



# More effective and sustainable investments in water for poverty reduction

## Needs assessment in Ethiopia

### 1. Introduction

A needs assessment analysis has been carried out in Ethiopia 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

17-22 August 2015

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

- Ministry of Agriculture
- Awlalo Woreda Bureau of Agriculture
- May Quha District
- Oromia Region Bureau of Agriculture
- Water Works Design and Supervision Enterprise (OWWDSE)
- Oromia Irrigation Development Authority (OIDA)
- Water Works Construction Enterprise
- Kersa Woreda Bureau of Agriculture, Oromia
- Arba Minch University
- Agricultural Transformation Agency (ATA)
- Small-Scale Micro Irrigation Support Project (SMIS)
- Bruh Tesfa Irrigation and Water Technology PLC
- Ministry of Water, Irrigation and Energy
- May Quha project
- Semira project.

#### 2. National inception workshop

31 August 2015

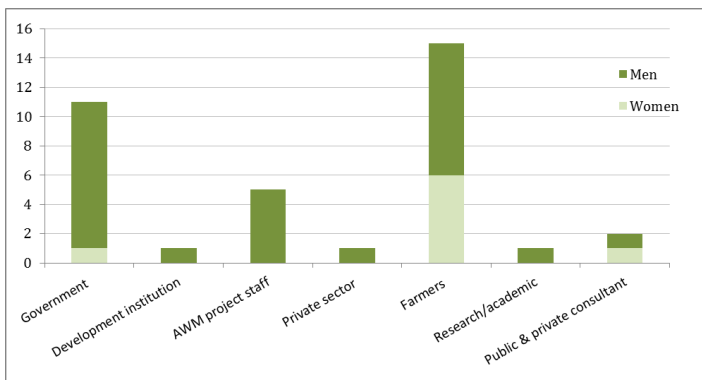
The inception workshop gathered 18 participants from the organizations above-listed. The following items were discussed:

(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.

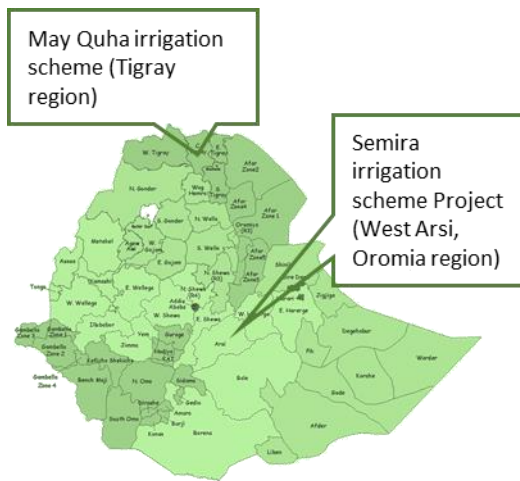
3. Interviews and field visits

17-23 September 2015

Overview of the 34 people interviewed:



Two IFAD funded projects were visited:



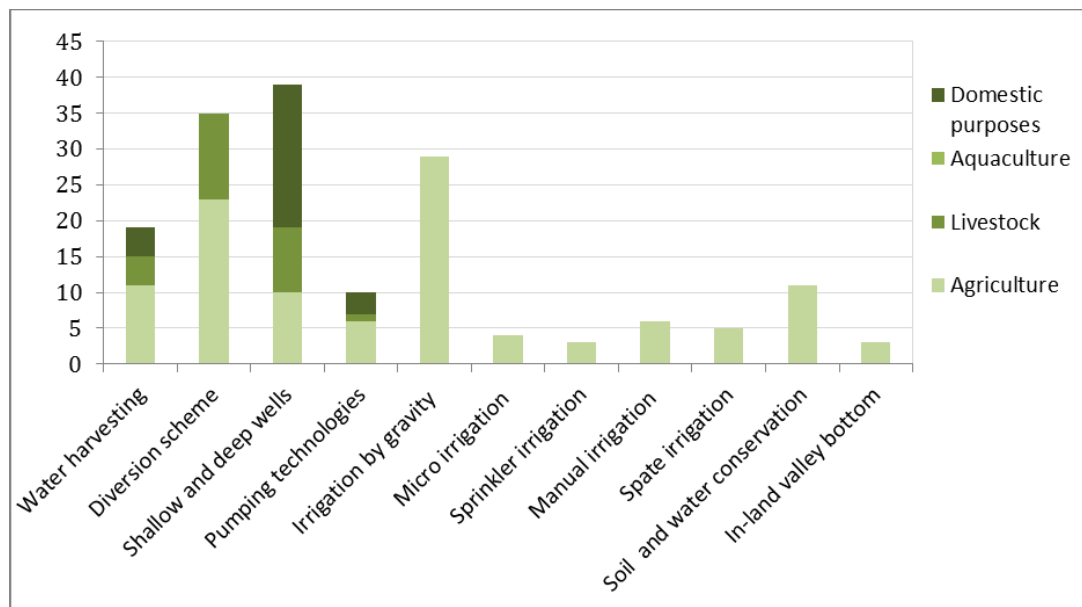
4. Validation workshop

05 November 2015

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:



**Shallow and deep wells**

Treadle pumps, rope and washer pumps, diesel engine pumps are commonly used. These are suitable for individual holdings since they are available and affordable.



**Diversion schemes**

These schemes are built along perennial rivers. They are usually implemented with the assistance of the government, NGOs, development partners and have rigid water diversion structures.







**Water harvesting**

In-situ water conservation practices (small basins, pits, bunds/ridges) and runoff-based systems (catchment and/or storage).

4. Stakeholder priorities to improve AWM interventions

Views from stakeholders at national level	Views from farmers
<ul style="list-style-type: none"> <li>▪ Develop micro irrigation technologies (water saving and lifting technologies and their supply chain)</li> <li>▪ Develop small-scale (communal) irrigation infrastructure</li> <li>▪ Develop capacity in the following areas: planning and implementation, on-farm irrigation, operation and maintenance, monitoring and evaluation, research</li> <li>▪ Develop and scale up water lifting devices and technologies</li> <li>▪ Adopt and scale up cost-effective rainwater harvesting structures.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improve irrigation infrastructure</li> <li>▪ Develop capacity</li> <li>▪ Implement rainwater harvesting</li> <li>▪ Develop micro irrigation technologies</li> <li>▪ Supply inputs and market chains.</li> </ul>

## 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"> <li>▪ Research water management under deficit irrigation</li> <li>▪ Analyze comparative advantages and disadvantages of alternative household AWM technologies, adaptability to local conditions and opportunities for scaling-up</li> <li>▪ Undertake market and socio-economic research.</li> </ul>
 <p>Technical assistance</p>	<ul style="list-style-type: none"> <li>▪ Improve the supply chain of AWM technologies for small-scale irrigation and micro irrigation (including water lifting, saving and seepage sealing technologies) and their services.</li> </ul>
 <p>Training</p>	<ul style="list-style-type: none"> <li>▪ Train farmers and development workers on AWM and irrigation scheduling, particularly at field levels</li> <li>▪ Build capacity on sustainable operation and maintenance planning and execution, irrigation infrastructure management and service oriented irrigation system management</li> <li>▪ Provide training on post-harvest technology for perishable products.</li> </ul>
 <p>Policy support</p>	<ul style="list-style-type: none"> <li>▪ Enhance policy dialogue to improve the impacts of AWM interventions in the country</li> <li>▪ Clarify and coordinate the mandates and responsibilities of different actors in the AWM sector and integrate the interventions</li> <li>▪ Support the implementation of bylaws for water users associations and develop internal regulations.</li> </ul>