



REPUBLIC OF RWANDA
RWANDA AGRICULTURE BOARD

Land Husbandry, Irrigation and Mechanization Department

KIGALI-RWANDA



VISION OF THE DEPARTMENT

Improved food security and livelihoods of all Rwandans through modern agriculture driven by efficient, effective and sustainable Land Husbandry, Irrigation and Mechanization Technologies.

MISSION OF THE DEPARTMENT

The mission of the department is to contribute towards the national objective of modernizing agriculture, through dissemination of sustainable Land Husbandry, Irrigation and Mechanization Technologies to all Farmers in Rwanda.

The department is divided into three major units; Land husbandry, Irrigation and Mechanization units with respective interventions.

1. LAND HUSBANDRY UNIT & INTERVENTIONS

The mission of the Land Husbandry unit, is to develop modern agriculture through Natural Resources Management in a country where there is no soil or water loss.

Objectives;

- Protection of hillsides and wetlands against soil erosion and floods,
- Restoration of Soil fertility,
- Improvement of land productivity.

The main activities

- Construction of Terraces (Radical and Progressive Terraces)
- Increasing mobilization and support to sustainable farming practices (Emphasis on Agro Forestry Practices)

- Planning together with all stakeholders involved in Soil erosion control activities at all levels (Ministries and their affiliated institutions and Projects, districts, Sectors NGOs and CBOs);
- Providing technical assistance and advice for the good implementation of all soil conservation activities;
- Regular monitoring and evaluation the of planned activities; Providing trainings to all implementers (districts agronomists, sectors agronomists , IDPs and soil conservation committees) on sustainable soil conservation and land management techniques and innovations,
- Regular monitoring and evaluation reports on the progress of land husbandry activities.

Current Progress

Currently **1,013,454Ha** are protected against soil erosion out of **1,502,727** arable land. This represents **67.4%** of the required coverage.

Current area covered by **Progressive Terraces** is **911,115Ha**

Current area covered by **Radical Terraces** is **102,339Ha**

RAB continues to put more efforts to increase national protected area against soil erosion through establishment of new radical and progressive terraces combined with regular maintenance of already established structures.



An aerial view of radical terraces in Gishwati area, Rubavu District.

2. IRRIGATION UNIT & INTERVENTIONS

The National Vision 2020 targets a GDP growth of 11.5%, which will be largely driven by the agriculture sector. To achieve this 11.5% GDP growth, the agriculture sector will have to perform at an annual growth rate of 8.5%.

In the Strategic Plan for the Transformation of Agriculture (SPTA-III) as reflected in the national Economic Development and Poverty Reduction Strategy (EDPRS-II) framework, the Government of Rwanda has planned to develop 100,000Ha (both private and public) of commercial irrigated land in order to accelerate agriculture growth.

Irrigation is the method in which water is supplied to plants at regular intervals for agriculture. It is used to assist in the growing of agricultural crops, maintenance of landscapes, and re-vegetation of disturbed soils in dry areas and during periods of inadequate rainfall.

Objectives of Irrigation

- i. To increase agriculture production and enhance food security through irrigation by increasing the number of seasons from two to three (i.e. season A, B and C).
- ii. To improve and stabilize the crop yields of farmers through the implementation of sustainable irrigation systems and the promotion of water management practices that optimize the volume and timing of water distribution.

Irrigation categories

- i. Marshland Irrigation
- ii. Hillside Irrigation
- iii. Small Scale Irrigation

2.1 MARSHLAND IRRIGATION

Marshlands are public (state) owned lands where farmers are allocated plots on lease. The improved surface irrigation systems used in the marshlands are gravity stream diversions or from valley dams used to supply water to canal networks for flooding basins planted with rice and vegetables.

Marshland irrigation schemes have been developed by improving the marshland areas across the country. The land holding in a marshland scheme is on average 0.1-1.0ha per farmer. Farmers in the marshland share common irrigation infrastructure.

The following pictures shows some marshland irrigation infrastructures and rice grown under marshland irrigation.



Current Area under Marshland Irrigation is **33,785.6Ha**

2.2 LARGE SCALE HILLSIDE IRRIGATION

This is implemented on large hillside irrigation schemes. It is mainly done by use of center pivots, sprinklers and drip system.

Hillside irrigation is being developed by Land husbandry Water harvesting and Hillside Irrigation project (LWH) and Rwanda Agriculture Board (RAB), under its department of Land Husbandry, Irrigation and Mechanization.

Current Area under hillside irrigation is **6,921.5Ha**

Center pivot, Sprinklers and drip irrigation on hillsides



Major Irrigation Projects at early stages include;

1. Nasho II Irrigation Project - **1,206 Ha**
2. Export Targeting Modern Irrigated Agriculture Projects in Rwanda (ETI) – **7,000Ha**
3. Ndego Irrigation Scheme Development (500Ha)

2.3 SMALL SCALE IRRIGATION TECHNOLOGY (SSIT)

Through a 50% Government Subsidy Program, SSIT program aims to promote widespread use of demand driven, affordable locally assembled Small Scale Irrigation Technologies;

- To support Rwandan small scale farmers with simple, effective and affordable irrigation technology;
- To increase their crop productivity;
- Thus, to improve sustainability of irrigation development through farmer based approach

Beneficiaries of Small Sale Irrigation Technology (SSIT)

Beneficiaries of Small Scale Irrigation Technology program are individual farmers and communities having consolidated land area ranging between **1ha** to **10ha** with total pumping not to exceeding 5bars pressure requirement. Similarly, special groups like youths, Young Farmers Clubs (YFC) as well as Cooperatives are encouraged to benefit from, and use the Small Scale Irrigation equipment to make their agriculture commercial and resilient to drought.

Progress of SSIT in Rwanda

- Currently the Area coverage for Small Scale Irrigation Technologies in Rwanda is 1,735Ha.



Strategies to scale up the adoption of small scale irrigation technologies

Continued mobilization of Micro-Finance Institutions and other private sector partners to provide access to finance for farmers (e.g. ATLANTIS; Urwego Oportunity Bank (UoB); Banque Populaire(BP); Equity Bank; ...)

Possibility of the Government increasing subsidy up-to **at least 75%**;

Mobilization of SSIT grants from partners (WFP-P4P; FAO-AWM; USAID4Ag; JIS-IFC; etc) and NGOs to top-up the GoR support;

Increase number of service providers or Re-application through tender of **EoI**;

Initiate SSIT Revolving Funds at District to support and complement the national SSIT Program;

Joint planning and implementation for SSIT District earmarked funds and national SSIT Program.

3. AGRICULTURE MECHANIZATION UNIT

Agriculture Mechanization is the use of powered machines/farm machinery in different farming activities or operations (land preparation, planting, crop protection, harvesting, post-harvesting and agro-processing).

The Mechanization activities are coordinated under the Mechanization Unit.

The mission of the Mechanization unit is to develop modern agriculture through increasing the access of farm machinery to the farming community.

Objectives of mechanization unit

- To Promote appropriate mechanization options for farmers,
- Increase access of farm machinery to the farming community,
- Develop local skills and strengthen capacity in agricultural mechanization

Activities Carried out by Mechanization Unit:

Land preparation and planting by use of tractors and power tillers -
- Maintenance of farm machinery -
Training of farmers, technicians, Agronomists and Tractor operators in mechanization services -
- Privatization of farm machineries -
And farm machinery demonstrations

The following pictures shows different mechanization activities by use of tractors, power tiller and harvester.

Current progress in hectares of land mechanized is 33,474.8Ha

Planned area to be mechanized in the fiscal year 2016/17 is 4000Ha

