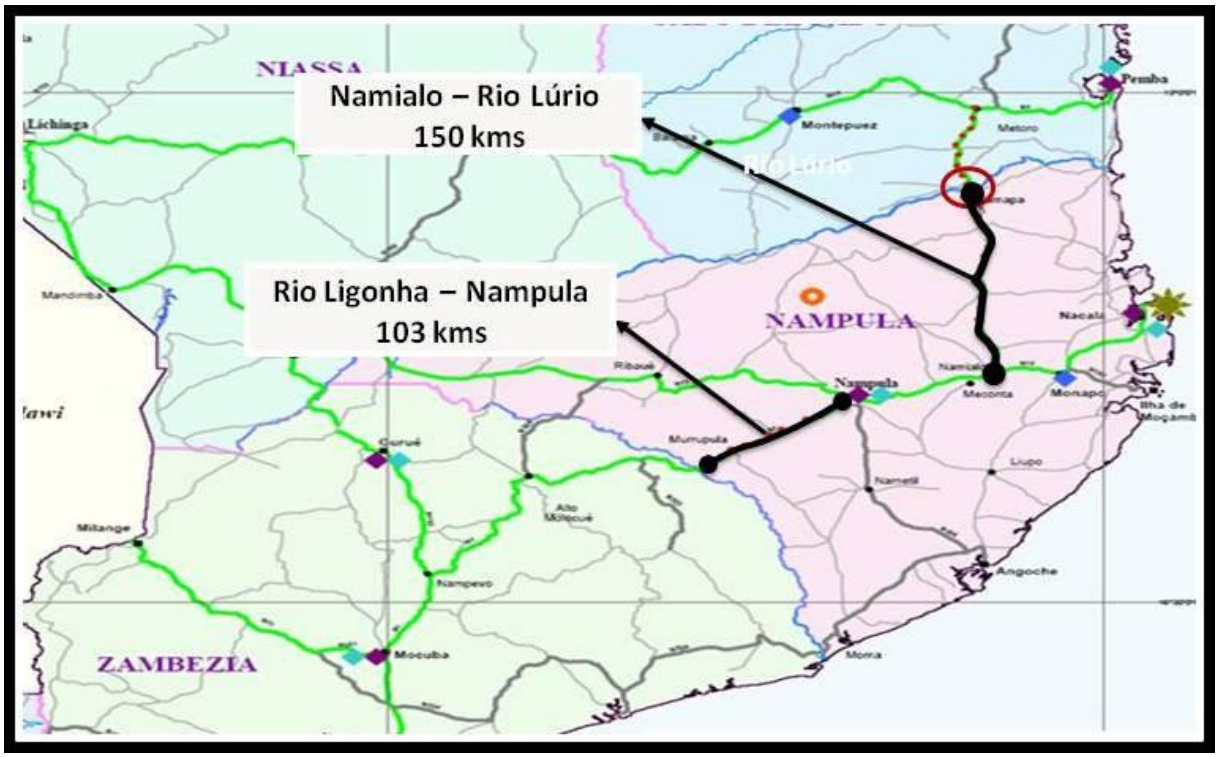
FIGURE 14: PREPARATION WORKS FOR BRIDGE WIDENING

1. **From Ligonha River to Nampula** in Nampula province (103 kilometers).
2. **From Namialo to Mecutuchi River** (75 kilometers) and
3. **From Mecutuchi River to Lurio River** (75 kilometers).

Road name	Province	Length (Kms)
Rio Ligonha-Nampula	Nampula	103
Namialo-Rio lúrio:	Nampula	Lote 1, de 75 (Namialo – Rio Mecutuchi) e Lote 2, de 75 (Rio Mecutuchi – Rio Lúrio)

4.2. PROJECT IMPLEMENTATION

The Road Project comprises **two main components**: A. Technical Assistance for Roads Project and B. Rehabilitation of the Roads.



The Roads Project interventions were implemented in three key North/South axes segments of the National Route 1 (N1) in Nampula and Cabo Delgado Provinces.

Specific rehabilitation activities of the compact funded road segments include:

- Rehabilitation of lane configuration of the Namialo-Rio Lúrio (149.7 km) road segment and the Nampula-Rio Ligonha (103 km)
- Design and construction of drainage structures including catchment basins, manholes, kerbing, channel collectors and sub-collectors, minor drainage structures including pipe culverts

- Installation of, signage posts and incorporation of safety improvements

4.2.1. TECHNICAL ASSISTANCE COMPONENT

The technical assistance component of the Roads Project ensured the **capacity building of Implementing Entities** and **Management Unit** staff with particular emphasis to the holding of trainings on contract management by the FIDIC involving infrastructure project managers, MCA senior management and Procurement staff. In addition to that, four M&E and Roads project staff attended a professional training on HDM-4 in England and MCA staff also attended three MCC Colleagues namely on Communications and Finance.

The technical assistance component provided assistance at **three different stages**:

1) Phase I (Base option): Feasibility Study and Environmental Impact Assessment (EIA);
2) Phase II (First Option): Detail Design and Project Affected Person (PAP);
3) Phase III (Second Option): Supervision of works.

The following **activities** were funded:

a) design, environmental assessment, as needed (to include, if necessary, supplemental EIAs), and construction activities for the improvement of the N1;
b) implementation of environmental and social mitigation measures as identified in the EIA, or as otherwise may be appropriate, to include compensation for physical and economic displacement of individuals, residences and businesses affected by such rehabilitation and construction, consistent with the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12), and implementation of HIV/AIDS awareness plans;
c) design and construction of drainage structures, as may be required;
d) design and construction of all necessary new bridges and rehabilitation of existing bridge structures, as may be required;
e) posting of signage and incorporating other safety improvements;
f) project management, supervision and auditing of such improvements and upgrades.

4.2.2. REHABILITATION COMPONENT

MCA-M's **intervention** in the roads sector comprises of two rehabilitation projects on National Road (N1) sections, namely:

→ River Ligonha – Nampula (103 Km);

→ Namialo – Rio Lúrio (150 Km), divided into two projects:
  - Namialo – Mecutuchi Bridge (75km) and
  - Mecutuchi Bridge – Lúrio river (75km).

The **key project activities** for the Rehabilitation and expansion of roads were as follows:

FIGURE 15: PLACEMENT OF SECOND SEAL

- Widening the road from the current 6.0 meters to 10.8 meters, of which, 6.8 meters of carriageway, 3.0 meters of coated berms and 1.0 meter of uncoated berms;
- Strengthening of pavement (sub-base and base) of the roads to support a traffic capacity up to 3.6 million of standard axles and a useful life of 15 years, in this way, satisfying the Southern Africa Transport and Communications Commission (SATCC) standards;
- Build drainage structures on the road compatible with the geometry of the rehabilitated road;
- Place road signs according to SATCC standards;
- Maximize the social benefits for local communities;
- Resettle and compensate the PAPs (Project Affected Person) affected by the Roads rehabilitation works.

FIGURE 16: PLACEMENT OF ASPHALT CONCRETE

The **objective** of the Roads Project was to improve access to markets, resources, and services; reduce transport costs for the private sector to facilitate investment and commercial traffic; expand connectivity across the northern region and down towards the southern half of the country; and increase public transport access for individuals to take advantage of employment and other economic opportunities.

As already mentions in section

4.1., the Roads Project would rehabilitate 491 kilometers of high-priority roads in three provinces. The road segments included Rio Lurio – Metoro in Cabo Delgado (74 kilometers), Namialo – Rio Lurio (148 kilometers) and Nampula – Rio Ligonha (103 kilometers) in Nampula, and Nicoadala – Chimuara (167 kilometers) in Zambézia.

This Component was implemented through the following **contracts**:

LIGONHA RIVER – NAMPULA (103 KM) ROAD	
Starting Date	August 1, 2011
End date	April 30, 2013
Contractor	Joint Venture CMC/RAZEL
Value of Project	40.135.444.50 USD

NAMIALO–MECUTUCHI BRIDGE ROAD (75 KM)	
Starting Date	August 1, 2011
End date	January 22, 2013
Contractor	CMC di Ravennae
Value of Project	44,152,300.35 USD

MECUTUCHI BRIDGE LÚRIO RIVER ROAD (75 KM)	
Starting Date	August 1, 2011
End date	January 21, 2013
Contractor	Joint Venture CMC/RAZEL
Value of Project	46,286,933.20 USD

The **tables** below provide a description of the activities achieved during the Compact implementation period and, where applicable, the remaining activities to be achieved after Compact close-out period. The situation, as measured on 22/09/2013 with respect to the RIO LIGONHA TO NAMPULA segment (103 kms):

Contract	**Road works Activities**	**% of works completed till September 22, 2013**	**% of remaining works to be completed after September 22, 2013**
LIGONHA RIVER – NAMPULA (103 KM) ROAD	Eartworks	99	1
	Sub-base	99	1
	Base	98	2
	Prime	98	2

	Double Seal	80	20
	Bridges (6)	91	9
	Culverts (17)	76	24
	Global Progress	85	15

The situation, as measured on 22/09/2013 with respect to Namialo to Mecutuchi Bridge Road extension (75 kms):

Contract	Road works Activities	% of works completed till September 22, 2013	% of remaining works to be completed after September 22, 2013
NAMIALO– MECUTUCHI BRIDGE ROAD (75 KM) Lot 1	Eartworks	100	0
	Sub-base	99	1
	Base	89	11
	Prime	86	14
	Double Seal	77	23
	Bridges (6)	90	10
	Culverts (17)	90	10
	Global Progress	90	10

The situation, as measured on 22/09/2013 with respect to Mecutuchi Bridge to Rio Lúrio Road extension (75kms)

Contract	Road works Activities	% of works completed till September 22, 2013	% of remaining works to be completed after September 22, 2013
MECUTUCHI	Eartworks	100	0
	Sub-base	80	20
	Base	66	34

BRIDGE LÚRIO RIVER ROAD (75 KM) Lot 2	Prime	59	41
	Double Seal	55	45
	Bridges (6)	100	0
	Culverts (17)	100	0
	Global Progress	85	15

With this project, MCA-M **improved the access to productive resources** for national and international markets through the rehabilitation of 253 km of the National Road (N1) consisting of Namialo-Rio Lurio Road and Rio Ligonha-Nampula segments in the Nampula province.

FIGURE 17: ROAD EARTHWORK

The project resulted in reductions in the prices of goods and improvement in farm-gate prices and in the enhancement of public transportation. Bus operations are expected to become more efficient and the population is now secured access to health, education, and employment; this last one being a fundamental element as over half of the population is of working age thus be able to take advantage of improved employment opportunities.

The Roads Project interventions were implemented in **three key North/South axes segments** of the National Route 1 (N1) in Nampula and Cabo Delgado Provinces.

Specific rehabilitation activities of the compact funded road segments included:

- ✓ Rehabilitation of lane configuration of the Namialo-Rio Lúrio (149.7 km) road segment and the Nampula-Rio Ligonha (103 km);
- ✓ Design and construction of drainage structures including catchment basins, manholes, kerbing, channel collectors and sub-collectors, minor drainage structures including pipe culverts;
- ✓ Installation of, signage posts and incorporation of safety improvements.

For **SEGMENT 1**: Nampula- Rio Ligonha (103 km), the following companies were involved in the implementation : SMEC (Supervising Engineer); MC/Razel, JV (Contractor); TDM/Televisa (relocation of Fiber optic); N'weti (Implementation of HIV/AIDS project); EDM/ELECON (Restricted 2 electric poles)

For SEGMENT 2: Namialo- Ponte Mecutuchi (75km), the following entities were involved in the implementation: Scott Wilson (Supervising Engineer); CMC (Contractor of batch 1) ; MAECAS, JV (Contractor of batch 2); PROSIR/Scott Wilson (Implementation of RAP); TDM/Televisa (reallocation of Fiber optic); EDM (Electricity of Mozambique)/ELECON (reallocation of electricity services); N'weti(Implementation of HIV/AIDS project.

For **SEGMENT 3:** Ponte de Mecutuxhi – Rio Lúrio (74.7 km), the following entities were involved in the implementation: Scott Wilson (Supervising Engineer); MAECAS, JV (Contractor of batch 2); PROSIR/Scott Wilson (Implementation of RAP); TDM (Telecommunications of Mozambique)/- Televisa (reallocation of Fiber optic); EDM (Electricity of Mozambique)/ELECON (reallocation of electricity services); N'weti (Implementation of HIV/AIDS project.

4.3. PROJECT RESULTS AND BENEFICIARIES

MCA-Mozambique has improved the access for productive resources for National and International markets through the construction and rehabilitation of 253km of the National Road (N1) consisting of Namialo – Rio Lúrio Road and Rio Ligonha - Nampula segments in the Nampula province. Further, the newly rehabilitated road infrastructure ensures an expanded connectivity, reduced vehicle maintenance costs and increased safety and reliability of public transportation for individuals.

Environmental and social mitigation measures were put in place to include compensation for physical and economic displacement of individuals, residences and businesses affected by such rehabilitation and construction implementation of the RAP and implementation of HIV/AIDS awareness plans. In the long run, it is expected that the Namialo-Rio Lurio Road average annual daily traffic volume will increase from 622 to 720 vehicles per day and that the Rio-Ligonha-Nampula Road's average annual traffic will increase from 4,598 to 5,477 vehicles per day.

Outcome level indicators such as a) reduced vehicle operating costs, b) total time savings (expressed in millions of dollars) and c) increases in average annual daily traffic volume will not be reported until 12 months following the completion of the road works.

Furthermore, funds for maintenance of the road sections are in principal secured by the **Road Fund** which also includes the requirements for addressing environmental and social aspects of each of the roads projects. Issues such as soil erosion, maintenance of reinstated sites including borrow pits and quarries are covered under the routine maintenance Road Fund Budget; this is one of the Conditions Precedent (CP) for the implementation of the project. Contacts with ANE started in July 2012 so that the funds for the routine maintenance of the sections are provided in the 2013 Road Fund Budget. It is also expected that ANE will ensure continuity of activities such as gender and HIV and AIDS prevention along the projects, and use the existing Public Liaison Committees structures created to

liaise between the project and the community for channelling two-way communication about the various aspects associated to the project.

Evaluation

To assess the outcomes of the Road project, M&E surveys of all projects were undertaken during its implementation and it was also agreed upon that post-compact data collection, evaluation and dissemination activities would be conducted. A performance evaluation and an economic analysis, including HDM-4, of the Roads Rehabilitation Project, were also concluded prior to the Compact End Date.

HDM-4 Analysis intended to evaluate MCC funded road segments following the Government of Mozambique's completing the works according to approved designs and to generate Economic Rate of Return's (ERR) by reducing vehicle operating costs.

Accordingly, outcome level indicators such as a) reduced vehicle operating cost, b) total time savings (expressed in millions of dollars), c) increases in average annual daily traffic volume and a post compact close-out ERR will not be reported until 12 months following the completion of the road works, while measured improvements in the international roughness index of rehabilitated road will be available upon completion of the works coinciding with issuance of "Take over certificates". Make sure to include a note about the GoM completing the work on the Roads after the CED.

FIGURE 18: CLEANING OF ROAD PLATFORM

Protracted delays for completion of roads works had compromised the use of MCA-M&E funds to finance compact close-out measurements and analyses prior to the end date of the close-out period. GoM is now responsible for HDM-IV through the post-Compact M&E Plan.

By 2028, nearly **1.2 million beneficiaries** in districts adjoining the roads will have improved access in Nampula province.

Out of total beneficiaries of the Roads Rehabilitation Project, 368,477 beneficiaries are expected to benefit from the 149.7 km Namialo –Rio Lurio Road segment, and 869,257 beneficiaries are expected to benefit from the 103 km Nampula –Rio Ligonha Road segment. Benefits will accrue to vehicle users on the rehabilitated and resurfaced roads as vehicle operating costs go down, and time spent in travel is reduced with vehicles travelling safely at higher speeds.

In addition, road improvements will induce additional growth in traffic as better roads make transportation more affordable for agriculture, industry and commerce. These benefits should result in reductions in the prices of goods and improvement in farm-gate prices if savings in fuel and other vehicle operating costs are passed on to producers and consumers. It is also expected that bus operations will become more efficient, improving access to public transportation. This should facilitate the population's easier access to health and educational services, and more efficient and cost effective access to previously less accessible employment opportunities. Over half of the population is of working age and will be able to take advantage of improved employment opportunities.

4.4. RISKS, CHALLENGES AND MITIGATION MEASURES

The risks encountered and the mitigations measures adopted during the implementation of the Roads Project are listed below:

1) Weak performance of the Consultant

- Ensure that the consultant maintains the approved key staff;
- Ensure that the consultant replaces key staff with other with same or higher qualifications and experience.

2) Low quality of deliverables

- Encourage the consultant to maintain the approved key staff;
- Weekly meeting with the consultants;
- Encourage the consultants to empower team leaders for better team coordination.

3) Delay in approval of documents submitted by MCA for MCC approval

- Intensive and continuous preliminary work between MCA and MCC prior to submission of deliverables requiring MCC approval;
- Encourage MCC to prevent staff turnover at MCC infrastructure team and MCC Independent Engineer in order to sustain quick turnaround of reviews thanks to continuity.

4) Delay of importation of equipment for road surveys and construction

- Explain the consultants and contractors the general process of importation applicable in Mozambique and in particular for the project of this compact.

5) Difficulty to get work permits for expatriates

- Explain to the consultants and the contractors the general process of getting work permits in Mozambique;
- Contact immigration and labor;
- Authorities should also get a better understanding of the related legislation.

6) Weak performance of the Contractor

- Ensure that the Contractor maintains the approved key staff;
- Ensure that the Contractor replaces approved key staff by other with same or higher qualifications and experience;
- Ensure that the Contractor complies with approved work plan;
- Ensure that key activities are performed according to the Staff mobilization schedule;
- Ensure that equipment used by the contractor is the same already approved.

4.5. ESA ISSUES

The Roads Project was classified as "Category A", according to the MCC Environmental Guidelines, given the potential direct or indirect cumulative environmental impacts of the Roads Project activities, which were feared to result in: (a) increased deforestation and related flooding; (b) resettlement; and (c) increased human trafficking and disease transmission, including **HIV/AIDS.**

In relation to HIV/AIDS, MCA-M engaged a Service Provider (Nweti) to work directly with all Contractors and Engineers to raise awareness on **prevention**. The main focus was to minimize the risk of spread of HIV and AIDS due to continuous interactions between Contractors' workers and the communities during the Construction period. Infrastructures such as water, sanitation and drainage facilities were not considered as significantly contributing to the spread of HIV and AIDS. Conversely rehabilitated roads were likely to result in an increase on the number of road users, hence increasing the potential for spread of HIV and AIDS during the operation phase.

That is the reason why, MCA-M regularly highlighted the need for ANE to continue implementing HIV and AIDS awareness for road users through partnerships with provincial Directorates of Heath and other organization working on HIV and AIDS prevention in Mozambique.

For this reason, all the project activities required environmental assessments, and Road-specific RAPs were developed and implemented in compliance with the World Bank Policy on Involuntary Resettlement (OP 4.12) prior to the start of construction activities. MCA-M also ensured that environmental and social assessment responsibilities were included in the bidding documents for the design or supervisory firms, construction firms, independent technical auditing firms and any project management advisors, as needed.

Given the strong evidence linking transport routes to the spread of HIV/AIDS and human trafficking problems, two action plans incorporating sustainable and well-targeted HIV/AIDS and anti-trafficking in persons awareness programs were developed into all phases of road works implementation. Likewise, to ensure compliance with MCC's Gender Policy, a **gender integration plan** encompassing inclusive consultations with women and other vulnerable/underrepresented groups was developed in order to generate Project-specific gender analysis.

The RAP is complete and all red zones have been availed to the contractor. The works for relocation of the TDM optic fiber were completed on the 75kms with the exception of the bridge of the Monapo River which will need a new relocation.

On the Rio Ligonha – Nampula Road, the Supervising Engineer has been monitoring the re-establishment of 239 PAPs whose infra-structures were affected. These PAPs as well as those whose trees and crops have been affected, had vacated the impact corridor and the zones were made free to the Contractor.

The 83 PAPs that were compensated via the construction of a new market have been relocated to temporary plots outside the corridor of impact while they await the market construction to begin.

On the Namialo – Rio Lúrio Road, the following Environmental, Health and Safety Management Plan-related activities were carried out:

- A Project Liaison Committee meeting was held involving district representatives from Monapo, Meconta and Nacarrôa, and addressed community concerns over the construction of the market and sought a common ground over the issues raised.

- Health and Safety inspections were carried out during the period in reference, showing satisfaction with the continued commitment by the contractors to ensure a safe working environment. Progresses include safe traffic accommodation, proper workplace signage, provision of safety training to all project personnel, and visitors. Recommendations were made for example to avail first aid kits to the Bitumen and Nacarroa campsites. The HSO monitoring also noted a consistent use of workplace signs and temporary latrines in different work fronts such as borrow pits and civil works.

Personal Protection Equipment distribution as recorded in April is shown on the table below:

TYPE OF PPE	**DATE DISTRIBUTED**			**Nr. OF EMPLOYEES**			**TOTAL**
Work suits	1 - 10	11 – 20	21 - 30	52	20	2	74
Safety shoes	1 – 10	11 – 20	21 - 30	6	2	0	8
Safety vests	1 – 10	11 – 20	21 - 30	19	20	2	41

Helmet	1 – 10	11 – 20	21 - 30	13	2	0	17
Safety glasses	1 – 10	11 – 20	21 - 30	7	1	4	8
Nitrile gloves	1 – 10	11 – 20	21 - 30	14	17	80	35
Leather gloves	1 - 10	11 – 20	21 - 30	75	136	40	291
Gumboots	1 - 10	11 – 20	21 - 30	9	16	2	65
Ear protects	1 – 10	11 – 20	21 - 30	8	12	0	22
Masks	1 – 10	11 – 20	21 - 30	1,092	749	840	2,681
Safety belts	1 – 10	11 – 20	21 - 30	0	0	0	0
Danger TYPE	1 – 10	11 – 20	21 - 30	0	0	18	18
Rain coats	1 – 10	11 – 20	21 - 30	0	2	0	2

- **Health and Safety trainings** were carried out focusing on topics such as Hazards and Risk and their mitigation, general and collective protection, road safety, handling of manual and electrical tools, personal hygiene procedures against diarrhea, prevention and control of infectious diseases including HIV, safety measures for drivers, and others.

- The Supervising Engineer reported **three road accidents** on the Namialo – Mecutuchi road, one occurred at the quarry involving an excavator that collided with a parked contractor vehicle at the work site causing no victims. Another accident on 27 April involved a private truck coming from Nacala en route to Pemba which overturned causing no human victims. It is thought that the possible causes of the accident were overloading, over-speeding or the inclination of the road. One last accident occurred on the same road on 2 May involving a public and had nothing to do with the road rehabilitation. It should be noted that all these accidents caused no human victims.

5. LAND TENURE SERVICES PROJECT

5.1. PROJECT BACKGROUND AND OBJECTIVES

In 1997, Mozambique adopted a new legal framework on land tenure aiming to address equitable access to land tenure security for local communities and private sector including recognition of customary rights. Land constitutes an important asset for income generation and wealth creation and more generally, for economic development. The lack of simple, fair and clear procedures for acquiring and transferring rights to land has been a constraining factor for private sector investment in Mozambique on the one hand, and for improving and securing local community and small farmer land-use rights on the other.

As Mozambique moved on from post-war reconstruction toward a market-based economy, there has been an increase in demand for land access and for issuance of registered titles to land rights thereby placing increased pressure on the land administration services, which were already limited in their ability to effectively implement the existing legislation.

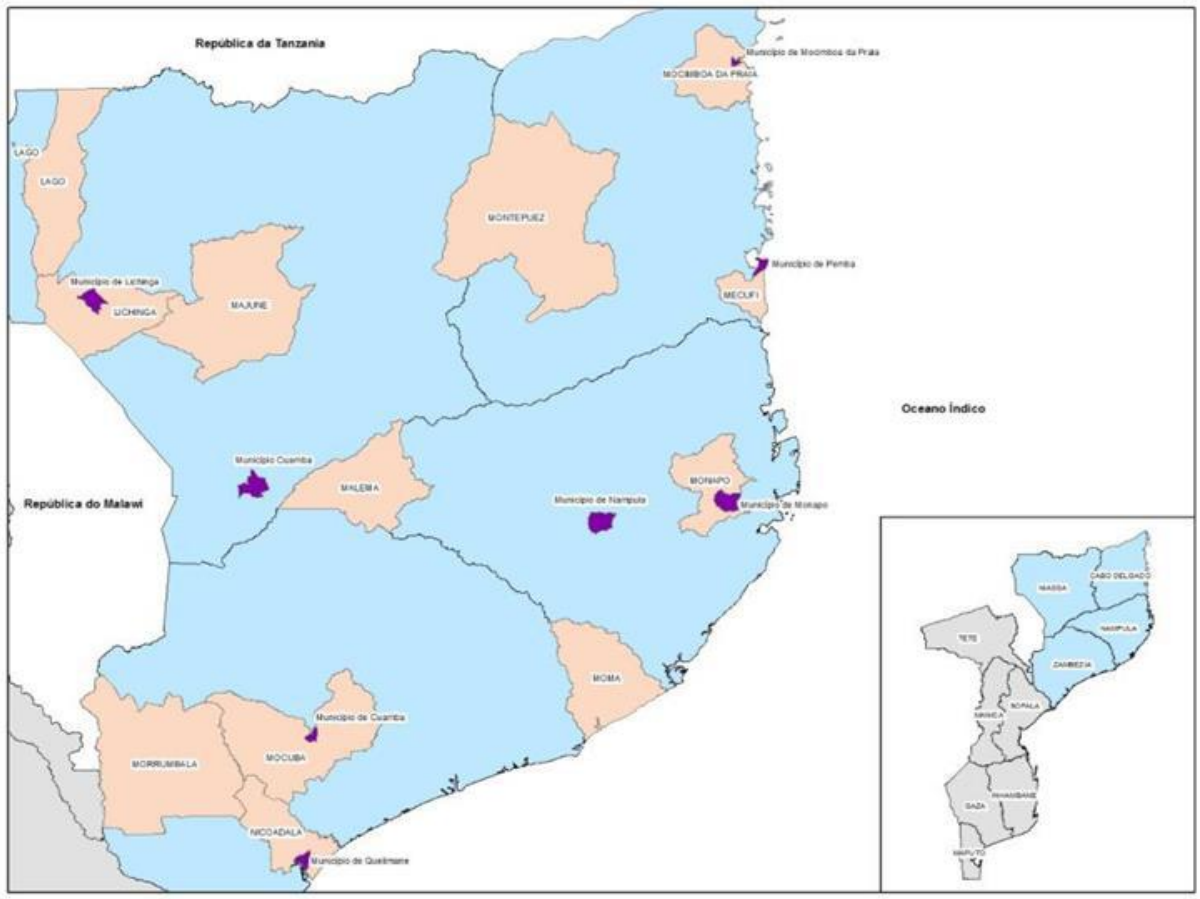
FIGURE 19: MCC RESIDENT COUNTRY DIRECTOR, MCA EXECUTIVE DIRECTOR AND PROJECT STAFF PICTURED WITH THE BENEFICIARIES SOON AFTER RECEIVING THEIR TITLES IN JULY 26, 2011 IN MONAPO MUNICIPALITY.

The rationale behind this new legal framework was to help provide a clear and fair set of rules for acquiring and transferring rights to land and improve the capacity of the institutions to do so. However, the implementation of this framework – which requires an efficient land administration system to increase land tenure security and improve access to land - had been slow since its adoption.

The **Land Tenure Services Project** (the "Land Project") with an overall budget of 40. 061.959,00 USD intended to establish efficient and secure land access for households, communities and investors. It aimed to facilitate access to land by citizens and investors through establishing a more efficient and secure access to land, particularly in the Northern Provinces and municipalities targeted by the Project. The original number of municipalities was 8 (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga and

Cuamba), but given the popularity of the Land Titling activity, Metangula and Montepuez municipalities were added, increasing the number of municipalities to ten (10).

The **map** below illustrates the main areas of intervention of the Land Project. They consist of 12 districts in the Northern Provinces together with the provincial institutions that support them, and 10 municipalities in these provinces.



It supported the unified advance by the Government and stakeholders on both policy development and its implementation and thus enabled the translation of local and international best practices into an **improved policy and regulatory framework** as well as helping specific beneficiaries meet their immediate needs for registered land rights and better access to land for investment. It has worked on improving policy, upgrading the public land administration agencies (the title registry and cadastre), and facilitating site-specific land access.

The MCA Land Tenure Project supported **central level institutions** as part of the national land administration system, i.e. National Land and Forest Directorate (DNTF), National Remote Sensing and Mapping Centre (CENACARTA), INFATEC and CFJJ. As a result, the national land administration system was improved with the establishment of a Land MIS, the creation of the Consultative Land Forum which is a crucial platform for policy reforms on land in the country.

The Project also contributed for the development and implementation of a large **Land Tenure Regularization (LTR)** program benefiting both municipalities and districts supported by the project. The LTR was expected to deliver about 140,000 urban and 6237 rural DUATs.

The Land Project aimed at ensuring the delivery of good quality services to land users through an efficient public land services and contributing to records being kept up-to-date. The increased ability to collect land rents from leases of public land and expanded collection of rationalized service fees was aimed to provide a major improvement in capacity to fund public land services at the national, provincial, and municipal levels. Lastly, the program aimed at improving access to and security of land tenure thereby facilitating sustainable economic development.

FIGURE 20: LOCAL AUTHORITIES HANDING OUT DUATS IN ONE OF THE TARGET MUNICIPALITIES

The Project comprised **three mutually reinforcing components:**

1) Support to the National Policy Monitoring Process
2) Institutional strengthening of the National Land Administration System
3) Site-specific Secure Land Access

Component 1 "Support to the National Policy Monitoring Process" aimed to support for an improved policy environment, including addressing implementation problems for the existing land law and engaging in regulatory review to improve upon it. It was implemented through the following activities:

a) Support to the National Policy Process of Review and Monitoring of Policy
b) Support to Civil society organizations;
c) Education, communication and public information.

Component 2 "Institutional strengthening of the National Land Administration System" otherwise referred to as "Land administration Capacity Building" aimed at building the institutional capacity to implement policies and provide quality public land-related services. It was implemented through the following activities:

a) Institutional Strengthening of the National Land Administration System at Central level;
b) Institutional Strengthening of the Provincial Cadastral system in the target Provinces;
c) Support to Cadastral Development in the Northern target Municipalities.

Component 3 "Site Specific Facilitation of Land Access in Selected Areas" aimed at facilitating access to land use by helping people and business with i) clear information on land rights and access; ii) resolution of conflict with more predictable and speedy resolution of land and commercial disputes – which in turn creates better conditions for investment and business development; and iii) Registering their grants of land use (land titles to long-term or perpetual-use rights). It was implemented through the following sub-activities:

a) Support to Strategic Delimitation of Community Land;
b) Support to Land use Inventory and Mapping;
c) Streamlining of land access in selected areas.

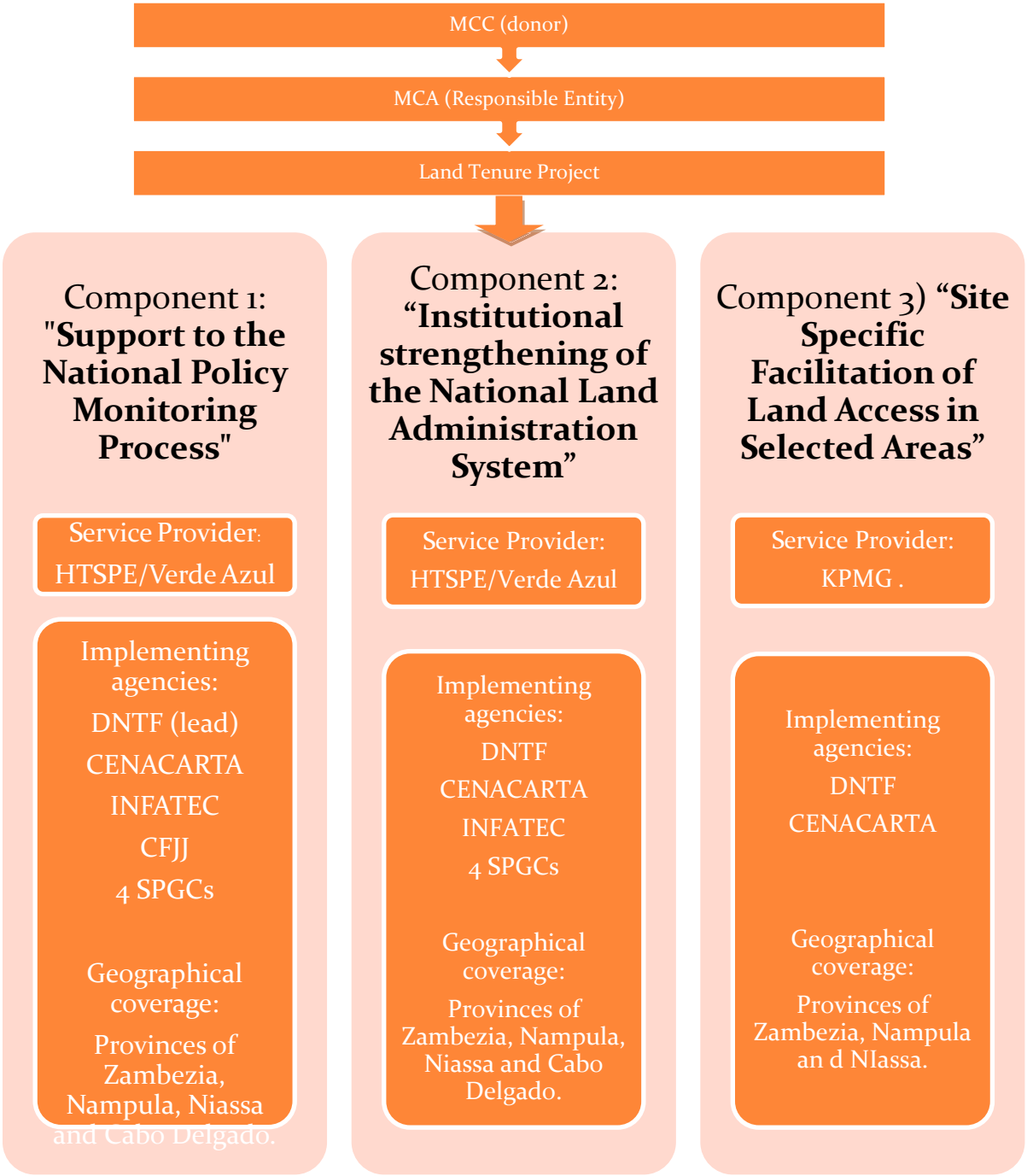
Together, these three components have addressed the shared concerns of the Project beneficiaries, the private sector, the Government, and civil society, bringing solutions to their different interests and perspectives.

Project structure:

The land tenure project was implemented through two Service Providers (SPs):

- HTSPE/Verde Azul joint consortium implementing the General Technical Assistance to the MCA-M component in collaboration with 28 implementing entities: DNTF, CENACATA, INFATEC, CFJJ at central level, four SPGCs, 10 municipalities (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga and Cuamba, Metangula and Montepuez) and 12 districts (Morrumbala, Nicoadala, Mocuba, Malema, Monapo, Moma, Montepuez, Mecufi, Mocímboa da Praia, Lichinga, Majune and Lago) in the 4 target provinces.

- KPMG managing a grants scheme under the Community Land Initiative (Iniciativa de Terra Comunitária ITC), a program aimed to assist the community to secure their rights to the land they occupy and use, and is implementing community projects in 14 districts in the Zambézia, Nampula and Niassa, provinces. The 4th province, Cabo Delgado, has been served by other donor funding for the ITC.


MCC (donor)
MCA (Responsible Entity)
Land Tenure Project
Component 1: "Support to the National Policy Monitoring Process"
Service Provider: HTSPE/Verde Azul
Implementing agencies: DNTF (lead) CENACARTA INFATEC CFJJ 4 SPGCs
Geographical coverage: Provinces of Zambezia, Nampula, Niassa and Cabo Delgado.
Component 2: "Institutional strengthening of the National Land Administration System"
Service Provider: HTSPE/Verde Azul
Implementing agencies: DNTF CENACARTA INFATEC 4 SPGCs
Geographical coverage: Provinces of Zambezia, Nampula, Niassa and Cabo Delgado.
Component 3) "Site Specific Facilitation of Land Access in Selected Areas"
Service Provider: KPMG .
Implementing agencies: DNTF CENACARTA
Geographical coverage: Provinces of Zambezia, Nampula an d NIassa.

5.2. PROJECT IMPLEMENTATION

FIGURE 21: MS. CATARINA CHIDIAMASSAMBA, HTSPE OUTREACH OFFICER PICTURED WITH THE RECIPIENT OF THE DUAT 50.000 IN ALTO GINGONE NEIGHBOURHOOD, MUNICIPALITY OF PEMBA.

The Land Project covered the following areas referring **to three mutually reinforcing components** or areas of intervention:

1) **Policy Activity.**
   - **Support to the National Policy Monitoring Process** with an aim toward achieving an improved regulatory and legal environment.

2) **Capacity Building Activity.**
   - **Institutional strengthening of the National Land Administration System**: training on the national and local level, including for cadastral personnel in 10 target municipalities, 4 provincial offices and 12 district offices.

3) **Site Specific Activity.**
   - **Site-specific Secure Land Access**. Facilitating access to land, registration of land use rights, and land use/cover inventory mapping in target municipalities and districts.

Specifically the three components focused on:

Component 1) "Support to the National Policy Monitoring Process" aimed at enhancing policy environment, including addressing implementation problems for the existing land law

and engaging in regulatory review to improve upon it. It was implemented through the following activities:

- Support to the National Policy Process of Review and Monitoring of Policy;
- Support to Civil society organizations;
- Education, communication and public information.

Component 2) "Institutional strengthening of the National Land Administration System" otherwise referred to as "Land administration Capacity Building" aimed at building the institutional capacity to implement policies and provide quality public land-related services. It was implemented through the following activities:

- Institutional Strengthening of the National Land Administration System at Central level;
- Institutional Strengthening of the Provincial Cadastral system in the target Provinces;
- Support to Cadastral Development in the Northern target Municipalities.

Component 3) "Site Specific Facilitation of Land Access in Selected Areas" aimed at facilitating access to land use by helping people and business with i) clear information on land rights and access; ii) resolution of conflict with more predictable and speedy resolution of land and commercial disputes – which in turn creates better conditions for investment and business development; and iii) Registering their grants of land use (land titles to long-term or perpetual-use rights). It was implemented through the following sub-activities:

- Support to Strategic Delimitation of Community Land;
- Support to Land use Inventory and Mapping;
- Streamlining of land access in selected areas.

Together, these three components addressed the shared concerns of the Project beneficiaries, the private sector, the Government, and civil society, bringing solutions to their different interests and perspectives. For their **implementation**, HTSPE sub-contracted the consortium EXI/ESRI to put into operation the LIMS, which complemented the activities of 28 implementing entities at central level, four Provincial Cadastral Services (SPGCs), 10 municipalities (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga, Cuamba, Metangula and Montepuez) and 12 districts (Morrumbala, Nicoadala, Mocuba, Malema).

Two service providers were contracted for the implementation of the Land Project:

i. HTSPE/Verde Azul joint consortium implementing the General Technical Assistance to the MCA-M component in collaboration with 28 implementing entities: DNTF, CENACATA, INFATEC, CFJJ at central level, four SPGCs, 10 municipalities (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga, Cuamba,

Metangula and Montepuez) and 12 districts (Morrumbala, Nicoadala, Mocuba, Malema, Monapo, Moma, Montepuez, Mecufi, Mocímboa da Praia, Lichinga, Majune and Lago) in the 4 target provinces. The service provider covered the institutional aspects, legal reviews and land regularisation, and;

ii. KPMG which dealt with community land titling and the certificates for the delimitation of communal land, managing a grants scheme under the Community Land Initiative, a program aimed to assist the community to secure their rights to the land they occupy and use, and is implementing community projects in 14 districts in the Zambézia, Nampula and Niassa, provinces. The 4th province, Cabo Delgado, has been served by other donor funding for the ITC. KPMG is responsible for preparing the technical directives to guide the community land delimitations and demarcations for which it contracts a number of small service scale providers (NGOs and firms) to implement the activities on the ground.

The implementation phase of the project was preceded by a needs assessment phase, designed to review the current arrangements, identify shortfalls and propose remedial action to be taken, as agreed upon with DNTF and MCA. The work carried out and the recommendations made were mainly contained in two sets of reports, those describing the shortfalls identified (**needs assessment**) and those proposing how they will be remedied during the balance of the project timescale (**design and work plan documents**). This needs assessment was considered useful by all Land stakeholders.

FIGURE 22: PROJECT TECHNICIANS SETTING THE SURVEYING EQUIPMENT (GNSS) DURING THE TRAINING SESSION HELD IN NAMPULA RAPALE DISTRICT, UNDER THE GUIDANCE OF TRIMBLE.

The assessment mainly reviewed existing land legislation and policies to identify the dispositions in the laws and existing regulations that could prevent, slow down, or otherwise interfere with access to land. In particular, **the assessments examined**:

1) Policy, the law and regulations.

Specific aspects of the legal framework pointed out for possible reform included:

- Loosen restrictions on transferability of rural DUATs
- Loosen requirements regarding the plan of exploration (plano de exploração)
- Unifying the land cadastre with Registo Predial, or at least establishing formal links
- Reducing the expense and simplifying procedures for parcel surveys in connection with obtaining a definitive DUAT
- Harmonizing conflicts between the Land Law and the Urban Land Regulations

- Clarifying various aspects of community land delimitation and community land rights
- Explore creation of a separate land administration agency, independent of a specific ministry
- Another conclusion reached was that while the laws and regulations are generally effective and comprehensive, their enforcement and application would not be necessary.

2) Land administration in the Northern Provinces

The state of the records was poor. This was observed in particular with respect to the sketch maps submitted for applications for provisional DUATs; but also with respect to the paper index maps (the atlases) which sometimes lacked registration marks that could be used for relocating them with the underlying paper maps. The improvements to field procedures accepted by DNTF and SPGCs during the course of the project were incremental rather than revolutionary. They included the use of imagery for field investigation and hand-held GPS for more accurate location of the vertices of sketch maps. Improvements to the SPGC records were undertaken initially as part of a small parallel project funded by the World Bank. An Access database was created and populated with data from the processo files early in the implementation phase. At the same time, the sketch maps of pending or valid DUATs (i.e. emtramitacao and deferida) were scanned with a view to correcting them geometrically for inclusion in the eventual digital cadastre. Similar work was carried out in the municipalities.

FIGURE 23: MR. AIUBA GUERENEIA, MINISTER OF PLANNING AND DEVELOPMENT AND PRESIDENT OF THE MCA BOARD HANDING OUT ONE OF THE FIRST 10 DUATS OF THE PROJECT IN MONAPO MUNICIPALITY IN JULY 26, 2011.

Two options were considered to mitigate the poor state of the municipal records: 1) organizing the existing files in order to determine more accurately the state of the cadastral records and update the existing ones; and 2) gradually discard existing records while regenerating new records for the cadastre through systematic fieldwork

3) Public education and outreach

The questions to be answered by the needs assessment research with regard to these topics were:

- How to mobilize the population to take part in the project
- What messages and slogans would have the maximum effect

- Who to target (disadvantaged groups including women were emphasized)
- How to measure the outcomes

The **conclusions** and **recommendations** of the work (based in part on field investigation) may be summarized as follows:

- Create feedback mechanisms to support and refine the delivery strategies (such as success stories).
- Make sure people are aware of their rights and the advantages of having them formally documented.
- Explain the procedures involved in the upcoming LTR campaigns
- Train project staff in outreach techniques and gender issues

4) Gender

The findings during the needs assessment indicated considerable disadvantages for women, stemming from, among other factors, a lack of knowledge of the law and juridical framework, suspicion and lack of confidence when contacting public institutions, economic and financial constraints and lower literacy rates, among rural women.
Attention was focused on co-titling as a means for women to register their interest in land without disadvantage to their men folk.

The **recommendations** resulting from the work included:

- gender should be explicit in all project activities and outputs
- co-titling is to be encouraged and recorded
- all counterparts should be educated in gender specificity
- documents should be redesigned to allow space for co-titles
- public education/awareness raising should include that for traditional leaders, and other decision makers and in community courts,
- encouragement of women's groups
- dissemination campaigns to be planned from a woman's perspective
- participation of women in the LCF
- women's participation must be measureable and measured
- gender to figure in the training provided by INFATEC

5) Land use inventory and mapping (LUIM)

Achieving clarity with respect to his component proved to be one of the most difficult assignments of the inception period. Consensus was reached that the maps would be designed to provide a critical tool in the various planning processes that the legal framework mandates (although the plans themselves, which involved length, often multi-year processes, of which the land use/cover maps is but one input, would be developed in subsequent years, post-Compact).

During a series of meetings with both the National Directorate of Land Planning and Territorial Rule (DINAPOT) and the Ministry for Coordination of Environmental Actions (MICOA), it was determined that the development of the final planning instruments for all target municipalities and districts was not feasible in the project's timeframe, but that the production of land use and cover maps, being a critical tool in developing those plans, would be considered as the project's goal. The work proposed involved the interpretation of the Spot 5 satellite imagery in the districts and GeoEye imagery in the municipalities backed up by field investigations in both cases. In both cases, the objective was to identify cases of underutilized land, with a view to disseminate (in the case of districts) decisions about applications for land for development and (in the case of the municipalities) decisions about where expansion areas might best be located.

6) Land information management system (LIMS)

A previous attempt to create a national database of land administration information had failed, partly due to the fact that the data entered was poorly controlled and thus suffered from a lack of accuracy and completeness, and partly because it relied on a real time Internet connection between the DNTF in Maputo and the SPGC offices in the provinces (the old LIMS did not attempt to include municipal cadastral data). The needs assessment was to investigate whether the system could be repaired or modified and if not, what system should replace it. The report's conclusion was based on the design and build of a new system with a different architecture as well as a different data structure. So, a first draft Terms of Reference for the construction of a new system accompanied the report.

5.2.1. COMPONENT I: "SUPPORT TO THE NATIONAL POLICY MONITORING PROCESS"

This Component sought to review the policy and legislation on land issues by identifying the factors that hinder access to land by citizens as well as by investors. Although the Land Law adopted in Mozambique in 1997 helped pave the way towards significant improvements to the legal, institutional and technical framework for providing more secure land use rights and access to land for all groups in society, land policy remained a critical issue to be addressed under the Project. The Government of Mozambique therefore committed to engage in a process of regulatory and administrative reform to significantly improve the efficiency, transparency and security of the processes for transferring and acquiring land rights, in both rural and urban areas.

The **Policy Component** of the Land Project addressed the following issues:

1) The need for Mozambique to benefit from a participatory engagement in monitoring progress and develop a new, coherent vision that links together all levels of responsibility and capacity for the provision of land services;
2) Necessary regulatory and administrative change;

3) A reinforced approach to non-judicial dispute resolution (conciliation, mediation and arbitration) as well as legal professional training and public education about land administration and land rights. This in view of the fact that Land tenure disputes are frequent and yet there are few sources of legal support for rural people. Even private enterprises find it difficult to access high quality legal services related to land issues.

On a practical level, support to these issues has been provided through the following **5 sub-activities**:

(i) the further development of a **national land administration vision** and a coherent implementation strategy based on a needs assessment that has examined regulations, administrative processes, information systems, institutional structure and human resources;
(ii) the provision of **technical and logistical support** to assess and monitor progress on land legislation, in coordination with the Land Policy Consultative Forum (LPCF) created with support from the Land Project;
(iii) the development and implementation of a **broad campaign** of public education, outreach and awareness raising of non-judicial dispute resolution methods with partners, including but not limited to the Center for Arbitrage, Reconciliation and Mediation (CACM), as effective cost and time-saving mechanisms to resolve disputes;
(iv) investment in expanding the on-going program for legal and judicial training, training for mediators and arbitrators, studies and advocacy of the Legal and **Judicial Training Center (CFJJ)**, as well as developing new curriculum on mediation and arbitration training for CFJJ's paralegal students working in the Northern provinces on commercial and land issues; and
(v) the provision of advisory services, including international **best practice knowledge transfer**, to the National Directorate of Lands and Forests.

Modifications made

There have been no major modifications to this Component of the Land Project; activities were carried out as planned. On the financial level, Project expenditures were slightly over the initial budget after that the activity related to the land information management system was extended – in agreement with MCC - to 6 additional provinces to maximize efficiency and impact.

The Land Consultative Forum, which the project helped establish in 2011, convened 4 times, on a bi-annual basis and provided a platform for Land stakeholders to meet and discuss land issues, innovations in land legislation, policies etc. The 5th session of the LCF was held in May 2013 and assembled over 150 participants representing various institutions dealing with land

administration including government officials.

The main objective of this Component is that through the LCF and the needs assessment, the Government intended to improve its own knowledge and understanding of specific issues related to land administration.

5.2.2. COMPONENT II: "LAND ADMINISTRATION CAPACITY BUILDING"

In Mozambique, the institutional capacity to implement and enforce land law and its regulations and to provide high quality efficient services to clients was limited in part due to procedural complexity, insufficiently trained personnel and inadequate information, communications and profession-specific technology access at the national, regional and local offices. The Land Administration system was very weak partly because the resources were limited and partly because they were not properly utilised. Addressing these limitations was necessary to establish an effective land registry system to yield more transparent, reliable and faster processes for accessing land and meet the growing demand for formal land rights registration.

FIGURE 24: DESCRIBE ACTIVITY ON PHOTO: GRADUATES FROM INFATEC (NATIONAL LAND ADMINISTRATION AND CARTOGRAPHY TRAINING INSTITUTE) IN MAPUTO AFTER RECEIVING THEIR CERTIFICATES.

Addressing these issues under the "Land administration capacity building" Component enhanced the investment climate while ensuring security of tenure for land-holding households and local communities. At the same time, while allowing for more affordable service fees, these improvements would generate the revenue base to sustain high quality services over time. At the municipal level, effective land administration capacity would reinforce decentralization by bolstering the information base for investment and fiscal planning.

Specifically, Component II of the Land Project supported the following **interventions** at central, provincial, district and municipal level:

(i) implementation of a comprehensive approach to **professional development** and **training** (including in local requirements and international best practices in cadastral and registration information systems, surveying and titling procedures, land law, and other topics) at the national, provincial and local levels, thereby increasing knowledge and awareness of land tenure issues, land records management and surveying techniques, and providing a better understanding of development trends in land policy and in the demand for their services;

(ii) the further development of the **LIMS**, which was first funded by the Italian government but still requires strategic planning, final design and completion of implementation at the provincial level Clarify- was the Italian government involved in this latest LIMS? Or were they involved in the "old LIMS" that failed? I ask just to clarify, because in fact MCA was the significant overall donor for the conceptualization, development, and installation of the "new LIMS" at DNTF, all 10 provinces, and municipalities;

(iii) investment and **technical assistance** to the upgrading of facilities for four provincial and selected district land service offices;

(iv) investment and technical assistance for cadastral development in selected municipalities, including pilot implementation of **cadastral registration** in selected neighborhoods within each municipality.

Training activities under Component 1 made use of different techniques including:

- **On-site learning by doing** – informal learning by practice implemented by the on-site advisor and specialists working on problem-solving through internship and coaching in the provinces, districts and municipalities;
- **Off-site formal training** – implemented by the service provider or outside agency;
- **Training leading to certification** – through outside institutions, long, short or medium term.

The capacity building Component of the Land Project helped increase the capacity of DNTF, CENACARTA, INFATEC, the 4 SPGCs, 10 municipalities and 12 districts which aim to assist the Land Administration Institutions at Central, Provincial, District and Municipal levels to deliver high quality services to their clients.

In particular, **support to INFATEC** was subdivided in four distinct but interrelated components:

1) Drafting, review and accreditation of an education curriculum adapted to both market forces and to the existing criteria of the National Reform of Technical Education Programme (PIREP).
2) Training of teaching and administrative staff to be able to implement the requirements of the new curriculum.

3) Supply of materials (books, furniture, IT, GIS, and GPS equipment) to support the training process.
4) Infrastructure rehabilitation and construction of a new dormitory for female students

On the whole, under this Component, resources were allocated on the one hand to the improvement of the physical work space in the institutions so that citizens could come and have the necessary environment in which to put forward their queries. On the other hand, resources were allocated to providing proper equipment such as IT equipment, furniture etc. to improve the working conditions of the land administrators.

Today, the working conditions in the Land Administrations are substantially improved so that citizens can address land administrators and receive support in adequate conditions.

Although most activities were implemented as planned, and physical targets have been met, there is a feeling that the achievement of more intangible results linked to capacity building was limited because of the need for more far-reaching reforms and transformations of the institutions, which prevented the full adoption of the new work philosophy brought about by the Project. Deep rooted change needs time to be put into practice as it requires a change of culture, a change of work philosophy and a change of procedures. Change can be met with resistance and this was the case under this Component, in particular as regards the proposed institutional change in the beneficiary institutions.

5.2.3. COMPONENT III: "SITE-SPECIFIC SECURE LAND ACCESS"

The Government's action plans for poverty reduction, the Action Plan for the Reduction of Absolute Poverty (PARPA), PARPA I (2001-2005) and PARPA II (2005-2009) are based on the premise that broad-based economic growth is critical to poverty reduction. In the PARPA, the government committed to undertaking a mapping and inventory initiative to identify and record the actual legal and economic situation of land holdings including the type of land rights (by state authorization, good faith and community) and existing land uses.

The **objectives** of this component were to:

- ✓ Safeguard the livelihoods of communities and social groups in the three target provinces by assisting them to securing land tenure and natural resource rights, thereby protecting against encroachment and displacement of the rights of local communities and social groups;
- ✓ Operate pro-actively in communities where the potential for conflict between the community and natural resource users/investors is highest;
- ✓ Support and assist local communities and social groups secure their rights to potentially valuable natural resources that can be used to sustain or create economic opportunity.

FIGURE 25: A FAMILY SHOWING UP ITS DUAT AFTER RECEIVING FROM THE PROJECT STAFF.

Accordingly, the site-specific facilitation of land access sought to support:

- ✓ The implementation of the mapping and inventory exercise and, as part of that process, the piloting of a sound approach to area-wide registration of land rights in selected areas characterized as more dynamic and/or conflictive;
- ✓ The provision of additional funding to the existing program of support for the Community Land Initiative to allow its operation in Zambézia, Nampula and Niassa Provinces (the land fund is already operating in Gaza, Manica and Cabo Delgado with support from other donors); and
- ✓ The provision of simple informational tools to streamline investor and farmer access to land in northern Mozambique, such as legal information, guidelines regarding the requirements for negotiating, land access with local communities, printed site maps showing land use and existing titles, and other tools e.g. specialized seminars.

No major modifications from the original Compact objectives were made.

In the selected more economically dynamic areas, the implementation of this activity resulted in readily available information for many purposes including for the planning and the management of access to natural resources (including land), a reduction in the risk of land disputes, and quicker and easier access to land for investors and small businesses (farm and non-farm). At the same time and often in these same dynamic areas, communities increasingly sought to enhance the security of their tenure or to engage in business relations with investors through joint ventures or the leasing out of their lands (as allowed for in the land law upon boundary delimitation and title issuance).

Several donors worked with the Government to establish the Community Land Initiative. This "**land fund**" responds to demand with grants of financial support and technical assistance, ensuring an approach fully compliant with the technical annex to the land law and thereby reducing the risk of disputes and errors. Finally, it is important to provide immediate solutions to help investors and small businesses more expediently meet their land access and registration needs. Discussions with the Confederation of Business Associations of Mozambique and others suggest that some simple information and facilitation services have allowed progress within the current institutional and regulatory climate while the other Land Project activities work to transform the land administration system.

FIGURE 26: A GROUP OF LADIES DANCING AFTER RECEIVING THEIR TITLES IN LICHINGA MUNICIPALITY.

In order to meet the Component's objectives, the **key activities** of the Community Land Initiative were as follows:

1) Establish and support the ITC offices and operations of Provincial Steering Committees (PSCs) in three provinces;
2) Administer and manage the ITC in the three selected provinces. Value of grants to be funded directly by the MCA to grantees is $3.6 million. The indicative values for the total yearly grant project commitments are $300,000 for year 1, $900,000 for year 2, and $1,200,000 in years three and four;
3) Mobilize and manage the technical support component;
4) Increase public awareness of ITC objectives and demand for the ITC products in targeted areas; and
5) Document lessons for policy influencing and/or adjustments to the ITC's operations or mechanism.

The project focused on the identification of Hot-Spots which are land areas identified by the local authorities as presenting a potential for conflict or that are conflict zones, meaning that these areas need urgent intervention of clarification in the field of citizen, community and landowners rights. This was done by conducting massive individual and communal land regularization activities:

- In the **urban areas** of the 10 municipalities, the Project conducted a series of land titling initiatives for citizens occupying areas in good faith;
- In the **rural areas** and community Land, the Project conducted massive titling exercises to help identify the land rights and provide the proper certificates. So we think that in terms of security of tenure, the project intervened to make the rights more secure for the land occupants.

The value of investment on land affected by the Project increased and the time and cost to register a land use right was reduced.

5.3. PROJECT RESULTS AND BENEFICIARIES

MCA-M successfully established the access to secure land tenure which benefits more than **1.1 million beneficiaries** and significantly improved the national land administration system with the establishment of a LIMS and the creation of the Land Forum. Support was provided to public institutions in 10 municipalities (Quelimane, Mocuba, Nampula, Monapo, Pemba, Mocímboa da Praia, Lichinga and Cuamba, Metangula and Montepuez) and 12 districts (Morrumbala, Nicoadala, Mocuba, Moma, Monapo, Malema, Mecúfi, Montepuez, Mocímoba da Praia, Chimbonila, Majune and Lago) of the Northern provinces of Zambézia, Nampula, Cabo Delgado and Niassa.

FIGURE 27: MOM AND HER SON SHOWING HER TITLE AFTER RECEIVING IT FROM THE PROJECT

MCA Land Tenure Project further supported central level institutions as part of the national land administration system, i.e. National Land and Forest Directorate (DNTF), National Remote Sensing and Mapping Centre (CENACARTA), National Land Administration and Mapping Training Institute (INFATEC), and Legal and JuridicalTraining Centre (CFJJ). As a result of MCA-Mozambique´s Land Tenure project, the national land administration system has improved with the establishment of a Land Management Information System (LIMS), the creation of the Consultative Land Forum which is a crucial platform for policy reforms on land in the country.

Smallholder and investors **access to land tenure** have been enhanced thanks to the training, by the project, of 475 (160 female and 313 male) paralegals, the investment of approximately US $2,144,000 of Community Land Fund grants on projects benefitting more than Natural Resource Management Committees, Associations of producers and interest

groups in 124 communities in Zambézia, Nampula,) and Niassa. The Land Service Project has contributed to the development and implementation of a large land tenure (LTR) regularization program benefiting both municipalities and districts supported by the project. The LTR is expected to deliver about 155 000 Urban DUATs and 25 000 Rural DUATs.

Gender equity has been enhanced in Land and Cadaster Training in the country as a result of the construction of female dormitory with an intake capacity for more than 60 students where previously none existed, the refurbishing and equipment of a library, provision of cadaster and geodesic equipment and curriculum development at the Institute for Land and Cadaster Training in Maputo. Additionally, as part of LTR, gender equity has been fostered through co titling of DUATs.

One major accomplishment, under this project, was the **engagement of policy makers** and the general public on the land policy dialogue in the country. It supported the national policy monitoring and review process by introducing improved approaches to **land registration** and **records management**.

Broadly speaking, the Project assisted anyone (local residential community and private sector businesses alike) who had or acquired land-use rights. The implementation of the Land Project is expected to lead to an increase in the demand for certain public services such as electricity, potable water, waste disposal, and products like office supplies, printed materials for the operation of new equipment or the performance of training, consultation and information activities. State why this is important.

At the same time, this project helped specific beneficiaries meet their immediate needs for registered land rights and better access to land for investment. Local communities that solicited assistance from the Community Land Initiative have benefited from registration of land rights and reduced transaction costs through improved security for productive activities on their land and increased opportunity for arrangements with outside investors for business development. Approximately 200 communities were targeted to have their lands delimited over four years under the Land Project, enabling an estimated average of 3000 hectares per community to become available for commercial uses.

Urban households in selected municipalities and rural smallholders in selected districts and sites selected for land service upgrading and mapping will save time and expense when accessing and/or registering land rights. Investors (both local and foreign), who previously faced high transactions costs in gaining access to a registered land use right, will benefit from substantial savings. Collateral value added can also be noted – though not easily quantifiable - in terms of reduced conflict and increased job creation as a result of new commercial investments encouraged by the more efficient land use regime. Clarify here which part of the project this refers to: LTR? (where land holders benefitted during the life of the Compact by receiving a DUAT at no cost. Or LIMS, where savings are expected only in the future, because LIMS was installed so close to the end of the Compact.

As a result, the value of investment on land affected by the Project will likely increase and the number of calendar days to register a land use right will be reduced.

Local communities soliciting assistance from the Land Project's ITC will benefit from registration of land rights through improved security for productive activities on their land and increased opportunity for arrangements with outside investors for business development. More than 200 communities were targeted to have their lands delimited over four years under the Land Project, enabling an estimated average of 10.000 hectares per community to become available for multiple uses and users.

FIGURE 28: GROUP OF BENEFICIARIES FLANKED BY LOCAL AUTHORITIES AFTER RECEIVING THEIR TITLES

Although difficult to quantify, additional value added can also be expected from reduced conflict and increased job creation over time as a result of new commercial investments encouraged by a more efficient land use regime.

5.3.1. COMPONENT I: "SUPPORT TO THE NATIONAL POLICY MONITORING PROCESS"

The project resulted in the following **achievement**s:

- ✓ Drafting of the Land Administration Strategy;
- ✓ Promotion of Policy dialogue through the establishment and operationalization of the LCF;
- ✓ Paralegal trainings.

5.3.2. COMPONENT II: "LAND ADMINISTRATION CAPACITY BUILDING"

The **Capacity Building Component** achieved the following **results**:

- ✓ Rehabilitation and construction works of 25 cadastral offices at DNTF and INFATEC including a new dormitory built for girls with 60 beds, facilities, purchased vehicles, information technology equipment, geo-referencing equipment, furniture and camping material for DNTF, INFATEC and SPGC – responsible for processing land concession applications and community land registrations, districts and municipalities. At the end of the project the equipment and infrastructures will be was transferred to beneficiaries as defined in the asset disposal section of this plan.
- ✓ One approach used as key to lay the foundations to sustainability was the focus on "on-the-job training" which encourages *learning by doing*. By focusing on practical

ways of solving problems, the stakeholders at all levels will be were able to carry on with the work or activities in Land Tenure Regularization (LTR), land use mapping, Geographic Information Systems (GIS) and other relevant software used on different assignments. The training was delivered by the General Technical Assistance Service Provider, HTSPE Limited, with a geographic information management system (GIMS) and other supporting partners including OPTRON Geomatics and CENACARTA.

- ✓ Training was also provided to the Private Surveyors to give them the ability to handle the state of the art equipment acquired by the project and being used in the urban and rural LTR activities.
- ✓ Moreover, the Land Project was implemented by the LIMS through the service provider HTSPE/EXI. On completion, the system will be run by the staff at DNTF, the four SPGCs and ten municipalities and it will have built technical and technological capabilities at these institutions to enable them to manage the land administration services and manage the massive data generated by the LTR activities.
- ✓ Purchase of necessary equipment such as vehicles, IT, transport and geo-referencing equipment, furniture and camping material for DNTF, INFATEC, SPGCs, districts and municipalities

In terms of **outputs**, as of June 2013:

- ✓ 1,434 stakeholders were trained (191% of Compact target) in general training courses at DNTF
- ✓ 344 were stakeholders trained (69% of Compact target) at the Legal and Judicial Training Center
- ✓ 25 (96% of Compact target) land administration cadastral offices were established or upgraded

The Land Project discussed with DNTF, as the leading IE, and other land sector's stakeholders the best ways to ensure the **sustainability** of the project beyond the life of the Compact. DNTF finalized the draft of its Master Plan, with FAO's technical assistance and inspired by PEDSA (MINAG's Strategic Plan) and the MCA-M funded National Land Administration Strategy, determining priorities and financial resources needed to ensure sustainability of past, present and future activities.

Thus, the Land Project made a significant contribution in building the capacity of local small service providers, community members, community-based organizations and SPGC staff. The ITC Manager developed an Exit and Sustainability Plan which, within the framework of the GoM, recommends the continuation of the ITC support and its institutionalization.
Overall, the key achievement of the Capacity Building Component is that after five years of Project implementation, institutions are left well equipped, administrators and staff fairly well trained and services to the community improved.

MCA may want to say more about sustainability here, in particular:

*The LIMS masterplan TDR (developed by HTSPE), for Netherlands funding

*The LIMS "site audits and action plans" completed by HTSPE, to identify key issues at close of Compact

*The significant work of MCA with the Netherlands, to support design of GESTERRA which gives continuity and sustainability to the MCA/MCC investment, particularly to LIMS maintenance and continued training and change management support

*The MCA advocacy to DNTF to assure the creation of budget lines for LIMS

5.3.3. COMPONENT III: "SITE-SPECIFIC SECURE LAND ACCESS"

The project achieved the following **results**:

- ✓ 6.8 million (136% of Compact target) rural hectares and 185,719 (133% of Compact target) urban parcels were mapped;
- ✓ 1.3 million (45% of Compact target) rural hectares and 112,568 urban parcels (80%) of Compact target) were formalized;
- ✓ 207 communities (93% of Compact target) were delimited.

Another **achievement**, the dimension of which was above any expectations, was the massive land titling that took place under the Project. For the first time, one hundred and forty thousand titles were delivered in urban areas and more than twenty five thousand titles were delivered in rural areas and more the three hundred communities and associations land has been delimited and demarcated. At the start of the project, the annual government's plan targeted the delimitation of only twenty communities per year.

The Project achieved an average of one hundred communities delimited per year, an impressive achievement. Finally, before the project, debates and communities discussions were virtually non-existent and the Project supported the government to address this process and further pursue it.

5.4. RISKS, CHALLENGES FACED AND MITIGATION MEASURES ADOPTED

5.4.1. COMPONENT II: "LAND ADMINISTRATION CAPACITY BUILDING"

The key risk and challenge faced under this Component was the lack of consensus in defining the level of reforms to be undertaken, therefore becomes a risk for the sustainability of the Project itself.

5.4.2. COMPONENT I: "SUPPORT TO THE NATIONAL POLICY MONITORING PROCESS"

The key challenges and risks associated with this Component are the following

- ✓ Resistance to change within institutions;
- ✓ Time needed to implement reforms and institutional changes (5 years is not enough);
- ✓ The need for continued support to make the changes brought about by the project meaningful and sustainable;
- ✓ The weak business environment for example, the lack of after-sales' service for the equipment purchased under the Project. Because of the weak business environment, most of the purchases were made through international tenders and hence, maintenance and sustainability is an issue because of the lack of local after-sales service.

To mitigate the consequences resulting from the weak business environment, MCA worked with the beneficiary institutions in order to provide them with all the necessary information they required to maintain the equipment purchased. This also helped address the risk of misusing the equipment by local handlers out of lack of knowledge of how the equipment works. A recommendation here would be to purchase only the most robust equipment where the after-sales services and local handling conditions present risks for the sustainability of the equipment. Another recommendation would be to obtain the assurance of GOM resources to finance maintenance and periodic equipment replacements.

5.4.3. COMPONENT III: "SITE-SPECIFIC SECURE LAND ACCESS"

A number of assumptions were made at the outset; however, practise soon showed that not all activities could be materialized. At the time they conducted the project appraisal, the sampling of the average community area of some size and the demarcation of areas for associations of producers were not foreseen. When the massive delimitation exercise began, MCA found that actual delimited areas were smaller than the target although the number of communities actually delimited was greater than the target. An expressive number of associations within the delimited communities demanded that their areas be demarcated for issuance of titles.

More specifically, in community land, the economic models showed that, to be viable, 202 communities were to be delimited with an average area of fifteen thousand hectares per community. This would add up to three million hectares delimited. However, when the project started, it was found that this could not be achieved with those figures. The existing communities were very small such as 300, 400, 500, 700 hectares. So the 3 million targets could not be achieved but conversely the Project was able to target more communities than originally planned as the existing borders of the communities could not be changed.

5.5. ESA ISSUES

The Land Project was classified as "Category C" as it was considered unlikely to have disadvantageous environmental or social impacts and since it did not contemplate the

construction of new or the expansion of existing structures. Therefore, neither specific environmental studies nor environmental impact management measures were anticipated. On the contrary, it included several activities that had delivered positive social impacts, such as the delimitation of 'common hold' land rights held by local communities, which protected the long-term tenure security of many rural dwellers and reduced the potential for conflict with smallholders and investors. However, although the Land project was not expected to negatively impact public health and safety, child labor or human trafficking, it could have some negative social and gender-based impacts as for instance, in relation to the plans to adjudicate and register individual titles to smallholder plots, which could hinder the tenure security of certain vulnerable groups like women and those affected indirectly or directly by HIV/AIDS.

MCA-M completed the **Social and Gender Assessment** concluding that there were no environmental issues associated with the project and that it did not negatively impact public health and safety, child labor or human trafficking. Similarly the assessment did not indicate any major social issues to be considered. Notwithstanding the low risks, the Compact took gender-based risks into account. Some strategies were incorporated into final activity/sub-activity designs, reflected in the gender integration plan.

MCA-M carried out a detailed analysis on gender aspects in Land Use Rights at the community level. It assessed that the efforts to date in rural and urban title issuance created positive impact. In fact, demand by women for land titles and to have a role in land administration increased significantly. As a consequence, women are now regularly included as members of land committees responsible for working with the municipality and district officials.

With regard to titling land in the name of women alone and co-titling, SPGC's and municipalities accepted this practice, which became a very popular form of land holding among married couples and there is no expectation that this will be reversed in the future. As for negative impacts, MCA-M observed that potential discrimination against women in access and security of tenure over land is an existing risk.

6. FARMER INCOME SUPPORT PROJECT (FISP)

6.1. PROJECT BACKGROUND AND OBJECTIVES

Mozambique is an internationally significant exporter of coconuts and coconut products. These are grown in Zambézia and Nampula Provinces. Coconut is one of the few crops growing on the impoverished, sandy, and sometimes saline coastal soils of northern Mozambique.

FIGURE 29: EXIT STRATEGY : COCONUT SEEDS FOR COMMUNITY NURSERIES

It has unique value as a low input, environmentally beneficial, year-round source of nutrition, income and shelter for coastal communities. In the late 1990s, outbreaks of **Coconut Lethal Yellowing Disease (CLYD)** were confirmed in areas of commercial smallholder plantings in coastal Zambézia. By 2003 about one percent of the total area was affected but with several new disease foci in both provinces. Disease-affected areas in Zambézia have expanded considerably since 2003, and new foci are present in Nampula as well.

At the time of the negotiation of the Compact, it was expected that more than 50 percent of the coconut area was likely to be lost over the following nine years.

The analysis carried out at the time showed that the infection rate was considerably slower than that experienced in Florida and the Caribbean and that the disease could be controlled by the same type of phytosanitary measures that were used in Ghana. Trees that were no longer productive were to be removed and replaced and technical support was to be provided to assist farm enterprises in recovering income that they formerly had from coconut trees. Unless sustained measures were taken over a large area, coconut cultivation would cease in large areas of central Mozambique, with the resulting loss of export earnings and rural livelihood for over 1.7 million people in coastal Zambézia and Nampula.

In conjunction with tree removal and replacement, this Project intended to assist farmers to adopt new cropping systems and develop alternative sources of cash income during the time required for coconut trees to reach their productive age at seven years.

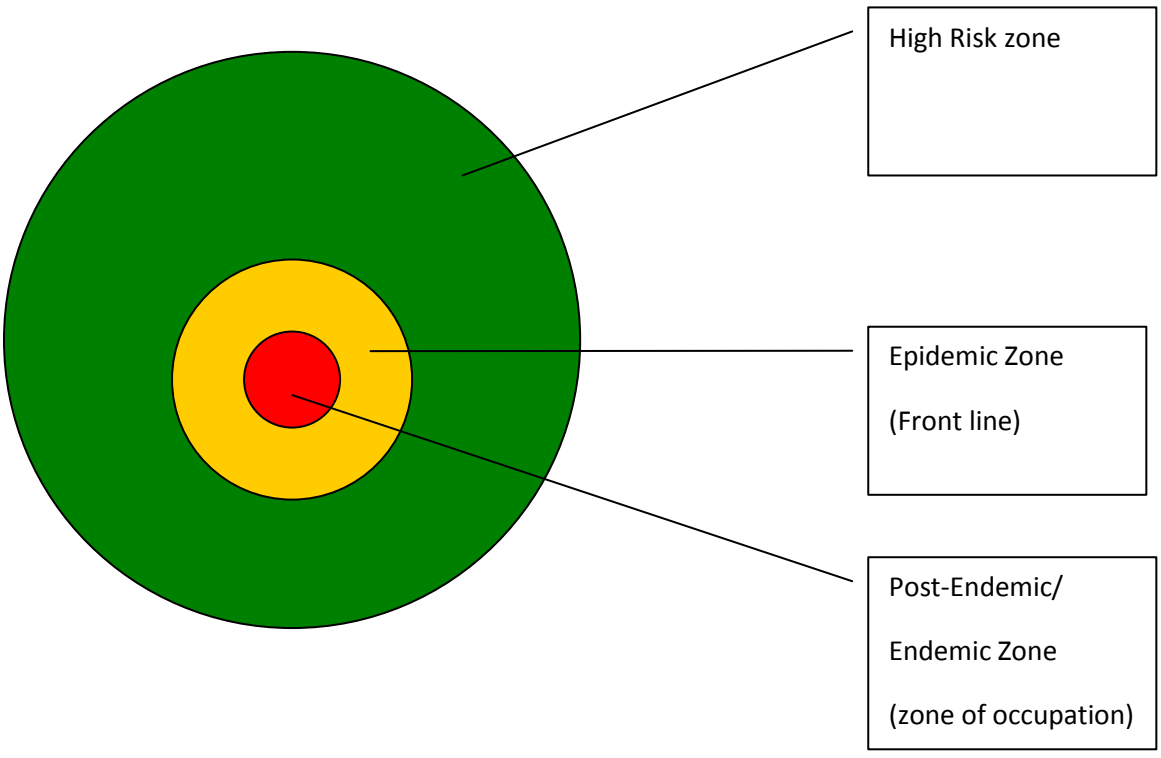
Chickpeas, pigeon peas, cowpeas, groundnuts and sesame have the potential to diversify income streams, reduce risk and generate alternative income for these farm enterprises and are compatible with coconut rehabilitation efforts supported by the Project.. Technical support to introduce better production practices for these crops showed positive results in terms of yields.

In order to mitigate livelihood losses due to control of the spread of Coconut Lethal Yellowing Disease ("CLYD"), MCA-M worked with target households in the above mentioned provinces to diversify and develop value-chains of short-term crops such as pulses, tubers, and vegetables to reduce risks associated with mono-cropping and to better stabilize sources of nutrition and incomes for poor households. The FISP project intended to develop capacity of responsible public and private institutions and apply plant protection protocols to ensure the viability and sustainability of the key agriculture value-chains for future generations as well as to monitor and manage social risks that could emerge during the implementation of the disease control strategy.

6.2. PROJECT IMPLEMENTATION

The objective of this activity is to control and mitigate the spread of CLYD in Zambézia and Nampula Provinces.

Figure: Zones of disease epidemiology (simplified)



Post-Endemic Zone - Area of disease devastation where most coconuts have not only died but the dead trunks have already rotted away, and where beetle populations are likely to be much lower and damage less of a problem. There will be little need for cutting and burning. There is also likely to be greatest food insecurity, poverty and demand for project interventions in these areas. This zone will be the highest priority for the intercropping activities and coconut seedling planting.

Endemic Zone - Area of very high disease incidence (greater than 75%). Attacks by rhinoceros beetle are rampant and are damaging and killing off the remaining palms that have escaped CLYD. Many of these palms are very old and are overdue for replacement anyway. The control strategy is to consult with affected communities in order to select areas where there is interest and demand for clearing the land of sources of pests and for replanting coconut and other short-term intercrops. Use of the terms "endemic" and "post-endemic" is for guidance only and no hard and fast distinctions are intended; the one merges into the other and endemic zones will in time come to be regarded as post-endemic.

Buffer Zone[4] – Buffer zones will need to be created around all new plantings by removing all dead/dying coconut trunks and also where possible senescent or unproductive palms, in order to avoid build up of infestations of rhinoceros beetles. The beetles breed in dead or dying coconut wood and will damage replanted coconut seedlings by feeding on the young leaf bases and heart tissues. In most cases, buffer zones will need clearing around new coconut plantings ONLY in endemic/post-endemic areas, since build-up of beetle infestations in epidemic areas should be prevented by removal of dead/dying trunks during cutting out operations to control spread of CLYD. The recommended width of the buffer zone around replanted coconut seedlings is at least 200m.

Intermediate Zone - The periphery of the endemic zone, bordering the epidemic zone (with CLYD infestation between 10 to 75%). It will be up to the owners to remove the diseased trees themselves, as project resources do not permit removal of trees in this zone.

Epidemic / High Risk Zone - Actively spreading area with diseased trees with less than 10% of coconut palms infected. Disease "fronts" are very confused owing to the multiplicity and scattered nature of disease outbreaks so the project will give priority to targeting epidemic control zones where there is a very low incidence of disease, such as new disease foci and the margins of existing outbreaks ("hotspots"). In this zone the control strategy will be to preserve existing plantings and to control further spread by exercising a "zero tolerance" to

[4] Similar in concept, but not to be confused with, the phytosanitary barrier or "disease firebreak" created in epidemic/high risk zones

disease by removing infected palms at the earliest possible stage of disease development, starting with the outermost margins of the outbreak and working inwards towards areas of greater incidence of infection. At present, the optimal delineation for epidemic control zones can only be estimated from experience elsewhere but typically will be less than 10% of infection, so initially all diseased trees will need to be removed where more than 90% of the surrounding palms are still healthy. Subsequently any new cases of disease in these initial control areas will need to be removed in order to create a phytosanitary barrier (*cordon sanitaire*) or "disease firebreak" against further spread of disease, in addition to removal of any new cases of disease in the surrounding previously disease-free areas. Any replanting with coconut seedlings should be carried out at least 200m inside the phytosanitary barrier (i.e. more than 200m from any dead/diseased coconut trunks that have not been cut down), so as to reduce risks of damage by rhinoceros beetles.

This project was mainly conducted following a process of **community/small farmer participation** in design, awareness raising and monitoring of service delivery.

These activities were carried out in accordance with MCC Environmental Guidelines and Gender Policy, as well as Mozambican environmental laws and regulations. The activities incorporated the relevant components of MCA-Mozambique's **gender integration strategy.**

The **overall objective** of the FISP Project was to improve the productivity of coconut products and encourage diversification into other cash crop production. With an overall budget of USD 18.4 million, the Farmer Income Support Project aimed to:

1) control the spread of CLYD, and;
2) improve productivity of coconuts, increase value-addition of coconut products and encourage diversification into other staple and cash crop production in the coastal area of eight districts of Zambezia and Nampula provinces (Chinde, Inhassunge, Nicoadala, Namacurra, Maganja da Costa, Pebane, Moma and Angoche).

Through its two Components, i) CLYD Control and Mitigation Services and ii) Technical Advisory Services, the Project aimed at delivering services to farm enterprises to significantly improve and sustain incomes derived from cash crops and newly introduced crop diversification options.

The project objectives and results were achieved in collaboration with DNSA, CEPAGRI, IIAM and ICS as Project the Implementing Entities through the activities and Project Components listed below.

1. Activity/Component 1: CLYD Control and Mitigation Services

Component 1 aimed to:

- control and mitigate the spread of CLYD among the holdings of commercial farmers in Zambézia and Nampula Provinces;
- provide the short term control measures of surveillance and scouting to detect early cases of the disease;
- eradicate the diseased palms (cutting and burning) and replant with the Mozambican Green Tall CLYD resistant coconut variety;

FIGURE 30: EXIT STRATEGY – SELECTION, TRAINING AND CLYD CONTROL BY 25 MANUAL FELLING TEAMS

- raise public awareness through campaigns and measures needed to mitigate CLYD's effects;
- cull infected trees which attract populations of rhinoceros beetle that breed in dead palm trunks which in turn damaged replacement seedlings;
- remove and destroy the infection sources;
- replant all cleared coconut trees in the endemic zone.

The activities carried out to achieve Component 1's objectives, in close cooperation with participating smallholders were:

→ in the endemic and post-endemic zones: to clear smallholders land of dead trees and help smallholders to replant with selected Mozambique Green Tall seedlings and alternative short-term crops;
→ in the epidemic zone: to control spread of disease by prompt removal and destruction of infection sources and provision of replacement seedlings; and
→ in the research arena: administer through IIAM an initiative , that emphasized germplasm resistance screening, epidemiological analysis, and early disease detection, which was not part of the Service Provider's Scope of Work.

2. Activity/Component 2: Technical Advisory Services

This Component aimed at:

- supporting target smallholders impacted by CLYD to control and to mitigate measures to engage in crop diversification to generate income during the period of coconut tree re-growth.

- providing technical assistance to farmers in the form of options to diversify their production in response to proven market demand, this would lead to additional revenue streams. Dissemination of improved farming practices and market linkages will be done by experienced field agents to:
    i. support demonstration trials;
    ii. strengthen producer organizations' marketing capacities:
    iii. provide extensive on-farm training in intercropping methods, integrated pest management practices, and CLYD surveillance capabilities.

The activities carried out to achieve these objectives, in close cooperation with participating smallholders were:

→ in post-endemic and endemic zones: improvement of the productivity and yield of intercrops and promotion of good growth and management of replanted coconut palms in smallholder plantings; and
→ the enablement of stakeholders, through business development support, to help safeguard and/or improve profitability of the coconut industry for smallholders through innovative strategies.

Indicator Definition and Tracking Tables of the FISP Project:

Indicators	Activity	Definition	Unit of Measurement	Level of Disaggregation	Data Source	Method of Data Collection	Frequency
Outcome Indicators							
Survival rate of Coconut seedlings	Rehabilitation of endemic areas/ Control of epidemic disease	Percentage of planted coconut seedlings in acceptable condition and surviving 1 year after planting.	Percentage	Endemic and Epidemic Zones	FISP Service Provider	Annual Reports	Years 2,3 & 4
Proportion of farmers adopting planting and post planting management techniques of coconuts.	Rehabilitation of Endemic Areas/Control of Epidemic Disease	Percentage of farmers adopting planting and post planting management techniques	Percentage	Gender	FISP Service Provider	Annual Reports	Annually
Proportion of farmers adopting improved techniques in surveillance and pest and disease control for coconuts	Control of epidemic disease	Percentage of farmers adopting improved techniques in surveillance and pest and disease control for coconuts	Percentage	Gender	FISP Service Provider	Annual Reports	Annually
Proportion of farmers adopting alternative crops techniques	Improvement of productivity	Percentage of farmers adopting alternative crops and productivity enhancing strategies	Percentage	Gender	FISP Service Provider	Annual Reports	Annually
Indicators	**Activity**	**Definition**	**Unit of Measurement**	**Level of Disaggregation**	**Data Source**	**Method of Data Collection**	**Frequency**
Output Indicators							
Number of diseased or dead palm trees	Control of epidemic disease	Number of dead and CLYD infected coconut trees cut and burned on	Trees	None	FISP Service Provider	Quarterly Reports	Quarterly

cleared		smallholder and (in Epidemic Areas)					
Number of hectares with dead trees cleared	Rehabilitation of endemic areas	Total area of dead and CLYD infected coconut trees cleared in endemic areas	Hectares	None	FISP Service Provider	Quarterly Reports	Quarterly
Number of coconut seedlings planted	Rehabilitation of endemic areas / Control of epidemic disease	Number of coconut seedlings planted in endemic, post-endemic, and epidemic zones	Seedlings	None	FISP Service Provider	Quarterly Reports	Quarterly
Hectares of alternative crops under production	Improvement of productivity	Total area of alternative crops under production in project areas	Hectares	None	FISP Service Provider	Quarterly Reports	Quarterly
Number of farmers trained in planting and post planting management of coconuts	Rehabilitation of Endemic Areas/Control of Epidemic Disease	Number of farmers who receive training in the management of planting and post planting of coconut seedlings	Number	Gender	FISP Service Provider	Quarterly Reports	Quarterly
Number of farmers trained in surveillance and pest and disease control for coconuts	Control of epidemic disease	Number of farmers receiving training and technical assistance in surveillance and pest and disease control for coconuts	Number	Gender	FISP Service Provider	Quarterly Reports	Quarterly
Number of farmers trained in alternative crops production	Improvement of productivity	Number of farmers trained in alternative crops and productivity enhancing strategies	Number	Gender	FISP Service Provider	Quarterly Reports	Quarterly
Number of businesses benefiting from BDF activities	Business Development Support	Number of formal and informal businesses benefiting from BDF activities.	Businesses	None	FISP Service Provider	Quarterly Reports	Quarterly

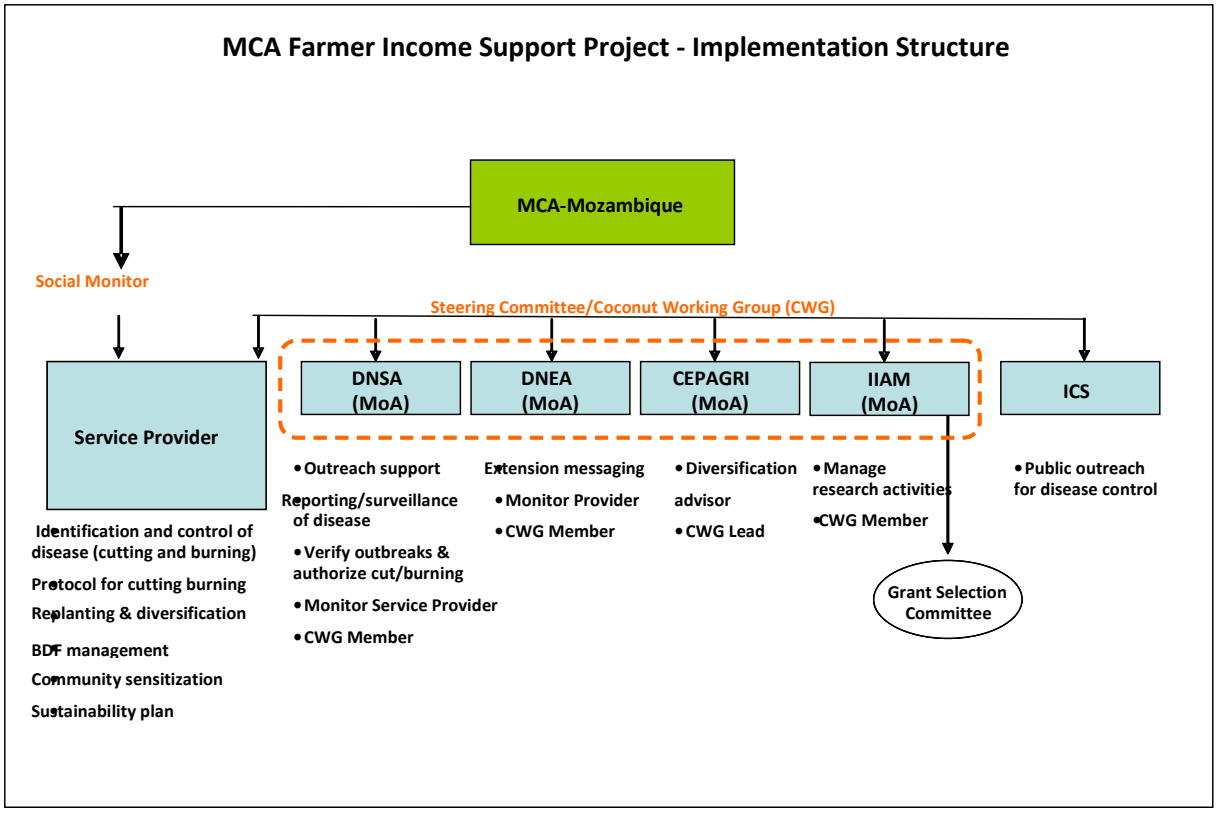
The project was managed through a service contract with ACDI/VOCA in collaboration with GOM agencies, under the sole responsibility of the MCA-Mozambique acting as contracting agency.

Project	Contract	Deadlines	Service Provider
FISP	Contract Completion Development of ESDS Workshop MCA/ACDI/VOCA/IE MICOA's and MCA's EMP Audit	September '13 June '13 July '13 July '13	Service Provider Service Providers MCA/ACDI/VOCA/Ies MICOA,

It was implemented under the policy guidance of the Government of Mozambique Ministry of Agriculture (MoA) which has overall responsibility for implementing Government policy for the coconut sector. MoA Directorates and Provincial Directorates of Agriculture acted as implementing agencies and partners under the project. These departments include:

- Centre for Promotion of Agriculture (CEPAGRI)
- Provincial Directorate of Agriculture (DPAs) in Nampula and Zambézia
- Mozambique Agricultural Research Institute (IIAM)
- National Directorate for Agricultural Sanity (DNSA). The Agreement with DNSA was not realised. Please include a description of why it was not realized.

The graph below illustrates the FISP management structure:



As the Mozambique Compact entered into the closing period, some key data collection activities were requested, namely surveys, impact evaluations, and special studies that were at risk of not being completed and those M&E activities that were planned as agreed by MCC. In this sense, MCA-M delivered to MCC electronic copies of all MCA-M–funded survey data sets and supporting technical documentation, data quality reviews and/or special studies by September 22, 2013 as indicated in the Table below.

Program data sets / documentation to be provided to MCC

FISP			
Coconut Farmers' Survey	Competed	Data set to be handed over to MCC by MSU	March 2013
Performance Evaluation	Need to compete open tender for MCC-funded performance evaluation.	TOR for MCC-funded Performance Evaluation of FISP in collaboration with MCA to be developed. Open tender to be launched by May 2013	September 2013
Special Study of impact of CLYD and Oryctes to the income of families in coastal zone of Zambézia and Nampula	Contract awarded to Verde Azul. Report Completed.	Final Report and dataset to be handed over to MCC by MCA	March 2013

6.2.1. COMPONENT 1: "CLYD CONTROL AND MITIGATION SERVICES"

FIGURE 31: PLANTING AND POST-PLANTING CARE OF COCONUT SEEDLINGS

The "CLYD Control and Mitigation Services" Component aimed to control and mitigate the spread of CLYD among the holdings of commercial farmers in Zambézia and Nampula Provinces. Planned activities included a Government-led public awareness campaign about the disease and the measures needed to mitigate its effects, short-term control measures including surveillance and scouting to detect early cases of disease; prompt eradication of diseased palms (by cutting and burning);

and replanting with selected seedlings from local Mozambique Green Tall coconut types (some of which show a measure of resistance).

The Compact Agreement forewas that *"CLYD control and mitigation strategies will be tailored to different stages of the disease epidemic and are likely to be most effective at, or in advance of, the margins of active spread of disease. Infected trees must be culled since they attract populations of rhinoceros beetle that breed in dead palm trunks and will kill or damage replacement palms. There is thus a need for collective and continuous action - by all growers and over a sustained period - not just to prevent infection moving from diseased to healthy palms, but also to remove and destroy dead palm trunks. Three sub-activities are envisioned: (i) in the endemic zone, help smallholders to clear their land of dead palms and, replant with selected Mozambique Green Tall seedlings and alternative short-term crops; (ii) in the epidemic zone, control spread of disease by prompt removal and destruction of infection sources and provision of new planting material; and (iii) a research initiative that will emphasize germplasm resistance screening, epidemiological analysis, and early disease detection*."

This Component included **3 activities**:

1. Rehabilitation of endemic area;
2. Control of epidemic; and
3. Research and development support.

The **table** below illustrates the key modifications made in the original targets as per Compact Agreement:

Activity	Original Compact target	Revised target
Planting new coconuts in endemic area	planting 160,000 new coconut seedlings	planting 500,000 new coconut seedlings
Clearing of area from dead coconuts and replanting with alternative crops in endemic area	Area: 2,000 hectares.	Area: 8,000 ha.
Number of beneficiaries in endemic area	7,500-10,000 smallholder families.	8,000 smallholder families.
Planting new coconuts in epidemic area	650,000 seedlings	150,000 seedlings
Area of control of epidemic disease	6,100 hectares	29,380 hectares[5]

[5] Accomplished 52,980 hectares

The activities under this component generated the following outputs:

1) **Rehabilitation of Endemic Areas**

As of June 2013, 782,609 coconut seedlings were planted (120% of Compact target) with a 67.3 per cent average survival rate up from the 62% average survival rate reported in the 2010/2011 period.

Infected trees in the Endemic Areas were culled since they attract populations of rhinoceros beetle that breed in dead palm trunks and will likely kill or damage replacement palms. In conjunction with tree removal and replacement, the Project assisted farmers in the CLYD endemic zone to adopt new cropping systems and develop alternative sources of cash income during the time the coconut trees reach productive age as of seven years. Compatible with rehabilitation of coconut plantaitons, chickpea, pigeon pea, cowpea and sesame production was promoted as a means to diversify production systems to generate in order to increase revenue streams, for reduce risks and improve livelihoods. This Activity helped smallholders to a) clear their land of dead palms, b) replant with selected Mozambique Green Tall coconut palm seedlings more resistant to the CLYD disease and c) plant alternative short-term crops (chick peas, cowpeas, pigeon peas and/or sesame) to increase income during the five year (dwarf variety) to seven year (tall variety) replacement palm re-growth period.

2) **Control of Epidemic Disease**

As of June 2013:

- 15,123 farmers were trained in surveillance and pest and disease control for coconuts (189% of Compact target)
- 28,830 farmers were trained in planting and post-planting management of coconuts (360% of Compact target)
- 8,000 hectares with diseased or dead palm trees were cleared in the endemic zone (100% of Compact target)

Control of the spread of disease was also made by prompt removal and destruction of infection sources and provision of new planting material using Mozambique Green Tall coconut palm seedlings, more resistant to the CLYD disease.

With respect to the Improvement of Productivity Activity, as of June 2013:

- 7,686 hectares of alternative crops are under production in the CLYD endemic areas (96% of Compact target);
- 8,958 farmers trained in alternative crop production and productivity enhancing strategies (112% of Compact target);

- 33 farmers using alternative crop production and productivity enhancing strategies (110% of Compact target).

Dissemination of improved farming practices and market linkages is done by experienced field agents to: a) support demonstration trials, b) strengthen producer organizations' marketing capacities and c) provide extensive on-farm training in intercropping methods, integrated pest management practices, and CLYD surveillance techniques.

With respect to the Business Development Fund (a US$1 million fund to support small grants to small and medium enterprises, as of June 2013:

- 119 businesses are receiving Business Development Fund grants (79% of compact target)

3) Research and Development Support

The IIAM administered research and development activities that were directly related to the needs of the a) Control of Epidemic Disease Activity and b) the Rehabilitation of Endemic Areas Activity emphasizing germplasm resistance screening, epidemiological analysis, and early disease detection, and the precise requirements and priorities which were to be determined by IIAM.

It also administered two different research funds: (1) the Research and Development Fund (RDF) providing applied research services that address priority issues in support of aforementioned activities and (2) the Competitive Grants Fund, generating and funding research proposals.

The following table below, only available in Portugue at the tume of writing, show the degree of relisation per activity:

Realisation for Activity 1 "Rehabilitation of endemic area"

Activities in the endemic zone	Unity	Province	Achievement	Compact Target	Degree of achievement
Cleaning through the cut and burning o of coconut palms infected by the disease	Trees	Zambézia	6.080	6.000	101.3%
		Nampula	1.920	2.000	96%
		Total	8.000	8.000	100%
Planting of new seedlings of coconut palm	Seedlings	Zambézia	375.896	372.000	101%
		Nampula	127,813	128,000	99.9%
		Total	503,709	500,000	100.7%
Number of farmers trained in planting new seedlings of	Farmers	Zambézia	20,046	6,000	334%
		Nampula	8,874	2,000	439%

coconut palm and in managing the post-planting phase		Total	28,830	8,000	360%
Production of alternative cropping	Hectares	Zambézia	4,756	6,000	79%
		Nampula	2,930	2,000	147%
		Total	7,686	8,000	96%
Number of farmers trained in alternative cropping production	Farmers	Zambézia	5,954	6,000	99%
		Nampula	3,004	2,000	150%
		Total	8,958	8,000	112%

Realisation for Activity 2 "Control of epidemic disease":

Activities in the epidemic zone	Unity	Province	Achievement	Compact Target	Degree of achievement
Cut and burning o of coconut palms infected by the disease	Trees	Zambézia	513,993	516,000	99.6%
		Nampula	86,007	84,000	102%
		Total	600,000	600,000	100%
Planting of new seedlings of coconut palm (4th and 5th year of FISP project)	Seedlings	Zambézia	232,000	110,000	211%
		Nampula	46,900	40,000	117%
		Total	278,900	150,000	186%
Number of farmers trained in coconut palms diseases control	Farmers	Zambézia	11,601	6,000	193%
		Nampula	3,522	2,000	176%
		Total	15,123	8,000	189%

The table below shows the outcomes and the outputs achieved in both the endemic and epidemic areas:

Activities in the epidemic zone	Unity	Achievement	Compact Target	Degree of achievement
Outcomes				
Survival rate of coconut seedlings	%	80 %	65%	
Incidence of CLYD in epidemic zone	%	2.0%	0.83%	
Outputs				
Dead trees cleared in endemic zone	Ha	8,000	8,000	100%
Diseased Palm trees cleared in epidemic zone	#	600,000	600,000	100%
Cocunut seedlings planted	#	650,000	782,609	120%
Alternative crops under production	Ha	8,000	7,686	96%
Farmers trained in pest/disease control	#	8,000	15,123	189%
Farmers trained in planting of coconuts	#	8,000	28,830	360%
Farmers trained in alternative crops	#	8,000	8.958	112%

Business Development Fund	$	1,000,000	1,000,000	100%

6.2.2. COMPONENT 2 "TECHNICAL ADVISORY SERVICES"

FIGURE 32: BUSINESS DEVELOPMENT FUND – DISTRIBUTION OF EQUIPMENT FOR LOCAL CARPENTERS

The **original objectives** of the "Technical Advisory Services" as described in the Compact were to target smallholders impacted by CLYD control and mitigation measures to engage in crop diversification to generate income during the period of coconut tree re-growth.

Emphasis was given to improving farming practices that would increase yields and link farmers to processors and other buyers in the supported value chains. They were provided options to diversify their production in response to proven market demand, which will in time lead to additional revenue streams. Dissemination of improved farming practices and market linkages were done by experienced field agents to: (i) support demonstration trials; (ii) strengthen producer organizations' marketing capacities; and (iii) provide extensive on-farm training in intercropping methods, integrated pest management practices, and CLYD surveillance capabilities.

The principal sub-activities carried out were: (i) in zones with lower risk profiles, improve the productivity and yield of existing aging and under-productive palms in smallholder plantings; and (ii) enable stakeholders, through business development support, to help safeguard and/or improve profitability of the coconut industry for smallholders through innovative strategies, including linking them to carbon offset credit investment initiatives.

The **Technical Advisory Services** introduced alternate crop-diversification options with demonstrate strong market demand and income generation potential, especially for farm enterprises participating in the CLYD control and mitigation program that are seeking short-term income alternatives during period of coconut tree re-growth. These services supplied productive inputs and training to small farm enterprises operating on 8,000 hectares of endemic area (original target of Compact was 4,000 hectares- 2,000 in epidemic areas and 2,000 in endemic areas).

The Farmer Income Support Project Manager was located in MCA-M. The Coconut Working Group, composed of Government entities in the agricultural area, provided the Project Manager with guidance on technical matters concerning project implementation.

This Component included 2 activities:

1) Improvement of productivity;
2) Business development Fund.

The activities under this component generated the following outputs:

1) Improvement of Productivity

- 7,686 hectares of alternative crops were under production in the CLYD endemic areas (96% of Compact target)
- 8,958 farmers were trained in alternative crop production and productivity enhancing strategies (112% of Compact target)

Dissemination of improved farming practices and market linkages was carried out by experienced field agents to: a) support demonstration trials, b) strengthen producer organizations' marketing capacities and c) provide extensive on-farm training in intercropping methods, integrated pest management practices, and CLYD surveillance techniques.

2) Business Development Fund

As of June 2013, 119 businesses received Business Development Fund grants (79% of compact target). The BDF is a US$1 million fund to support small grants to Small and Medium Enterprises (SMEs) that contribute to the value-chains of the coconut industry and intercrop products, supported by market analysis, in the coconut belt of Northern Mozambique.

6.3. PROJECT RESULTS AND BENEFICIARIES

In terms of results, the Project significantly reduced biological and technical barriers which were hindering economic growth among farms and targeted enterprises located in the Compact area's eastern coastal belt engaged in coconut prodution. Through the introduction of **crop diversification** and **improved farming practices**, it helped to recover incomes lost to CLYD in the short-term while re-establishing coconut production as an important household income source, in combination with alternative crops, in the long-term.

The FISP project achieved its **targeted results** of which the following:

a) **Elimination of infected palm trees in epidemic Areas:** short-term control measures such as monitoring, detection and timely eradication of infected palm trees with CLYD were implemented in seven (7) districts in the Zambézia province namely Chinde, Inhassunge, Nicoadala, Quelimane, Namacurra, Maganja da Costa and Pebane and two (2) districts of Nampula province (namely Moma and Angoche). After properly identified and having obtained the consent of the owner, the next step is felling, cutting and burning of the trunks in case these are not requested for immediate use by their owners. The burning of the trees has a double advantage as it not only eliminates the remainings of the infected plant but it also reduces the possibility of propagation sources of the rhinoceros beetle plague (oryctes spp.), locally know as nampuim that for a long time, the regular handling of the Oryctes was based in the elimination of dead plants, replacement of old palm trees and manual removal of adult ones. The lack of handling of the rhinoceros beetle during the last decades, associated with the Coconut Lethal Yellowing Disease, are the main causes of increase in population of this plague.

FIGURE 33: PLANTING AND POST-PLANTING CARE OF COCONUT SEEDLINGS

b) **Establishment of the Phytosanitary Barrier of contention of the disease:** one of the measures to contain the spreading of the disease is the establishment of the phytosanitary barrier, which is limited by the incidence of the disease below 10% (epidemic area), stretching out from Pebane to Chinde;

c) **Improved capacity of Mozambique's Research and Development capacity** to redress the Coconut Lethal Yellowing Disease has been strengthened with the establishing by MCA-M´s FISP, of a laboratory specializing in phytosanitary investigations of CLYD resist-ant coconut varieties in Zambézia and Nampula provinces.

The Farmer Income Support Project has benefitted to the following:

- ✓ 119,000 smallholders in the coconut belts of Zambézia and Nampula who depend on coconut tree-products for cash and in-kind income;
- ✓ 30,000 families in endemic areas on improving the quality of alternative crops planted on their holdings and 15,000 families in epidemic areas training them in surveillance and CLYD control (by the technical assistance);
- ✓ the total number of families benefitting from positive results of CLYD control in epidemic area is estimated around 100,000 families.

MCA-M contributed to the increased income of farmers by controlling the Coconut Lethal Yellowing Disease, training and planting alternative crops and strengthening the coconut value chain. Further, through the MCC funding, Mozambique's Research and Development capacity to redress the Coconut Lethal Yellowing Disease was strengthened with the establishment of a laboratory specialized in phytosanitary investigations of CLYD resistant coconut varieties in Zambézia and Nampula provinces.

By 2028, it is estimates that the FISP will have benefitted around 119,000 smallholders in the coconut belts of the Zambézia and Nampula provinces. Smallholders depend on coconut tree-products for cash and in-kind income. FISP provides targeted technical assistance to over 3,000 smallholders in order to mitigate significant income loss due to the disease and to assist them in improving the productivity of other crops planted on their parcels. Including family members, it is estimated that 158,390 individuals benefit from interventions in the epidemic areas and 119,373 individuals benefit from interventions in the endemic areas.

6.4. RISKS, CHALLENGES FACED AND MITIGATION MEASURES ADOPTED

The major **risks** that during the implementation of the FISP project were object of concern are reported below, along with relevant **mitigation measures** adopted:

The major **risks** during the implementation of the FISP project are reported below, along with relevant **mitigation measures** adopted:

a. **Oryctes Infestation.** Oryctes beetle infestation was more prevalent in endemic and intermediary zones than originally estimated, due to many years of negligence in cutting and burning of dead trees and given the existence of many old and poorly maintained plantations. As a consequence, the number of dead trees and areas for replanting were higher than expected, building up an Oryctes population. Oryctes killed many Green Tall Mozambique coconut palms (assumed to be tolerant to CLYD).

i. Mitigation measures focused on: tree removal and burning; encouraging the national government to approve and implement Clyd and Oryctes Mitigation Strategy; researching how to address Oryctes control issues and promotion of independent cut and burn of diseased/dead palms by owners in areas outside project scope.

b. **IIAM disease resistant seedling availability.** Late delivery of seed nuts for research trials due to a delay in contract signing with the supplier translates into a delay in identification of CLYD tolerant varieties.
    i. To counteract this risk, it was decided to focus on self-pollinating varieties and research trials gave more importance to evaluation of existing germplasm as potential disease resistant varieties as well. Also, research focused on establishing appropriate nursery conditions to guarantee good and rapid growth of seedlings and preparation of outplanting areas to insure higher seedloing survival rates. .

c. **Interruption of cutting and burning. Because of EHS concerns the cutting and burning** activity was suspened for a considerable period of time. This had a negative effect on the achievement of targets..
    i. To mitigate this riskit was decided to closely monitor EHS requirements, intensify cutting activities and increase EHS training and supervision significantly.

d. **Land Tenure Security**. Another risk was to invest in project resources in areas where tenure security of smallholders was unstable, namely in areas formerly belonging to the estate sector that were still not officially transferred by the government to the smallholders. This would have created the possibility of attribution of FISP funded plantings to non-smallholders.

e. Mitigation measures included efforts to ensure that all land to be worked by project had clear Land Rights and smallholder ownership guaranteed. Please include a sentence explaining how this was done (i.e. working with the land project).

f. **Risk seedling mortality**. High losses of seedlings planted could have occurred due to poor planting and post-planting management; erratic rainfall; stealing of seedlings and uncontrolled burning, leading to a failure in achieving the targets and to a delay for the period of plantation.
    i. Remediation efforts included the replacement of seedlings to adopting farmers.

g. **MCA Procurement**. Delays in implementation, particularly the research component, due to procurement procedures were also considered a risk because of a lack of hands-on experience on existing methods of procurement.
    i. To mitigate this FISP procurement planning between MCA and Implementing Entities was improved. Please mention how it was improved.

h. **BDF grants not successful**. The grant selection procedures were at risk to not to be properly followed and consequently, the grantees not to comply with the scope of work of the grant itself.
    i. The answer was to establish rapid response system to auditing recommendations. Please provide more detail.

i. **Alternative crops**. Risk of not achieving the expected results from alternative crops and marketing due to: adverse weather and soil conditions; farmers not adopting improved techniques; change in local, national and international demand and fluctuation of prices; extension teams not adequately staffed; lack of inputs and poor market linkages. This would have lowered crop productivity and farmer's income.
    j. Mitigation measures focused on reviewing market strategies, on farmer to farmer extension and on searching for supplemental funding for alternative crops.

k. **Sustainability**. Sustainability of project activities was determined to depend mainly on: implementing agreement made with DNSA, but not with DNEA/DPA; not existing or very limited public extension services in project area; lack of coherent Coconut Working Group and well defined institutional mandate; limited smallholder resources and exogenous elements affecting coconut industry marketing trends. These factors would lead farmers and implementing entity employees not to follow project activities, to disease control not to be effective resulting in wide spread CLYD infestation and to smallholder household income reduction and food insecurity.
    i. The remediation strategy encouraged the government to place higher importance on the coconut industry (Declare CLYD and Oryctes as national disaster, allocation of more extension staff, public or community coconut nurseries, etc.) and to begin discussion about potential second COMPACT in order to continue and expand FISP related activities. Please provide more details, particulary concering the request to draft a proposal for the Zambezia Development Authority (ZDA), the securing from ZDA of US$ 1 million for short-term continuation of key FISP activities by DPA, MCC help in developing a proposal for follow-up funding for FISP activities post-Compact, etc.

l. **Cop Replacement**. Because of poor performance, the ACDI/VOCA Chief of Party was replaced and it was uncertain if the new Chief of Party would be able to get the project back on track to achieve end of Compact targets and objectives. This risk could be the result of either an inadequate selection of the candidate by ACDI/VOCA HQ or because of the candidate CV would not match the real world skill set.
    i. To mitigate this MCA and MCC worked to clearly define the necessary skill sets for the replacement of COP position, communicate those to ACDI/VOCA; work closely with ACDI/VOCA to ensure the selection of a proper candidate and work with remaining ACDI/VOCA in-country staff and IEs to ensure seamless transition of COP.

m. **Increased spread CLYD**. The spread of CLYD to other provinces, especially Inhambane was estimated as a possible risk due to lack of sufficient control of transportation of seedlings out of the Zambezia/Nampula province, lack of knowledge about the true vectors of CLYD spread and lack of general population knowledge of the danger of CLYD.
    i. The remediation strategy included to encourage the Government to assume responsibility in order to define activities and seeking funding for complementary activities outside FISP areas. Do these activities apply to transport rules and regulations enforced by the government? If so, please state as such.

n. **Participation**. Poor collaboration between stakeholders (SP, ICS), improper selection of communities for public outreach; ineffective and inadequate public consultation and participation along with poorly defined messages and inadequate methods of interactions with the community were also considered as risks. This could lead to lack of community buy-in or participation of community during project implementation leading to inadequate appropriation of new technologies; misrepresentation of women; high seedling mortality and poor BDF grant implementation.
    i. **Miitgating Measure**: Which mitigation measure was used?

o. **EHS**. Lack of full compliance with environmental EHS measures on the project generating the possibility of accidents such as serious injuries, death, and destruction of property.
    i. Mitigation measures included the enforcement of EHS measures in place. Please elaborate and provide more details. It is worth mentioning Renne Jack and all the work she did.

6.5. ESA issues

This project was classified as "Category B" as it involved the employment of pesticides and fertilizers; tree-cutting and disposal equipment. Accordingly, a simplified ESA was carried out to identify areas where risks of environmental degradation and gender inequity were likely to occur. Although the project was not considered as highly adverse, its analysis planned to carefully examine any potential direct or indirect, induced and cumulative negative environmental and social effects and recommend any measures needed to prevent, minimize or compensate for adverse impacts and enhance positive ones.

The study was carried out prior to the project to analyze the following issues:

- safety and health risks related to the handling, use, and disposal of pesticides and fertilizers;
- tree-cutting and disposal equipment; and;
- integrated pest and nutrient management strategies to be developed prior to full Project implementation.

This led to the development of an **Environmental Management Plan (EMP)** and the requirement to receive an environmental permit prior to project implementation. SEA and an EMP were both developed by a separate Consultant and submitted by MCA-M to MICOA in order to obtain the environmental permit. This last one was made available upon MICOA's approval of the SEA and EMP and preceded the conclusion of contract negotiations with the winning bidder for FISP.

The implementation of the project operated in full compliance with environmental, health, safety, and social mitigation measures as described in the FISP, EMP and environmental permit. MCA should openly discuss fatality resulting from tree cutting and the mitigation measures that were put in place. The Environmental Strategy, submitted to MCA-M/MCC for approval, included all components of the MICOA-approved SEA and respective EMP requirements for the environmental licence. It included all sections from the Tree Removal Plan related to worker safety, community safety and fire control such that all environmental, social, health and safety issues are incorporated into a single operational document. It also specifically detailed how the Service Provider intended to implement the mitigation measures as described in those approved documents and more particularly the EMP.

FIGURE 34: TRAINING FARMERS IN PLANTING AND POST-PLANTING MANAGEMENT

In developing its strategy, MCA ensured that the EMP would address all adverse environmental/social impacts related to the project activities. When additional or complementary measures were needed, MCA included these in their Environmental Strategy. To this extent, it also ensured that the Environmental Strategy would incorporate measures specific to the intercropping activities and tree removal activities and specified for each mitigation measure timing/frequency, locations, and institution responsible. It guaranteed that the EMP would describe accurately monitoring objectives and monitoring measures, including the parameters to be measured, methods to be used, and definition of thresholds as the signal for corrective actions. The Strategy also indicated the reporting procedures in order to ensure early detection of issues and to provide information on progress and results of mitigation.

In addition, an integrated **pest management plan** and integrated **nutrient management plan** were integrated into the Strategy. The pest management plan addressed MCC's requirements related to pesticides and hazardous products including restrictions on the use of Persistent Organic Pollutants (POPs), pesticides on the USEPA's Prior Informed Consent (PIC) list and the Rotterdam Convention.

As regards **gender**, in order to maximize the positive social impacts of the Farmer Income Support Project and ensure compliance with MCC's Gender Policy, MCA-M was required to:

(a) **develop a gender integration plan that included:**

- approaches for meaningful and inclusive consultations with women and vulnerable/under-represented groups;
- project-specific gender analyses, as appropriate; and
- strategies for incorporating findings of the gender analyses into final Project designs;

(b**) ensure that final Project activities were consistent** with and incorporated the outcomes of the gender integration plan.

MCA-M also took all the necessary steps to ensure that the interests and views of women and vulnerable groups were represented in the relevant participating entities responsible for advising on design, ownership, management, and operation of the Project activities.
Although ESA activities under the Compact were assessed as generally successful, one of the key challenges under this activity was the availability of qualified staff in Mozambique as this is a generally new subject for which the human resources market is still relatively underdeveloped and working with external consultants did not present a viable alternative because of the need for clear communication and ensuing language barriers with the local communities.

In order to significantly sustain incomes and support farm enterprises, it was established to closely control and mitigate CLYD by providing short term control measures of surveillance, prompt eradication of diseased palms and replanting with the less susceptible Mozambican Green Tall coconut variety.

7. LESSONS LEARNED AND RECOMMENDATIONS

7.1. COMPACT MANAGEMENT

General lessons learned:

- For a Compact of this size, 5 years duration is insufficient if preparatory work is included in the 5 years. Leeway should be considered before entry into force. All preparatory work including feasibility studies, hiring the staff, contracting the PA, FA, draft ToR etc should be allowed to done before entry into force.
- During the preparatory phase, government financial and technical support should be made available to facilitate kick-off and avoid bottlenecks waiting for MCC CPs to be met etc. Government support is also necessary to give momentum to the kick-off/orientation workshop.
- Country ownership is a key underlying principle of any development project, both for donors and beneficiaries. MCA recalls the importance of respecting government ownership both in the design and in the implementation phase.
- Close-out period should be extended to 12 months. In light of the planning and capacity building that was done for close-out of the Compact, it would be helpful to know why an extended period would be beneficial.
- Penalties should be imposed on the consultants if they don't meet contract objectives and planning targets. Need to be clear on this item. For works contracts this mechanism exists in the form of delay damages. For consultancies more difficult. MCA should clarify what exactly they propose and/or are thinking.
- MCAs around the globe should have a forum to share information with MCC on contractor's performance to know who's doing well and who should be avoided. CPPRS fulfills this purpose.
- Some Conditions Precedent has proven useful tools for necessary policy review and innovation.
- Having an economist in the staff was a good experience given the importance of economic analysis for MCC funding.
- Guidelines for closure should be provided upfront. MCA should complete ToR and bidding documents prior to entry into force.
- Compact Closure Report should be a closure activity to enable reporting to cover the whole implementation period and report on completed results rather than results in progress which defeats the purpose of a final report.

Finance:

- QDRP – MCA recommends that the DFP timing submission should be aligned with the Procurement Plan, i.e., it is recommendable that Detail Financial Plan be submitted on a six month basis.
- QDRP – MCA recommends to have a full time Planner that is dedicated to prepare the QDRP, being responsible to interact with all actors involved in this process: M&E, Procurement, Finance, Project Managers.

- MCDR – MCA recognize the importance of MCC decision to detach the financial report from QDRP to a monthly reporting through MCDR. The data is more updated and it is easy to reconcile with MCC records on a timely manner.
- Direct Payments through NBC are very fast. This helps implementing MCAs programs without cash flow problems.
- MCC Financial Forums are important as they allow MCC and MCA to interact and change experiences which help to enhance the work. It is recommendable to continue having these Forums.

MCC Oversight

- MCC's funding coupled with their technical support and guidance is very useful to ensure that approvals, payments etc. are processed on time;
- MCC missions impose time and resources constraints on MCA staff. A holistic approach, bringing some missions together in time could be considered. Accordingly, one big MCC mission together rather than separate missions to help decision-making process (all responsible people around the table at the same time) and reduce demand on MCA staff in terms of time that would otherwise be invested on work rather than meeting. The Annual Review exercises should be the most appropriate occasions for these missions.
- MCC staff and consultants' missions reports should also be shared and reviewed by MCA;
- MCC staff turnover creates uncertainty and confusion. Rules and "acquis" (by predecessor) should remain the same.
- MCC office in Maputo is a very positive thing as they deal with problems on a daily basis with you so things don't get delayed or out of proportion.
- Some MCC staff should be better equipped to deal with complex issues that require field experience.
- Attention should be paid by MCC officials not micro-manage MCA and/or create a replacement structure on MCA competencies. MCC has a tendency to give instructions in parallel to MCA rather than leaving MCA free to do so for issues relative to MCA competencies. This has sometimes created confusion and been counterproductive to the implementation of the Compact. For example, some MCA contractors have been told by MCC staff that they could extend their work until the end of the Compact date in contradiction with the set contractual deadline agreed with MCA.
- Conditions precedent: MCA recognises MCC's fiduciary role but highlights the difficulty for MCA, as an agency, to be bound by CPs. CPs require Government action whereas meanwhile MCA is stuck in a catch 22 situation where it cannot move forward and deliver. MCA is accountable for delays but is dependent on decisions at Government level for the adoption of the CPs. This negatively impacts on the performance of MCA whereas MCA has no power to do anything about the situation.
- Although MCA recognises the need for MCC to update and adapt its guidelines and rules as on ongoing process, MCA wishes to stress the difficulty which a change in rules can lead to re. contracts and processes established on the previous set of rules. For example, the new communication guidelines on branding are contradictory to

close-out guidelines. Another example is the change in M&E Plan template just prior to the time of approval of the M&E Plan.

M&E

- The MIS should have been developed and fully established at the outset, before the Compact Entry Into Force so that data could be defined, collected and encoded right from the start, which would have enabled MCA to make a full use of the system for reporting and public outreach.
- The M&E role should have been embedded in the projects themselves to ensure full integration in the team. The approach of placing in the projects M&E staff coming from the M&E Unit caused them to be viewed as "outsiders", hence excluded from the project communication flow and not taken seriously.
- The MCC oversight on M&E was very positive and constructive and was enhanced by the MCC by annual M&E Colleges. However, MCC oversight was, at one point, very unstable due to their high staff turnover. It takes time to adapt to working with a new person.
- The standard contracts as well as Implementing Entity Agreements should have a clause binding contractors and Implementing Entities to appoint an M&E focal person to report on Compact indicators, Data Quality Review findings and recommendations and other key M&E obligations.
- ITT: need to change to 20 quarters. The process took MCC a long time to approve that. The Iincremental type of indicators should be replaced.
- The geographical dispersion of the Program has been an important challenge. Having field-based M&E Assistants minimized the divide separating project sites and the MCA headquarters for dissemination of Program information to stakeholders.
- Data Quality Reviews are a valid exercise although there was a lack of responsiveness from the institutions that received the recommendations from the reviewers. Also, the fact that no follow up Data Quality Review was conducted for MCA-M did not give a good indication of whether or not the M&E system at MCA improved on the Relevance, Reliability, Timeliness, Validity and Integrity issues where findings and recommendations were made.
- The institutional arrangement of having the National Statistical Institute (INE) validate the sample size and framework design by MCA-contracted consultants for Compact related surveys and special studies ensured a greater acceptability, comparability and use of results by different stakeholders including government entities, other donor organizations, research and academic institutions.
- MCA proposes to MCC the detachment of the ITT from the QDRP because it is a reporting rather than planning instrument. Furthermore, the timing should be reviewed so as to allow for full reporting of the quarter with actuals.
- MCA recommends that MCC involves MCAs all over the world in the review of documents (policy documents, guidelines, common indicators) prior to their approval.
- The M&E closeout requirements or rules should be established right from the beginning of the Compact.

Communication

- Hire Photographers and Freelance Journalists from the start of the Compact. This is important to record the "Before" the works and also the conclusion. The journalists who are part of the project will have a deeper knowledge and understanding and will grow with the project and developments;

- Make sure that the communication department is copied on all reports: The Engineers are busy doing their Job and there is no extra Time to explain progress, therefore communications should be experienced enough o understand technical terminology, decipher and write articles that can be understood by a broad spectrum of readers;
- M&E work closely with Marketing and Communication and is additional work they have to manage to check reports and information.

Procurement

- MCA working with PA very successful (develop). Idea that they work for MCA and not MCC. Re-drafted the methodology for working together under the contract.
- Delays have not really been during procurement but before (receiving technical specs/ToRs from IEs) and implementation. Need for a more firm approach with contractors when delays are occurring;
- MCC Procurement College was very useful both for lessons learned and especially to create an informal PA group (Is the intent to limit the interaction just to PAs or to MCA procurement directors as well?) which can now be contacted when we have a question. This should happen more often;
- FIDIC trainings are useful but the real problems are linked to the particularity of MCC funding ending and MCA entity disappearing and this lesson learned can only come from other MCAs; not general FIDIC training.

Lessons learned from critical tenders evaluations

All evaluations were completed well in advance of the deadlines and this can be attributed a combination of the positive elements listed below:

- **Strategy for surge capacity**: the PA developed a strategy to deal with the surge capacity related to the critical tenders. This strategy was approved by MCA and MCC. It foresaw in a detailed staffing schedule for PA, MCA, IE and MCC. Due to shifting deadlines, the PA had to be very flexible with regards the hiring of additional international ST staff. Overall, this strategy remained the guideline on which staffing needs would occur when and it proved therefore to be an essential tool. Some additional points:
  - Good to have external ST PA experts leading the panel. They can fully concentrate on the critical tenders whilst the LT PA staff always gets additional unexpected demands for day-to-day procurements. Having the same ST expert leading a

couple of evaluations also is useful especially if the expert has prior MCA experience.

- When the strategy was prepared, the PA could not foresee the additional workload related to the revision of the supervision engineer contracts. Ideally these revisions would not have occurred at the same time and MCA/MCC should take note of this in future.
- Future strategies should deal with the ambivalence of 'letter of acceptance' and 'signed contract' when dealing with the deadline also given the FIDIC rules that a LoA is binding.

❖ **MCC's Independent engineer** as advisers to the evaluation panel. This turned out to be positive for the following reasons :

- Almost all were senior experts with relevant international and regional field experience including evaluation experience. These experts were often the most experienced on the panel.
- They ensured full independence given their background;

❖ **Design engineer** worked on BoQ verification/financial analysis and provided E&S / H&S expert to assist with evaluation of relevant parts of proposal. This turned out to be positive for a couple of reasons:

- Brings in expertise providing vital information in order the panelists to make their final decisions.
- Safes the EP a lot of time especially on the BoQ verification and financial analysis since the design engineer know these matters the best and thus can work fast. They work in parallel with the EP thus it saves at least 2 weeks in the process.

❖ **MCC engineer** as observer:

- Ensures transparency and the smooth functioning of the panel
- Brings in additional senior experience and soundboard for the panelists
- Clear briefing is required in the beginning to define their role and responsibilities but even then some show an initial tendency to overstep their role.

❖ **Evaluation Process**: the main problem we had to deal with was a consequence of the overall poor quality of proposals as well as the fact that few companies complied with the selection criteria in phase II. A couple of measures were taken to overcome these challenges:

- Some selection criteria in the later tenders were adjusted after agreement with MCC. However, most EP did think the criteria remained too rigorous although they did stick to them in accordance to the procurement rules.

❖ **Communication between MCA and MCC**: communication was frequent including memos from EP/MCA to MCC after phase I and II which needed to be approved. This worked well in the beginning and ensured EP/MCA to pursue the track followed. In later tenders, these memos could only be sent later since EP were often awaiting the responses to clarifications but by then MCA/PA knew what was acceptable to MCC and hence correct guidance was provided to the EPs. However, more informal

contact between MCA and MCC procurement is advisable still when clarifications need to be requested in order to ensure that all decisions can be endorsed by MCC.

- **Location:** two options were pursued – evaluation 200 km away from Maputo and evaluation in Maputo. The latter needs to be preferred.
  - Positive: PA and MCA can provide more support to the EP (both technical and logistical) especially when more panels are working at the same time. Communications are good unlike when one is away from Maputo
  - Negative: sometimes local panel members get called out to perform some tasks for their regular job. However, all in all this has posed less a problem than expected and usually only during the first couple of days of the evaluations. Panels also worked in weekends and evenings in Maputo.

7.2. WATER SUPPLY AND SANITATION PROJECT

Listed below, **lessons learned** drawn from the implementation of the WSS project and their respective recommendations where applicable:

- ✓ **Lesson learned:** Insufficient coordination between the Project Components. Insufficient cross-exchange of information – with unequal rate of success among projects, the impact of the overall project is affected.
  → **Recommendation:** Coordination mechanisms at project level should be developed to ensure full communication between the various Components; especially for those that are interlinked.

- ✓ **Lesson learned:** Compact time line is short and not enough time for MCA staff for familiarization with MCC procedures and internal management tools.
  → **Recommendation:** Job training to MCA staff on MCC Guidelines and other management tools such as MS Project, Construction Management Contract, FIDC contracts, SPSS, QAP etc.

- ✓ **Lesson learned:** Long period of informal review and unclear comments on TOR by MCC.
  → **Recommendation:** Comments are requested to be specific and MCC to comply with 5 days approval.

- ✓ **Lesson learned:** Excessive details in defining the staffing requirement by inclusion of non key staff caused the evaluation process to become too long.
  → **Recommendation:** Restrict the key staff only to relevant specialists for the assignment.

- ✓ **Lesson learned:** Full time availability of panel members, in particular GOM employees, for long period without payment was a key constraint.

→ **Recommendation:** When appropriate the technical evaluation process took place outside of Maputo thereby permitting payment of per diem as an incentive to serve on panels. Alternatively, MCA could hire outside consultants to serve on panels.

Rural Water Component

- ✓ **Lesson learned:** Communication / language constraint (Province and District level with difficulties to comment the deliverables).
  → **Recommendation:** Submit all deliverables in both languages (Portuguese and English).

- ✓ **Lesson learned:** Key staff no longer available to perform the assignment after contract signing causing constrains and delay in implementation.
  → **Recommendation**: Discourage the firms on the risks of contract cancelation if best candidate is not found and make replacement requirement hard by rigorous evaluation of CV of the new candidate

- ✓ **Lesson learned:** Long period of Informal review and unclear comments on TOR by MCC.
  → **Recommendation**: Comments are requested to be specific and MCC to comply with 5 days approval.

- ✓ **Lesson learned:** Compact timeline is short and enough time for MCA staff for familiarization with MCC procedures and internal management tools.
  → Recommendation: Job training to MCA staff on MCC Guidelines and other management tools such as MS Project, Construction Management Contract, FIDC contracts, SPSS, etc.

- ✓ **Lesson learned:** Open Bid (one step procurement) allowed open competition among consultants and good prices were received.

3 cities Water Supply Activity

- ✓ **Lesson learned:** Excessive details in defining the staffing requirement by inclusion of non key staff caused the evaluation process become too long.
  → **Recommendation:** Restrict the key staff only to relevant specialists for the assignment.

- ✓ **Lesson learned:** Long period of Informal review and unclear comments on TOR by MCC.
  → **Recommendation:** Comments are requested to be specific and MCC to comply with 5 days approval.

- ✓ **Lesson learned:** Compact tilmeline is short and enough time for MCA staff for familiarization with MCC procedures and internal management tools.

→ **Recommendation:** Job training to MCA staff on MCC Guidelines and other management tools such as MS Project, Construction Management Contract, FIDC contracts, SPSS, etc.

- ✓ **Lesson learned:** Open Bid (one step procurement) allowed open competition among consultants and good prices were received.
- ✓ **Lesson learned:** Full time availiability of panel members for long period without payment was a key constraint.
  → **Recommendation:** The evaluation panel members were sent to work out of the city.

Nacala Dam Activity

- ✓ **Lesson learned:** Long period of Informal review and unclear comments on TOR by MCC
  → **Recommendation:** Comments are requested to be specific and MCC to comply with 5 days approval.

- ✓ **Lesson learned:** Lack of clarity on the Standard Contract (Annex A) caused delay of a month and half on the contract finalization.

- ✓ **Lesson learned:** Compact tilmeline is short and enough time for MCA staff for familiarization with MCC procedures and internal management tools.
  → **Recommendation:** Job training to MCA staff on MCC Guidelines and other management tools such as MS Project, Construction Management Contract, FIDC contracts, SPSS, etc.

- ✓ **Lesson learned:** Open Bid (one step procurement) allowed open competition among consultants and good prices were received.

- ✓ **Lesson learned:** Communication and language constraints (Province and District level with difficulties to comment the deliverables)
  → **Recommendation:** Submit all deliverables in two languages (Portugues and English).

7.3. REHABILITATION PROJECT AND ROADS CONSTRUCTION

Listed below, lessons learned drawn from the implementation of the Road project and their respective recommendations where applicable:

- ✓ **Lesson learned:** Carrying out the recruitment process during YO1 of compact slowed down implementation of the activities, as staff were entering MCA and were learning MCC process and guidelines.
  → **Recommendation:** The process of Staff recruitment and staff familiarization with MCC procedure and guidelines should occur prior to Y01 of compact.

- ✓ **Lesson learned:** Long duration of bids evaluation process created difficulties for participation of external panel members.
  → **Recommendation:** MCC should consider short listing of pre-qualification of bidders, depending on the circumstances. Alternatively, there is also the option of hiring consultants internally or outside, where feasible. PPG provides for these options. MCA was reluctant to conduct pre-qualification on works contracts due to fear of collusion by participating contractors.

- ✓ **Lesson learned:** The Change of staff involved in the review of documents submitted by MCA for approval causes delays and the reopening of concluded issue
  → **Recommendation:** MCC should try not changing the staff during the review process.

- ✓ **Lesson learned:** It can be essential for a contractor to have a local network.
  → **Recommendation:** ToRs should be drafted with this knowledge.

- ✓ **Lesson learned:** Close cooperation, dialogue and communication are essential to move forward. Early communications were too formal which resulted in delays in the works.
  → **Recommendation:** More informal and regular exchanges are the key for timely implementation. Also helps unblocking things and avoiding that they blow out of proportion. Find quick solutions to small problems through close cooperation and communication.

- ✓ **Lesson learned:** Lack of contractual clauses which penalizes the Consultant when: a) Deliverables submitted by him are of poor quality, b) In the part dedicated to Special Conditions of the Contract, introduce the percentage of contract value for Consultant penalizations in case of poor performance.
  → **Recommendation:** In the part dedicated to Special Conditions of the Contract, introduce the percentage of contract value for Consultant penalizations in case of poor performance.

- ✓ **Lesson learned:** Insufficient time allocated for Feasibility Study and Project Design.
  → **Recommendation:** It is necessary to allocate a realistic time to do Feasibility Study and Project Design.

- ✓ **Lesson learned:** The criteria of evaluation of the proposals does not give enough weight for knowhow component (the conditions, rules, and specifications) of the Country where the projects will be implemented.
  → **Recommendation:** Increase weight in the Evaluation Criteria for knowledge (conditions, rules and specifications) of the Country where the projects will be implemented.

- ✓ **Lesson learned:** Changes of MCC Staff involved in the revision of documents submitted by MCA. This practice usually open issues agreed and concluded.
  → **Recommendation:** MCC should to try keeping the staff during the process of revision of the documents, submitted by MCA.

- ✓ **Lesson learned:** Delay in the approval of documents submitted by MCA to MCC Washington DC.
  → **Recommendation:** Before the submission of documents to MCC for approval, intensive preliminary work should be done between MCA and MCC Country staff.

- ✓ **Lesson learned:** Delay importation of equipment for investigation and construction.
  → **Recommendation:** Explain to the Consultants as well as Contractors, how the process of importation has to be addressed in Mozambique, particularly for the compact program.

- ✓ **Lesson learned:** Delay in the submission of deliverables.
  → **Recommendation:** MCA must put necessary pressure on the Contractors as well as Engineers.

- ✓ **Lesson learned:** Implementation delay of transversal issues.
  → **Recommendation:** Direct involvement of MCA Specialists.

- ✓ **Lesson learned:** Difficulties in getting work permit.
  → **Recommendation:** Explain to the Consultant or Contractor the process of getting work permit in Mozambique.

- ✓ **Lesson learned:** The presence of MCC in the evaluation of the proposal for Works, facilitate approvals of the evaluation reports as well Works contracts and addendum.
  → **Recommendation:** Promote informal consultation with MCC in order to facilitate quick approvals.

- ✓ **Lesson learned:** Poor Contractors Administrative Management delays mobilization as well as beginning of works.
  → **Recommendation:**
  - Keep the supervision more closely of all Contractors activities;
  - Always review and comment the Contractor work plan;
  - Help the Contractor to get quick approvals from Government Institutions.

- ✓ **Lesson learned:** Relocation of fiber optic cable.
  → **Recommendation:** Formally and informally working with TDM has to continue.

- ✓ **Lesson learned:** Permanent dialogue between MCA, Implementing Entity and Engineer staff in the Project implementation create the ownership of the Project to all parties.
  → **Recommendation:** Continue with the practice.

7.4. LAND TENURE SERVICES PROJECT

Land has been at the center of a long-standing debate about different choices and visions for growth in rural areas, and is of increasing importance to urban development as well. It is also clear that land will remain a very sensitive issue over the years to come which is a challenge to address in terms of the sustainability of the Project.

The key lesson learnt under this project is that **clear rules** coupled with open communication channels allow for a smooth project implementation. This project was a complex project with many political and institutional complexities counting 28 Implementing Entities. For some issues, high level ministerial and Cabinet decisions were required and given the historical context of land in this country, MCA only felt comfortable to move forward with the green light from the institutions dealing with land issues in Mozambique. MCA performance was therefore very much dependant on the engagement of the institutions and **clear communication** was a key success factor. Furthermore, the beauty of MCC funding is that if all activities are working according to plan, the money is always available to pay for the goods and services that the project needs.

Listed below, lessons learned drawn from the implementation of the Land project and their respective recommendations where applicable:

- ✓ **Lesson learned:** The objectives of the Project may have been unrealistic as some say it was too early to move to a free market of land titles.
  - → **Recommendation:** A first step could have been to ensure security of tenure to all beneficiaries.

- ✓ **Lesson learned:** Clear rules coupled with open communication channels allow for a smooth project implementation.

- ✓ **Lesson learned:** This project was a complex project with many political and institutional complexities counting 28 implemented entities. For some issues, high level ministerial and Cabinet decisions were required and given the historical context of land in this country, MCA only felt comfortable to move forward with the green light from the institutions dealing with land issues in Mozambique.
  - → **Recommendation:** The Government and the Implementing Entities in the Land Sector need to take strong roles in decision-making processes to avoid delays in the implementation of project activities.

- ✓ **Lesson learned:** We spent half of the time of the project conducting studies, doing assessment and when we finish this the time for the activities was very limited.
  - → **Recommendation:** Studies should be conducted before the project starts.

- ✓ **Lesson learned:** Sustainability and transfer to other donors addressed perhaps a little

late.

→ **Recommendation:** Develop a forum for coordination with other donors in line with Paris Declaration on Aid-effectiveness to ensure sustainability of the investment.

7.5. THE FARMER INCOME SUPPORT PROJECT

Listed below, lessons learned drawn from the implementation of the FISP project and their respective recommendations where applicable:

- ✓ **Lesson learned:** There was a higher interest by smallholders to plant in some regions.
  → **Recommendation:** Concentrate planting activities in areas of biggest interest.

- ✓ **Lesson learned:** Leaving dead trees uncut in epidemic zones while felling diseased trees creates dissatisfaction among beneficiaries and increases risk of oryctes dissemination.
  → **Recommendation:** Promote cutting of dead trees by owners. Avoid working in intermediate zones with many dead trees. Reallocate funds within FISP SP budget.

- ✓ **Lesson learned:** Farmers have shown an interest in joining and being part of the program, but their knowledge and interest on post planting care of seedling (watering, orcyte control, weeding) was poor. Furthermore, they are more interested in activities that yield immediate results for them.
  → **Recommendation:** Increase training of farmers in coconut husbandry techniques.

- ✓ **Lesson learned:** Lower interest by some district governments comparatively with others.
  → **Recommendation:** Mediation of Provincial Directorate of Agriculture and improve communication with Districts.

- ✓ **Lesson learned:** Timely delivering of the seedlings to beneficiaries contributes to their level of survival.
  → **Recommendation:** More collaboration and coordination between office and field staff required.

- ✓ **Lesson learned:** Building awareness at an early stage makes information about the effects of pests and disease more widely available.

- ✓ **Lesson learned:** Orocyte beetle is more prevalent in endemic and intermediary zones than originally estimated.

- ✓ **Lesson learned:** Interruption of cutting and burning activity for long period affects the achievement targets.
  - → **Recommendation:** Intensity cutting activity and increase H&S traning and supervision.

- ✓ **Lesson learned:** Investing project resources in areas where tenure security of small holders is not assured can lead to the possible attribution of FISP funded plantings to non-smallholder sector.

Make sure that all land to be worked on by the project has the Land Rights clear and smallholder ownership guaranteed.

- ✓ **Lesson learned:** BDF grants were not succesful partly by reason of the grantees' inability to cope with the scope of the work of the grant.
  - → **Recommendation:** Establish rapid response system to auditing recommendations.

- ✓ **Lesson learned:** The sustainability of the activities can depend on the signature of an agreement with all relevant implementing agencies (e.g. not with DNEA/DPA); public service as extension of project not available.
  - → **Recommendation:** Encourage government to give more importance to the coconut industry and declare CLYD and orocytes a national didaster.