REPUBLIC OF RWANDA

Kigali, on ....04 OCT 2017
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MINISTRY OF ENVIRONMENT
PO BOX 3502 KIGALI

Mikko Ollikainen; Manager,
Adaptation Fund Board Secretariat
1818 H Street, NW, MSN P4-400,
Washington, DC 20433 USA
Tel: 202.458.7347, Fax: 202.522.3240/3245
E-mail: afbsec@adaptation-fund.org

RE: Submission of the Midterm Evaluation Report

Dear Fund Manager,

Reference is made to the Project Agreement "The Reducing Vulnerability to Climate Change in North West Rwanda through Community Based Adaptation Project in Rwanda" signed between the Adaptation Fund Board and Ministry of Natural Resources in Rwanda on 9th November 2013.

I am pleased to submit to you the Midterm evaluation report for the Project Reducing Vulnerability to Climate Change in North West Rwanda through Community Based Adaptation for your information.

We are happy to report that the project is progressing well and we expect to implement the project within the time limit/ lifespan.

Thank you for your usual support and cooperation.

Sincerely,

MINISTRY OF ENVIRONMENT

Fatina MUKARUBIBI
Permanent Secretary

cc:
Hon. Minister of Environment
KIGALI

REPUBLIC OF RWANDA

RWANDA WATER AND FORESTRY AUTHORITY (RWFA)

REDUCING VULNERABILITY TO CLIMATE CHANGE IN NORTH WEST RWANDA THROUGH COMMUNITY BASED ADAPTATION

FINAL REPORT OF MID-TERM EVALUATION OF RV3CBA PROJECT

COMMISSIONED TO SSCOPCO LTD

MUJYANAMA Pio/Senior Consultant

Kigali, September 2016

LIST OF ABBREVIATIONS

EPA	Environmental Protection Agency
FHH	Female Household
Ha	Hectare
HH	Household
Km	Kilometer
MHH	Male Household
MINAGRI	Ministry of Agriculture and Animal Resources
MINEDUC	Ministry of Education
MINIRENA	Ministry of Natural Resources
RNRA	Rwanda Natural Resources Authority
Rwf	Rwandan Francs
SACCOs	Savings and Credit Cooperatives
SHGs	Self Help Groups
SPSS	Statistical Package for the Social Science
TV	Television
TVET	Technical and Vocational Education and Training
VSLAs	Voluntary Saving & Lending Associations

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I. EXECUTIVE SUMMARY

Reducing Vulnerability to Climate Change through Community Based Adaptation (RV3CBA) is a Project executed under Rwanda Natural Resources Authority (RNRA) and implemented by the Ministry of Natural Resources (MINIRENA). The main objective this project is to increase the adaptive capacity of natural systems and rural communities living in exposed areas of North Western Rwanda to climate change impacts.

To achieve this objective, the project implementation is focusing on the following main components: i) Adaptation to climate change (rainfall intensity and duration) through integrated land and water management to support climate-resilient production and post-harvest systems; ii) Support for the transition from exploitive farming practices to sustainable alternative off-farm livelihoods; and iii) Capacity building of local institutions to improve understanding of climate change impacts and scale up effective adaptation strategies at the local level.

The results from the Mid-term Evaluation indicated RV3CBA Project is doing a great job in terms of creating awareness through different tools and channels. Regular meetings were held with different stakeholders aiming at raising awareness and increasing the ownership, Radio and TV were used to raise awareness and workshops were conducted and other activities aiming at raising awareness.

It was noticed that One hundred (100) community groups were formed and operationalized to be involved in the implementation of the project activities. The total number of the beneficiaries of the project interventions was 7,992 among them women were 4,288 (53.7%) while men were 3,704 (46.3%).

Compared to the planned number of houses to be built by the project, the achievement was at 100% as the plan was to build 200 houses which have been all constructed and distributed to 200 beneficiaries living in high risk zone located in the Sectors of Rurembo,

Mukamira, Jenda, Jomba, Kintobo, Karago and Rambura of Nyabihu District and Busogo Sector of Musanze District. Each household has a cowshed and will benefit cows to be used in generating biogas and each house has water tank used for harvesting water.

45 biogas digesters have been installed in Kabyaza green village and it will be done even out of green village to other beneficiaries. This will contribute so much in promoting zero grazing policy and biogas use strategy in this village. Based on the information from the project beneficiaries, resettled people were very happy as they were evacuated from high risk zone to the center where all will be provided with water tanks, biogas, health facilities, schools, etc.

A number of 169 cooperatives have been identified where two of them have been technically supported. To facilitate project beneficiaries in accessing credit facilities, preliminary documents and policies have been developed where the remaining phase is to sign the memorandum of understanding with SACCO and beneficiaries.

For the case of capacity building in reducing climate change through mitigation and adaptation to climate change, all planned trainings were conducted. All project community animators and other staff from Districts and sectors were trained in financial literacy, cooperative management, entrepreneurship, agricultural practices and resilient crops, and natural resources management.

The project has reached the highest level in making radical terracing (850.5 ha) and progressive terracing (503 ha) within a very short period of time. The implementation rate was at 100% on progressive and radical terracing based on the planning of the activities while the construction of check dams was at 96.46%. Based on the interviews with the respondent's beneficiaries, this activity played a key role in reducing flooding and landslides at the same time in increasing the agricultural production. It has also contributed in creating jobs for residents living in the project intervention areas.

The project has done a lot in the installation of rainwater harvesting tanks, in the protection of rivers and lakes where lowland of 20 caves was rehabilitated and 2 pounds and 8.3 km of channels were reopened and rehabilitated respectively.

Based on the project implementation level including budget execution rate, the project has reached 96.8%. This leads to confirm that the budget execution of the project was promising.

II. GENERAL INTRODUCTION

2.1. Background

The world currently is facing the challenges related to climate change where it is now a slogan in public institutions, civil society and private sector. Climate Change refers to any significant change in the measures of climate lasting for an extended period of time[1]. In other words, climate change includes major changes in temperature, precipitation or wind patterns among other effects that occur over several decades or longer (at least 30 years of observation). The Rwanda Vision 2020 commits to the following tasks with regards to water and sanitation: i) Access to clean drinking water and sanitation ii) Integrated and sustainable water resources management with focus on secured satisfactory water needs iii) Water collection, conservation and utilization for an economic development[2].

Climate change is an issue faced by all human being worldwide as confirmed that since the beginning of humanity, natural and human systems have faced important global environmental change, to which they have responded in different ways, from disappearance to mitigation and adaptation. Of all threats, climate change is the most dangerous because it affects all environmental systems (terrestrial and aquatic ecology) including health of human being rich and poor; that is why the awareness needs to be created to a large number of population and other stakeholders[3].

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[1] EPA (2014), Climate Change: Basic Information. Environmental Protection Agency (EPA)
[2] RNRA (2014), Reducing vulnerability to climate change in Northern west of Rwanda through Community based adaptation
[3] RNRA (2015), A climate change vulnerability and capacity assessment in the north-west Rwanda and to develop local adaptation plans

Currently, Rwanda is striving to mitigate and adapt to climate change countrywide. It is against this background that MINIRENA through RNRA project is implementing a project aiming at reducing climate change vulnerability through local adaptation plans.

2.2. Objective of the Midterm Evaluation

The Mid-term Evaluation aimed at assessing the status of the project implementation, as measured against the Project's performance indicators. This enabled to take decisions on the future orientation and emphasis of the project during its remaining life cycle.

2.3. Scope of the work

The scope of the Mid-Term Evaluation covered all activities undertaken in the framework of the project. The comparison of planned outputs of the project to the actual outputs and assess the actual results to determine their contribution to the attainment of the project objectives were done. The evaluation diagnosed problems and suggested any necessary corrections and adjustments. It evaluated the efficiency of project management, including the delivery of services and activities in terms of quality, quantity, timeliness and cost effectiveness. The evaluation also determined the likely outcomes and impact of the project in relation to the specified goals and objectives of the project.

The targeted areas for this Mid-Term Evaluation were Sectors of Rurembo, Mukamira, Jenda, Jomba, Kintobo, Karago and Rambura of Nyabihu District and Busogo Sector of Musanze District. In these Districts, a number of stakeholders were consulted.

2.4. Expected outputs

The expected outputs for this Mid-Term Evaluation were inception report, a summary of the field findings with the completed research questionnaires attached, draft report and participation in a validation workshop, and an integrate comments and observations from the task force into the draft report.

2.5. Project outcomes

Purposive to cope with climate change issues, Reducing Vulnerability to Climate Change through Community Based Adaptation (RV3CBA) Project on reducing is working against the following key outcomes: i) Reduced flooding and diversified and higher yields leading to enhanced food security and increased household incomes, ii) Diversified and climate resilient livelihoods of vulnerable households in project area, and iii) Enhanced capacity of local actors and Government to develop and implement risk reduction strategies for areas prone to flooding and landslides. The Mid-term Evaluation focused on the level of the project implementation on the above three outcomes which are the main target of the project.

III. METHODOLOGY FOR PERFORMING THE ASSIGNMENT

To conduct this mid-term evaluation, the methodological approach required more different methods and techniques. This included quantitative and qualitative approaches. For quantitative data analysis, Statistical Package for the Social Sciences (SPSS) was used. Quantitative results where appropriate were depicted through graphs, tabulations, pie charts, percentages, mean, variance and ratios. Various methods were used to check validity of the data including triangulation, and member checking i.e. talking to the informants to confirm data collected. The precaution to reduce bias by using critical analysis methods was used. During the mid-term evaluation, the following methods and techniques were used during the working period arranged to primary and secondary data: literature review, interviews, questionnaire, group discussions, and observation.

Quality Assurance

Considering the importance of this assignment, some measures have been set to ensure the quality of the work. For this reason, the following measures have been taken to further enforce the quality and integrity of the data collection process: Using participatory

approach in developing research tools, the validation of the inception report before data collection, data collectors trained to use the evaluation tools before starting the work; and the cooperation between enumerators, supervisors, consultants and the service beneficiaries enhanced.

Table 1: Project indicators[4]

Overall objective, Outcomes and Outputs	**Indicators**
Overall objective: to increase the adaptive capacity of natural systems and rural communities living in exposed areas of North Western Rwanda to climate change impacts.	Consumption levels in target HH
	Percentage of target population adopting risk reduction measures
Outcome 1: Reduced flooding and diversified and higher yields leading to enhanced food security and increased household incomes.	Number of victims killed and houses destroyed by flooding and landslides.
	Crop losses due to climate variability (potatoes, beans, maize, wheat, peas, tea, coffee, pyrethrum).
Output 1.1 Community level mobilization and climate adaptation planning.	No. of community based adaptation plans being implemented.
	No. of community groups formed and operationalized for adaptation planning.
	Participation of women/men from target HH in adaptation planning processes and mobilized to participate in project activities.
	Percentage of committee positions held by women/men from target HH in

[4] RNRA (2015), Baseline survey of RV3CBA project, Kigali

	adaptation planning processes.
Output 1.2 Investment in integrated land and water management technologies.	Hours per day (or year) women from target HH spend fetching water and collecting water.
	Area (ha) rehabilitated with erosion control measures.
	Number of water user groups managing ponds and rainwater harvesting tanks with management plans in place.
	No. target HH using harvested rainwater for domestic use and irrigation.
	Change in turbidity of rivers.
Output 1.3 Diversification and integration of crop and livestock production systems to minimize the impact of variable rainfall on rural livelihoods (agro-sylvopastoral systems etc.).	No of target HH adopting climate resilient farming practices disaggregated by type (e.g. agro-forestry, agro-sylvopastoral, etc.).
	Area of cultivated land (ha) under diversified, cropping and integrated farming systems in target areas.
Output 1.4 Introduction of climate-resilient crop/fodder varieties and agronomic practices (short season crops, seasonal pastures etc.).	Numbers of HH adopting at least 1 new climate-resilient crop or fodder variety or agronomic practices (disaggregated by male/female headed HH).
	Participation of women/men in farmer field trials.
Output 1.5 Introduction of climate resilient post-harvest processing and storage	Number of post-harvest storage systems established; number of HH using them.

systems for safe handling and storage of agricultural produce during extreme climate events (floods, rains).	Number of primary agro processing such as sorting, drying, threshing, grading.
	Percentage of target HH adding value through transformative agro processing such as milling, shelling, grinding or packaging
	No of women/men from target HH engaged in post- harvest livelihoods
Outcome 2: Diversified and climate resilient livelihoods of vulnerable households in project area.	Share of target HH income from non-farm activities.
	No. of women/men from target HH adopting alternative livelihood.
Output 2.1 Identification of viable alternative livelihood opportunities and constraints.	Number of women/men from target HH with a new source of income.
Output 2.2 Development of Rural Development Hubs within selected imidugudus to promote and facilitate productive and market-linked, alternative livelihoods (agro-processing, livestock, transport etc.).	% increase in annual HH income from diversified livelihoods (disaggregated by FHH/MHH).
	Number of women/men from target HH in Self-help groups or co-operatives.
	Number of women/men from target HH graduating from vocational training schemes.
	No. of hours spent on domestic duties by women/men aged over 16 years.
	No. of FHH/MHH in receipt of small loans to start an enterprise.

	No. of women's associations/savings groups (comprising target HHs) investing in a new and profitable business opportunity.
	No. of target beneficiaries (women/men) in VSLAs (Voluntary Saving & Lending Associations)
Output 2.3 Resettlement of 200 households living in high-risk zones to Rural Development Hubs.	No. of extreme poor HH from high risk zone resettled in houses constructed in safe zone in compliance with national standards.
Output 2.4 Increased investments in market development (infrastructure, transport, storage, market research etc.).	Number of new selling points available.
	Percentage of farmers bulking produce for market and selling collectively.
	No of target HH using new market infrastructure.
Output 2.5 Increased investment in and access to renewable energy (Biogas plants, solar etc.) for enterprise development.	No. of HH using a renewable energy source for lighting or cooking.
	No. co-operatives or self-help groups accessing a concessional loan for a renewable energy source.
Outcome 3: Enhanced capacity of local actors and Government to develop and implement risk reduction strategies for areas prone to flooding and landslides	No. of sectors outside project area replicating community based adaptation approaches
	Gender sensitive climate adaptation approaches incorporated national planning documents.

Output 3.1 Training of government stakeholders: technical staff, civil society and Private Sector staff in climate risk management and flood and landslide prevention measures for further scaling up.	Budgets and staffing dedicated to climate change adaptation through district development plans.
	No. of stakeholders who have received gender sensitization training as part of climate risk management.
Output 3.2 Sharing project results and lessons learned and mainstreaming new approaches in local and national planning.	Number of environmental/climate change policy briefs written and communicated to key decision makers.
	No of farmers making cross visits or viewing participatory videos by other farmers.
	No. of TV/radio broadcasts with key adaptation messages.
	No. of news reports in the local press and media that have covered climate adaptation initiatives.
	Number of potential donors/investors receiving the adaptation investment plan for North West Rwanda.

Source: Baseline survey 2016

IV. FINDINGS

The assignment related to the project Mid-Term Evaluation aimed at looking how well a project has met its objectives is an important element of project planning. During this exercise, the planned activities were compared to the achieved ones. As this is a mid-term evaluation, this will facilitate the project future orientations through provided recommendations.

4.1. Progress towards outcomes analysis

Outcome 1: Reduced flooding and diversified and higher yields leading to enhanced food security and increased household incomes

Since the project started operating in its intervention area, the positive impact has been observed by project stakeholders. Landslides that are the measure cause of the death and destroying economic activities were reduced up to 55% due to flood control investments. In addition to that, no incident related to death and house destroyed have been observed in the project area. Furthermore, the project intervention activities mostly soil & water management have played a predominant role in the reduction of agricultural production losses in particular for potatoes, beans, maize, wheat, peas, tea, coffee, and pyrethrum which are the more crops cultivated in the project area. This positive impact of the project is gradually visible at a very good extent.

Outcome 1 includes the following 5 expected outputs:

1.1 Community level mobilization and climate adaptation planning.
1.2 Investment in integrated land and water management technologies.
1.3 Diversification and integration of crop and livestock production systems to minimize the impact of variable rainfall on rural livelihoods (agro-sylvopastoral systems etc.).

1.4 Introduction of climate-resilient crop/fodder varieties and agronomic practices (short season crops, seasonal pastures etc.).

1.5 Introduction of climate resilient post-harvest processing and storage systems for safe handling and storage of agricultural produce during extreme climate events (floods, rains).

In relation to output 1.1: The Mid-Term Evaluation noticed that One hundred (100) community groups were formed and operationalized to be involved in the implementation of the project activities. The total number of the beneficiaries of the project interventions was 7,992 among them women were 4,288 (53.7%) while men were 3,704 (46.3%).

Community animators and project staff have been trained on Value chain management, project cycle management and reporting system, post-harvest and handling systems, operationalization of climate change adaptation plan, financial literacy, cooperative management, forestry management, watersheds management, post-harvest and storage techniques and land management. Gender aspect took into account during the composition of the existing committees because women and men were represented 50% respectively.

In relation to output 1.2: The project has rehabilitated its intervention area with erosion control measures through the radical and progressive terracing, installation of rainwater harvesting tanks, planting bamboos and the construction of the check dams.

Table 2: Terracing in selected areas

Activity	Planned terracing	Achieved	Execution %
Progressive terracing	503 ha	503 ha	100
Radical terracing	850.5 ha	850.5 ha	100
Check dams	11,090	10,698	96.46

Source: Primary data, 2016

The progressive and radical terracing was implemented at 100% based on the planning of the activities while the check dams were implemented at 96.46%. The remaining issues in terracing activity are trees' planting and terraces' maintenance which are continuous activities. Based on the interviews with the respondent's beneficiaries, this activity played a key role in reducing flooding and landslides.

Photo 1: Radical terraces at Mukamira and Kintobo sectors of Nyabihu District (Kinoni watershed).

Source: Primary data, 2016.

For the terraced areas, the agriculture practices were applied on 503 ha of bench terraces and 850.5 ha of progressive terraces. This leads to confirm that the project will positively have an impact on the food security and income generation activities for the residents of Rurembo, Mukamira, Jenda, Jomba, Kintobo, Karago and Rambura Sectors of Nyabihu District and Busogo Sector of Musanze District. The project also provided organic manure and lime to increase the agricultural production of the beneficiaries of the project interventions.

As confirmed by different stakeholders and beneficiaries, the erosion has been reduced where terraces were already made especially in mountainous areas.

Photo 2: Irish potatoes planted in radical terracing in Mukamira sector

Source: Primary data, 2016.

Pursuant to the information from project managers and project beneficiaries, the radical terraces contributed a lot in increasing production, prevents soil erosion and landslides. The project beneficiaries confirmed an increase in production for these two previous seasons.

A part from the terraces made, bamboos have been planted on the area of 118 ha and the drainage works in Mugogo low land were regularly done.

Photo 3: Bamboos planted being maintained

Source: Primary data

The project also protected some rivers and lakes in Nyabihu and Musanze Districts which were not protected through the bamboos plantation.

Photo 4: Bamboo planted both sides the river for protecting rivers and lakes

Source: Primary data, 2016.

The protection of river banks through planting bamboo in Kinoni and Giciye rivers with locally bamboo was made to stabilize the soil. The materials used were locally available and are very effective in protecting rivers that is why the project decided to use this as one of the strategies to protect the rivers.

For the case of Mugogo lowland rehabilitation, excavation of 20 caves was done and 2 pounds and 8.3 km of channels were reopened and rehabilitated respectively. In addition to that, Mugogo river drainage works were done including channels and maintenance of

caves. Mugogo low land maintenance is regularly done, caves were excavated water was channeled.

Photo 5: Mugogo lowland during maintenance

Source: Primary data, 2016.

There was also the construction of check dams in gullies and Mugogo lowland rehabilitation. 119 ha have been protected by planting bamboos, alnus, French Cameroon/grasses. To reinforce the soil protection, bamboos were planted on 120 ha (120 kilometre) around the rivers of Nyamukongoro, Kinoni, Nyamatukura and Giciye and on lake Nyirakigugu.

The maintained lowland was supportive to farming practices where it helped to keep the remaining grasslands in good condition. This lowland became very productive as confirmed by farmers in these two previous seasons. The production here doubled as the crops are no longer affected by floods.

Photo 6: Mugogo lowland maintenance

Source: Primary data, 2016.

In relation to output 1.3: It has been noticed that 4,500 households' beneficiaries of terraces have adopted climate resilient farming practices. Trainings on capacity building of agro forestry management have been conducted with project stakeholders (Community animators, District and Sector forest Officers and presidents of cooperatives operational in the project area). The area of cultivated land under diversified cropping and integrated farming practices were 805.5 ha radical terracing and 503 ha for progressive terracing.

In relation to output 1.4: 4500 households beneficiaries of terraces made by the project have adopted climate resilient farming practices. On this, women accounted for 57% while men were 43%.

Indeed, 480 members including 257 women (53.5%) and 223 men (46.5%) participated in farmer field trials and were grouped into 16 groups from 8 Sectors.

In relation to output 1.5: For the post-harvest systems, 4 storages have been established but not used due to the low production and resistance for some households. It was noted that 25 men out of 41 women were engaged in post-harvest and were trained on financial literacy and entrepreneurship.

Outcome 2: Diversified and climate resilient livelihoods of vulnerable households in project area.

Generating off farm jobs rather than farming activities was a priority for RV3CBA Project. Outcome 2 includes the following 5 expected outputs:

2.1 Identification of viable alternative livelihood opportunities and constraints.
2.2 Development of Rural Development Hubs within selected imidugudu to promote and facilitate productive and market-linked, alternative livelihoods (agro-processing, livestock, transport etc.).
2.3 Resettlement of 200 households living in high-risk zones to Rural Development Hubs.
2.4 Increased investments in market development (infrastructure, transport, storage, market research etc.).
2.5 Increased investment in and access to renewable energy (Biogas plants, solar etc.) for enterprise development.

In relation to output 2.1: The project impacted positively the community living in the project interventions area because beneficiaries found jobs in the implementation of the project activities. The number of hired manpower were 16,012 among them 9,221 (57.5%) women. An amount of 484,123,000 RWF was paid directly to the beneficiaries through Umurenge SACCOs. More than 8,000 beneficiaries opened their savings' accounts in Umurenge SACCOs, and their shares were valued to 51,000,000 Rwf.

The average remuneration of labor workforce in project area was 1,500 Rwf per day.

Photo 7: One of the SACCOs used for the payment of the manpower

Source: Primary data, 2016.

In relation to output 2.2: To increase the income from diversified livelihoods, the beneficiaries of the project interventions have been engaged in the execution of the project activities as manpower. 100 Self-Help Groups (SHGs) composed by 53 women and 47 men have been sensitized to self-dependency and home grown solutions for their own problems. Moreover, they have been encouraged to increase voluntary savings in Umurenge SACCOs where the savings of all members were 6,888,931 Rwf.

It is in this framework that 4 technical vocational training centers (VTC Kibihekane, MTC Karago, DCD Abacu tubiteho Rwankeri, and Jenda craft center) have been put in place to allow people to learn various trades that can help them to earn money. Unfortunately, none of the beneficiaries has been graduated during the two years. Moreover, 59% of women aged over 16 years spent around 7 hours on domestic duties.

In relation to output 2.3: Before the project interventions in the Sectors of Rurembo, Mukamira, Jenda, Jomba, Kintobo, Karago and Rambura of Nyabihu District and Busogo Sector of Musanze District, a significant number of the populations were living in the high risk zones where some of them died during the flooding and landslides periods.

From this worrying situation, the Government of Rwanda decided to resettle all people residing in disaster-prone areas countrywide by construction 200 houses in a green village called Kabyaza to be used for the relocating people in high risk zone through RV3CBA Project.

Table 3: Settlement of people in high risk zone

Built houses	Number	Percentage
Planned	200	100
Built	200	100

Source: Primary data, 2016.

Compared to the planned number of houses to be built by the project, the achievement is at 100% as the plan was to build 200 houses which have been all constructed. This leads to confirm that this activity was reached at 100% through RV3CBA project. 200 extreme poor HH from high risk zone have been resettled in the houses constructed.

Table 4: Gender of the heads of the households who benefited from RV3CBA houses

Gender of HH	Number	Percentage
Female	100	100
Male	100	100

Source: Primary data, 2016.

A gender analysis ensure that the project implementation is informed by a thorough understanding of gender roles, power relations and a disaggregation of women's and

men's specific interests, needs, and priorities as they relate to the project, 50% of the built houses were for the household headed by female. This means that the project considered gender aspects.

Photo 8: Houses that beneficiaries of the project use to stay before the resettlement

Source: Assessment of climate change vulnerability conducted in 2014.

Photo 9: Some of the observed cases due to flooding before relocating people

Source: Project document 2013.

Photo 10: Damaged houses before resettlement

Source: Assessment of climate change vulnerability conducted in 2014

Photo 11: Constructed green village of Kabyaza

Source: Primary data, 2016.

Photo 12: Kabyaza green village for people from high risk zone

Source: Primary data, 2016.

The houses constructed have contributed in evacuating people who were living in high risk zone where they faced many challenges including death of people due to floods in Nyabihu and Musanze.

In addition to the construction of the 200 houses, installation of rainwater harvesting tanks, a study was conducted and 200 rainwater harvesting tanks of 1500 liters each were installed in Kabyaza model green village which means the achievements were at 100%.

Photo 13: Supplied and installed water tanks in Kabyaza green village

Source: Primary data, 2016.

The installed water tank has multi roles including to provide storage of water for use in many applications, drinking water, irrigation agriculture, agricultural farming, both for plants and livestock, chemical manufacturing, food preparation as well as many other uses. Harvesting water will also reduce the surface runoff in that village were people will live together.

Each household has a cowshed where they will benefit cows to be used in biogas. In this village, 45 biogas digesters installed in Kabyaza green village and it will be done even out of green village to other beneficiaries. This will contribute so much in promoting zero grazing policy and biogas use strategy in this village. Based on the information from the project beneficiaries, resettled people are very happy as they were evacuated from high risk zone to the center where all is provided including water tanks, biogas, health facilities, schools, etc.

Photo 14 Cowshed constructed

Source: Primary data, 2016.

In relation to output 2.4: The findings show that 11 cooperatives were working in Jenda Agakiriro Center and other two selling points were planned to be constructed by the project.

In relation to output 2.5: Awareness campaign for encouraging Rwandan to use renewable energy has been done through Television (TV) and Radio. This contribution of raising awareness in reducing climate change vulnerability is essential especially for the case of increasing the climate change adaptation and mitigation capacities of communities.

Outcome 3: Enhanced capacity of local actors and Government to develop and implement risk reduction strategies for areas prone to flooding and landslides

This outcome includes the following 2 expected outputs:
3.1 Training of government stakeholders: technical staff, civil society and Private Sector staff in climate risk management and flood and landslide prevention measures for further scaling up.
3.2 Sharing project results and lessons learned and mainstreaming new approaches in local and national planning.

In relation to output 3.1: In reducing climate change, capacity building was indispensable as all stakeholders need to be informed on some strategies to be used in mitigation and adaptation to climate change, and some key concepts of climate change. This led the project in conducting some training where 150 representatives of self-help groups, 118 people from local authorities and community initiatives have been trained in: Financial literacy, cooperative management, entrepreneurship, agricultural practices and resilient crops, and natural resources management have been done and 231 people have been trained; 8 workshops on climate change adaptation and community participation in project activities, land use management and water resource management, Funds mobilization to implement project related to climate change adaptation, Mitigation and adaptation strategies, Natural resources management including forest and water management and Cooperatives' management.

The project implemented this output at 100% as all planned trainings were conducted. All project community animators (16 people) and other staff from Districts and sectors were trained. Community animators have been elected and equipped with transport facilitations; they have got several trainings to help them in facilitating the project implementation. Project activities are always incorporated into District development plans and annual performance contracts.

In relation to output 3.2: Project reports have been done on quarterly and annual basis. Project brochures have been developed and published in Kinyarwanda and English languages. Moreover, several articles have been published in local newspapers as well as on RV3CBA project website. The communication strategy was developed and is being implemented. 3 written briefs (RV3CBA official launch, Expropriation of Kabyaza model Green Village and Community participation to Mugogo lowland rehabilitation) were submitted to different senior managers at local and central level.

Furthermore, 3500 people from climate change resilient groups have visited different sites where RV3CBA Project is operating its land and water management (bench terraces, progressive terraces construction and their valorization. Different participatory videos (bamboo production, tree nursery development, good agriculture practices for Irish potatoes) were viewed by farmers during meetings and workshops.

Project activities and events on community climate change adaptation (Project official launch, Foundation stone laying ceremony of Kabyaza model green village construction, rehabilitation of Mugogo lowland, valorization of bench terraces, creation of off farm jobs) have been covered and reported on Radio Rwanda, Isango Star Radio, KT Radio, Musanze Community Radio and Rwanda Television, The New Times, Imvaho Nshya, and www. igihe. com. In addition, RV3CBA project website "www.rv3cba.rnra.rw" and its social media (Twitter"@CCAdaptationRw", Facebook "Rv3cba Project", Flickr

"RV3CBA Project" and You Tube "rv3cba") were updated with climate change initiatives and achievements.

Radio broadcasts and TV shows are often aired with messages related to reduce climate change vulnerability in the selected areas. The project is producing articles to be published in newspapers and regular workshops are conducted in project intervention areas. During the project implementation period, 6 TV talk shows, and 8 radio broadcasts were aired with the messages related to climate change mitigation and adaptation. Regular meetings, workshops and seminars are conducted aiming at raising awareness on climate change issues targeting the residents of the selected areas. The project has elaborated a website and is currently using social media including twitter, Facebook, YouTube and Flickr.

4.2 Lessons learnt

During the project implementation process, the following are the lessons learnt:

1. Commitment and ownership of project activities by beneficiaries, Community animators and Local government authorities (Districts) has contributed very much to the project's progress.

2. The expropriation process which is always not easy has caused the delay of the construction of the model green village. Intensive awareness with local communities and proper planning for procurement of construction services helped the project to catch up with the current progress.

3. For land and water management activities (terraces), the project management has decided to increase the number of hectares to be protected and this was based on the fact

that terraces were seen as the most important infrastructures to control erosion and landslides in the project area.

4. The material change has affected something in project implementation, therefore, the budget has to be strictly respected and none objection is needed before any material change of the project.

5. The lessons learnt from the reporting process has shown that climate and segregated data at impact level need considerable investments in conducting specific climate data surveys.

4.3. Budget execution rate

During the mid-term evaluation process, the budget execution rate was measured considering only the period of two previous years.

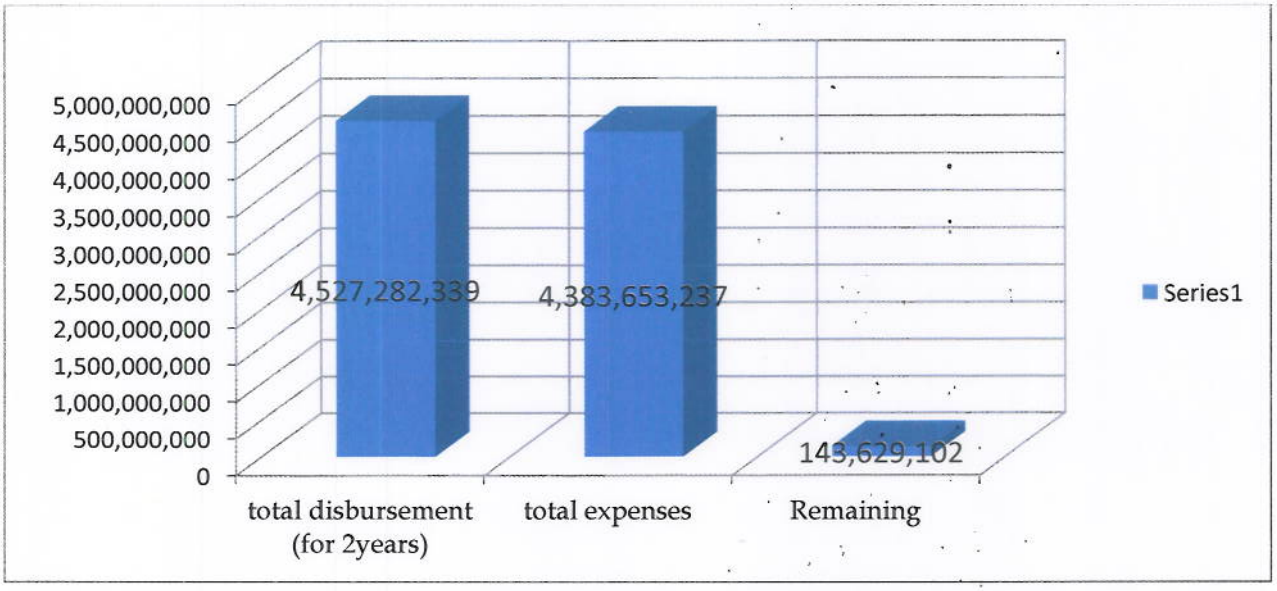

Figure 1: Budget execution rate

Source: RV3CBA report, 2016.

Table 5: Budget execution rate

Rate	Amount	Percentage
Disbursement	4,527,282,339	100
Spent	4,383,653,237	96.83
Remaining	143,629,102	3.17

Source: RV3CBA report, 2016.

Pursuant to the disbursement plan of the project, the budget execution of the project is too high. Compared the planned budget the execution is on 96.83%. The leads to confirm that RV3CBA project has reached a very high level in implementing this project aiming at reducing climate change in Northern West of Rwanda.

4.4. Risks management

Worldwide, all projects have some risks that is why during the elaboration of this project, risks were taken into considerations. According to the Project Management Institute's PMBOK, Risk management is one of the ten knowledge areas in which a project manager

must be competent. Project risk is defined by PMI as, "an uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives."

Project risk management remains a relatively undeveloped discipline, distinct from the risk management used by operational, financial and underwriters' risk management[5]. The following are the identified risks and the proposed mitigation measures.

Table 6: Identified risks, its level and mitigation measures

RISK	RISK LEVEL	MITIGATION
1. Low awareness and acceptance of the need to tackle climate change among key practitioners limits the support for action on climate change within key sectors.	Medium	Sensitization campaigns through different activities including TV, radio, meetings, promotional materials, stakeholder consultation and awareness raising during implementation and develop and effective advocacy strategy to win over influential stakeholders.
2. District administrations lack the resources and capacity to engage fully with the project and integrate project outputs with development plans.	Medium	Inclusion of project deliverables in the District Performance Contract where possible helped to ensure project activities become integrated and sustainable with ongoing development at the local level. Project implementation was supported with a competent team of professionals that are dedicated full time to the project.
3. Climatic conditions (destructive rains and unpredictable seasons) hamper project	Medium	The project reduced the effect of climatic hazards

[5] https://en.wikipedia.org/wiki/Project_risk_management

RISK	RISK LEVEL	MITIGATION
interventions (planting etc.) and could affect adaptation measures being implemented and undermine confidence of local communities in adaptation measures promoted by the project.		
4. Limited capacity of partner organizations to deliver project outputs.	Medium	The project has a strong capacity building and training component. Trainings were conducted and technical supports were provided
5. Failure to create ownership of the project at the local level.	Medium	Local community and local leaders were involved in all processes of the project implementation
6. Delays in the disbursement of funds, procurement and Institutional inefficiencies	Medium	At the national level MINRENA and RNRA worked closely to ensure optimum conditions for timely disbursement of funds.
7. Failure to adopt a holistic approach necessary for this type of project due to a lack of expertise within the project team or lead agency.	Low	Project team is made by multi-disciplinary. Project included provision for out-sourcing to competent third parties (NGOs, CSOs, specialised technical service providers, consultancy firms etc.)
8. Lack of co-ordination with other climate change	Low	The project reviewed lessons from other projects during the design phase.

RISK	RISK LEVEL	MITIGATION
projects in Rwanda limits the capacity of implementing agency to learn from and build on the experiences of related projects.		Project was co-ordinated through an SPIU, Thematic Working groups and Joint Sector Reviews
9. Weak capacity of coordination for concerned services in the optional choice of technical solutions and project planning.	Low	Project allocated resources for effective co-ordination and Terms of Reference for key staff including the Project Co-ordinator included responsibilities linked with effective co-ordination.
10. Lack of capacity and commitment to project outcomes and resistance to adopting the proposed measures.	Medium	Planning adaptation and interventions was decided through democratic community structures with technical advice from local experts. The project was only support interventions that have community backing. Project raised awareness of the long term benefits of adaptation and advocate where necessary with stakeholders who may be resistant to agreed adaptation measures.

11. Staff turnover in the Project Implementing Unit may hamper progress.	Low	Recruitment process ensured Terms of Reference meet human resource requirements to deliver quality outputs as well as ensure that the package is competitive and that the posts are advertised widely to ensure a good selection of candidates. Particular attention was given to the key role of Project Coordinator who was required in the TOR to have exceptional team building and management skills.
12. Local district administrations are unwilling to incorporate climate adaptation into district plans and budgets.	Low	District administrations have been involved in designing the project and local political support (from the Mayors of each district) for the project is high. The project continued to work closely with the district administrations throughout implementation to ensure local ownership.
13. Loss of livelihood for resettled families.	Low	Project prioritized these families for immediate employment under project construction activities that require labour (erosion control, replanting, drainage, pond excavation etc.) as a short-term measure to ensure a flow of income into the households. As a longer term measure the project targeted these households as part of it's livelihood support interventions under Component 2.

14. Resistance to adoption of new livelihood for resettled households.	Medium	Project sensitized the target households to the benefits of new livelihood strategies and the risks associated with not resettling.
15. Delayed compensation to land owners affected by resettlement programme.	Medium	Project ensured regular follow up with local authorities to expedite the valuation and compensation process.
16. Low awareness of benefits of resettlement results in community resistance.	Low	Project invested in sensitization and awareness building to explain the benefits of resettlement, the expropriation laws and associated entitlements including compensation arrangements.
17. Crop destruction during resettlement.	Low	Project ensured that all crops are harvested prior to commencement of construction activities.
18. Refusal of some households to share their lands for construction of houses.	Medium	Project ensured intensive and continuous sensitization of local landowners with the assistance of the district, sector and cell authorities. Sensitization of the communities to the project with landowners was initiated by the local authorities (sector "Umurenge", cells "Akagari" and village "Umudugudu" leaders). The negotiation process was initiated by the local authorities and opinion leaders.
19. Poor targeting of households for resettlement results in less	Low	Project ensured effective targeting of vulnerable households according to the *Ubedehe* categorization process and identification of high risk zones so that the

vulnerable households being resettled.		extreme poor households living in high risk zones are resettled.
20. New settlements do not make adequate provisions for human waste management.	Low	Project ensured proper management of human waste by connecting latrines to biogas digesters to provide a source of gas (for lighting and cooking) and fertilizer.
21. Poor management of solid waste in new settlements results in pollution and disease risk.	Low	Project sensitized local leaders on good practices for solid waste management including: waste segregation at source, recycling and re-use, composting of organic waste and use as organic fertilizers, along with collection and disposal of other wastes at official dump sites.
22. Continued unplanned settlement and unsustainable farming practices hinder progress.	Low	Government resettlement policy effectively prohibits further unplanned settlement. Project built awareness of the effects of unsustainable farming practices and introduced advocacy measures to promote the adoption of improved climate resilient farming practices.
23. Cultural views of women may impede their ability to take up some of the identified livelihood opportunities especially in construction (e.g. carpentry and bricklaying).	Medium	Project undertaken research to determine the barriers to women's involvement in some of these livelihoods and ensure that these barriers are addressed by the project. Project created awareness and advocate for equal opportunities in these fields.

Source: Project document 2013.

V. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This Mid-Term Evaluation aimed at facilitating RNRA and its stakeholders to assess progress of project basing on its outcomes. The mid-term evaluation of the project on reducing climate change vulnerability targeted the Northern West of Rwanda specifically the sectors of Rurembo, Mukamira, Jenda, Jomba, Kintobo, Karago and Rambura of Nyabihu District and Busogo Sector of Musanze District. In these districts, a number of stakeholders were consulted.

Different methods and techniques were used during the working period arranged to primary and secondary techniques: literature review, interviews, questionnaire, group discussions, and observation.

The results from the evaluation indicated that all planned studies and strategic documents were conducted. Based on the information from different sources, RV3CBA project is doing a great job in terms of creating awareness through different tools and channels. Regular meetings are held with different stakeholders aiming at raising awareness and increasing the ownership, Radio and TV are used to raise awareness, and workshops are conducted and other activities aiming at raising awareness. Compared to the planned number of houses to be built by the project, the achievement is at 100% as the plan was to build 200 houses which have been all constructed. This leads to confirm that this activity was reached at 100% through RV3CBA project in terms of building houses to evacuate people from high risk zones. Each household has a cowshed and will benefit cows to be used in generating biogas and each house has water tank used for harvesting water.

45 biogas digesters installed in Kabyaza green village and it will be done even out of green village to other beneficiaries. This will contribute so much in promoting zero

grazing policy and biogas use strategy in this village. Based on the information from the project beneficiaries, resettled people are very happy as they were evacuated from high risk zone to the center where all is provided including water tanks, biogas, health facilities, schools, etc.

A number of 169 cooperatives have been identified where two of them have been technically supported. To facilitate project beneficiaries in accessing credit facilities, preliminary documents and policies have been developed where the remaining phase is to sign memorandum of understanding with SACCO and beneficiaries.

For the case of capacity building in reducing climate change through mitigation and adaptation to climate change, all planned trainings were conducted while progressive and radical terracing has been implemented at 100%. However, check dams are at 96.46%.

The project has done a lot in the installation of rainwater harvesting tanks, in the protection of rivers and lakes where lowland of 20 caves was rehabilitated and 2 pounds and 8.3 km of channels were reopened and rehabilitated respectively.

Based on the project implementation level including budget execution rate, the project has reached 96.8%. This leads to confirm that the budget execution of the project is promising.

5.2. Recommendations

The following are the provided recommendations:

1. To speed up the process of supporting vocational training;
2. To proceed with signing memorandum of understanding so that project beneficiaries can benefit from credit facilities;
3. To strategize for terraces maintenance;

4. To increase the number of TV and radio talk shows in order to increase the level of awareness on climate change.

ANNEX 1: TERMS OF REFERENCE FOR THE MID-TERM REVIEW OF THE REDUCING VULNERABILITY TO CLIMATE CHANGE IN NORTH WEST RWANDA THROUGH COMMUNITY BASED ADAPTATION (RV3CBA PROJECT).

BACKGROUND AND CONTEXT

The Government of Rwanda through the Ministry of Natural Resources has received a grant from the United Nations Framework Convention on Climate Change through the Adaptation Fund to implement a project entitled "Reducing Vulnerability to Climate Change in the North West Rwanda through Community Based Adaptation".

The objective of the project is **to increase the adaptive capacity of natural systems and rural communities living in exposed areas of North Western Rwanda to climate change impacts**.

This objective is aligned with the Results Framework of the Adaptation Fund and directly contributes to Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress as well as to Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas.

The strategy of the project is to manage the risks and effects from recurring floods, landslides and erosion through an integrated natural resource management and alternative livelihoods programme in one of the most climate sensitive and vulnerable areas of Rwanda.

The project aims to address factors that exacerbate the effects of intense rainfall and lead to flooding and landslides. These include erosion and unsustainable farming practices linked to demographic pressure on natural resources.

By introducing erosion and flood control measures, building the capacity of farmers to adapt to climate variability and supporting the development of off-farm livelihoods to reduce the pressure on natural resources, the project will restore the ecosystem functions necessary to reduce the incidence and severity of flooding and landslides on local communities and resources.

For example, the absorption capacity of local watersheds will be increased by improved farming practices, restoration and protection of steep slopes through improved flood control, soil, land and water management measures.

As well as reducing the ongoing loss of life and economic losses resulting from intense rainfall events, the project will also positively impact on food security and household incomes of local communities as improved farming practices and erosion control deliver higher yields.

At the same time, the project will result in more diversified and secure livelihoods for local communities through the Rural Development Hubs that will deliver the investment and capacity development necessary to drive pro-poor growth and reduce people's dependence on over-exploited natural resources.

The project will specifically target the most vulnerable groups who have fewer resources to mitigate and adapt to climate change. This includes: the poorest groups of society (*Ubudehe* categories 1-3) and women headed households (who tend to be poor and are particularly vulnerable to climate change).

Moreover, the focus on a specific geographic location and building effective synergies with other on-going as well as planned and future interventions means that the project can deliver long term benefits to communities within a framework of co-ordinated, comprehensive and complementary climate adaptation. The project's emphasis on developing the adaptive capacity of farmers and local institutions ensures that the developed resilience becomes embedded within communities enabling them to continue adapting to future climate variability beyond the lifetime of the project.

This programme will be based on principles of local empowerment and implemented by grassroots organisations such as farmer groups, community based organisations and local NGOs with the support of local government. The success of the project will depend on the ownership and implementation by the two Districts (Nyabihu and Musanze). The anticipated impact of the project is the reduction of livelihood insecurity and losses from extreme climate events in 38,266 households located in the project area. The project will increase climate resilience through community-based adaptation and is anticipated to

contribute to the implementation of national policies and programmes that are in line with Rwanda's obligations under the UNFCCC.

OBJECTIVES

RV3CBA Project would like to conduct a midterm review evaluation to assess the status of Project implementation, as measured against the Project's performance indicators.

To obtain basic information; the consulting firm shall review existing documentations, in particular M&E reports, annual action plans and budgets, quarterly and annual reports, financial reports, Project Appraisal Document, Financial and Accounting Manual, etc and hold interviews with Project staff and Project beneficiaries.

The Project commits to provide the maximum assistance and input in these regards, including provision of data and preliminary drafting of sections of the report under the coordination of the Project Coordinator and Consultant.

SCOPE OF THE ASSIGNMENT

The scope of the Mid-Term Review will cover all activities undertaken in the framework of the project.

The evaluators will compare planned outputs of the project to actual outputs and assess the actual results to determine their contribution to the attainment of the project objectives.

The evaluation will diagnose problems and suggest any necessary corrections and adjustments.

It will evaluate the efficiency of project management, including the delivery of outputs and activities in terms of quality, quantity, timeliness and cost efficiency.

The evaluation will also determine the likely outcomes and impact of the project in relation to the specified goals and objectives of the project.

The review team will assess the following categories of project progress. For each category, the review team is required to rate overall progress using percentages.

Progress towards Results in Project design:

- Review the problem addressed by the project and the underlying assumptions.
- Review the effect of any incorrect assumptions made by the project.
- Identify new assumptions (if necessary)
- Assess whether the project design is clear, logical and commensurate with time and resources available;
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results.
- Review how the project addresses country priorities.
- Review the baseline data included in the project results framework and suggest revisions as necessary.
- Review indicators and target reformulation and propose improved formulation if needed.

Progress:

- Assess the scope, quality and significance of the projects outputs produced to date in relation to expected results.
- Assess the outputs and progress toward outcomes achieved so far and the contribution to attaining the overall objective of the project.
- Conduct an evaluation of project performance in relation to the indicators, assumptions and risks specified in the Result framework and the project document;
- Identification and, to the extent possible, quantification of any additional benefits, impacts resulting from project implementation beyond those specified in the project document;
- Examine whether progress so far has led to, or could in the future lead to, potentially adverse environmental and/or social impacts/risks that could threaten the sustainability of the project outcomes.
  - Are these risks being managed, mitigated, minimized or offset? Suggest mitigation measures as needed.

• An analysis of the extent of cooperation on engendered and synergy created by the project in each of its component activities;

• A prognosis of the degree to which the overall objectives and expected outcomes of the project are likely to be met.

In accordance with the scope described above, the Consultant will be expected to produce a midterm report in English which specifically include an assessment of the following:

- Overall progress in Project implementation; results of monitoring and evaluation activities; annual work plans and budgets; progress on procurement and disbursement; and Project implementation arrangements. The report should also include a section on adjustments to the Project and any reallocation of funds to improve performance, if needed.
- The midterm review report shall therefore cover all activities in the three components of RV3CBA Project, explaining activities by component and outputs, success stories/impacts, issues and way forward in each component.
- The report shall also highlight issues of financing gap if any and summarize recommendations for the effective completion of RV3CBA and its milestones.

DURATION OF THE ASSIGNMENT

The duration of service is forty five (45) calendar days including the period for adoption of the provisional and final reports.

The assignment shall be conducted in a period of 45 calendar days, the consultant with assistance from RV3CBA Project staff shall be required to prepare a midterm review report and provide the draft report within a period of 30 days after contract signature. The review and recommendations by the client shall take a maximum of 15 days.

REQUIRED EXPERTISE OF THE CONSULTING FIRM AND PERSONNEL

The firm should possess extensive work experience in various parts of Rwanda, given the objectives, scope and outputs of this assignment. Preference will be given to firms with proven relevant experience in undertaking tasks of similar magnitude, and shall preferably among others, have the following qualifications and experience:

- A proven professional record, with extensive knowledge and experience in the fields of Project Management, Agriculture, Natural Resources, Climate Change, Enterprise and Cooperative development and Planning/M&E, expertise in techniques such as the result based monitoring will be an added advantage;
- At least Five (5) years of progressively responsible experience in projects evaluation, needs assessment, development research and project implementation/ management preferably in the public sector in the fields of Climate Change or Natural Resources with ability to deliver within deadlines;
- Have demonstrated capacity to operate in various areas where the relevant data could be collected;
- Professional expertise and experience in the area of monitoring and evaluation review with strong critical data analysis and report-writing skills;
- Experience and work in the Climate Change sector are required.

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