



Africa Adaptation Project Rwanda



FINAL EVALUATION REPORT

March 2013

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ACRONYMS

AAP	African Adaptation Program
ALM	Adaptation Learning Mechanism
AWKS	Automatic Weather Kits for Schools
CBO	Community Based Organisation
CC	Climate Change
CCA	Climate Change Adaptation
CCIO	Climate Change and International Obligations
DCCIO	Department of Climate Change and International Obligation
DDP	District Development Plan
EDPRS	Economic Development and Poverty Reduction
EWS	Early Warning System
FONERWA	Rwanda Environment and Climate Change Fund
GEF	Global Environment fund
GIS	Geographic Information System
GOR	Government of Rwanda
HS	Highly Satisfactory
HU	Highly Unsatisfactory
ICRAF	International Centre for research in Agro forestry
KWAMP	Kirehe Watershed Management Project
LDCF	Least Developed countries fund
M&E	Monitoring and Evaluation
MIDIMAR	Ministry of Disaster Management and Refugee Affairs
MINAGRI	Ministry of Agriculture and Animal Resources
MINALOC	Ministry of Local Government
MINECONFIN	Ministry of Finance and Economic Planning
MININFRA	Ministry of Infrastructure
MINIRENA	Ministry of Natural Resources
MINISANTE	Ministry of health
MIS	Management Information System
MOU	Memorandum of Understanding
MS	Marginally Satisfactory

MTR	Mid Term Review
MU	Marginally Unsatisfactory
NAPA	National Adaptation Plan of Action
NGOs	Non-Government Organisation
PMU	Project Management Unit
RAB	Rwanda Agriculture Board
REMA	Rwanda Environment Management Authority
RENVIS	Rwanda Environment and Climate Change Information System
S	Satisfactory
SEI	Swedish Environmental Institute
SPIU	Single Project Implementation Unit
SWAP	Sector Wide Approach
TOR	Term of Reference
U	Unsatisfactory
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNCCCF	United Nations Climate Change Convention Framework

EXECUTIVE SUMMARY

AAP Rwanda is part of an African Program launched by UNDP with the funding from the Government of JAPAN. Within the framework of the AAP, Rwanda started AAP Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa - Building a comprehensive national approach in Rwanda. The Project was to start in January 2010 but due to the delay in the establishment of the Project Management Unit, the project started late in June 2010.

The Objective of this final evaluation is to enable the Government of Rwanda through the Rwanda Environment Management Authority (REMA), UNDP and the Government of Japan as well as other stakeholders to assess the achievements of the project, its impacts and sustainability and to document lessons learnt and success stories that can contribute to the replication of the project results locally, nationally and even regionally.

The Evaluation was conducted in a participatory manner, using quantitative and qualitative approaches. It consisted in interviews with key stakeholders at all levels as well as field visits to the districts where adaptation pilot activities were implemented.

The achievements of the AAP project is a result of a collaborative effort between the Project management team, REMA, the Ministry of Natural Resources, the Ministry of Agriculture and Animal Resources, the Ministry of Infrastructure particularly its meteorology department, the Districts, the different service providers contracted by the Project as well as other key stakeholders at national, and community level who in one way or another participated in the project.

The AAP project was implemented within the Single Project implementation Unit established at the Rwanda Environment Management Authority (REMA) and in close collaboration with REMA departments and projects. The Project was funded by the Government of Japan through UNDP for an amount of 2,9 Millions USD. The Project signed two Memorandum of Understanding with the Rwanda Agricultural Board (RAB) to implement pilot adaptation projects and with the Rwanda Meteorology Service (Rwanda METEO) for the establishment of an early warning system for

Rwanda.

The AAP Rwanda focused on five outputs including:

- (i) Dynamic, long term planning mechanisms to cope with the inherent uncertainties of climate change are introduced.***
- (ii) Leadership and institutional framework to manage climate change risks and opportunities in an integrated manner at the local and national level built.***
- (iii) Climate-resilient policies and measures in priority sectors implemented.***
- (iv) Financing options to meet national adaptation costs expanded at the local, national, sub- regional and regional levels.***
- (v) Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels.***

The Rwanda Environment Authority played an instrumental role right from the formulation of the project through its implementation and uptake of its outputs. The Institutional arrangements at REMA provide an effective framework for the sustainability of the project results.

Since the project started many events happened in Rwanda that offered to the Project a conducive environment to achieve its objectives. The Project coincided with the end of the first edition of the Rwanda Economic Development and Poverty Reduction Strategy (EDPRS) and the preparation of its second phase. Rwanda updated its vision 2020 to give more emphasis on environment and climate change as a means to ensure sustainable development. A Department of Climate change and international obligations was created under the Rwanda Environment Management Authority and the establishment of the fund for environment and climate change (FONERWA) was under preparation. During the same period Rwanda was finalizing its new Green growth and climate change resilience strategy, which was adopted later in December 2011.

The Rwanda AAP project was fitting well in this Rwanda dynamic environment.

Taking in consideration this dynamic environment and the limited time, which was

imparted to the Project, the steering committee meeting held in October 2011 reviewed the Project work plan and proposed the project new priorities. Emphasis was given to output 1 and 3 including (i) the establishment of an early warning system for Rwanda by strengthening the capacity of Rwanda Meteorological department in terms of equipment and human resource capacity in weather data collection, processing and forecast and (ii) the implementation of Climate change pilot projects at community level. For the remaining outputs, the AAP was to support the on going efforts being done by the Government of Rwanda and REMA. This was reflected in the re allocation of the budget where output 1 and 3 were given more than $\frac{3}{4}$ of the total budget.

The evaluation team noted also positively that, the AAP project was implemented in synergy with another Climate change project funded by UNEP and UNDP; the LDCF Project in four districts of the Western province of Rwanda prone to flooding and landslides. The LDCF also contributed to the funding of the meteorological equipment and is testing on pilot basis the early system warning in the 4 districts it covers. The Project is still going on and will carry over some AAP project activities.

Despite the delay that the project registered at its start, the AAP Rwanda made commendable achievements, which were complemented by the Rwanda Government efforts towards addressing climate change challenges. The project achieved the following:

- Laid the foundation for an efficient early warning system for Rwanda by providing Rwanda METEO with the up to date equipment and models for data collection, processing and weather forecasting. The Project strengthened the capacity of professionals from Rwanda METEO, the Ministry of Agriculture and the Ministry of Disaster Management in data collection, analysis, and packaging for early warning information, weather forecast for disaster management and preparedness and use of early warning information for decision-making.
- Supported the Government efforts of mainstreaming environment and climate change into the second edition of the EDPRS (2013-2017), in Sector Ministries and in district Development plans and budgets and conducted climate change training targeting professionals in the Ministries in charge of

Finance and Economic Planning, Agriculture, Infrastructure and Local Government. The training was also extended to 504 women across the country and to the members of the cooperatives, which participated in the climate change adaptation pilot projects.

- Implemented climate change pilot adaptations projects in six districts of Rwanda in the area of water harvesting, small scale community irrigation, food security and soil conservation. The Projects were implemented through local cooperatives, which members benefited in terms of income and skills, which will allow them to continue functioning even after the project closure.
- Strengthened the capacity of REMA, through the establishment of the climate change and international obligations department, the equipment of a documentary centre at REMA as well as the establishment the Rwanda Environment and Climate Change Information System (RENVIS) and a GIS based monitoring and evaluation for Environment and climate change. The project also contributed to the production of an atlas entitled: the ATLAS¹ for Rwanda's changing environment; Implication for Climate Change.
- Produced a report on national incentive based climate change resilience building program. The program proposes sector-based actions and costs to build resilience to climate change effects, and incentives to promote their uptake.
- Prepared 12 different reports which informed the implementation of the projects in different areas (see annex 6.3)

Through the implementation of the AAP a number of interesting lessons were drawn:

- Rwanda commitment in addressing climate change in its development programs.
- Rwanda Environment and Climate change fund (FONERWA) as an example of a successful sustainable mechanism for funding environment and climate change initiatives
- How climate change adaptation pilot project can catalyse their replication in the area and countrywide.
- Working with Cooperatives as a good entry point into the community in the

¹ The ATLAS draws the attention of decision makers to environmental hotspots where human activity has led to environmental degradation. It also showcases the results of successful policy interventions that have mitigated and reversed some of the negative environmental impacts

implementation of adaptation pilot activities.

- Opportunity offered by the district Development plans and the introduction of performance contracts in coping with climate change at community level.
- Community valley dams management committees in Gatsibo district
- Water tanks constructed with local raw materials (Bamboo, sand and cement) in Kirehe district.
- Traditional knowledge in weather forecasting in Rwanda.
- Successful community adaptation initiatives observed by the evaluator during field visits including small stock animal rearing and protection of young trees against termites.

The evaluation team also noted that the AAP Project experienced some challenges, which can be summarized as follow:

- The time frame of the Project was not commensurate to the desired results.
- The establishment of the AAP Rwanda project management had to comply with the introduction of the Single Project Implementation system adopted by the Government of Rwanda in public institutions to implement Projects with similar objectives under one Management Unit. This resulted in the delay in the establishment of the AAP Project Management unit, which became effective in May 2010.
- The Project also had to abide to the Rwanda Government procurement procedures in procuring the many project consultants and goods. And in some cases, this delayed the effective start of some activities.
- Interview with members of the cooperatives involved in the implementation of the pilot adaptation project indicated that the community was not extensively involved during the formulation of the pilot adaptations projects. Consultations were limited to the local authorities due to limited time.
- Some selected adaptation pilot project such as tree planting could not produce the intended results within the life span of the project to produce Specific knowledge and understanding that would inform future policy decisions.
- The team noted the weak Linkage of the project with the regional team and other AAP projects.

Overall, the evaluation team commends the work done by the project team and the adjustments made to address the challenges the project encountered. The team also recognizes the substantial contribution of the Government of Rwanda in achieving the project objectives and outputs. The overall ranking of the Project is SATISFACTORY.

1. INTRODUCTION

This final evaluation was initiated by UNDP and the Project management Unit as it is practice for any project phasing out to review the project progress in the achievement of outcomes and outputs measured against the baseline and indicators set at the outset of the Project. More specifically the final evaluation aimed at: (i) critically assessing the stages of the AAP and its products through participatory approaches, (ii) measuring to what extent the objective/outputs/activities have been achieved against the results and resources framework, and identifying factors that have hindered or facilitated the success of the project and finally (iii) producing a report containing a detailed list of lessons Learnt concerning the project design, implementation and management.

The lessons learnt section is aimed at capturing key lessons to assess what adaptation approaches/measures were effective in various thematic areas (e.g. water, agriculture, health, disaster risk reduction, coastal zone management) at multiple special scales (e.g. national, sub-national, local levels). This part is therefore forward-looking and is aimed at promoting AAP's lessons so that the legacies of the AAP will be replicated and sustained beyond the project lifetime.

The present evaluation focused on four key issues as specified in the Terms of reference. These included: (i) The Project design (ii) Project implementation, (iii) Monitoring and evaluation and (iv) Sustainability of results and their replicability. Under the project design, the evaluation assessed the conceptualisation of the project, looked at its relevance and effectiveness in addressing the climate change risks that Rwanda is facing and the country's priorities highlighted in the vision 2020 and in the Economic Development and Poverty Reduction Strategy (EDPRS) as well.

The evaluation assessed critically the status of implementation of the project, the disbursement and budget procedures. It analysed the efficiency of the Institutional arrangements in place including (i) the coordination mechanisms (ii) partnership and stakeholder participation and ownership. An important chapter is dedicated to the

assessment of the Project progress and impact as well as the output achievements against indicators.

Finally, the evaluation analysed the sustainability of the project results and their replicability and documented lessons learnt.

1.1. Structure of the evaluation

The structure of the final evaluation report is based on the outline proposed in the TORs. It comprises five main sections.

Section one: is the introduction explaining the purpose of the evaluation, key issues addressed and the methodology used during the evaluation.

Section two: The Project and its development context provides information on the project start and its duration, the challenges that the program sought to address, the objective and the goal of the project as well as the results expected.

Section three: Evaluation findings. This section analyses the different phases of the project from formulation to implementation, provides an assessment of the attainment of project objective and outputs and ends up with an analysis of the sustainability and replicability of the results.

Section four: Lessons learnt: Under this section the final evaluation identified best practices or success stories drawn from the community pilot projects and government programs that are conducive to climate change resilient development.

Section five: The report ends with conclusions and recommendations on potential future actions towards a sustainable and climate change resilient development.

Target Audience: The evaluation aims to inform the project Management, UNDP Country Office, REMA and its different departments, Sector Ministries directly related to this project, key stakeholders, national and international interested parties on the results and outcomes, recommendations and lessons learnt of the AAP Rwanda, at the end of its two years implementation.

Project implementation rating: The final evaluation report provides an assessment of the project progress towards meeting the expected results using UNDP evaluation scale: highly satisfactory (HS), satisfactory (S), marginally satisfactory (MS),

marginally unsatisfactory (MU), unsatisfactory (U), and highly unsatisfactory (HU).





1.2. Methodology of the evaluation

1.2.1. Field visits and interviews.




The evaluation used both qualitative and quantitative methods. The quantitative method was used to measure the results of the project in terms of outputs (number of seedlings produced, people trained etc..) while the qualitative method was used to assess the outcomes and impact of the project, to capture the lessons learnt, and to assess the sustainability and replicability of the project results.

The first step of the evaluation consisted in the analysis and categorization of the project stakeholders.

Four categories of stakeholders were identified including:

-  The Management of the Project including the PMU and the Steering committee members
-  The sector Ministries and their agencies and the donor agencies.
-  The Districts local authorities
-  The communities involved in the project including the beneficiaries of the project activities, the local entrepreneurs implementing the pilot projects, women and youth engaged in these activities.

The stakeholders interviewed were selected depending on their contribution to the evaluation. They were divided into three groups:

-  Stakeholders that can assess or hold information on the degree of implementation of the project outputs and activities. These include: the members of the Project Management unit, the Rwanda Environment Management Authority (REMA), and the members of the steering committee and UNDP country office.
-  Stakeholders (leadership) supposed to mainstream climate change in their respective plans and programs: Line Ministries and their agencies, MINECOFIN and the Districts
-  Stakeholders implementing the CC adaptation pilot projects or beneficiary of the project support: Local communities beneficiary of the project activities, the

local entrepreneurs implementing the project activities, Government agencies implementing the pilot projects i.e.: RAB, Rwanda Meteorology Service etc..)

The second step of the evaluation consisted in field visits and semi structured interviews with key stakeholders using an interview guide prepared during the inception of this final evaluation.

The Field mission consisted in:

- Semi structured interviews with selected project stakeholders involved in the implementation of the project activities and with the communities, beneficiary of the adaptation pilot projects. These included the local authorities in the districts and sectors visited, the members of the cooperatives engaged in the pilot projects as well as RAB staff at the Head office and in the field. Semi structured interviews also targeted the staff of key Ministries involved in the Project including the Ministry of Agriculture, the Ministry of Infrastructure and Rwanda METEO, the Ministry of Finance and the Ministry of Natural Resources.
- Physical verification or direct observation of project achievements in terms of reports, policies, capacity building, tools and equipment acquired but also in terms of timeliness in delivery of outputs and adequacy in the use of project resources. During the field visits physical observation consisted in the verification of the actual implementation and the results of community pilot adaptation projects in the districts of BUGESERA, KIREHE, GATSIBO, RULINDO and NYAMAGABE.

The semi-structured interviews used an interview guide made of open questions to assess the following:

- To what extent the objective/outputs/activities have been achieved against the results and resources framework.
- The relevance, effectiveness and efficiency of the undertaken activities
- What are factors that have hindered or facilitated the success of the project?
- Key lessons on what adaptation approaches/measures were effective in various thematic areas (e.g. water, agriculture, health, disaster risk reduction, coastal

zone management) at multiple spatial scales (e.g. national, sub-national, local levels)

The physical verification were done at the Project Management Unit, to verify the deliverables of the project in terms of documents, tools, equipment purchased and capacity building activities. In the field, verification was done in farmer's fields where the pilot projects on reforestation, agroforestry, water harvesting, soil conservation etc. were implemented. The evaluator conducted a transect in the farmer's field in company of the people involved in the implementation of that particular activity. The transect helped the evaluator to physically assess the actual status of the implementation of the community adaptation pilot projects in the area. Discussions were conducted with individuals or groups of people while walking in the transect to complement the information collected during the interviews and document review.

1.2.2. Data Collection and analysis.

- ***Primary data:***







Primary data consist of information observed or collected during field visits and interviews of key stakeholders. These included the following:

Project Management Staff and members of the steering committee, REMA staff, UNDP, Ministry of Agriculture/RAB staff, Ministry of Infrastructure staff, Members of the cooperatives involved in the implementation of pilot adaptation projects.

Primary data were also collected during field Visits organized in the Districts of Bugesera, Gatsibo, Kirehe, Rutsiro and Nyamagabe.

Secondary data:

Secondary data was collected through documentation review and special focus was given to:

-  Project documents
-  Quarterly reports, works plans and budgets.
-  Audit reports
-  Studies conducted during the Project
-  Government policy and strategy documents
-  Reports from service providers.

- 📄 Minutes of the steering committee meetings
- 📄 Reports of the Monitoring and evaluation officer
- 📄 UNDP project related reports and Mid term review reports.

Findings from the different sources were compared together with direct observations by the evaluator as a way of triangulation of the information on the project's results.

1.3. Principles guiding the evaluation

As recommended in the terms of reference and restated in the consultant proposal, this evaluation was guided by the following principles:

Independence: The evaluator is independent and has not been engaged in the project activities, nor was he responsible in the past for the design, implementation or supervision of the project.

Impartiality: The evaluator endeavored to provide a comprehensive and balanced presentation of strengths and weaknesses of the project. The evaluation process has been impartial at all stages and has taken into account all the views received from stakeholders.

Transparency: The evaluator discussed openly with the stakeholders involved in the evaluation and shared with them the results of his findings for comments.

Disclosure: This report serves as a mechanism through which the findings and lessons identified in the evaluation are disseminated to policymakers, operational staff, beneficiaries, the general public and other stakeholders.

Ethical considerations: The evaluator has respected the right of institutions and individuals to provide information in confidence. Accordingly, the sources of specific information and opinions in this report are not disclosed except where necessary and then only after confirmation with the information provider.

Credibility: This evaluation has been based on data and observations that are considered reliable and dependable with reference to the quality of instruments, procedures and analysis used to collect and interpret data.

Utility: The evaluator strived to be as well informed as possible and this ensuing

report is considered as relevant, timely and as concise as possible. In an attempt to be of maximum benefit to stakeholders, the report presents in a complete and balanced way the evidence, findings and issues, conclusions and recommendations.

2. THE PROJECT AND ITS DEVELOPMENT CONTEXT

The Africa Adaptation Programme was designed to assist 20 countries across Africa to incorporate climate change risks and opportunities into their national development processes in order to protect development gains in an environment of changing climate. It was implemented by REMA and financed by the Government of Japan through the Japan-UNDP Joint Framework for Building Partnership to address climate change in Africa within TICAD IV2.

AAP Rwanda was to contribute to the United Nations Development Assistance Framework **UNDAF Result 4: *Management of environment, natural resources and land is improved in a sustainable way.*** Under this framework, AAP Rwanda's development objective was: **to build Rwanda's institutional, individual and systemic capacity to address climate change risks and opportunities through a national approach to adaptation.**

With the support of the African Adaptation Program, the Government of Rwanda attempted to establish a country-wide approach to adaptation that would particularly test adaptation measures at the community and district level, taking a community preparedness focus and integrating gender sensitive approaches. In a collaborative effort with the Rwanda Environment Management Authority (REMA), the ended AAP Project addressed climate change risks under each of the five Africa Adaptation Program (AAP) Global Project outputs, focusing on strengthening (1) adaptive long-term planning capacities and climate proofing Sector and national development policies, (2) institutional and human resource capacities, specifically targeting the district level, (3) policy measures, through testing adaptation options with community adaptation projects and demonstration activities, and developing and implementing a sustainable financing strategy and knowledge management activities.

2.1. Challenges that the Project sought to address.

Despite the tremendous effort Rwanda has made to incorporate environment and sustainable use of natural resource in its Vision 2020, EDPRS and Sector strategies for the past five years; Climate change mitigation and adaptation systemic capacities at individual and institutional level in national, sector and local planning have not been given the importance they deserves in terms of a comprehensive national approach and in consideration of the potential adverse impact of climate change on the overall economic development of the country.

Rwanda is vulnerable to a wide range of natural hazards. Over the last decade, the frequency and intensity of natural hazard induced disasters; particularly floods and droughts are understood to have increased significantly, resulting in human casualties as well as economic and environmental losses. According to the study on economics of climate change in Rwanda undertaken by the Stockholm Environment Institute (SEI), periodic floods and droughts already cause major socio-economic impacts and reduce economic growth in Rwanda. The study indicates that major floods events occurred in 1997, 2006, 2007, 2008 and 2009, where heavy rainfall resulted in infrastructure damages, fatalities and injuries, landslides, loss and damage to agricultural crops, soil erosion and environmental degradation... Some regions in the eastern and southern part of Rwanda have also recorded periodic droughts in 1999/2000 and 2005/2006. (SEI, 2009).

Most of Rwanda's economy is based on rain-fed agriculture, with lesser contributions coming from the service and industrial sectors. Up to 87%² of the rural population depends directly on agriculture for their livelihood, either through subsistence or employment. The agricultural sector is believed to be under- performing, and unproductive, and unsustainable land management and agricultural practices generate poor returns from limited resources.

Eighty-six per cent (86%)³ of Rwanda's energy needs are currently biomass- energy based, and severe biomass shortages are prevalent, mainly due to over utilization and poor natural resource management practices in place. Hydro-electric power is being developed as an alternative energy. An impact on energy supply is expected,

² source: EICVIII

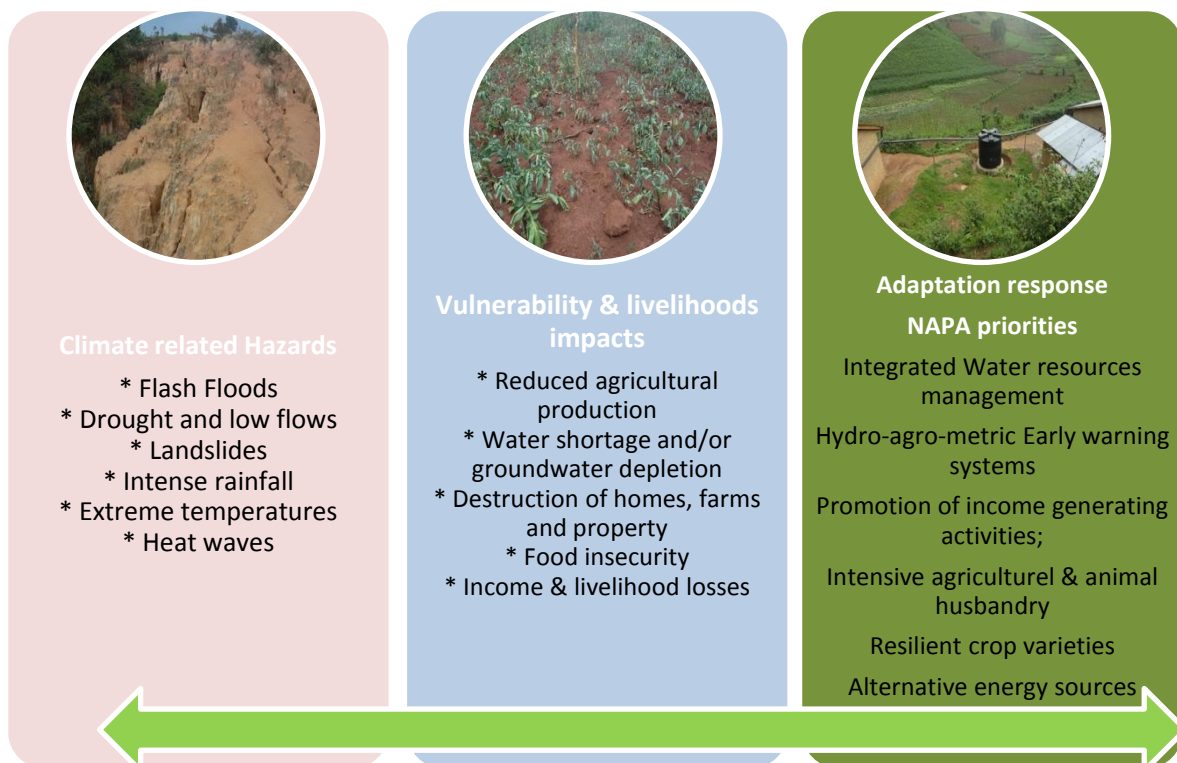
³ Source EICVIII

aggravating the already severe problem of insufficient biomass for energy generation.

Overall, there is extreme pressure on the limited land and ecosystems, mainly due to extremely high human population density, high population growths rate (at 2.9 %), and the quest for arable land due to a lack of alternatives to agriculture for income generation. Environmental degradation e.g. through extreme deforestation and transformation of land, infringement on conservation areas, poor land management practices, disruption and destruction of critical ecosystem services, severe soil erosion, siltation of rivers, and so forth, is a major threat to sustainable development in rural Rwanda.

The figure below summarizes the climate change risks and the major climate change impacts Rwanda is facing and the priority actions proposed in the National Adaptation action Plan (NAPA)

Figure 1: NAPA priorities based on climate related hazards and vulnerability status



The AAP Project was designed to help Rwanda moving from a reactive approach to a systemic long-term approach in addressing the above climate change risks already affecting or likely to affect all the socio economic sector of the Country.

2.2. Project start and duration

The AAP Rwanda was a two years project. It was to start in January 2010 and to end in December 2011 but due to some technical delays, the project document was finally signed in April 2010, followed by the project inception meeting in July 2010. As per the Institutional arrangements of REMA, the AAP Project was to be managed under the Single Project Management unit, which became operational in July 2010. The Project was later extended up to December 2012.

2.3. Project main stakeholders.

The Project was hosted under the Ministry of Natural Resource and implemented under the Single implementation Unit established at REMA. The Project worked with a number of key stakeholders including, sector Ministries, Government agencies, Local Governments and the communities of six districts in Rwanda. The following is a list of the key stakeholders involved in the project.

1. REMA: Rwanda Environment Management Authority is a technical arm of the Ministry of Natural Resources whose mandate is to facilitate coordination and oversight of the implementation of national environmental policy and the subsequent legislation. REMA's mandates, roles and functions are specified under the Law No 16/2006 of 03/04/2006. REMA has four departments namely:

- Environmental regulation and pollution control
- Research, environmental planning and development
- Environmental education and mainstreaming
- Climate change, and International obligations

2. LDCF project: Both AAP and the LDCF project were funded respectively by the GEF/UNDP) and by the Government of Japan and implemented through a single project management unit hosted at the Rwanda Environment Management Authority (REMA). The two projects were complementary in nature.

3. The Project steering committee was made of a multi-stakeholder committee; it contributed to the technical, policy and programmatic guidance of the project.

4. MIDIMAR: Ministry of Disaster Management and Refugee Affairs. It has among other mandates to promote disaster awareness culture and to participate actively in operational process aimed at boosting disaster management capability for sustainable regional stability and development.

5. MINALOC: Ministry of Local Government. Two of its programs are of relevance to the AAP Project. These include the community development and the local finance programs. The Ministry coordinates all the 30 districts making Rwanda.

6. MINAGRI/RAB: Ministry of Agriculture and Animal Resources. Its technical arm the Rwanda Agricultural Board(RAB) signed a Memorandum of understanding with REMA to implement some adaptation pilot projects in the area of Agriculture and food security.

7. MINIRENA: The Ministry of Natural Resources is the line Ministry under which REMA is established.

8. MININFRA/ METEO RWANDA: The Ministry of Infrastructure: Mainstreaming climate change adaptation in its plans and projects is a way to attain sustainable development. Its department of Meteorology benefited from the AAP project support in terms of capacity building and equipment.

9. MINECOFIN: The Ministry of Finance and Economic Planning is the Ministry managing and overseeing the implementation of the Rwanda Vision 2020 and EDPRS. It also manages the National finances or budget.

10. Other Ministries were in one way or another related to the AAP project. These are: the Ministry of Health, the Ministry of Education etc...

11. Districts: Under the Rwanda Decentralization law, Districts are autonomous decentralized entities and the foundation of community development. They prepare and implement a district development plan (DDP), which is financed by the District own resources, the Central Government contributions and funds from district partners. The AAP project implemented community adaptation pilot projects in six

districts of Rwanda including: Bugesera, Gatsibo, Kayanza, Kirehe, Nyamagabe and Rulindo.

12. The local community in the Project area: The Project implemented pilot projects in six districts with the collaboration of local communities. The members of the communities of these districts implemented these projects individually or in form of cooperatives. Members of the community were either beneficiaries or participants in the projects.

2.4. Expected Project results

In view of the identified climate changes risks in the different sectors in Rwanda, the AAP implemented climate change activities with the aim of attaining the following results/outputs:

1. Dynamic, long term planning mechanisms to cope with the inherent uncertainties of climate change are introduced.

Under the supervision of the Rwanda Environment Authority REMA and in collaboration with the Rwanda meteorology and agro meteorology services, the sector Ministries including MINAGRI, MININFRA, MINISANTE, MIDIMAR, MINECOFIN; existing information on sector specific climate change risks were to be synthesized and gaps addressed. A functional early warning system (EWS) that responds to climate change risks and integrates information from different sectors to be realized. Sector policies were to be reviewed for climate change resilience and climate change mainstreaming, monitoring and evaluation tools developed and applied to the EDPRS of the next five years (2013-2017)

2. Leadership and institutional framework to manage climate change risks and opportunities in an integrated manner at the local and national level built.

The capacity of REMA was to be strengthened within the newly established Climate Change and International Obligations Unit, which would then have the capacity of coordinating all climate change programs in the country. Capacity building opportunities was to be extended to a wide range of relevant stakeholders, both from the public service and private sector, including business, NGOs and CBOs.

In the spirit of the EDPRS and the decentralization and community empowerment efforts in Rwanda, the project was to build CCA leadership at the district level, including local government and the community. The establishment of district-level multi-stakeholder CCA platforms was to be piloted in six selected districts, representing different agro-ecological zones. These committees would become involved in implementing AAP activities, and follow-up action on the National Adaptation Program of Action (NAPA).

3. Climate-resilient policies and measures in priority sectors implemented.

Specific knowledge and understanding on which adaptation measures work was to be generated through implementation of pilot climate change adaptation projects in six districts of Rwanda. Local-level ongoing coping mechanisms and actions, including indigenous and traditional knowledge and CCA experiences documented, and best and worst practices tracked as learning experiences to also demonstrate what does not work and what leads to mal adaptation. Under this result, it was planned to develop a national incentive based climate change resilience building program to inform decision makers and attract further funding for climate change resilience and adaptation.

4. Financing options to meet national adaptation costs expanded at the local, national, sub- regional and regional levels.

The key result from this output was the development and establishment of a sustainable long term CCA financing mechanism and tools that assist in the climate change-proofing of national, sector, district and community level planning and budgeting processes. Furthermore, the project was to focus on developing community level financing of CCA.

The project was also to assess capacity needs in financing and economic research and policy development and come up with a dedicated capacity building and training program.

5. Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels.

REMA was to be capacitated in terms of human resources, equipment, and especially running costs for implementing and maintaining such information and knowledge sharing mechanism. Dedicated knowledge management and communication strategies were to be developed, based on end-user needs surveys, and to specifically address the low public awareness on adaptation needs and options.

A knowledge-brokering interface with other international CCA knowledge networks was to be established, e.g. with the UNDP Adaptation Learning Mechanism (ALM), and with other countries implementing AAP. Lessons learnt from the program were to be codified and shared.

3. EVALUATION FINDINGS

This section presents the findings of the evaluation and the rating of the status of achievement of the results by the project. The rating used is in conformity with the UNDP guidelines for final evaluations using the following divisions: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU).

3.1. Project formulation

3.1.1. Conceptualization (S)

The formulation of the Project was led by REMA, the Authority in Rwanda in charge of supervision, following up and ensuring that issues relating to environment receive attention in all national development plans. The authority had already conducted a number of studies, which established the status of the country's environment, the impact of climate change to the economic development and had facilitated the preparation of a number of country related strategies and reports including the national adaptation program, NAPA Rwanda (2006), the first national communication to the UNCCF (2006) and the Rwanda state of environment and outlook (2009).

REMA had a good understanding of the country's climate change threats and root causes based on its previous work and ongoing initiatives in environment and climate change. Thus, the proposed responses were adequate and relevant. The project activities related to the establishment of an early warning system, the pilot

adaptation activities are linked to UNDP priorities of Gender, poverty environment, disaster prevention and sustainable livelihood. REMA further hired a consultant who re assessed and improved the logical framework matrix and indicators and established a baseline.

The institutional arrangement⁴ of the AAP was designed such that synergy among the different on going interventions is created and uptake and sustainability enhanced.

However, the evaluation noted that:

- (i) The conceptualization of the Project didn't take enough consideration of the dynamic of integrating environment and climate change in national plans, which was going on in Rwanda, and there was a risk of duplication of activities. Rwanda had already initiated the preparation of the green growth and climate change strategy and attached to it the Fund for environment and climate change. The Ministry of Agriculture was preparing the Strategic environmental assessment of the Agricultural sector with the support of the European Union.
- (ii) Due to time limitation, the involvement of the beneficiaries of the pilot adaptations projects was limited to meeting the local authorities where the community adaptation projects were to take place. Consultations and involvement of the beneficiaries during the design phase would have come up with more specific and innovative actions, increased ownership, effectiveness and sustainability.

3.1.2. Country ownership (HS)

The AAP is a continuation of previous work undertaken by Rwanda in the environment and climate change sector. The Rwandan vision 2020 that seeks to transform the country from a poor, agrarian economy to a medium income, knowledge-based economy, is the guiding document from which derive other strategic and Sector documents. Vision 2020 gives emphasis to sustainable use of

⁴The Project was to be managed within the single project implementation Unit(SPIU) bringing together all similar projects under the same management and in close collaboration with related departments in REMA.

natural resource and environment conservation⁵. Rwanda, through its Ministry of Natural Resources and REMA completed a number of important documents such as the Rwanda environment outlook, the Environment profile for Rwanda, Rwanda adaptation plan of action (NAPA, 2006), the economics of climate change in Rwanda (SEI 2009) etc... . These documents describe the different climate change risks Rwanda is facing and are an indication of the commitment of Rwanda to support any climate change adaptation initiative.

The AAP project coincided with the preparation of the second edition of the Rwanda EDPRSII. As a result of the country commitment to sustainable development and climate change mitigation and adaptation, the Vision 2020 and EDPRS were updated to integrate environment and climate change not only as a cross cutting issue but as a sector on its own. The Ministry of finance introduced the annex 17 to the national budget instructing the sectors and local governments to mainstream Climate change in their plans and budgets.

The AAP project came to support these on going efforts and is well anchored in the Rwanda environment Authority programs. The key Sector Ministries including Ministry of Agriculture, Ministry of Infrastructure, Ministry of Health, Ministry of Disaster Management and Refugee Affairs and the Ministry of Finance and Economic Planning are represented in the Steering committee of the Project. For Rwanda, AAP is not seen as a stand-alone project but part of a wider program aiming at helping Rwanda in building its capacity to cope with the changing environment for a sustainable economic growth.

3.1.3. Stakeholder participation. (S)

The project design was informed by previous studies conducted under REMA especially the Rwanda National plan of action (NAPA) in which many stakeholders had been involved. Consultations were organized with the Ministry of Infrastructure through Rwanda meteo and the Ministry of Disaster Management (MIDIMAR) about the establishment of an early warning system for Rwanda. Consultations were held with the local authorities to define the type of the community pilot adaptation projects and where they will be implemented. However there is no enough evidence that the

⁵Sustainable use of natural resource and environment is one of the three cross cutting issues of the Vision 2020 and the EDPRS

formulation of the AAP involved enough all the relevant stakeholders especially at the community level. The interviews conducted with the members of the cooperatives involved in the implementation of the pilot projects indicated that they were not consulted during project formulation.

3.1.4.Replication approach (S)

As said earlier, REMA institutional arrangement is made to promote synergy among its different departments and projects. It helps in the capitalization of the knowledge and experience gained for sustainability, uptake and replication. The AAP project was built on the findings of earlier studies and it is expected that, REMA departments will scale up the successful outputs of the AAP within the on going projects or new projects in the area of environment and climate change. Under AAP output 4 a sustainable financing mechanism was to be created and in that line, REMA created the Rwanda environment and climate change fund (FONERWA), which once operational will contribute to the replication of the AAP results. Some of the pilot adaptations implemented by RAB⁶ are routine activities within the Ministry of Agriculture and Animal Resources and are already being replicated in other districts.

3.1.5.Linkage of the programme and other interventions within the sector (S)

The AAP Project was to be implemented within REMA single implementation project unit, which brings together all projects under REMA addressing environment and climate change. The Project is linked to other sector Ministries and the Districts⁷ with which some activities were jointly planned and implemented. These are the Ministry of Agriculture and Animal Resources, the Ministry of Infrastructure, the Ministry of Natural Resources and the Ministry of Disaster Management and Refugees Affairs and the Ministry of Local Government. These entire key sector Ministries are well represented in the steering committee of the project. UNDP is also represented in the steering committee. The AAP project coincided with the preparation of the second Rwanda Economic Development and Poverty Reduction Strategy (EDPRSII) to which AAP outputs are very relevant. EDPRSII is developed around four strategic thematic areas: (i) Economic Transformation, (ii) Rural Development, (iii) Productivity and Youth Employment, and (iv) Accountable Governance, which will drive rapid and sustainable economic growth, as well as fast reduction of poverty countrywide.

⁶ RAB, the Rwanda Agricultural Board combines research and extension activities.

⁷ Districts are decentralized local governments in Rwanda. Rwanda is divided in 5 Provinces and 30 Districts.

EDPRS II has identified Environment and Climate change, Gender and Family promotion, HIV/AIDS, Capacity building, Regional integration and Social inclusion and disability as cross cutting issues.

3.2. Project Implementation (S)

3.2.1. Implementation approach (S)

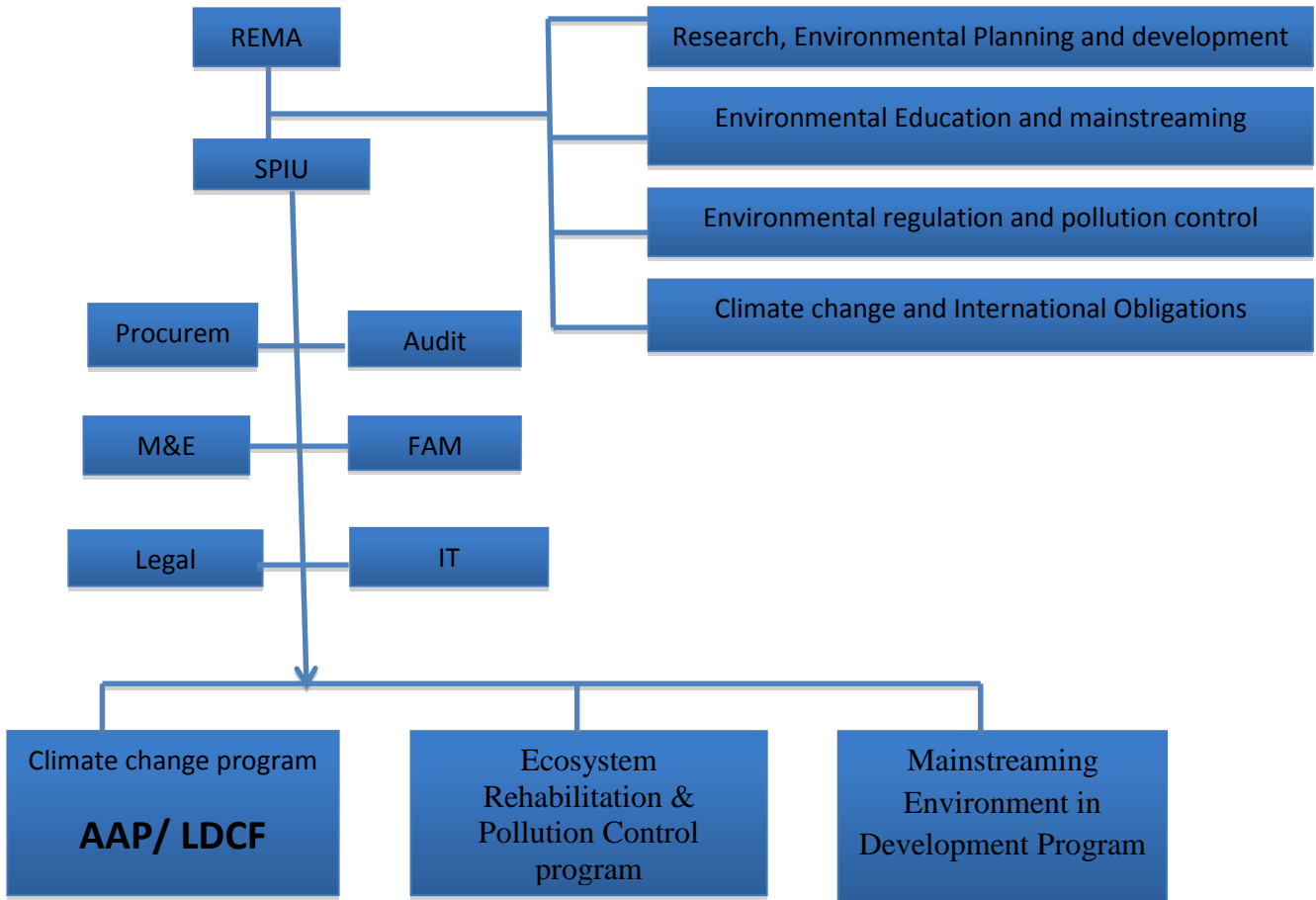
Aware of the threats of Climate change to the economic growth and sustainable development, The Government of Rwanda through different initiatives is developing strategies to mitigate and to improve its adaptive capacity to climate change. With the support of UNDP and the Government of Japan, the Government of Rwanda through the African Adaptation Program aims to establish a country-wide approach to adaptation that would particularly test adaptation measures at the community and district level, taking a community preparedness focus and integrating gender sensitive approaches.

The AAP project effective implementation period was two years and half from June 2010 to December 2012 with a total grant amount of US\$ 2,9 Millions.

The Project was hosted at the Rwanda Environment Management Authority (REMA) and implemented under the Single Project Management unit established at REMA. The Project was to benefit support from REMA departments and Projects having the same objectives of mitigating and adapting to climate change. The overall responsibility of the Project remained with the Coordinator of the SPIU while the day today management of the Project was to be the responsibility of the Climate change Program Manager. The multi-stakeholder project steering Committee provided the required technical, policy and programmatic guidance for the project.

The following is REMA /SPIU organization structure.

Figure 2: REMA/SPIU organizational structure.



During implementation, the Project signed MoU with the Rwanda Agricultural Board (RAB) to implement community adaptation pilot projects in six districts of Rwanda and with Rwanda meteorology service (Rwanda METEO) to develop an early warning system for Rwanda. It also used International and regional consultants to conduct studies and capacity building activities.

The implementation of the AAP faced some important challenges including: The short time frame of the project coupled with the late establishment of the Project Management Unit which resulted in delay in project activities implementation.

To address these challenges, the activities of the project were reviewed and prioritized and the budget re allocated among the outputs accordingly. These changes were discussed and adopted during the Project Steering Committee of

October 2011 and were motivated by three important reasons. (i) The need to prioritize activities due to the limited timeframe of the Project, (ii) Consideration of the progress being made by Rwanda under outputs 1, 2 and 4 and (ii) the need for reliable and real time Climate/weather information to mitigate or adapt to climate change events risks. The Project decided to allocate more resources to the establishment of an early warning system by strengthening the human and technical capacity of Rwanda METEO. This resulted in reducing the budget initially allocated to other outputs.

The evaluation team noted that the institutional arrangements of the project as well as the implementation mechanisms put in place were adequate and effective.

3.2.2. Monitoring and evaluation. (S)

The Project hired a monitoring and evaluation officer who regularly monitored the implementation of Project activities. The Officer conducted field-monitoring activities and produced regularly monitoring and evaluation reports based on the indicators set out in the project quarterly work plan and budget.

The PMU organized regularly the meeting of the steering committee. The Steering committee provided the necessary guidance, approved the project work plans and budgets.

To improve the M&E process, the Project commissioned two consultancies one on the establishment of baseline, and refinement of indicators, and another on the development of a GIS based M&E management and evaluation system for REMA programs and Projects.

The first consultancy established a baseline for all the project indicators and further reviewed the project indicators to come up with an updated project result framework. Out of the 51 original indicators, 9 were changed, 8 removed and 5 new indicators added. Moreover, the consultancy developed a simple vulnerability index calculation to assist in monitoring and evaluating the indicators of the output three of the Project. Finally a protocol for monitoring the project indicators was developed.

The second consultancy developed a comprehensive and user friendly GIS- M&E system for REMA programs and projects with a view to bring out a structured project

annual work planning and budgeting, procurement plans, monitoring and evaluation of project implementation progress and ensuring effective and timely communication and reporting of M&E findings to aid planning and decision making. Though not yet fully operational, the following tools were delivered to REMA:

- A model of a GIS based M&E/MIS linked with an internal communication system.
- Installed and operational GIS based Monitoring and Evaluation Management Information system linked to an internal communication System with a feedback mechanism.
- Manual for the use and administration of the system
- Training materials for delivery of courses

It is still early to assess the efficiency of the developed tools, as none of the two was yet fully operational at the time of the evaluation. The GIS –M&E system was completely new and the training given to the staff was not enough for its operationalization.

It was realized that due to the short time life of the project, some of the proposed indicators could not be tracked, ex: change in the vulnerability index, quantified impact of some of the pilot actions (fruit and agroforestry trees), increase in awareness on climate change issues.

From October 31st to November 4th, 2011, the project was submitted to a mid term review. The Mission noted that the project had registered some progress after the poor performance that had characterised its first six months.

The Mid term review made critical recommendations aiming at keeping the track of the outputs and the project goal set out in the project documents. The MTR stressed the Project Management to keep close link with the key stakeholders in the country and also with the regional team and colleagues from other AAP projects to benefit from their experience as they were more advanced than the AAP Rwanda.

3.2.3 Stakeholder participation (S)

Unlike in the formulation phase, the Project involved many stakeholders at all levels. The PMU engaged with the Ministry of Finance and Economic Planning in charge of

overseeing the update and the monitoring of the Vision 2020 and the EDPRS, Several Ministries in the sectors of Agriculture, Water, Infrastructure, Local government, Health, and Disaster Management. The Project worked with the agencies attached to these Ministries. The Project also worked closely with the Provincial and local government authorities within the project area. Moreover, the Project worked with the National women council and the media. Participation of stakeholders was done either in form of consultative meetings, workshops, trainings organized by the Project and REMA and also through their participation in the project steering committee. The different consultancies commissioned by the project also used participatory methods to increase stakeholder participation.

The project developed implementation synergies with other projects under REMA as well as its technical departments through information sharing, cost sharing of activities and joint reviews.

3.3. Financial planning

The first Disbursement of the project funds was effected in December 2010 and this had an impact on the timely disbursement of the project funds.

Two audits were organized one at the end of 2011 and a second one at the end of 2012. The two audits were issued unqualified clean opinions.

According to the two audits, the project complied with the UNDP financial requirements. Only few issues were raised:

- (i) The late submission of the quarterly reports and
- (ii) Delay in establishing the documentation Centre.

At the time of the evaluation, REMA had already availed space for the documentation Centre.

Table 1: Planned budget against current expenditure in US\$

Output	Planned	Actual expenditure	Variance

<i>Dynamic, long term planning mechanisms to cope with the inherent uncertainties of climate change are introduced.</i>	387,000	1,518,507	+1,131,507
<i>Leadership and institutional framework to manage climate change risks and opportunities in an integrated manner at the local and national level built.</i>	737,000	40,000	- 697,000
<i>Climate-resilient policies and measures in priority sectors implemented.</i>	922,000	927,475	+5,475
<i>Financing options to meet national adaptation costs expanded at the local, national, sub- regional and regional levels.</i>	512,000	4,920	-507,080
<i>Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels.</i>	288,000	38,000	-250,000
Project Management		317,573,000	
Total	2,846,000	2,846,000	0

An analysis of the table above indicates a big shift from the original budget set out in the Project document and the actual implementation of the budget.

Output 1 received more than 50 % of the total budget and outputs 1 and 3 alone, consumed $\frac{3}{4}$ of the project total budget. This resulted from the decision taken by the PMU and supported by the Project steering committee to focus on few priority

activities due to the limited time imparted to the project, and the fact that REMA departments and the LDCF project also under REMA were already implementing some activities planned under output 2, 4 and 5 of the AAP project. Moreover, Rwanda was putting more emphasis establishing a system for data collection, processing and weather forecast in order to avail to the country different actors involved in climate change mitigation and adaptation, reliable and real time information to address climate change challenges.

Output 4 was the least attended due to the progress already made by REMA in the establishment of FONERWA which was the main component of this output.

3.4. Procurement

The project procured goods, works and consultancy services following UNDP and the RWANDA Government procurement guidelines. A procurement committee was established and was in charge of all procurements. The service providers did some procurement but as the project didn't have direct control on them some of them registered important delays. This is the case of the procurement of the solar pump by the Rwanda Agricultural Board, which until the date of the evaluation had not been supplied.

The two audits conducted end November 2011 and end of December 2012 confirmed that the project procurement was complying with government and UNDP requirements.

3.5. Sustainability plan

The evaluation didn't find any document about the sustainability plan prepared by the project. However, as said earlier, the Rwanda Environment Management Authority institutional arrangement of its projects its self constitutes an effective mechanism for project outputs sustainability. Each project is embedded to one of the REMA department whose permanent staff participates actively in the implementation of the Project and is ready to uptake the projects results at its completion. Moreover, other project outputs such the Early Warning System, the pilot adaptation projects are rooted in the activities of the Ministry of Infrastructure and the Ministry of Agriculture and Animal Resources respectively.

4. EVALUATION RESULTS

4.1. Attainment of project Objective and Outcomes

As mentioned earlier, the Project experienced problems during its implementation and also important changes in its original planning and budgeting. On the other hand the Project benefited from the dynamic environment that Rwanda was going through particularly the preparation of the second edition of the EDPRS, the finalization of the country green growth and climate resilience strategy as well as the operationalization of the environment and climate fund (FONERWA).

The evaluation team finds that the synergy created between the Government ongoing initiatives and the activities of the project contributed to the achievement of the Project objective of having the institutional, individual and systemic capacity to address climate change risks and opportunities through a national approach to adaptation.

The following table summarizes the main achievements in relation to the project outcomes

Outcome	Achievements
An enabling policy framework to support an effective system for environmental management and ecosystem conservation established	<p>As a result of the Government commitment and awareness created through the Project, Rwanda has the necessary policy framework that will support a sustainable management of environment and natural resources under the changing climate. The Vision 2020 and the EDPRSII have moved from considering environment and climate change not only as a cross cutting issue but as a sector on its own.</p> <p>The green growth and climate resilience strategy and other policy and strategic documents produced under REMA provide detailed information on climate risks under the different sectors and guidelines on how to address them at national, sector and community levels. The AAP project contributed to some of these</p>

Outcome	Achievements
	documents and in the elaboration of the guidelines to mainstream environment and climate change in sector and local planning and budgeting.
Capacity at national, district and community levels to restore and protect ecosystems of national and global importance against potential degradation strengthened	<p>AAP contributed to building capacity in information/data collection, processing and dissemination through human capacity building and provision of modern equipment as well as development of up to date tools/models to monitor environment and climate change.</p> <p>The Pilot adaptations activities implemented by the project through the Ministry of Agriculture contributed to building capacity at the community level by generating lessons that will be applied and replicated to strengthen the community capacity in adapting to climate change and environment conservation.</p> <p>Activities aiming at restoring and protecting ecosystems against potential degradation are now integrated in the EDPRS, sector Ministries such as Ministries of Natural resources and Agriculture and in district development plans.</p>
Economic productivity enhanced using natural resources in an environmentally friendly way	The Project supported REMA efforts of mainstreaming environment and climate change into sector Ministries and districts with the ultimate goal of contributing to the EDPRSII pillar of Economic transformation.

4.2. Achievements per outputs

4.2.1. A summary of project achievements per out put and activities and their ranking

Activity results	Target indicators	Key achievements	Rating
Output 1: Dynamic, long-term planning mechanisms to cope with the inherent uncertainties of climate change introduced.			
1.1. Sector specific CC risk information generated and scenarios developed.	1.1.1. At least 4 Sector climate change risk assessments studies conducted.	<p>The AAP noted that the Government of Rwanda was already advanced in the assessment of sector climate change risks. During the same period two important documents including the second national communication to the UNCCF and the Rwanda Green growth and climate resilience strategy were produced. The two documents encompass a section on an assessment of climate change risks in all sectors. The Ministry of Agriculture has completed the strategic environmental assessment of the Agricultural sector and the Ministry of Natural Resources, its five-year strategic plan for environment and natural resources.</p> <p>The AAP project supported REMA in the preparation of the Atlas¹⁸ of Rwanda's changing environment: implication for climate change Resilience.</p>	S
	1.1.2. An operational electronic web-based climate change database system is in place hosted at REMA.	<p>A GIS based software for monitoring and evaluation of environment and climate change was developed.</p> <p>The AAP supported REMA in updating the Rwanda environment and climate change information system (RENVIS) to become a web - based databank software.</p>	S
1.2. National and Sector	1.2.1. At least four Sector strategies	Rwanda AAP Team assisted the Department of climate change and International obligations	S

¹⁸The ATLAS draws the attention of decision makers to environmental hotspots where human activity has led to environmental degradation. The Atlas also showcases the results of successful policy interventions that have mitigated and reversed some of the negative environmental impacts.

Activity results	Target indicators	Key achievements	Rating
policies and programs are climate resilient and address adaptation needs	(2013 – 2017) that include climate change adaptation actions.	<p>to identify Climate Change activities fitting in Government priorities and to update the climate change strategic plan (2013-2017)</p> <p>Rwanda AAP Team assisted the Environment and climate change Thematic Working Group (Mandated by the Ministry of Finance and economic planning) to identify government priorities in Climate change for the second EDPRS planning (2013-2017);</p> <p>The AAP Project supported REMA in training EDPRS focal points in the different Ministries on how to mainstream environment and climate change in sector Ministries.</p> <p>At the time of the evaluation, all key Ministries have included environment and climate change in their plans and budget.</p>	
	1.2.2. At least four sets of guidelines to mainstream climate change adaptation in Sector strategies/ plans produced.	<p>AAP supported REMA in establishing guidelines for mainstreaming climate change in sector and district plans.</p> <p>This was evidenced by the commitment of the Ministry of Finance to ensure that environment and climate change are mainstreamed in the EDPRS and in sector plans.</p>	S
1.3. An Early Warning and responsive risk management system in place.	1.3.1. An operational integrated EWS for Rwanda in place.	The Project commissioned a study to establish an Integrated Early Warning System for Rwanda. The study provides an assessment on how such a system could be developed on a pilot basis in the north west of Rwanda and sets out the scope of activities that will be required to operationalize the EWS and presents a plan for implementation.	S
	At least the number of technical staff trained is equal to the minimum set in	The project trained 30 professionals from METEO Rwanda, The Ministry of Agriculture and the Ministry of Disaster Management and Refugees in the generation, packaging and	

Activity results	Target indicators	Key achievements	Rating
	the EWS assessment of needs and capability report produced (see Indicator AR 1.2.2).	transmission and use of weather/ climate early warning information. UK Met Office (United Kingdom) was hired to conduct the training.	
	Acquisition of: i) 16 automatic weather stations for synoptic observation AWS-; ii) 8 automatic weather stations for hydro meteorological observations; iii) 35 Rain-gauges; iv) 35 automatic weather kits for schools (AWKS); v) 1 cluster computer; vi) 16 computers (2 for NWP, 2 for climate modeling, 2 for AWS and 10 for modeling training); vii) 2 software program: (a) PGI fortran 95 or higher and (b) Absoft fortran 95 or higher; and viii) 1 color printer high speed dot- matrix.	The Project purchased and installed for the National Meteorology office, modern meteo and IT equipment for weather /climate data processing and forecasting. The equipment was supplied by the consortium TECHNOSKY (Italy) and Africa technology Solution (Rwanda). The supplied equipment include: (i) 24 Automatic weathers stations (including 2 mobile for calibration and control) for meteorology and hydrology data collection transmission to the national meteorology Centre; (ii) 1 Cluster computer, 6 computers for data reception and workstation for Numerical weather Prediction and climate modeling, 10 computers running LINUX for training and modeling laboratory.	HS

Output 2.

Leadership and institutional frameworks to manage climate change risks and opportunities in an integrated manner at the local and national

2.1.	National	2.1.1.CCIO	unit	The Project contributed in the	S
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Institutions dealing with Climate Change Adaptation are functional and coordinated by capacitated lead institution	established and strengthened 2.1.2. Four new permanent staff recruited.	establishment and strengthening of the Climate Change and International Obligations Department within REMA.	
	2.1.3. SWAP to CCA established and organized with involvement of various entities.	The Project was informed that there is already a SWAP for environment and natural resources within the Ministry of Natural resource and there was no need for duplication.	-
	2.1.4. Multi-stakeholder CCA technical platform in place	Same as 2.1.3.	
	2.1.5. At least 10 institutions from relevant stakeholders are representing the platform	Project stakeholders were represented in the project steering committee.	
	2.1.6. At least two platform meetings held annually.	The steering committee meetings offered an opportunity for the different stakeholders to meet and to provide guidance to the project.	
2.2. District level leadership capacity for local level adaptation action in place	2.2.1. At least six district levels CCA climate change adaptation coordination committee established.	Not done	
	2.2.2. A report on district level capacity needs for adaptation action produced.	Not done	

Activity results	Target indicators	Key achievements	Rating
	2.2.3. District level climate change adaptation support Program developed	The Project trained local government officials in mainstreaming climate change into DDPs and annual district performance contracts.	S
	2.2.4. At least 6 multi-stakeholder district CCA coordination committees set		
	2.2.5. One set of guidelines (contained in a report) for addressing CCA in DDPs designed	REMA, under its department of education and mainstreaming has established guidelines for mainstreaming Climate change into District development plans. The same guidelines are used by the Ministry of Finance and economic planning to instruct sector Ministries and districts to integrate environment an climate change into the annual plans and budget. (Annex 17 of the National budget)	S
	2.2.6. At least six DDPs that address/mainstream CCA produced.	24 districts have subscribed the AAP pilot adaptation activities in their annual performance contracts	HS
2.3. Targeted CCA leadership, capacity building and training strategy implemented.	2.3.1. National leadership, capacity building and training strategy developed and fully implemented	The project trained EDPRS focal points from the sector Ministries. It also trained 2 professionals form each district in mainstreaming climate change. 504 Women members of the women council at district level were trained in climate change	S

Activity results	Target indicators	Key achievements	Rating
Output 3: Climate-resilient policies and measures implemented in priority sectors (S)			
3.1.Community adaptation tested and rolled out as a countrywide approach.	3.1.1. Six community adaptation projects and 2 sector/theme demonstrations identified and under implementation.	<p>In collaboration with RAB, the project carried out successfully pilot Climate Change Adaptation projects in six districts. The activities aimed at coping with the adverse impacts of drought and torrential rains causing loss of crops and death of cattle, erosion, landslides and flooding.</p> <p>The Project constructed water tanks to harvest rainwater from the roofs for 139 households in the district of KIREHE. Each tank has the capacity of 2 cubic meters.</p> <p>The Project purchased solar pump equipment for a small scale community irrigation in Kayonza District.</p> <p>The Project created awareness on CC change risks and trained the stakeholders involved in the project in different techniques including:</p> <p>Preparation of tree seedlings (fruit, agroforestry and forest trees), soil protection and conservation, fodder production and conservation, fish farming and valley dam maintenance.</p>	S
	3.1.2. Lessons Learnt documented integrated into national CCA approach.	Not done	MS

Activity results	Target indicators	Key achievements	Rating
	3.1.3. Incentive-based CC resilience-building Program established.	The project commissioned a study on national incentive based climate change resilience building program. The program proposes sector-based actions to build resilience to climate change effects, and incentives to promote their uptake, as well as costed programs for implementation.	HS
	3.1.4. One report on local level existing coping mechanisms and action produced.	The Project documented traditional knowledge on climate change adaptations through a consultative workshop which brought together 416 elders from different parts of the country.	S
	3.1.5. National strategy for community-adaptation in place	The AAP project developed a concept paper on climate change adaptation awareness and communication strategy.	MS
	3.1.6. NAPA projects and ideas integrated in national strategy for community-adaptation	All the pilot adaptation projects were drawn from the Rwanda NAPA	S
3.2. Sector/ theme demonstration projects implemented.	3.2.1. At least two sector/theme specific demonstrations projects implemented.	The pilot projects implemented in the six districts focused on three themes: (i) water harvesting (ii) food security and (iii) soil protection and conservation.	HS

Activity results	Target indicators	Key achievements	Rating
3.3. Incentive-based CC resilience building programme established.	3.3.1. Strategy for incentive based climate change resilience developed.	The document produced on the incentive based climate change resilience will inform further work on strategies and action plans.	S
Output 4: Financing options to meet national adaptation costs expanded at the local, national, sub- regional and regional levels			
4.1. Sound information base on costs of climate change impacts and adaptation on priority sectors established and applied to decision-making	4.1.1. National adaptation financing strategy in place.	The Project contributed to the finalization of the Rwanda environment and climate change resilience fund(FONERWA). FONERWA is as a cross-Sector financing mechanism to achieve development objectives of environmentally sustainable, climate resilient and green economic growth.	S
	4.1.2.A Report on identified future research and information needs on costs of climate change adaptation prepared.	Rwanda has already done commendable job in gathering information on the cost of climate change. Recently a report on the economics of Climate change in Rwanda was prepared in collaboration with DFID by the Swedish Environment Institute. The study Estimates of medium-term costs to address future climate change are typically of the order of \$50 – 300 million per year for Rwanda by 2030, focused on enhancing climate resilience.	S

Activity results	Target indicators	Key achievements	Rating
	4.1.3. At least two new studies on the economic costs of adaptation conducted.	No new study conducted under the project.	MS
	4.1.4. At least two local experts trained to conduct economic analyses of the impacts of climate change.	Not done	US
4.2. Strategy for adaptation financing and leadership for its implementation in place.	4.2.1. National adaptation financing strategy in place.	Under REMA, the Rwanda environment and climate change adaptation fund (FONERWA) was established. The law establishing FONERWA was passed in June 2012.	S
	4.2.2. Gender-sensitive CCA budgeting tool developed and applied.	Not done	US
4.3. CCA costing routinely included in national, Sector, district and community level development planning and budgets	4.3.1. CCA costing tools in place and implemented at MINECOFIN.	Not done	US
	4.3.2. At least National budgets (in 2 sectors) and district budgets (in 2	The Ministry of Finance and economic Planning has instructed the sector Ministries and Districts to	S

Activity results	Target indicators	Key achievements	Rating
	districts) adjusted to reflect CCA costs.	integrate environment and Climate change in their Budget. Instructions are given every year under a specific annex to the national budget. Out of 30 Districts, 24 have accepted to integrate Climate change actions into their performance contracts.	
Output 5: Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels			
5.1. National CCA Clearing House/Knowledge Management hub at REMA established and capacitated	5.1.1. A functional CCA Clearing House in place.	The project equipped and facilitated the establishment of a climate change and environment documentary centre at REMA headquarter.	S
	5.1.2. Climate change knowledge management and communication strategies formulated.	The AAP project initiated the preparation of a communication strategy on climate change. A concept note on the knowledge management and communication strategy was prepared. It will inform the preparation of the national Climate change communication strategy.	S
	5.1.3. At least ten lessons learnt and codified are found in ALM website.	Not done	US
5.2. CCA Communication Strategy	5.2.1. All planned outreach activities CCA Communication Strategy	The Project produced three documentary films including the achievements of the AAP project,	S

Activity results	Target indicators	Key achievements	Rating
targeting stakeholders at different levels developed and implemented.	targeting stakeholders at different levels developed and implemented.	<p>the traditional meteo IVUBIRO and traditional fabrication of organic fertilizer using Poultry manure.</p> <p>A training module on CCA was developed and produced in 5,000 copies in the local language Kinyarwanda and distributed to different stakeholders</p> <p>The CC & CCA module will help to acquire Climate change knowledge. Practical examples including activities of both AAP and LDCF CCA projects are being used in adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels</p>	
	5.2.2. At least 50% of the participants in outreach activities are women.	<p>540 women , 12 from each district were trained in CCA and CC impact on Gender. This helped them to prepare a CCA related action plan.</p> <p>All the cooperatives involved in the implementation of the pilot Climate change adaptation projects had more than 50% women members.</p>	S

4.2.2. Attainment of Outputs

Rwanda made commendable efforts to address the challenges induced by climate change by integrating environment and climate change into its national and Sector planning and budgeting. Rwanda has recently completed its green growth and climate resilience strategy. The strategy is inclusive and encompasses all sectors of the Rwanda economy. It has four strategic objectives:

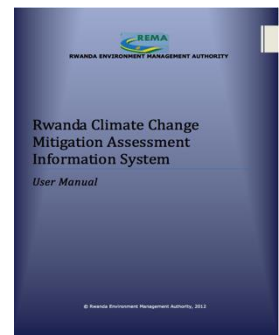
- To achieve energy security and a low carbon energy supply that supports the development of green industries and services.
- To achieve sustainable land use and water resource management that results in food security, appropriate urban development and preservation of biodiversity and ecosystem services
- To achieve social protection, improved health and disaster risk reduction that reduces vulnerability to climate change.

Rwanda however recognizes that, despite these efforts, availability of climate change related information and its capacities to mitigate and adapt to climate change at national, sector and community level are limited and that a coordinated effort from all stakeholders will be required.

The results achieved under each of the AAP Rwanda outputs aimed at contributing to these government efforts.

Output 1: Dynamic, long-term planning mechanisms to cope with the inherent uncertainties of climate change introduced.

This output aimed at building a systematic climate change resilient planning and policy setting at national sub-national and local levels. The Project team noted that many efforts had been done at country level through the development of a set of policies and strategies documents including the first and second national communications to the UNFCCC, the National adaptation plan of action (2006) , the Rwanda status of environment and outlook report(2009) and, more recently the national strategy for green growth and climate change. The Ministry of Agriculture completed its strategic environmental assessment of the Agricultural sector and the



Ministry of Natural Resources, its five year strategic plan for environment and natural resources.

Commendable work was done by REMA departments in mainstreaming Environment and climate change into the EDPRS II, in sector Ministry plans and budget and at the district level.

The project contribution focused on complementing the ongoing initiatives by tackling the issue of availability of information through supporting the development of information collection; processing and dissemination web based tools as well as the development of an early warning system to cope with extreme events the country is facing.

- **Sector specific CC risk information generated and scenarios developed**

The project deliverables under this activity are : (i) the development of a web based databank software on Rwanda environmental and climate change information, (ii) a GIS based software for monitoring and evaluation and (iii) the production of an ATLAS for Rwanda entitled, Atlas of Rwanda's changing environment: Implication for climate change resilience.

- (i) The AAP contributed in upgrading to the Rwanda environment information system (RENVIS) to a web based information system to make the information available to the different users and to the general public.

The screenshot shows the RENVIS web application. At the top, there's a header with the REMA logo and navigation tabs: Home, Environment Indicators, Greenhouse Gases, Mitigation Assessment, Climate Change Adaption, and Documents. Below the header, there's a search bar and a sidebar with resources and a login form. The main content area displays a 'Summary Table' report for 'Rwanda Greenhouse Gases Emissions' for the year 2005. The report form includes fields for Project, Year, and Generate Report In Excel, with 'Post' and 'Cancel' buttons.

Figure 3: Sample screen of the RENVIS

The Project added to RENVIS more components to cover areas such as Climate change adaptation and mitigation as well as Green house inventory information.

(ii) The Monitoring and Evaluation (M&E) Management Information System (MIS) is a web-based online application system with powerful features and functions that helps to define a project based on its design, capture planning and monitoring and evaluation data during the execution phase of the project and access project periodic reports covering physical and financial implementation progress, financial analysis on disbursement rate and absorption capacity, annual work plans and budgets and procurement plans and procurement progress.

The application meets specific project reporting requirements as well as those of a diverse range of other key stakeholders, including development partners, line ministries and in particular the ministry in charge of national development planning and finance.

The system supports multi-project, multi-site data capture, secure data storage and up-to-date information dissemination. By providing up-to-date flow of information on performance of government policies, programs and activities, the system enhances coordination of projects, encourages transparency and accountability and overall project governance, and supports evidence-based policy-making and on-going management of government activities. In addition, information disseminated about project/program plans and implementation progress makes it possible for public participation in monitoring of development projects.

(iii) [AAP Project produced](#) the Atlas of Rwanda's changing environment. The Atlas draws the attention of decision makers to environmental hotspots where human activity has led to environmental degradation. It shows case also the results of successful policy interventions that have mitigated and reversed some of the negative environment impacts. The Atlas presents a visual account of the country's environment, based on scientific evidences.

The ATLAS was prepared by REMA with the support of the AAP Project, through an active participation of stakeholders including national and sub-national actors engaged in natural resources and environmental management.

- **EWS and responsive risk management in place**

In a situation where extreme events of recurrent droughts and torrential rains are regularly claiming loss of lives and properties, an early warning system can be an effective way to adapt or mitigate climate change related adverse events.

REMA with the support of the AAP project and in collaboration with the METEO Rwanda contributed to the establishment of an early warning system for Rwanda.

The activity is also implemented in collaboration with the LDCF Project where it helped in testing the system in the districts of the western province of Rwanda prone to flooding and landslides. The System will be finalized using the results of the pilot tests being conducted by the LDCF Project.

The achievements of the project consisted in (i) the equipment of Rwanda METEO with modern equipment (ii) Capacity building of Rwanda METEO, MIDIMAR and MINAGRI staff on meteorological & climate data analysis, on early warning system and on disaster preparedness; (iii) a scoping study for an establishment of an early warning system for Rwanda.

(I) The AAP Project purchased and installed meteorology and forecasting equipment at METEO Rwanda to improve its capacity in weather/climate data collection, processing and forecasting. The following equipment were supplied and installed.

- 24 Automatic weathers stations (including 2 mobile for calibration and control) for meteorology and hydrology data collection and automatically send to the meteorology Centre;
- 1 Cluster computer, 6 computers for data reception and workstation for Numerical weather Prediction and climate modeling, 10 computers running LINUX for training and modeling laboratory.

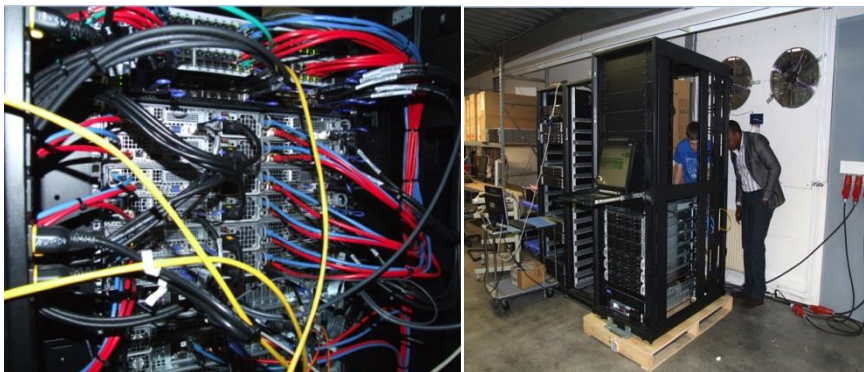


Photo: Rwanda Meteorology computing system provided by AAP

(ii) In collaboration with UK Met Office (United Kingdom) two trainings in meteorological & climate data analysis and early warning preparedness were organized for professionals from the Ministry of Agriculture, Ministry of Disaster Management and Refugee Affairs and Meteo Rwanda. The first training was on Weather Forecasting, Climate Prediction, Modeling and Special Warning Packaging. Fifteen people attended it. The second training was on early Warning and Disaster Management Cycle. In total, 15 participants attended it from METEO Rwanda, MIDIMAR and MINAGRI.

(iii) Scoping study for the establishment of an early warning system for Rwanda.

The first step consisted in a gap analysis of the capacity of METEO Rwanda to deliver the products and services to effectively support the operation of an early warning system in Rwanda. The second step consisted in an assessment of how such a system, focusing on severe weather could be developed on a pilot basis in the north west of Rwanda based on (a) consultations with key stakeholders (b) an assessment against international best practice and (c) a 'gap analysis' of the national meteorological agency conducted earlier by METEO Rwanda. The study proposes activities that will be required to operationalize the EWS and presents a plan for implementation. The LDCF Project with METEO Rwanda will continue this work after the Project closure.

- **National and Sector policies and programs are climate resilient and address adaptation needs**

The Contribution of AAP was modest as REMA was taking the lead in this activity. Rwanda AAP Team assisted the Environment and climate change Thematic Working Group Mandated by the Ministry of Finance and Economic Planning to identify government priorities in Climate change for the second EDPRS planning (2013-2017); it also assisted the Department of climate change and International obligations to identify Climate Change activities fitting in Government priorities and to update the climate change strategic plan (2013-2017).

The activity of mainstreaming environment and climate change into the EDPRS II under preparation in national sector policies and district development plans is being

successfully implemented by REMA under its department of Education and Mainstreaming. It consisted in the preparation of the guidelines (a check list of targets and indicators) for mainstreaming environment and Climate change, organization of awareness workshops as well as technical support in the preparation of District development plans. It has gained the support of the Ministry of Finance and Economic Planning, which introduced the Annex 17 to the national budget to ensure that environment, and climate change activities are taken in consideration during sector and district budget preparation.

Output 2. Leadership and institutional frameworks to manage climate change risks and opportunities in an integrated manner at the local and national levels built.

Climate change, though it existed a long time ago is a new concept that countries have to take in consideration when planning their development. There is an increasing need for awareness raising among decision makers and local authorities in the development of planning tools to assess climate change risks and adaptation options at all levels. In Rwanda, a recent assessment of national strategic documents (Vision 2020, EDPRSI) revealed that climate has not received the attention it deserves when considering its severe impacts on the country's economic growth. In vision 2020 and EDPRSI, environment was taken as a cross cutting issue. The public environment expenditure review confirmed that expenditure in environment was limited compared to other sectors.

An intensive campaign conducted by AAP/REMA, and supported by the Rwandan Government increased awareness in the highest political sphere of the country and in the different ministries as well. As a result of this awareness, Environment and climate change are now considered in all sector programs and as well as cross cutting issue under the Vision 2020 and the EDPRS II under preparation. REMA set guidelines to mainstream environment and Climate change at Sector and district level with SMART indicators. The Ministry of Finance and Economic Planning has included climate change indicators in annex 17 of the national budget and a monitoring mechanism of budget expenditure on environment and climate change is being put in place.

In line with the commendable efforts made by REMA, the AAP project, contributed to the establishment of the Climate change and international obligations department within REMA. In collaboration with other REMA departments, the AAP conducted a number of trainings targeting, Sector Ministries, women forum and districts local authorities. It also included an awareness activity in the pilot adaptation projects carried out in selected districts of Rwanda.

In total 1094 officials from local government were trained, 540 women from 12 Districts were trained and more specifically, 60 officers in charge of environment and planning in the districts were trained in mainstreaming environment and climate change mainstreaming in District development plans.

As a result, 24 over 30 Districts in Rwanda have subscribed climate change adaptations activities in their annual performance contracts.

Output 3: Climate-resilient policies and measures implemented in priority sectors

Activities under this output were built on the priority actions recommended in the Rwanda national adaptation plan of Action (NAPA)

The purpose of these community CC adaptation actions were first, to create awareness among the local communities and their authorities about the adverse impact of climate change and then to test some adaptations actions in view to strengthening the community coping capacity and drawing lessons for their replication and roll out as a country wide approach.

To achieve this, the AAP project signed a memorandum of understanding with the Rwanda Agricultural Board (RAB) to implement CCA pilot projects in six districts of Rwanda namely, Bugesera, Gatsibo, Kayanza, Kirehe , Rulindo and Nyamagabe.

The pilot project consisted in :

- (i) The rehabilitation of two valley dams and the establishment of 6 fish ponds for fish farming in Gatsibo district.



- (ii) Development of a community Small scale irrigation project using solar pump in Kayonza district



- (iii) Preparation of seedlings of fruit, agroforestry trees and woodlots establishment.



- (iv) Fodder and vegetable production.

- (v) The AAP also provided to 139 households in Kirehe, locally made water tanks for roof rain water harvesting.



Photo: The water tanks are made of Bamboo, sand and cement

At the time of the field evaluation, most of the pilot activities were successfully completed except the community small scale irrigation project in Kayonza District which experienced delays in the procurement of solar pump equipment.

The implementation of all these pilot activities was done through local cooperatives whose members participated in the activities and were paid for them. Prior to the implementation of these pilot activities, a three days workshop was organized for the members of the cooperatives and the local authorities in each district to raise their awareness on climate change risks and adaptations measures and also to improve their skills in the different techniques on the activities they were to implement.

The intermediate outcomes of these actions are:

(i) Participants earned some money which they used to address their urgent needs: school fees for the kids, contribution to the national health scheme(Mutuelle de santé) and some small investments).

“Mr.Nturanyenabo a young man member of the fish farming cooperative of Rwembogo in Gatsibo District, bought a bicycle and managed to pay a loan he had contracted for his weeding.”

Another example is the introduction of the watermelon to the farmers in Bugesera district made a quick impact to the beneficiaries in terms of income. It only takes 60-70 days to produce fruits and has a very good yield (50-70 water melons on a 10x10 m plot). The price of a melon is about 1.5\$.

(ii) They acquired practical knowledge in nursery preparation and fruit seedling grafting. Some of them have already secured a job in other ongoing projects. This is the case of four women members of the Cooperative Uburumbuke of Nasho who benefited from RAB training and are now employed in seedling production in the KWAMP⁹ reforestation Program. Most of the cooperatives involved in this project have added tree nursery to their usual activities as an additional income generating activity.

(iii) Some farmers including the primary school of RUTETE established mother gardens of mango and avocado trees, which will be used for production of scions for further grafting activities.¹⁰ Currently it was hard to get locally mango and avocado scions for grafting.

(IV) The water tanks constructed in Kirehe, Nyamugali sector, helped the youth in the region to acquire knowledge in water tanks construction from which they can earn money when the activity is replicated in the area or elsewhere in the district. The beneficiaries of the water tanks were relieved from the burden of making long distances to fetch water but most importantly they will be able to store water to cope with water scarcity that characterizes the long dry season in the area.

Long term benefits of the pilots actions will be:

(i) Improvement of the nutritional situation and income when more fruits are produced in the region. (ii) More fodder for the farmers from the planted shrubs and grasses but most importantly (iii) protection against excessive winds which characterize some regions in Rwanda (Ex KIREHE District) , (iv) reduced erosion, landslides and flooding in the highlands of Nyamagabe and Rulindo as well as improved soil fertility and food production in the farms planted with agroforestry trees.

The communities of the eastern part of Rwanda easily feel the benefit of tree planting. The communities of Bugesera met during field visits said that the many trees planted in Bugesera these past ten years have reduced the frequency of droughts in the region and contributed to improve the rainfall pattern of the region.

⁹Kwamp: Kirehe community base Watershed Management Project

¹⁰ One scion used to graft a fruit tree seedling cost 30 RW franc.

It was noted that these actions except fruit trees planting were not new in the country; there are ongoing similar activities with RAB and other Projects. The community has already realized the benefits of these actions. It was interesting to note that all the districts visited had already subscribed similar activities in their districts plans and plans to replicate the pilot actions were already underway with RAB, the Districts and other projects operating in the area, ex: KWAMP in KIREHE, PAPSTA in GATSIBO and ICRAF in Bugesera.

It was expected that the pilot adaptation actions would provide lessons which could influence decision makers in preparing policies towards adaptation to climate change. In our opinion, except at the district level, there is no evidence that these pilot actions will influence national policies. First because most of them are not pilot as such, similar actions in water harvesting, erosion control, and tree planting are wide spread in the country and could not be seen as innovative actions that could influence decision making.

Output 4: Financing options to meet national adaptation costs expanded at the local, national, sub- regional and regional levels.

The AAP Developed a report on national incentive based climate change resilience building program in Rwanda. The study on incentives analyzed climate change vulnerability in Rwanda sector by sector and the scope for applying regulatory and market based incentives for adapting and diffusing appropriate climate change adaptations in the framework of the national strategy on climate change and low carbon development.

The study proposes sector based actions to build resilience to climate change effects and incentives to promote their uptake as well as costed programs for implementation. The report is currently informing the operationalization of the Rwanda environment and Climate Change fund (FONERWA) as well as the final formulation of the EDPRSII.

The table bellow shows the summary of the costed programs proposed by the study.

Table 2: Summary of the component expected outcomes and Cost Implications

Component	Outcome(s)	No. of Sub-components	Total cost (US\$)
1	Sustainable Management of Natural Resources is enhanced to restore, enhance and sustain watershed services	7	103,436,000
2	Water security is enhanced and sustained through Integrated Water Resources Management	5	21,363,000
3	3. Rwanda's Agriculture and agricultural-based livelihoods and economic systems are resilient to climate change	7	176,272,500
4	Reduced exposure to and vulnerability of households living in sub-standard housing or disaster risk areas	3	187,379,500
5	Climate data infrastructure and knowledge management is strengthened for effective climate response	3	10,241,000
	Total Program	25	498,692,000

Source :National Incentives-based Climate Change Resilience Building Programme(REMA, 2012)

The work done by the AAP project contributed to the commendable work already undertaken by REMA in establishing the Rwanda Environment and climate change fund (FONERWA) as a guideline for long-term national climate change adaptation financing strategy. FONERWA finds its origin in the organic law voted by the Rwanda parliament in 2005 that established the Rwanda Environment Management authority and the fund for Environment and climate change. The Rwanda Green growth and climate change resilient strategy adopted in 2011, reiterated the need for a sustainable financing mechanism for environment and climate change. In June 2012, the Parliament passed the law establishing FONERWA.

FONERWA is the vehicle in Rwanda through which environment and climate change finance will be channeled, programmed, disbursed and monitored. It provides innovative, flexible and sustainable financing to both public and private beneficiaries. It is an instrument to facilitate direct access to international environment and climate finance, as well as to streamline and rationalize external aid and domestic finance. Access to the Fund is open to line ministries and districts, charitable and private entities, including businesses, civil society and research institutions.

FONERWA is expected to make a significant contribution (20-30%) to Rwanda's existing financing gap, estimated at approximately US \$100 million per year across the Thematic Financing Windows. It will operate through four thematic windows including:

Window1: Conservation and natural resource management

Window 2: R&D Technology transfer and implementation

Window 3: Environment and climate change mainstreaming

Window 4: Environmental Impact assessment, monitoring and enforcement.

Output 5: Knowledge on adjusting national development processes to fully incorporate climate change risks and opportunities generated and shared across all levels.

The purpose of this component on knowledge Management was to encourage knowledge sharing and dissemination of the project results through local, regional and national fora and networks, which subsequently contribute to developing leadership and institution capacities.

To increase awareness on climate change risks and adaptation for the public, the project prepared a concept note which will inform the development of a communication strategy that touches all levels thus establishing an efficient targeted CCA information and knowledge sharing mechanism for Rwanda. The concept note prepared to that effect recognizes that it is crucial that climate change messages both for information and action are communicated effectively and successfully to all

stakeholders so as to influence and guide the necessary or relevant policies, actions and solutions for both mitigation and adaptation at all levels.

The objectives of the proposed strategy as indicated in the concept note are:

- To equip climate change actors and decision makers engaged at the technical and policy level with timely and relevant information they can use in making decisions and choices;
- To promote effective communication and outreach on the implementation of the comprehensive framework for climate change

The AAP project facilitated the establishment an environment and climate change documentary centre in the premises of REMA to make available to the public all climate change related documents and communication materials. It is to note that REMA has already a very interactive web site where all useful documents are posted ([www. rema.gov.rw](http://www.rema.gov.rw)). AAP gave priority to production of dissemination materials aiming at bringing AAP achievements to a bigger audience. These included, production of three documentary films (i) on the achievements of the project vis a vis to the baseline, (ii) a Rwanda traditional meteo known as IVUBIRO which existed hundred years before the development of the modern meteo instruments and which Rwandans used to predict seasons and inform the farmers on the best dates for planting,(iii) Traditional production of poultry manure known to be very rich in fertilizer nutrients and recommended to be used in place of polluting industrial fertilizers.

A training module on CCA was prepared in the local language Kinyarwanda and produced in 5,000 copies and distributed to stakeholders. The module explains what climate change are, its causes, the adverse effect of climate change on the community livelihood and country's economic growth and ends describing how to mitigate and adapt to climate change. This is a very useful document to be used in raising Climate change impacts at the community level since in the local language.

4.2.3. Sustainability

This section analyses the sustainability of the different projects results.

As described earlier, the Government of Rwanda has shown a strong commitment to address the challenges of climate change. This has been translated in the country strategic documents and in the national budget. Whatever the AAP has done in line with the Government strategy fall in one of the many programs the Government is implementing at national, sector and local level.

The Institutional arrangement of REMA ensures the sustainability of all Projects implemented under REMA including AAP. REMA has four technical departments encompassing its whole mandate. These are: (i) Research, environmental planning and development (ii) Environmental education and mainstreaming, (iii) environmental regulation and pollution control (iv) Climate change and international obligations. AAP activities are well anchored in REMA structures, which are expected to uptake all project results, and sustain them through REMA permanent staff who remain there after the project closure.

The Single project implementation unit established at REMA also constitutes another mechanism for synergy, complementarity and sustainability of all activities implemented under REMA projects. Thus, the on-going LDCF Project, which jointly with AAP implemented the development of an early system for Rwanda, will continue this activity until it is completed. It is practice under REMA that any new project builds on the achievements of other ended or on going projects.

Collaboration between REMA, the AAP project and the RWANDA agricultural board and the districts will sustain the different pilots activities implemented under AAP. The Rwanda Agricultural Board is already engaged in promoting fruit tree planting, agroforestry, erosion control and fodder production. During the evaluation it was noted that some of beneficiaries of the pilot adaptation projects were already working with the Rwanda Agricultural Board, in testing and disseminating new agricultural techniques. The interview with the Vice Maire of KIREHE District confirmed that scaling up the AAP activities implemented in Kirehe District was already included in the district development plan and in the next District annual performance contract.

Working with cooperatives in the implementation of the pilot adaptation projects also proved to be an effective mechanism for sustainability. In Rwanda, the government strongly recommends and supports the development of the cooperatives as a way to channel government support to the community in fighting poverty. A legal framework

has been put in place to protect the members, to ensure good governance and thus the sustainability of the cooperatives.

All members of the cooperatives who worked in the pilot projects were putting aside 20% of the earnings from the pilot actions to sustain the cooperative activities. Some cooperatives through the training they have received had started diversifying their activities and consequently their source of income. Ex. In NKOMANE sector of Nyamagabe District, the Cooperative abatubuzi, originally a seed multiplication cooperative had added, tree seedling production and tree planting to its activities and this has positioned the cooperative to tap into the employment opportunities offered by new reforestation projects coming into the district.

The water tank project in Kirehe district fit well in the new system of settlement in villages practiced throughout the country and offer an opportunity for employment for the youth engaged in the construction of the tanks under AAP. They have the skills for repairing or replacing the tanks. The tanks are made in locally available materials (bamboo, sand and cement) and this constitutes an opportunity for further investment in the construction of water tanks. The 139 households beneficiary of the water tanks are now grouped in a cooperative which will ensure further maintenance and scaling up of the water tanks

However, though the initiative of working with Cooperatives was successful, there are some sustainability challenges attached to it:

(i) The evaluator noted that some cooperatives were more motivated by the income that they were getting from the contracts they had with RAB than by the adaptation activities themselves. There was no evidence that once the project closes, the Cooperatives will continue to exist or scale up the adaptation activities.

(ii) Some cooperatives were new, created on the spot; there is no guarantee that they will survive after the project or will not engage in a different activity, not necessarily related to Climate change adaptation.

4.3. Lessons Learnt

4.3.1. Best Practices

Despite the short duration of the project and its limited budget, the AAP project supported government efforts to address climate change challenges and generated some lessons that are documented under this section.

Lesson 1. The government commitment is key in all endeavours in mitigating and adapting to climate change.

The commitment of the Government of Rwanda created a favorable environment for the implementation of the Project activities and is likely to position Rwanda as one of the most climate resilient country in the region. This commitment was reflected in addressing climate change in the Rwanda vision 2020, the creation of the Rwanda environment management authority and the legal power given to the authority; the development of many conducive policies and strategies and the effort to mainstream climate change in the EDPRSII, sector policies and in the district development plans.

Lesson2. The Rwanda environment and climate Change Fund (FONERWA)

Under AAP output 4, the project was tasked to facilitate the establishment of a sustainable mechanism of financing climate change initiatives. Rwanda is now operationalizing the established fund for environment and climate change (FONERWA). FONERWA is the vehicle in Rwanda through which environment and climate change finance will be channeled, programmed, disbursed and monitored. It provides innovative, flexible and sustainable financing to both public and private beneficiaries. It is an instrument to facilitate direct access to international environment and climate finance, as well as to streamline and rationalize external aid and domestic finance. Access to the Fund is open to line ministries and districts, charitable and private entities, including businesses, civil society and research institutions.

More details on the fund were given in earlier sections under output 4 results.

Lesson 3. The AAP pilot adaptation project of fruit tree and agroforestry seedling preparation and planting catalysed the expansion of these activities in the districts where these interventions were carried out. The community and

local authorities appreciated these two types of trees because of their multiple benefits and quick gains.

Grafted Mangoes and avocados were newly introduced in the Eastern province districts where potential for their production is high but had not been so far tapped. Their expansion was limited by the lack of skilled labour in grafting and the availability of scions. With the AAP intervention, skilled labour was trained and will be able to train others. Some farmers established mother gardens in their farms, and soon will produce scions for further grafting. The Local authorities pledged to expand the area of fruit trees in their districts. Similarly, agroforestry was found as the best way to increase tree cover especially in densely populated districts of the Northern and western province where competition for land is high. Agro forestry trees are planted in the farm along contour lines to protect against erosion, to fertilize the farm and to provide fodder for animals and sticks for climbing beans grown in the highlands of Rwanda. In Rulindo District, the local authorities expressed their commitment to expand the pilot activities using the cooperative, which was newly formed. The Rwanda Agricultural Board has plans to extend these activities to other districts by the next tree-planting season.

Lesson 4. The rain water harvesting tanks constructed for 139 households in Kirehe district proved to be a successful mechanism of coping with drought and dry spells frequent in the Eastern part of Rwanda. This region is characterized by water shortage during dry season and people in the area have to make long distances to reach the nearest river or water point. The water tanks will be used to collect rain water from the roofs and to store it for domestic use. The water tanks are made of local raw material (Bamboo, sand and cement). The project trained young entrepreneurs who can scale up the construction of water tanks in other villages.

Lesson 5. Working with cooperatives in the implementation of climate change adaptation activities.

Despite some challenges highlighted above, Cooperatives have proven to be an efficient entry point in introducing Climate change adaptation projects into the communities. In three districts where the Rwanda Agricultural Board implemented pilot climate change adaptation projects it used existing cooperatives and this resulted in gain for both parties. It became easier for RAB to mobilize the

communities and to fast track the implementation of pilot projects. For the Cooperatives, the pilot projects were for their members an opportunity to acquire new skills and for additional income. In the districts of Rulindo where there were no such cooperatives, new ones were created and strengthened through the project activities.

Lesson 6. The district Development plans and the introduction of annual performance contracts offer an opportunity for a better integration of Climate change adaptation programs at local level. The Districts are the decentralized units in the Rwandan administration and they are financially autonomous. The District Development Plans draw from the EDPRS and the Sector Strategies in order to balance these national priorities with local needs identified at district level. They are implemented in form of performance contracts, which are evaluated every six months by the Prime Minister's office. An activity put in the performance contract is generally implemented during that period.

Lesson 7. The establishment of community infrastructure management committees contributes to the sustainability of community infrastructures such as Valley dams , forests and water infrastructure. In Gatsibo district, after the rehabilitation of two valley dams with the support of AAP project the community put in place a valley dam management committee to manage the rehabilitated valley dam. The Committee establishes the rules for the efficient and sustainable use of the infrastructure and enforces them. The committee also plans community work activities aiming at maintaining the infrastructure. In Kirehe District, the 139 households beneficiary of the water tanks formed a committee to maintain the water tanks.

Lesson 8. The system of meteo forecast existed in ancient Rwanda and was used to forecast the start of the rains and to launch the start of the agricultural season. This is an example of indigenous knowledge identified during a workshop organized with elders in Rwanda. This has been documented in a documentary prepared by the Project and posted on youtube.

(www.youtube.com/watch?v=J6rH7h-K2BY)

Lesson 9. The communities in drought prone areas of the Eastern Rwanda developed some coping mechanisms against long dry spells and drought frequent in the area.

The evaluator identified these lessons during the field visit in the Districts of Eastern Rwanda prone to drought and he judged good to share them in this report.

- Growing trees in such dry environment is a big challenge; the young trees hardly survive the attacks by termites. To protect the young trees from the termites, the young tree are planted together with a branch of Euphorbia tirucalli. (see photo taken in Kirehe district).



- While farmers were used to sell their entire production at harvest and at a low price, they have learnt to store their products to cope with bad seasons. They now have community warehouses where they can store their grains to cope with potential food shortage.
- For other families, small stock animals constitute an efficient mechanism of adaptation. In many family we visited in Bugesera district, one over two had at least a goat or a sheep. These animals are resistant to drought reproduce quickly and constitute a source of income for households in these dry areas.



This pair of goats is a valuable asset for the households in the area

Lesson 10. Poverty reduction programs and search for alternative solutions for survival are efficient measures for adaptation to climate change. Interview with the communities in Bugesera District revealed that between 1997-2001, the region experienced severe famines due to drought and loss of crops which forced the people to leave the region in search of food and employment. With the introduction of new projects and the creation of employment in the region, Bugesera has become a new destination for population from the densely populated districts of Rwanda in search of land and employment.

Lesson 11. An accurate forecast system contributes efficiently to climate change risks adaptation and preparedness.

AAP equipped the Rwanda Meteo with modern equipment capable of collecting and processing weather data and trained its staff in packaging, processing data for forecasting rain and adverse weather events. The system is being tested successfully in four districts of the Western province. Once fully functional, it will be an efficient tool for climate change adaptation.

4.3.2. Constraints experienced

- ✚ The time frame of the Project was not commensurate to the desired results. Strengthening Institutions requires more time than the one imparted to the AAP project. In the fast moving environment of Rwanda, the project needed more time to adjust itself to the on going environment. Moreover, the pilot adaptation projects proposed in the project, also required time produce results and to

influence decision makers at all levels which is not the case with agricultural projects.

- ✚ AAP Rwanda had to comply with the Government decision of establishing the Single Project Implementation Unit system in public Institutions, which became effective in late May 2010. This hampered the timely implementation of project activities and delivery of the expected outputs.
- ✚ Long procurement processes delayed the timely delivery in some activities.
The long administrative and procurement processes resulted in delays in procuring the solar water pump which was to be used in the community small scale irrigation in Kayonza District. This was also the case in the procurement of the different studies undertaken under the project.
- ✚ The project didn't involve adequately the beneficiaries of the pilot adaptation projects. This resulted in poor ownership of some of the pilot actions by the beneficiaries.
- ✚ The sequence of some technical studies was not appropriate. Studies supposed to inform each other were conducted in parallel. Ex: The study on National incentives based climate change building Program was to be informed by the results of the pilot adaptation projects.
- ✚ Linkage and experience sharing with the regional office and other AAP projects was not effective and this deprived the project from benefiting from their success stories.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The AAP project has been instrumental in complementing the efforts made by the Government of Rwanda to address environment and climate change challenges.

The AAP project benefited from the commendable favourable environment created by the Government of Rwanda towards integrating environment and climate change in its development plans. The Vision 2020 has been updated to address more efficiently climate change and environment. Collaborative effort is underway to mainstream Environment and climate change into the second version of EDPRS, in

Sector Ministries and at the local level. Through the Annex 17 of the National budget law, the Ministry of finance and economic planning provides guidelines to the Sector Ministries and the Local Governments on how to budget for Environment and climate change and has put in place mechanisms for budget control execution. A sustainable funding mechanism was put in place to finance environment and climate change mitigation and adaption initiatives.

The final evaluation of the project noted that the formulation of the AAP has not anticipated the quick achievements in addressing climate change that Rwanda made in the last two years coinciding with the Project period. As the project took long to start effectively, the project had then to adjust its activities to the new developments which were taking place in the country and also in consideration of the limited time which was left before the project closure.

The following are the general conclusions of the evaluation:

The project objective and the expected outputs were not commensurate with the resource and time imparted to the project. At project closure some activities were not completed as planned. However the PMU made commendable efforts and achieved interesting results.

Though it took time to materialize, the Single Project management Unit (SPIU) proposed by REMA facilitated the implementation of the AAP, promoted synergy and information sharing, avoided duplication of activities among the projects and the different department of REMA and laid foundation for the uptake and sustainability of the project outputs.

Partnership with RAB and REMA was successful and constitutes a good mechanism for the sustainability of the project results. Moreover, implementation of the pilot activities with the cooperatives was a good entry point in working with the communities.

The evaluation noted that the involvement of the communities beneficiary in the selection of the pilot adaptation project if adequately done would have come up with specific and well targeted activities capable of producing the expected results.

Besides the comments given above, the AAP project made substantial contribution

to the on going government efforts towards building a comprehensive national adaptation approach for Rwanda and for that the Project was rated **Satisfactory**.

5.2. Recommendations

5.2.1. Continued support to AAP uncompleted activities.

The Project duration was short and some activities could not be implemented at completion. There is a need to monitor the completion of AAP activities more specifically, the community irrigation in Kayonza District, the development of the early warning system, RENVIS.... and to mobilize additional financial resources to make them operational.

5.2.2. Need to promote the use of the web based M&E and information sharing tools developed under the project.

The Project developed interesting M&E tools and improved the Rwanda environment information system (RENVIS) but these tools are not yet fully operational. There is a need for more trainings and applications of these tools and also to promote their use by the on going REMA Projects.

5.2.3. Need for further support to the Rwanda early warning system.

The AAP Project supported substantially the establishment of an early warning system for Rwanda in terms of provision of equipment and capacity building. Under the LDCF Project the system is being tested in 4 districts of Western Rwanda. Further support will be required to make the system fully functional.

Support is still required in (i) the improvement of models to process meteorological data and weather forecasting (ii) Linkage and information sharing with regional and global meteorological networks. (iii) Making use of other meteorological centers being put in place by other organizations such as MINAGRI and the Kagera Project of the Nile Basin Initiative to widen the weather data collection coverage.(iv) to expand the EWS testing going on in 4 districts to other districts prone to climate change risks. (v) Strengthen collaboration with relevant Ministries (MINAGRI, MIDIMAR, MINIRENA etc...) in the management of climate related disasters.

5.2.4. Continued support to CCA mainstreaming and Monitoring.

REMA and the AAP project contributed successfully to mainstreaming Climate change into sector Ministries and at the district level and more importantly in the EDPRSII under preparation. These on going efforts need to be supported to ensure efficient mainstreaming of CCA and monitoring the implementation of the planned activities in different sectors. There is a need to maintain a network of the people trained in CCA under the AAP project at sector and local levels to continue awareness creation and monitoring CCA activities.

5.2.5. Scaling up the successful climate change pilot adaptation Projects.

The pilot climate change adaptation projects implemented in the six districts of Rwanda need further evaluation to envisage how they can be scaled up in other areas. The existing collaboration with the Rwanda Agricultural Board and the districts need to be strengthened in scaling up the pilot adaptation projects especially in the area of vegetable, agroforestry and fruit tree planting, rain water harvesting, soil conservation etc....

The Cooperatives involved in the pilot adaptation project need to be followed up and used for further CC community adaptation activities. REMA and RAB should find a way to further support the cooperatives to ensure that the intended results are achieved.

5.2.6. FONERWA offers a coordinated and efficient mechanism for funding environment and climate change interventions. The study on further intervention should contribute to its operationalization.

The study on national incentive based climate change resilience building program in Rwanda identified areas that need further funding and should guide any future intervention in the sector.

FONERWA should also gather the experience of other countries where the AAP project was implemented and use that experience as it evolves.

5.2.7. While preparing the closing of AAP Rwanda, it is important that lessons Learnt and experience capitalized in other similar projects in Africa be documented and up taken within REMA

5.2.8. The evaluation recommends REMA to continue engaging the Embassy of Japan in all upcoming closing events while exploring further support to consolidate the project achievements.

6. ANNEXES

Annex 6.1. List of persons interviewed

No	Date	Name	Title	Institution
1	25/02/2013	Janvier NTALINDWA	Head of Program	UNDP
2.	25/02/2013	Alphonse MUTABAZI	Project Manager	AAP Rwanda
3.	27/02/2013	Dr. Rose MUKANKOMEJE	Director General	REMA
4.	28/02/2012	Felix RURANGWA	Head of program	RAB
5.	28/02/2013	AMINI MUTAGANDA	Head of program	RAB
6.	06/03/2013	Boniface KAGIRANEZA	Head of program	RAB
	06/03/2013	BUSOBOZI Martin	Agroforestry Department	RAB
7	06/03/2013	GIRANEZA JOHN	Chair man	Cooperative Twuzuzanye
8	06/03/2013	Mukakarangwa Anne Marie, NSANZURWIMO Elie, SINDIKUBWABO Aloys	Members	Cooperative Twuzuzanye
9	07/03/2013	Nzamwita Innocent	Head of program	RAB
10		Head master		RUTETE Primary school
11	07/03/2013	TIHABYONA J.de Dieu	Vice Maire	KIREHE District
12	07/03/2013	Adelte HAKIZAMUNGU	Executive secretary	NASHO sector
13	07/03/2013	Ndikubwabo Innocent	In charge of social affairs	Rweru sector
	07/03/2013	Leonard SAGHUTU	Chairman	BGECO
14	07/03/2013	Celestin HABIMANA, Francois GATETE, Dusabumuremyi J. Damascene, HabumuremyiAnastase, MurorunkwereAlphonsine,	Members	Cooperative BGECO
15.	08/03/2013			Rwembogo sector
16	08/03/2013	Claude MUHUTU	Head of program	RAB

17	08/03/2013	Wilson KAREGEYA	Veterinaire	Rwembogo
18	08/03/2013	Tom HABANA	Chairman	Coopérative d'élevage de poissons de Rwembogo
19	08/03/2013	8 members of the cooperative		Coopérative d'élevage de poissons de Rwembogo
20		12 members of the cooperative		Rwembogo dairy
21		Muyarubuga Emmanuel	Chairman	Rwembogo dairy Cooperative
22	11/03/2013	Gilbert NDIZEYE		RAB
23	11/03/2013	Froduald Nkundabaraye	In charge of Agriculture	Nkomane Sector- Nyamagabe District
24	11/03/2013	Kadama Emmanuel	Chairman	Cooperative Turwanye Ubukene
25	11/03/2013	5 members of the Cooperative Turwanye Ubukene		Cooperative turwanye ubukene
26	11/03/2013	Vestine MUKANDINDA	Chairperson	Dufatanye 2020 Cooperative
27	11/03/2013	KananiCyprien	Member	Dufatanye 2020 Cooperative
28	11/03/2013	Ngendahayo Damien	Chairman	Cooperative Abatuburambuto
29	11/03/2013	Ndorayabo Martin	Beneficiary	Nkomane Sector
30	12/03/2013	Hategekimana Valens	Executive secretary	Rulindo district
31	12/03/2013	Zazu Sebagabo Nkunzingoma	Executive secretary	Shyorongi Sector
32	12/03/2013	Munyengabe Jean Marie	Head of program	RAB

		Vianney		
33	12/03/2013	Nyiraneza Claudine	Head of agro forestry	RAB
34	12/03/2013	5 members of Cooperative	members	Turwanye ubutayu Cooperative
35	12/03/2013	3 members of the cooperative	members	Abanyamurava ba Gatwa
36	14/03/2013	Laetitia Uwimana	SWAP MININFRA	Ministry of Infrastructure
37	22/03/2013	Nicole RIZIKI	M&E	AAP Rwanda
	22/03/2013	TETERO Francois	Watershed management Coordinator	MINIRENA
38	22/03/2013	Faustin MUNYANZIKIWE	Director CCIO department	REMA
39	22/03/2012	Teddy MUGABO	SWAP MINIRENA	MINIRENA
40	25/03/2013	Fidelite NINZIZA	CCA Officer	AAP Rwanda
41	25/03/2013	NTABANA Alphonsine	Acting SPIU Coordinator	REMA
42	25/03/2013	Alex MULISA	Coordinator FONERWA	REMA
43	25/03/2013	TWAHIRWA Antoine	Head of weather forecasting	METEO RWANDA
44	25/03/2013	Madeleine USABYIMBABAZI	Environment facilitator	MINAGRI
45	25/03/2013	Rurangwa Raphael	DG Planning	MINAGRI

Annex 6.2. Questionnaire used during interviews

I.1. Interview Guide for communities involved in the implementation of Pilot adaptation projects.

The interview will target communities who are implementing the pilot adaptations projects in the Districts of Bugesera, Gatsibo, Kayanza ,Kirehe, Nyamagabe and Rulindo. The evaluator will interview the beneficiary of the project, the local entrepreneurs who participated in the implementation of the Project including women and youth.

The interview will turn around the following questions:

- 1.1. The name of the interviewee, Gender, Village, Cell, sector and District
- 1.2. The type of the Project implemented (tree planting, horticulture, water harvesting terracing, fish farming etc...)
- 1.3. Climate change awareness (any training received, own experience)
- 1.4. Perception of the Climate change related risks/ hazards
- 1.5. Impact of Climate related hazards on natural resources and livelihoods
- 1.6. Access to information on climate change or Climate change related events
- 1.7. How came the idea of the project (own, local authorities, Project staff etc....)
- 1.8. Activities undertaken
- 1.9. Participants in the project and their respective roles (cooperative, private sector, women, youth, etc...)
- 1.10. Impact of the adaptation project in: reducing climate change risks/impact, income, Food security, employment, other.....)
- 1.11. Benefits expected from the Project
- 1.12. What risk/ impact will be reduced by the Project and how?
- 1.13. Is this type of activity new in the sector? Where else it has been implemented and what have been the benefits
- 1.14. If the Project has benefits why did you wait to implement it?
- 1.15. How do you see the sustainability of this activity after the project?
- 1.16. What did you like in the process of implementation of this project?
- 1.17. Any recommendation to the Project, local authorities and members of your community?

I.2. Observation

During field visit, the evaluator will make a transect in some fields where the project is implemented and make some observations on:

1. The status of implementation of the project
2. Similar activities implemented in the area if any and their impact in reducing climate change risks and hazards
3. Replication of the project activities in the area
4. Risks or opportunities on the sustainability of the project.

I. INTERVIEW WITH LOCAL AUTHORITIES.

The interview will target the district authorities (Maire, Vice Maire in charge of social affairs, Technicians(Agronomist, the executive secretary of the cell)

The same questions addressed to the community member will be asked to the local authorities to assess what he sees as the impact of the project on the communities.

Additional questions will allow discussions on:

- a. How the District development plan integrates climate change
- b. People from the District trained on Climate change by the Project (District officers and women)
- c. District Budget allocated to Climate change
- d. Establishment of a district climate change coordination committee
- e. Has the district produced a report on capacity needs for adaption action
- f. Guidelines for addressing CCA in DDPs

II. INTERVIEW WITH SECTOR MINISTRIES (AGRICULTURE, INFRASTRUCTURE, MINECOFIN, MINRENA, HEALTH)

The interview will target the Climate change focal point/ or EDPRS focal point in the Ministry.

Interview will turn around the (i) awareness on Climate change , risks and impacts, (ii) Impact of climate change on the sector, (iii) sector climate change related

activities implemented with or without the AAP support,(iv) Integration of Climate change in the EDPRS and budget, (v) People trained in Climate change (vi) Support received from the AAP project.

III. INTERVIEW WITH THE SPIU/REMA AND THE PROGRAM MANAGER

The interview with REMA and the AAP project will focus on the achievements of the project under the five components, the enabling environment (policies, strategies and institutions) created at national and local level, the sustainability of project activities and way forward.

Annex 6.3: List of document reviewed

1. AAP project document
2. Handbook On Planning, Monitoring And Evaluating For Development Results (Undp, 2009)
3. AAP annual report 2011.
4. AAP quarterly reports.
5. Draft MTR report
6. AAP Country conference summary overview,(AAP, 2012)
7. Handbook on Capitalization of Experiences 2012
8. UNDP AAP report , June 2012.
9. Baseline information and indicators for the Rwanda AAP Project(C4 Eco-solutions, 2012)
10. Vision 2020
11. Draft EDPRSII
12. SWAP MINERENA
13. Five years strategy plan for the environment and natural resource Sector(2014-2018)
14. Improving, Planning, Budgeting, Monitoring and Evaluation and data collection in the environment and natural resources sector (MINIRENA, 2012)
15. Law of June 2012 establishing FONERWA.
16. Concept note the national climate change adaptation awareness building and communication strategy establishment (REMA 2012)
17. Gap Analysis of Meteo Rwanda to Support the Development of an Early

Warning System in Rwanda

18. Establishment of an Early Warning System in Rwanda, Scoping Study and Implementation Plan(Rema, 2012)
19. National Incentives-based Climate Change Resilience Building Programme(Rema , 2012)
20. GIS Based Monitoring and Evaluation Management Information System, Final report
21. Rwanda Climate Change Mitigation Assessment Information System, User manual.
22. 13. Strategic Environmental Assessment of the Agriculture sector in Rwanda (January 2012)

Annex 6.3. Reports produced under the Project.

1. Baseline information and indicators for Rwanda AAP Project (March 2012)
2. Training module on Climate change in Kinyarwanda (April 2012)
3. National incentive- based climate change resilience building programme (December 2012)
4. Gap analysis for METEO Rwanda to support the Development of an EWS system in Rwanda (December 2012)
5. Report on training in weather forecasting, modeling and special warning packaging (November 2012)
6. Report on training in early warning systems and disaster management cycle (December 2012)
7. Scoping study and implementation plan for the establishment of an early warning system in Rwanda (December 2012)
8. Concept paper on national Climate change awareness building and communication strategy establishment under AAP CCA Programme in Rwanda (December 2012)
9. Monitoring and evaluation MIS (User Manual) (October 2012)

10. GIS based monitoring and evaluation MIS(Final report) (October 2012)
11. Adaptation to climate change information system (User Manual) (2012)
12. Rwanda climate change mitigation assessment information system (User Manual) (2012)

Annex 6.4. Comments from Stakeholders

On Friday 5th, The Consultant presented the report to the stakeholders including, Project staff, REMA staff, Representatives of the Ministry of Agriculture.(see attached list)

1. To review the executive summary and give less emphasis or enough explanations to the budget re allocation.
2. IN the text provide the background that led to the prioritization of activities and budget re allocation.
3. Provide more details on the pilot adaptation project including the process of selection, the impact of the selected pilot actions. Ex the water melon project was left out.
4. Revise the consultant opinion on incentives given to beneficiaries of the pilot activities
5. Establish the relationship between the proposed pilot activities and priorities given in the National adaptation plan.
6. Correct the title of Rwanda ATLAS
7. Revise the opinion of the consultant that partnership with public institutions was not effective.
8. Lessons learnt: add the traditional knowledge identified during the project
9. The long procurement process was not the real cause of the delays of the Project but the timeline was short.
10. The PMU to provide the reports on workshops held to be documented in the report.
11. Documentation center, explain the reasons for the late establishment
12. Reconsider the sentence : The formulation of the project didn't take in consideration the dynamic which was going on in Rwanda. But clearly explain

that the current progress on climate change mainstreaming and adaptation came after the formulation.

Other Comments on AAP Final Evaluation Report

- (i) **Page2/55: See acknowledgment:** This final evaluation won't (meaning *will not*) have achieved its objective..., I wish you could use *conditional* and corrected it like this" **This final evaluation wouldn't (meaning *would not*) have achieved its objective....**
- (ii) **Page2/55: Acknowledgement paragraph4:** The Director General of Rwanda Meteo(use capital letter on meteo)
- (iii) **Page2/55: Acknowledgement paragraph4:** Ministry of Agriculture and Animal Resources (capital letters on all initials)
- (iv) **Page2/55: Last paragraph:** government officials in the Ministries of Natural Resources (capital letter on Resources) .However,it would be better to use MINIRENA for harmonization with other ministries.
- (v) **Page3/55: Table of contents:** there is a need to review it, it is not well presented (for example, use i, ii, iii,... pagination style for preliminary pages and 1, 2, 3, ... for text pages and annex
- (vi) **Page5/55: Acronyms: see ,** MINECOFIN: Ministry of Finance and Economic Planning
- (vii) **Page7/55: Executive Summary:** first paragraph, this evaluation was **enabling**(or **was to enable**)
- (viii) to document lessons learnt (they should be many lessons)
- (ix) **Page7/55: Paragraph3:** Ministry of Natural Resources
- (x) **Page7/55: Executive summary:** Paragraph2 after the project outputs: Economic Development and Poverty Reduction Strategy , see also vision 2020 instead of vision 2020
- (xi) **Page8/55:** More that 50% of the budget was reallocated (or allocated?) is it an addition budget that you added to existing one or is the 50% of total budget that **was allocated** to the first out put?
- (xii) **Page8/55:** national **Early Warning System** (you have to decide if you will use capital letters on initials or not)
- (xiii) **Page 8/55:** paragraph 3 .It is better to clarify the other project that was implemented in parallel with AAP (LCDF)

- (xiv) **Page8/55:** paragraph4, commendable achievements which were complemented by government's efforts (or **which were in complementary with government's efforts?**)
- (xv) **Page8/55:** see list of achievements:
Bullet1: Rwanda Environment and Climate Change Information System
Bullet2: use the same **text font**
Bullet3: please harmonize the writings by using capital letter on initials for government institutions. Example, Ministry of Local Government instead of ministry of local government
- (xvi) **Page10/55:** paragraph2, lessons learnt instead of lessons Learnt
- (xvii) **Page15/55:** It is better to indicate the reference when you're stating figures in a document like this, example: Up to 87% of the rural population depends directly on agriculture for their livelihoods (where did you get that?EICV3?)
- (xviii) **Page15/55 : last paragraph:** Ministry of Natural Resources
- (xix) **Page16:** use of capital letters e.g: MIDMAR: Ministry of Disaster Management and Refugee Affairs)
- (xx) **Page19/55: point 3.1.2.,**The vision 2020 which seeks to transform the country from a poor, low-income to a medium income, knowledge-based economy,.... (conjunction is missing)
- (xxi) **Page25/55:** there is need to insert explanations on why output 1 was provided with lot money than planned. Is it bad planning? Loads of work (many activities) or because it was an urgent priority?
- (xxii) **Page44/55:** last paragraph, there is no **NKOMANE district** in Rwanda. I think it should be one Sector (Umurenge) of Nyamagage district
- (xxiii) **Page44/55:** there is need to revise the last paragraph because is not well composed: eg. look at this sentence: Some cooperatives through the training(**they**)have received and (**had**) have started diversifying their activities and consequently their source of income(there is need to reformulate this sentence)
- (xxiv) **Page 45/55:** bullet (i)motivated by the income that they were getting

List of Participants

Name	Organization
Mutabazi Alphonse	AAP/ REMA
Fabrice MUGABO	AAP/REMA
Nicole RIZIKI	AAP/REMA
Fidelite NINZIZA	AAP/REMA
Felix RURANGWA	RAB/ MINAGRI
BUSOBOZI Martin	RAB/MINAGRI
GAKWAVU Thomas	RAB/MINAGRI

Annex 6.5. Field mission

Field Mission report

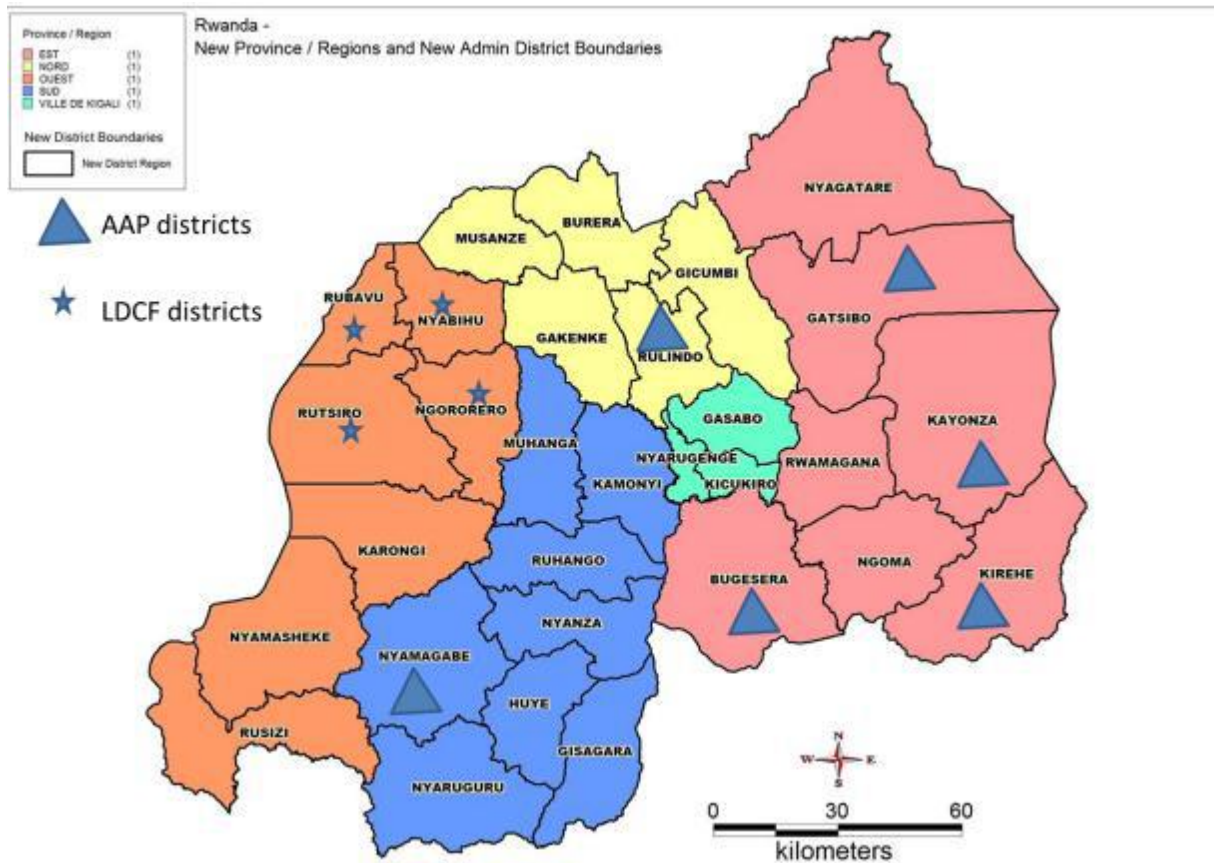


Figure 4: This map shows the district in which pilot adaptation projects were implemented.

I. Meeting with RAB

On 29/Feb/2013, the Consultant met Mr. Felix Rurangwa of the Rwanda Agricultural Board(RAB). The Project had signed an MoU with the Rwanda Agricultural Board to implement adaptation pilot projects in six districts of Rwanda.

The objective of the meeting was to meet RAB authorities to discuss the status of implementation of the pilot projects to note the progress as well as the problems encountered during implementation.

The MoU between RAB and the AAP project was signed in July 2011 for a period of 12 months up to October 2012. The MoU was later extended until March 31st, 2012.

The activities included in the MoU include:

- Training Cooperatives members in different topics in relation with the proposed activities and in climate change risks, mitigation and adaptation
- Rehabilitation of a valley dam and construction of fish ponds in Gatsibo, Rwembogo sector
- Preparation of nurseries for fruit and agroforestry trees in Bugesera, Kirehe, Nyamagabe, and Rulindo.
- Irrigation using solar pump in Kayonza
- Erosion control, Wood lot establishment and forest rehabilitation in Nyamagabe and Rulindo.
- Multiplication of vegetables and fodder

According to Mr. Felix Rurangwa, the project faced important challenges: (i) the time for the implementation of the pilot activities was too short: it is hard to train people, prepare tree seedlings and to plant them in less than a year.

II. Field mission

March 6th, 2013: Bugesera District, RWERU sector.

People met:

1. Boniface Kagiraneza(RAB) tel: 0788674760
2. Busobozi Martin (RAB)
3. Giraneza John,(Cooperative twuzuzanye) tel: 0786861784
4. Mukakarangwa Anne Marie
5. Nsanzurwimo Elia
6. Sindikubwayo Aloys
7. Francois Baranyikwa(RAB/Agroforestry nursery) Tel: 0788395190
8. Head master Rutete Primary school

The project was implemented by TWUZUZANYE Cooperative of Rweru sector. The cooperative has 102 members and is engaged in agriculture and livestock activities.

Observations.

The members of the cooperative are aware of the risks of climate change they are facing. They recognized that their region, formerly the granary of Rwanda, is now prone to dry spells and drought due to unreliable rainfall. They recognize that this was due to the deforestation of the area and believe that if the region forest cover is restored, this can mitigate the risks of climate change. Some efforts have been undertaken in some parts of the District and the benefits are now being felt. The region experienced severe droughts in 1999/2000 and 2005/2006 that caused hunger and displacement of the population to other region for search for food and employment. The situation is quite stabilized for the last 12 years.

The coping/ adaptation mechanisms currently used by the communities are:

1. Storage of food in anticipation of bad seasons
2. Cultivation in the marshlands during dry season
3. Diversification of income. Each family is now rearing at least one or two goats
4. Planting cassava and sorghum which are drought resistant crops.

The Project: The project consisted in a three days training of the cooperative members in different topics including (i) Forage establishment and management for animal feed and environment protection (ii) Nursery establishment, tree and bamboo seedling preparation (iii) Cooperative Management and regulation (iv) Tree planting and management (v) Agro forestry tree planting on trenches along contour lines and its management (vi) Tree fruit raising and grafting techniques, (vii) Climate change mitigation and adaptation, (viii) Establishment of trenches along contour lines and (ix) Forest management and rehabilitation. The trainees received a practical training in grafting fruit trees and in nursery preparation.

The cooperative members themselves prepared the seedlings for agro forestry trees, and grafted fruit trees including mangoes and avocados. All the services were paid against cash (1,100RWF per person/day). Once the seedlings were ready, they were planted in farmer's fields in places indicated by the local authorities as priority areas.

Benefit expected from the project

- All the activities undertaken by the project were source of income for the members of the cooperatives and other laborers involved in the project.

- Fruit trees will improve the nutrition of the community and an important source of income
- The participants in the projects acquired skills in seedlings preparation and fruit seedling grafting
- Once the fruit trees come into production, the produced fruits will be an important source of income
- With agro forestry trees(planted in contour lines), they will be a source of fodder for animals and will improve soil fertility , fight against erosion and serve as protection against house and crop destruction by violent winds frequent in the region.
- In the long term, more trees will attract the rains in the region as it started to happen now

Other similar projects in the area

The Rwanda agricultural board has an agricultural research station in the area with demonstration plots on soil conservation, agroforestry, fodder for cattle, fruit trees and drought resistant crops suitable to the area.

The International Centre for research in Agroforestry (ICRAF) is implementing an agro forestry project in the area.

Lessons learnt

- 1. Working with cooperatives: cooperatives can be a good entry point in a community and a way to sustain project activities.**
- 2. Synergy with RAB: The proposed pilot projects are agricultural activities practiced by RAB in different regions of Rwanda. RAB will be able to replicate the successful projects**

Challenges

Duration of the Project not enough to sensitize the communities

Problem of having scions for fruit trees

Some field were planted without prior sensitization of the beneficiaries, this resulted in a low number of tree survival.

Outcomes

Awareness on climate change was increased among the participants in the project

The participants in the project got some income from the project,

The participants in the project improved their skills in seedling preparation and grafting some are already hired by other organizations ex ICRAF

The cooperative was strengthened and can expand its activities

Sustainability

The cooperative is ready to continue the activity of fruit and agro forestry seedling preparation

The project has established mother gardens in different sites of the sector in farmers fields which will provide scions for further grafting. 1 scion cost 30 francs and one grafted seedling of a fruit tree cost 1000 RWF

RAB will continue to make a follow up of the planted trees and is expanding the activity to other sectors in the district

At Nemba village, we also visited the primary school of RUTETE where a mother garden of avocado was established. The garden was used to sensitize the students on the importance of tree in adaptation to climate change.

The day of our visit, the cooperative had produced 9,350 grafted seedlings of avocado and mangoes.

Testimony: One lady MS Mukakarangwa Anne Marie testified that with the money she got from the project, she bought a goat which has already produced two offshoots, constructed a house of 20 iron sheets and can pay school fees for her son studying in a secondary school.

Achievements

Training of cooperative members

Preparation and planting of agroforestry and fruit seedlings ready for planting

Leucaena: 34,036; Calliandra: 54,192; Cena: 6,500; Marcamia: 5240, Grevilea: 12,605

Eucaliptus: 9,400

fruit tree seedlings distributed to 1,000 HH in the villages of Kavure, rutete, nyakabingo, nemba and batima. 8 mother gardens for avocado established and 4 mother gardens for mango

20,000 suckers of pineapple produced and distributed to farmers.

March 7th: Kirehe District,

People met:

- 1. Leonidas Ndayishimiye**
- 2. Habimana Celestin Nasho- Rugobe Gatare**
- 3. Gatete Francois**
- 4. Dusabumuremyi Jean damascene**
- 5. Habumuremyi Anastase**
- 6. Nyirashyirambere j Jean Damascene : Rubirizi –Murindi**
- 7. Ndikubwamahoro Innocent: in charge of social affairs at Rubirizi cell.**
- 8. Murorunkwere Alphonsine: Rubirizi Murindi**

Observations.

The Cell of RUBIRIZI visited is a region for new establishment. The search for agricultural land has resulted in destruction of forest and exposure to severe climate change effects.

The members of the community met are aware of the risks of climate change they are exposed to: They know that the area is prone to drought and rains are irregular. Strong winds regularly cause destruction of homes and crops.

The AAP project trained the members of the cooperative in seedling preparation, grafting and tree planting. The cooperative then produced seedlings of fruit and agroforestry trees, pineapples and fodder

Benefits:

Same as in Bugesera.

In addition to the benefit mentioned earlier, the region being an area for new settlement, agro forestry trees will improve soil fertility, protect houses against violent winds and provide fuel wood for home use.

Sustainability:

The cooperative will continue to produce seedlings and sell them to other projects involved in reforestation and fruit trees distribution.

The trees are well maintained especially in the villages where each farmer has planted at least 50 trees in his compound and farm.

The district has in its plan to plant more trees in the area.

Discussions with the District Vice Maire in charge of economic affairs.

The vice Maire appreciated the contribution of the project. He said that as immediate outcome, the members of the cooperative realized some income from the project activities but in the long run, the community of the area will have more tree in their farms, which will protect their farms and houses against strong winds which regularly hit the area at the beginning of the rainy season. Some trees will provide fodder for the animals and stabilize the rain patterns in the area.

On the question on how they mainstream climate change in their Plans. He said that they don't specifically mention climate change as such, many activities aiming at environment protection and restoration are on the agenda of the district. These include: Promotion of the use of biogas, rural electrification, reforestation etc... The district is targeting the school children by sensitizing them on the risks of climate change and adaptation mechanisms. As an example they have introduced a program called on tree fruit one child. They have put in place the environment protection committee in all sectors and the district is working hand in hand with a cooperative called UBURUMBUKE in environment protection.

Other projects working in the same area: KWAMP is engaged in reforestation and distribution of small stocks animals,

Lesson learnt:

- working with cooperatives
- Performance contracts at the district

Achievements

Fruits and agroforestry seedling production and planting.

Persea Americana: 1877, Mangifera indica: 1600, Citrus lemon: 1830, Citrus sinensis: 1915, Carica papaya: 2,000

Caliandra: 22,300, Leucaena: 35,600, Ceanothus spectabilis: 37,700, Marcamia: 16,350, Pterygota: 5,000, Maesopsis: 5,200. Greilea: 50,000

Woodlot of about 50 ha established.

March 8th : GATSIBO district

People met: 16 members of the Cooperative Rwembogo Dairy Cooperative and 9 members of the Rwembogo fish farming cooperative .

The veterinary technician of the sector and three staff from RAB

Name of the projects: (i) valley dam rehabilitation (ii) Fish farming

Observations:

The members of the two cooperatives are aware of climate change risks to which they are exposed.

The members of the dairy cooperative face water shortage for their cattle due to long dry seasons which are often in that part of the country. During the rainy season, some valleys are prone to floods due to a poor drainage. This has led to destruction of crops causing food insecurity in the communities farming in that valley.

Project achievements

The AAP rehabilitated two valley dams out of seven existing in the sector. Rehabilitation consisted in building bridges for people and cattle, rehabilitation of cattle drinking troughs, fencing the valley dam and planting trees around the valley

dam. The cooperative put in place a valley dam management committee made of 7 members who look after the good maintenance of the valley dam.

With the fish farming cooperative, the members constructed 6 new fish ponds as a way to make this valley prone to flooding more productive. Members were trained in fish farming and fishponds maintenance. The members participated in all the fish pond establishment activities and they were remunerated. The cooperative also is rearing pigs and rabbits which will produce organic manure to feed the fish in the fish ponds.

The cooperative has seen his capital increased by the acquisition of these 6 new ponds. They can access credit and engage in other income generating activities. Nturanyenabo a young man member of the cooperative bought a new bicycle and paid the loan he had contracted for his wedding.

Sustainability

The establishment of a valley dam maintenance committee is a way to ensure the sustainability of the Project. The committee organizes community work to clear the bushes around the valley dam, to weed the trees and to strengthen the fence around the valley dam. They also prevent any attempt from herders to damage the dam or spoil the water.

RAB and the authorities of the District have plans the rehabilitate other dams in the district and to establish management committees on all dams.

March 11th, Nyamagabe, Nkomane sector

People met:

- Kanani Cyprien Musaraba –Nyarwungo
- Vestin Mukandinda ,Presidente Dufatanye 2020 cooperative
- Froduald nkundabaramye
- Kadama Emmanuel, Cooperative turwanye Ubukene Bitandara- Twiya
- Ndorayabo Martin, Nkomana – Bitandare
- Ngendahayo Damien, President Cooperative abatuburambuto

In Nyamagabe , the pilot adaptation projects are implemented in 3 sites namely: (i)Nkomane – Mutengeri by Cooperative abatuburambuto (ii) Nkomane –Bitandara by Turwanye Ubukene Cooperative and (iii) Nkomana Musaraba by Dufatanye 2020 Cooperative.

The activities conducted in Nkomane consist in fodder multiplication on terasses(tripsacum, penisetum and Mucuna), preparation of tree and fruit seedlings, establishment of wood lots and forest rehabilitation.

The members of the cooperatives involved in the project were trained in seedling preparation and tree planting along contour lines. They were also trained in wood lot establishment and forest rehabilitation.

Climate risks perceived by the community.

The region of Nkomane like the other parts of Nyamagabe are made of steeply slopes hills exposing the habitants of the region to severe erosion , landslides and flooding in the valleys. We were informed that recently, landslides claimed the lives of 8 people in the sector of Nkomane. Strong winds hit regularly the area causing destruction of houses and crops.

Benefits from the project

At this time only short term benefits could be seen. The members of the cooperatives gained skills in tree nursery preparation, cooperative management. The project established fodder multiplication plots where farmers will get planting material for planting in their field. Fodder planting material is rare in the region. The project also distributed fruit trees seedlings including grafted avocado, tomato trees and passion fruits from which early benefits were already visible.

The project was also a source of income for the communities in the area, all the services of seedling preparation, tree and fodder planting were remunerated. The first beneficiary of the fruit seedlings distributed by the project started earning from the sale of fruits. This is the case of Mr. Ndorayabo Martin of Nkomane sector, Bitandare cell who earned 240,000 from the first sale of tomato tree fruits.

The community in the region appreciated receiving seedling of fruit and agro forestry trees since previous intervention in the area focused more on forest tree especially

eucalyptus. Agro forestry and fruits trees provide quick gains in terms of fodder for the animals and fruits while protecting their land against erosion and landslides.

March 12th, RULINDO district

People met:

1. Hategekimana Valens: executive secretary of Ntarabana Sector
2. Mr. zezu Sebagabo Nkunzingoma: executive secretary of Shyorongi sector
3. Mr. Mnyeramba canisius: member of the Cooperative Abanyamurava ba Gatwa.
4. Habyarimana Christian
5. Kanani Gratien – Ntarabana
6. Kankindi Angelique. Ntarabana
7. Mvuyekure Vinncent: - Ntarabana
8. Kabalinda Leonidas - Shyorongi
9. Tugiremungu Florenti- Shorongi
10. Mukarutaganda Consolee- Shyorongi

Perception of the community on Climate change risks.

The sectors of Shyorongi and Ntarabana visited are characterized by numerous hills with steeply slopes exposed to erosion and landslides. In the valleys, flooding occurs almost every season. During our visit to the sector of Shyorongi, we were informed that 17 houses were destroyed by strong winds which hit the sector. The farmers have noticed that there is variability in planting seasons. As an example, they were used to plant trees early March but the time we visited the area in mid March tree planting had been delayed because of late start of the rainy season.

The communities together with their local authorities have adopted some coping measures including, establishment of terraces to reduce erosion, digging holes to stop the speed of the runoff and displacement of population living in areas exposed to flooding and landslides to safer places.

According to the executive secretary of the Ntarabana sector and to the members of the cooperative interviewed. The project has generated some benefits though it is still early to see the benefits of the trees planted. The sector of Ntarabana is densely

habited and there is no space for woodlot planting. The community appreciates the introduction of agro forestry trees and fruit trees, which have multiple benefits. The community also appreciated the training they received as it equipped them with new skills in nursery establishment and seedling preparation, which they will continue to use after the project closure.

Young graduates in the sector benefited from the practice they did in the activities undertaken by the project and finally, the project activities were source for income for the cooperative members since they were remunerated for seedling preparation, agro forestry tree and fodder planting in farmers field. The established plots of avocado will constitute a source for grafting materials in future.

Unlike other project sites visited, there were no cooperatives to contract the project activities. The project started by facilitating the formation of a cooperative in the area where project activities were undertaken. At present, three cooperatives are functional and the local authorities are ready to engage them in other district activities. Mr. Habyarimana Christian we met during our interview told us that he benefited a lot from the project. He constructed a house and started a small boutique with the income he got from the project activities.

Sustainability

The newly formed cooperatives are likely to continue and the sector authorities promised to use them in their agro forestry program. The cooperative members have started a saving and credit scheme for their members which is likely to keep them together.

Annex 6.7. Terms of Reference for Final Evaluation

Africa Adaptation Program

Project Title: Africa Adaptation Program (AAP)

Country: *Rwanda*

Duration: 25 working days (over a 35 day period) ending 18 January, 2013

1. INTRODUCTION

With funding of \$92.1 million from the Government of Japan, UNDP launched the Program, “**Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa** (hereafter called the Africa Adaptation Program or AAP)” in partnership with the United Nations Industrial Development Organisation (UNIDO), the United Nations Children’s Fund (UNICEF) and the World Food Program (WFP). The AAP assists 20 countries across the African continent in incorporating climate change risks and opportunities into national development processes to secure development gains under a changing climate. The Program helps countries establish an enabling environment and develop the capacity required at local and national levels to enable them to design, finance, implement, monitor and adjust long-term, integrated and cost-effective adaptation policies and plans that are robust within a wide range of possible changes in climate conditions.

Within the framework of the AAP, Rwanda started AAP Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa - Building a comprehensive national approach in Rwanda

Brief description of the project

Climate change trends in Rwanda are characterized by a trend of declining overall rainfall, interspersed with years of excessive rainfall. Dry spells and prolonged droughts are observed, often geographically specific. A trend of increasing temperatures has been recorded, both of annual average maximum and minimum temperature. Extreme rainfall events have led to severe flooding in various areas in Rwanda. Overall the occurrence of extreme phenomena (drought and floods) has increased. GCM projections of future climate predict overall hotter climatic conditions, both in terms of day and night temperatures. Rainfall may increase esp. events that are more intense. Climate change impacts affect agricultural production

and food security, water availability, land degradation i.e. erosion and landslides, infrastructure such as housing, roads and micro dams, due to flooding and siltation. Malaria distribution is becoming wider and other health impacts are expected. Overall the adaptive capacity of Rwanda is low, especially on the community and district level. The 1994 genocide and war has left institutions poorly positioned to take on the climate change challenge. The Government of Rwanda aims to establish a country wide approach to adaptation that would particularly test adaptation measures at the community and district level, taking a community preparedness focus and integrating gender sensitive approaches. The proposed project addresses climate change risks under each of the five AAP Global Project outputs, focusing on strengthening (1) adaptive long-term planning capacities and climate proofing sectoral and national development policies, (2) institutional and human resource capacities, specifically targeting the district level, (3) policy measures, through testing adaptation options through community adaptation projects and demonstration activities. (4) A sustainable financing strategy ought to be developed, and (5) knowledge management activities will be implemented. Improved adaptive capacities will help Rwanda to make sustainable advances towards Vision 2020.

Total resources required US\$ 2,932,925

2. PURPOSE OF THE FINAL EVALUATION

This final evaluation will produce an evaluation report containing a detailed list of lessons learnt. The evaluation report is aimed at critically assessing the stages of the AAP and its products through participatory approaches, measuring to what extent the objective/outputs/activities have been achieved against the results and resources framework, and identifying factors that have hindered or facilitated the success of the project. The lessons learnt section is aimed at capturing key lessons to assess what adaptation approaches/measures were effective in various thematic areas (e.g. water, agriculture, health, disaster risk reduction, coastal zone management) at multiple special scales (e.g. national, sub-national, local levels). This part is therefore forward-looking and is aimed at promoting AAP's lessons so that the legacies of the AAP will be replicated and sustained beyond the project lifetime.

3. SCOPE OF THE EVALUATION

AAP Rwanda will be evaluated using the following criteria: relevance, effectiveness, efficiency, timeliness, and sustainability. The final evaluation will focus on the following aspects: A) project objective/outputs; B) processes; C) sustainability of results; D) monitoring and evaluation; and E) conclusions and lessons learnt. For each aspect, a wide array of factors will be considered, including but not limited to:

A) Project objective/outputs

i. Objective, Output, Activities

- Effectiveness and efficiency of project activities

B) Progress in the achievement of outcomes/outputs, measured against the baselines and indicators set at the outset of the project

C) Processes

i. Institutional arrangement

- Formulation and implementation stages
- Consultative processes
- Technical support by global and regional teams during formulation and implementation
- Capacity building initiatives
- Assumptions and risks
- Project related complementary activities

ii. Partnerships

- Assessment of national level involvement and perception of partners
- Assessment of local partnerships and their involvement
- Assessment of collaboration between government, non-governmental organisations, the private sector, and regional/international organisations

iii. Processes and Administration

- Project administration procedures
- Milestones (log-frame matrix, RRF)
- Key decisions and outputs
- Project oversight and active engagement by UNDP Country Office and the project board

- Coordination between UNDP Country Office and government executing agency

iv. Disbursements

- Overview of actual spending against budget expectations
- Analyse disbursements to determine if funds have been applied effectively and efficiently

v. Budget procedures

- Effectiveness of project document to provide adequate guidance on how to allocate the budget
- Audits and any issues raised in audits and subsequent adjustments to accommodate audit recommendations
- Review budget revisions and provide an opinion on the appropriateness and relevancy of such revisions

vi. Coordination mechanisms

- Appropriateness and efficiency of coordinating mechanisms and approaches between implementing partners and oversight bodies
- Propose improved coordination mechanisms and approaches

D) Sustainability of Results

- Evaluate AAP's strategy to promote the sustainability/replicability of results
- Identify evidence showing that the results/lessons of AAP have been replicated to other regions/countries/communities
- Analyse risks to ensuring sustainability of the project outcomes and results (i.e. country ownership, financial, institutional capacity)

D) Monitoring and Evaluation

- Identify problems/constraints, which impacted on successful delivery of the project identified at the project design stage and subsequently as part of the Mid-Term Review (MTR)
- Identify threats/risks to project success that emerged during implementation and strategies implemented to overcome these threats/risks

- Analyse impact of MTR recommendations
- Assess the Monitoring & Evaluation systems and plans, whether they were well designed, implemented and budgeted ,and their contribution to the compulsory quarterly and annual reporting processes at the national and regional levels
- Assess the extent, appropriateness and effectiveness of adaptive management at all levels of the project implementation

E) Conclusions, Lessons Learnt

- Assess substantive reports (e.g. risk assessment, progress reports of certain adaptation measures, lessons learnt documents)
- Identify key lessons emerging from countries
- Identify effective approaches/measures (by sector and spatial scale)
- Identify elements hindering or promoting success

4. EXPECTED OUTPUTS

The consultant will be expected to produce:

- 1) **An inception plan.** The plan should outline the overall strategies, actions and timeline of the evaluation.
- 2) **An evaluation report.** The report should not be more than 40 pages. It should be structured along the outline indicated in Annex 2. It includes a detailed lessons learnt component and a list of all people interviewed in annex.

A draft of 1) should be submitted within 1 week after the contract is issued. A draft of 2) should be submitted within 2 weeks of the end of the evaluator's mission, and a final copy within 1 weeks after receiving written comments on the drafts. The draft and final evaluations of the products should be submitted to UNDP CO.

5. METHODOLOGY/APPROACH OF EVALUATION

A consultant will be recruited. S/he will undertake evaluation through the following 3 main steps: 1) review of documentation (home-based); 2) interviews in the field with stakeholders (mission); and 3) follow-up inquiries by phone/email and develop final

products (home-based). Before the mission, the consultant will coordinate closely with project manager and respective UNDP Officer to get necessary documents for home-based desk review and schedule mission appointments.

Table 3: The suggested timeline/tasks are as follows:

Action	Suggested Timeframes (Days)
Step 1 Review of documentation (home-based)	1 week (5 working days)
Step 2: Interviews with key stakeholders (mission)	2 weeks (10 working days)
Step 3: Follow-up inquires and development of draft products (home-based)	1 week (5 working days)
Step 4: AAP stakeholders to review the drafts and submit comments to the consultant	2 weeks – 10 days (No action needed from the consultant)
Step 4: Finalise an evaluation report and a lessons learnt document that reflect comments (home-based)	1 week (5 working days)
Total duration	7 weeks (of which the consultant is active for 5 weeks (25 working days))

The evaluation will be conducted in a participatory manner through a combination of processes. It is anticipated that the methodology to be used for the Final Evaluation will include the following:

1) Review of documentation including but not limited to:

- Project document
- Quarterly/annual progress reports and work plans of various implementation task teams
- Audit reports
- Mid-Term Review report
- Final project review report, wherever available
- Financial reports
- Mission reports
- Strategy documents
- Guidelines/discussions papers
- Outreach materials
- Minutes of project steering committee meetings
- Monitoring and evaluation framework
- Project Review Report completed by AAP National Project Manager

2) Interviews in the field with stakeholders including, but not limited to:

- Project team
- Implementing Partner
- Oversight body (UNDP CO and Project Steering Committee)
- Project stakeholders/beneficiaries

3) Additional document/information:

- UNDP Evaluation Office webpage
- UNDP Evaluation Policy (2006)
- UNDP Evaluation Policy, pending approval by the Executive Board in January 2011
- Handbook on Planning, Monitoring and Evaluating for Development Results
- Outcome Evaluation Guidelines
- Evaluation Resource Centre

- EvalNet– EvalNet is a knowledge practice network, managed by the Evaluation Office, which aims to promote sharing of experiences, lessons and good practices in evaluation among its members. It has a number of products; including bi-monthly resource packages, consolidated replies and e-discussions. The network is open to external evaluation practitioners on invitation basis.
- ADR Guidelines
- United Nations Evaluation Group (UNEG) webpage
- UN Evaluation Group Norms and Standards for Evaluation
- UNEG Code of Conduct for Evaluators
- UNEG Ethical Guidelines for Evaluators

The above-referenced documents shall be made available to the evaluators in advance of the missions and, to the extent possible, in electronic format.

6. ATTRIBUTES OF THE EVALUATION CONSULTANT

The consultant should ideally have the following competencies, qualifications and attributes:

Expertise in:

- Capacity building and strengthening institutions
- Policy framework strengthening/mainstreaming
- Climate change adaptation
- Good knowledge of the UNDP Evaluation Policy;
- Experience applying UNDP Results Based Evaluation Policies and Procedures;
- Good knowledge of the UNDP NIM Guidelines and Procedures;
- Knowledge of Result-Based Management Evaluation methodologies;
- Knowledge of participatory monitoring approaches;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;

- Demonstrable analytical skills;
- Some prior knowledge of the Africa Adaptation Program and working experience in Africa will be considered an asset.
- Master's degree in a relevant field such as Economics, Development Economics, Biology, Environmental Sciences Natural Resources Management, from a recognized University.

Competency in the following is required:

- Excellent [English](#) writing and communication skills
- Demonstrated ability to assess complex situations in order to succinctly and clearly distil critical issues and draw forward looking conclusions
- Excellent facilitation skills

7. IMPLEMENTATION ARRANGEMENTS

The evaluation will be conducted for a period of 7 weeks, of which the consultant is active for 5 weeks with a total of 25 working days. The detailed Final Evaluation methodology will be agreed as part of the contract finalisation process by way of virtual communication with relevant UNDP representatives.

The consultant will start the evaluation processes with an inception meeting with relevant the UNDP representative(s). The consultant should submit an inception plan based on the meeting within 1 week of the issuance of contract. S/he will then undertake the review of documentation (home-based), interviews with key stakeholders/field visits (mission), preparation of an evaluation report and a lessons learnt document (home-based). S/he will submit the draft products to UNDP CO for comments and finalise the products within 2 weeks after receiving the feedback.

8. GUIDING PRINCIPLES AND VALUES

The evaluation will be undertaken in-line with the following principles:

- Independence
- Impartiality

- Transparency
- Disclosure
- Ethical
- Partnership
- Competencies and Capacities
- Credibility
- Utility

The consultant must be independent from the delivery and management of development assistance process that is relevant to the Project's context. Therefore, applications will not be considered from those who have had any direct involvement with the design or implementation of the Project. Any previous association with the Project must be disclosed in the application. This applies equally to firms submitting proposals as it does to individual evaluators. If selected, failure to make the above disclosures will be considered just grounds for immediate contract termination, without recompense. In such circumstances, all notes, reports and other documentation produced by the evaluator will be retained by UNDP.

9. Selection Process

9.1 Submissions will be evaluated in consideration of the Evaluation Criteria as stated below

9.1.1 Evaluation Criteria (Total of 100 points):

- a) Master's degree in a relevant field such as Economics, Development Economics, Biology , Project Management and Evaluation, Natural Resources Management, Environmental Sciences from a recognized University **(15 points)**;

- b) Minimum ten years work experience in related fields such as Poverty Reduction Strategies, policies, Monitoring and Evaluation and strategic planning, and more specifically, the suitable candidate should have significant experience in capacity building, policy frame work/mainstreaming, Knowledge of Result-Based Management Evaluation methodologies(**30 points**) ;
- c) Good knowledge of the UNDP Evaluation Policy, experience applying UNDP Results Based Evaluation Policies and Procedures, good knowledge of the UNDP NIM Guidelines and Procedures, knowledge of Result-Based Management Evaluation methodologies, knowledge of participatory monitoring approaches; experience applying SMART indicators and reconstructing or validating baseline scenarios, demonstrable analytical skills (**10 points**);
- d) Adequate methodology and work plan (**40 points**);
- e) Fluency in English or French and a working knowledge of one of the other language (**5 points**).

9.2. In order to qualify for further consideration the Individual Consultant must accomplish a minimum score of 70 points (technical qualification). A cumulative analysis will be applied. Candidates who qualify for further consideration may be invited for a personal interview.

9.2 The Basis of Award will be to the Individual Consultant who qualifies in both Technical and Financial Evaluation and Personal Interview.

10. REPORTING LINES AND SUPERVISION OF WORK

The consultant will report to and be evaluated by the National AAP Rwanda coordinator, Mr Alphonse Mutabazi, and the UNDP Focal point for AAP -Rwanda Country Office, Mr Janvier Ntalindwa (in collaboration with other stakeholders e.g. Government of Rwanda and AAP Team)

11. SUBMISSIONS

Interested consultants are required to submit an expression of interest and relevant Curriculum Vitae that demonstrates the qualifications, skills, experience and track record to deliver the services required and that reflects an understanding of key issues relating to the scope of work. Please also provide three contactable references. In addition to that the consultant shall submit a joint technical and financial proposal.

Submissions are to be made by email to: offers.rw.undp.org by no later than 12h00 on 15th December, 2013. Note that no hard copy submissions will be accepted.

Inquiries can be directed to Janvier Ntalindwa at janvier.ntalindwa@undp.org

ANNEX 2 – REPORT SAMPLE OUTLINE

Final Evaluation Report – Sample Outline

1. Executive Summary

- Brief description of project
- Context and purpose of the evaluation
- Main conclusions, recommendations

2. Introduction

- Purpose of the evaluation
- Key issues addressed
- Methodology of the evaluation
- Structure of the evaluation

3. The Project and its Development Context

- Project start and its duration
- Challenges that Program sought to address
- Objective and goal of the project

- Main stakeholders
- Results expected

4. Findings and Conclusions

4.1 *Project Formulation*

- Formulation processes
- Stakeholder participation
- Replication approach
- Cost effectiveness
- Linkage of the Program and other interventions within the sector
- Indicators

4.2 *Project Implementation*

- Delivery
- Financial management
- Monitoring and evaluation
- Implementation modalities
- Coordination with WFP, UNICEF and UNIDO
- Coordination with other partners and operational issues

4.3 *Results*

- Attainment of Objective/Goal
- Attainment of Outputs
- Sustainability
- Replicability

5. Lessons Learnt

6. Conclusions and Recommendations

7. Annexes

- Evaluation ToRs, itinerary and list of persons interviewed
- Summary of findings from each mission
- Summary of field visits, including evaluators findings, issues raised and recommendations by different stakeholders
- List of documents reviewed
- Questionnaire used and summary of results if any
- Synthesis of stakeholder comments to the draft evaluation report

