



Republic of Rwanda

RUBAYA Demonstration Project

Integrated environmental management and poverty reduction: Making the case for real change among Rwanda's poor through sustainable socio-economic growth path.

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Project Rationale

Background and Context

The Government of Rwanda (GoR) medium term strategy, the Economic Development and Poverty Reduction Strategy (EDPRS) seeks to drive development towards achieving the Millennium Development Goals (MDGs) and Visions 2020 aspirations. The EDPRS flagships that include Sustainable growth for jobs and exports, Vision 2020 Umurenge (VUP) and governance form the key pillars that guide development planning and implementation. Decentralization serves as national process is increasingly proving effective in implementing GoR development priorities and EDPRS in particular through local service delivery. This ensures that local government structures play a critical role in the bottom-up planning and execution of development activities to achieve the EDPRS objectives. The integrated environmental management and poverty reduction approach in the RUBAYA demonstration pilot project sought to provide a practical model for local level development activities that implement the three EDPRS flagships in ways that improve incomes and diversify livelihoods options for the poor in the area.

The Demonstration Project

The Poverty-environment Initiative (PEI), collaboration between UNEP and UNDP provided significant funding to the implementing partner, REMA towards a demonstration project. This is envisaged to serve as a practical and most effective mechanism to increase understanding, develop skills and provide inspiring case lessons and best practices on integrated development planning and implementation based on prudent environmental management. These lessons have been accumulated over the three year period through scientific principles backed by local innovation and technologies to facilitate farmers, resource managers, policy makers and other development actors at local community levels to drive poverty reduction through integrated development initiatives. The institutional partnerships that were brought to bear on the successful activities will further provide meaningful lessons for rallying support towards novel approaches for local level planning and implementation of a complete development model. This is a key component of resettlement schemes in Rwanda – UMUDUGUDU, the basis for future national land use decisions.

A critical attribute for the demonstration project planning was the involvement of the poor beneficiaries in direct participation and therefore contribution to their upward mobility towards improving levels of income and overall livelihood with minimal project based assistance. This was the spirit of the demonstration pilot in Rubaya sector. Rubaya sector is a VUP in Gicumbi District and the PEI supported demonstration project was intended to implement all the three flagships of the EDPRS.

Choice of Area for demonstration - Gicumbi district

Poverty issues in Gicumbi

A justification to demonstrate integrated environmental management and poverty reduction initiatives

Gicumbi has a topography typified by varying altitude of 1500 – 2650 metres. With a population density in excess of 437 people per sq Km, it is among the most densely populated districts in Rwanda. The implication for a predominantly agricultural population is that household landholding has declined. Over-tilling of fragile landscapes without adequate application of scientific technology has intensified soil erosion leading to decline in productivity and food insecurity. Human settlements are unplanned, and many people live in fragile landscapes – steep hill slopes and valleys. This has exerted more pressure on ecosystem resources but also made it harder for water supply to reach them.

The Gicumbi DDP identifies the main poverty problems, in order of importance, as: a) over-cultivation of land for agriculture and inadequate soil conservation leading to low and declining productivity; Destruction of wetlands; Declining size of arable and pasture land, resulting in low agricultural and live stock production; Inadequate application of integrated land and soil management techniques, including low practice of agro-forestry that would conserve the soils, provide fodder, food and fuel wood; Absence of appropriate water harvesting measures and low application of irrigated agriculture; and inadequate opportunities for alternative income generation; limited energy alternatives to biomass; limited access to clean water and inadequate investments in environmental conservation including institutional capacity building. All these constitute environmental issues that perpetuate poverty.

District/ Site Selection Criteria

The choice of Gicumbi for the demonstration site was influenced by a number of issues: The district authorities demonstrated high level of political interest in addressing the environmental problems they faced, prioritised them, and sought support from REMA. There are also interesting innovations and coping measures to address poverty, water scarcity and environmental degradation. For instance, in Kaniga sector which the PEI team visited, a youth association has created jobs for its members through construction of terraces and participating in other soil conservation activities. These are good practices from environmental as well as economic perspectives – terracing increased land productivity and rain water harvesting provides access to clean water for communities.

Thus, an integrated approach was the most practical option, and local organisations (CBOs) were best suited to take the lead locally, but they needed capacity building support.

Scope of the Demonstration Project:

In order to successfully support economic growth and livelihoods improvement for the local communities, the following activities were identified:

- agro-forestry and tree planting– the community was provided with the skills, know-how and initial seed and nursery construction materials, to raise seedlings, plant and tend to trees. The preferred species are the typical agro-forestry species tomato fruit, Avocado and passion fruit trees that provide multiple functions that include soil management and dietary supplements; 2950 house holds were given 30 seedlings each to plant and tend the species.
- Water for irrigation – underground water reservoirs were constructed to serve as soil erosion prevention measures and water was stored in 15 cascading reservoirs of 100 cubic meters each which is used in construction and to irrigate crops in periods of water scarcity.
- Access to clean water – support rain water harvesting from roof tops and ensure clean storage of the water for future consumption at a minimal cost that will facilitate maintenance of structures and equipment. Seven (7) structures of 100 cubic meter each store filtered and purified water from roof tops which is used to satisfy household water requirements. This addresses a range of MDGs including improving chances for girls and children access to education since they spend less time fetching water for domestic use.
- Enhancing and diversifying energy options – Biogas production of 450 cubic meters to service 45 households, will increase access to energy sources that drastically reduce dependency on biomass for heating and lighting. This has multiple benefits of reducing exposure to indoor pollution from smoke, reduce deforestation and therefore prevent soil erosion, improve sanitation and provide manure to improve soil fertility.
- One cow per household – This has multiple benefits of improving incomes, dietary composition, and manure for improved soil fertility as well as household incomes.
- Improved sanitation and overall hygiene – Eco-sanitary toilets that are directly interlinked to the biogas system to transform human waste, in combination with the animal waste from Kraals; into energy as well as manure for soil fertility improvement.
- Community settlement (Umudugudu) and community business and investment promotion – Community living will facilitate land consolidation, concerted community efforts in development initiatives and leveraging resources to broaden economic base and options for socio-economic benefits. Most members of the community belong to cooperatives to increase access to loans for investments in development activities. As an example, water user charges from those who fetch water from the community water station will generate revenue for the community that will be kept in cooperative accounts for access to members as loans.
- Building local capacity & ownership – will ensure continuity & sustainability beyond REMA project support by implementing community-driven development (CDD) approaches that enhances bottom-up planning that is the underlying strength of the decentralisation policy in Rwanda.

There has been significant progress since the inception of the demonstration project from the humble beginnings. At this relatively mature stage, we have a package of key lessons and best practices that can be shared to appropriately inform

dissemination and scale up of these activities in RUBAYA and beyond. The engagement has empowered local communities, individuals and groups, as well as local government, with the skills, material resources, information and knowledge for socioeconomic transformation through sustainable utilisation of natural resources in line with the national vision. By working with the communities most affected by environment related poverty problems through participatory, practical approaches, the lessons from the demonstration project have built the confidence and unlocked the potentials for local innovation in environmental management, which is poised to promote sustainable change around and beyond the RUBAYA demonstration pilot project site.

The demonstration project has been undertaken to demonstrate links between environment and poverty issues in Gicumbi; and experiment how integrated approaches can effectively address the identified challenges, through practical scientific principles that are grounded in local innovation and realities.

Conclusion and way forward

The RUBAYA demonstration project has successfully provided powerful lessons that local innovation and empowerment are critical areas for development planning and implementation of national programmes and strategies. The underlying strength resides in institutional partnerships that have been conveniently brought to bear on the RUBAYA case. Moreover, integrated environmental management approaches have proved effective in addressing poverty and providing multiple benefits for improving house hold incomes and livelihoods.

REMA is hopeful that these lessons and best practices will be carefully packaged by MINALOC in partnership with other institutions to appropriately inform the approach, design, up scale and dissemination of the integrated environmental management and poverty reduction programme at the national level.