



More effective and sustainable investments in water for poverty reduction

Needs assessment in Rwanda

1. Introduction

A needs assessment analysis has been carried out in Rwanda in order to identify the needs, relevance, potential and opportunities for improving the impact and effectiveness of agricultural water management (AWM) interventions in terms of:

research



technical assistance



training



policy support



The methodology was structured in five steps: (1) Stakeholders analysis; (2) Inception workshop; (3) Interviews and field visits; (4) Discussion with country team on the preliminary results; and (5) Validation workshop. These activities culminated in the preparation of a needs assessment report. This brief presents the main findings of this report.

2. Methodology

1. Stakeholders consulted

10-15 July 2015

Stakeholders from the following organizations and projects in the area of AWM have been consulted:

- Rwanda Agriculture Board
- Rwanda Natural Resources Authority
- National Cooperatives Confederation of Rwanda
- Japan International Cooperation Agency (JICA) Rwanda Office
- Rwanda Cooperative Agency
- Nyagatare District Agronomist
- Farmers
- National Youth Federation
- BRAMIN (private company)
- BALTON (private company)
- BUGESERA government
- KIBUNGO government
- KWAMP project (IFAD)
- RSSP project
- Gender Monitoring Office
- Rwanda Environment Management Authority

2. National inception workshop

24 July 2015

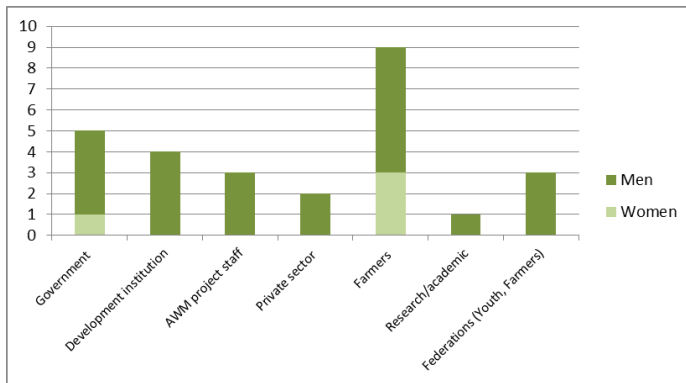
The inception workshop gathered 34 participants from the organizations above-listed. The following items were discussed:

- (i) Presentation of the project | (ii) Identification of stakeholders to interview | (iii) Survey and data collection methodology | (iv) Identification of constraints, challenges and priority areas in AWM | (v) Proposals of AWM interventions to overcome these constraints.

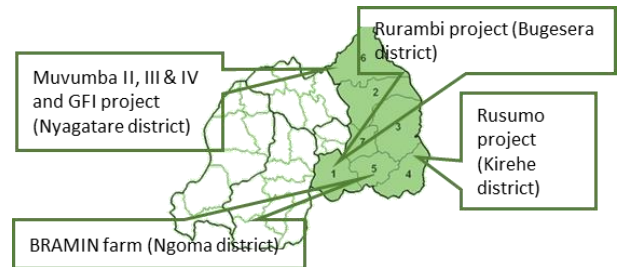
3. Interviews and field visits

27 July – 19 August 2015

Overview of the 23 people interviewed:



Field visits took place in four districts in the Eastern province to visit the following projects:



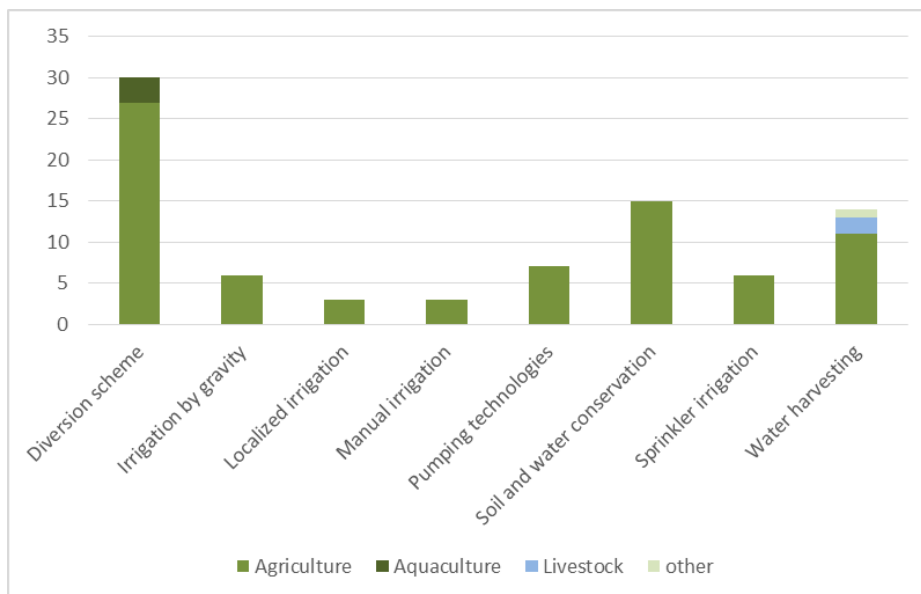
4. Validation workshop

14 January 2016

The validation workshop gathered 12 participants from some of the organizations above-listed.

3. Relevant AWM interventions identified in the country

The criteria used to define the most relevant technologies was their contribution to poverty reduction. The following graph shows the main technologies identified during the consultations and interviews held in the framework of this project.



The most relevant technologies identified are:

Diversion schemes



This category mainly includes: river diversion for flooded rice, diversion combined with irrigation by gravity, river diversion for fishing, river diversion and up-lifting.

Soil and water conservation



This category includes different soil conservation practices, mainly the establishment of terracing practices that are coupled with runoff harvesting ponds lined with High Density PolyEthilene (HDPE) or earthen.

Pumping technologies







This category includes a wide variety of technologies, from farmer-designed simple systems composed of diesel pumps and horse pipes to hillside irrigation using sprinkler and pivot center systems with or without regulatory dams.

4. Stakeholder priorities to improve AWM interventions

Views from stakeholders at national level	Views from farmers
<ul style="list-style-type: none"> ▪ Train farmers on operation and maintenance and engineers on standards and ethics ▪ Develop capacity through farmer field schools and season long trainings ▪ Increase the financial capacity of Water Users Associations ▪ Increase the role of stakeholders at local level, especially during the design phase of projects ▪ Shorten the time needed to set participatory approaches to ensure ownership. They should be short enough to accommodate project cycle and timeframe. 	<ul style="list-style-type: none"> ▪ Use simple technology, small pumps, treadle pumps, rain gun and small scale irrigation ▪ Increase farmers and water users associations capacity to manage and maintain structures and share water use ▪ Increase the proximity of advisory services to deal with seeds, fertilizers and value chain development ▪ Increase the upstream/downstream dialogue on erosion control.

5. Areas with high potential to contribute to better AWM management

Field of action	Proposed improvements
 <p>Research</p>	<ul style="list-style-type: none"> ▪ Research investment opportunities and potential for business models for the most relevant AWM technologies.
 <p>Technical assistance</p>	<ul style="list-style-type: none"> ▪ Use pumps with a combination of solar and electric supply that can be used when sun is missing ▪ Promote the use of simple technologies, with lower energy requirement and minimum operation and maintenance requirement ▪ Increase the number of advisory staff and centers.
 <p>Training</p>	<ul style="list-style-type: none"> ▪ Provide training to farmers on the operation and maintenance of pumps, river diversion schemes, gravity irrigation, runoff harvesting and watershed restoration ▪ Provide training to technical staff and extensionists on the operation and maintenance of pumps, river diversion schemes, gravity irrigation ▪ Provide training to water user associations to make them more stable and reliable.
 <p>Policy support</p>	<ul style="list-style-type: none"> ▪ Improve finance schemes for women, youth and the rural poor.

