RESEARCH PROGRAM ON Water, Land and Ecosystems

CGIAR

# Evidences

## Study #3950

**Contributing Projects:**

- P510 - Resilience and sustainability through small scale irrigation intensification

### Part I: Public communications

**Type:** OICR: Outcome Impact Case Report

**Status:** On-going

**Year:** 2020

**Title:** WLE/IWMI research influenced Ethiopian water sector policy reform to recognize multiple water values and other up-to-date options, benefitting irrigators, domestic and industrial users, and environment

**Short outcome/impact statement:**
The Ethiopian Government has initiated a process of water policy reform. WLE/IWMI was approached by the Ministries of Agriculture and of Water, Irrigation, and Electricity to contribute to the review. Drawing from its research, WLE/IWMI brought new ideas to the policy reform table. These ideas include the concept of multiple water values; payment for ecosystem services; irrigation cost recovery, and irrigation performance benchmarking. These options have been incorporated in the draft policy document and will strengthen climate change adaptation.

**Outcome story for communications use:**
Ethiopia embarks on significant water policy reforms, guided by options from WLE and IWMI

Ethiopia's development trajectory is placing water resources under extraordinary pressure. To have any chance of continuing on this trajectory– not to mention achieving Sustainable Development Goal 6, water and sanitation for all– the country needs new approaches to managing water use and trade-offs. In 2020, the Government took the initiative with a water policy review that will form the foundation for far-reaching reform, and they wrote to the CGIAR Research Program on Water, Land and Ecosystems (WLE) and International Water Management Institute (IWMI) for help.

Water flows to many purposes in Ethiopia. A vivid demonstration is seen in the Rift Valley, where all major lakes are interconnected. When Lake Ziway rises, excess water flows through the Bulbula River to Lake Abjata, regulating its level and salt concentration in turn. Industry and irrigation are emerging upstream, however, and international companies have surrounded Lake Ziway with flower farms. This is changing not only Lake Ziway, but also, by reducing onward flows, Lake Abjata.

The government has experience managing natural resources, yet water conservation is not systematically financed and there is little recovery of infrastructural investments. The Ministry of Agriculture and Ministry of Water, Irrigation and Electricity acknowledged that rapid policy reform is needed, and invited WLE and IWMI to participate.

This became an opportunity to bring new ideas to the table– whether based on recent research or deep knowledge accumulated over time. One central concept is the recognition of multiple water values for multiple users. This flowed from researchers' evidence of deteriorating water values in the Rift Valley, gathered during a UK Global Challenge Research Fund project. Another idea came out of a WLE/IWMI project on financing mechanism for participatory natural resource management in the Bale Eco-region: this showed the need to include payment for economic services in new water policies.

Other WLE/IWMI research has documented poor performance in irrigation schemes, and this has informed stakeholder training and guidelines for online irrigation performance benchmarking to promote sustainable management. Although full cost recovery remains uncertain, farmers express willingness to pay for scheme operation and maintenance.

Following the invitation from the government, WLE/IWMI participated in virtual meetings with the policy reform team to share all of these policy ideas. The ideas have been accepted and included in a new draft policy document that will be central to the coming reform.

**Links to any communications materials relating to this outcome:** <Not Defined>

## Part II: CGIAR system level reporting

**Link to Common Results Reporting Indicator of Policies :** Yes

**Policies contribution:**

- 673 - Ethiopia adopts WLE/IWMI suggestions on valuing multiple uses of water in its new water policy (https://tinyurl.com/2qvjgnha)

**Stage of maturity of change reported:** Stage 2

**Links to the Strategic Results Framework:**
Sub-IDOs:
- Conducive agricultural policy environment

Is this OICR linked to some SRF 2022/2030 target?: Too early to say

Description of activity / study: <Not Defined>

**Geographic scope:**
- National

Country(ies):
- Ethiopia

Comments: <Not Defined>

**Key Contributors:**
Contributing CRPs/Platforms:
- WLE - Water, Land and Ecosystems

Contributing Flagships:
- F2: Land and Water Solutions for Sustainable Intensification (LWS)

Contributing Regional programs: <Not Defined>
Contributing external partners:
- GIZ - Deutsche Gesellschaft für Internationale Zusammenarbeit / German Society for International Cooperation
- UKRI - UK Research & Innovation
- EU - European Union

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**
The findings that resulted in this outcome are multiple. Some are specific project findings and documentation, while others are WLE/IWMI knowledge accumulated over time. For example, the recommendation related to recognition of multiple water values based on its multiple uses by different users is based on evidence of deteriorating water values in the Rift Valley, which was gathered as part of the UK Global Challenge Research Fund hub project on water security and sustainable development (2, 3). Similarly, there are several ongoing and completed projects on payment for economic services (PES) and poor irrigation performance in Ethiopia. For example, WLE/IWMI and partners completed research on modalities of a financing mechanism for participatory natural resource management in the Bale Eco-region, Ethiopia (1). The major recommendation that emerged from this study was the need for policy revision to include PES in water policy (1). In relation to low performance of irrigation schemes, IWMI researchers (4, 5) strengthened the capacity of key stakeholders on irrigation benchmarking and are currently developing guidelines. The irrigation cost recovery issue has also been an important discussion topic in Ethiopia (5). Although it is still debatable whether full cost recovery is practical or not, WLE/IWMI's work (6) suggests farmers are willing to pay for operation and maintenance.

**Innovations:** <Not Defined>

**Elaboration of Outcome/Impact Statement:**
Ethiopia's rapid development trajectory is placing its already scarce water resources under extraordinary pressure. Managing trade-offs and achieving the targets of Sustainable Development Goal 6 will be very difficult (2, 3). Water is used by different people for many purposes, and as a result has multiple values in different river basins (3).

For example, the lakes in the Ethiopian Central Rift Valley – Ziway, Abyata, Shalla and Langano – are hydrologically interconnected. When water levels in Lake Ziway are raised by runoff from two major streams (Meki and Katar), water flows to Lake Abjata via the Bulbula River. Salinity levels in Lake Abjata are regulated by freshwater from upstream of Lake Ziway. But emerging industries and small-scale irrigation farms in upstream areas, and internationally owned flower farms around Lake Ziway, consume so much water that the flow from Lake Ziway to Abjata has declined and is losing its intrinsic and instrumental values.

Despite decades of experience in natural resources management, soil and water conservation interventions are not systematically financed. Landscape and associated ecosystem services (water supply and hydropower infrastructure) are therefore continually deteriorating (1). Similarly, lack of recovery of investments in irrigation infrastructure and collection of insufficient funds for operation and maintenance (5, 6) are major challenges. WLE/IWMI research has documented the poor performance of irrigation schemes (4, 5), and has recently trained key stakeholders in online irrigation performance benchmarking as a way of promoting sustainable irrigation scheme management.

Recognizing there are serious policy gaps, the Ethiopian Government has initiated a policy reform process. WLE/IWMI was approached by the Ministries of Agriculture and of Water, Irrigation and Electricity to contribute to the policy review (7). IWMI has a longstanding partnership with these ministries. Its researchers work closely with both ministries and it serves as secretary of the agricultural water management platform. This offers an opportunity to share new research insights. Participating in the policy review offered additional opportunities for WLE/IWMI to share its ideas based on research findings on payment for ecosystem services, cost recovery and recognizing multiple water values, and irrigation benchmarking. Rounds of virtual meetings were held with the policy reform team to share and discuss these policy ideas. The ideas have been accepted and included in the new draft policy document (8, 9). Their adoption will benefit the entire country.

**References cited:**

Evidence: journal articles, reports, emails, media coverage etc.:

1. Hagos, F.; van Rooijen, D.; Haileslassie, A.; Yehualashet, H.; Indries, H. 2018. Investigation of the modalities for an innovative financing mechanism for participatory natural resource management in the Bale Eco-region, Ethiopia. Colombo, Sri Lanka: International Water Management Institute. 36p. (IWMI Working Paper 181). https://doi.org/10.5337/2018.215

2. Haileslassie, A.; Ludi, E.; Roe, M.; Button, C. 2020. Water values: Discourses and perspective. In: Clean water and sanitation. Living edition, (eds.), Leal Filho, W.; Azul, A. M.; Brandli, L.; Lange Salvia, A.; Wall, T. Springer, Cham. https://doi.org/10.1007/978-3-319-70061-8_140-1 (accessed on February 19, 2021).

3. Haileslassie, A.; Ludi, E. 2020. Valuing water initiatives (VWI) – Understanding and applying systemic change. Presentation. https://doi.org/10.13140/RG.2.2.32712.96006

4. Haileslassie, A.; Agide, Z.; Erkossa, T.; Hoekstra, D.; Schmitter, P; Langan, S. 2016. On-farm smallholder irrigation performance in Ethiopia: From water use efficiency to equity and sustainability. Nairobi, Kenya: International Livestock Research Institute. 33p. (LIVES Working Paper 19). https://hdl.handle.net/10568/77017

5. Haileslassie, A.; Hagos, F.; Agide, Z.; Tesema, E.; Hoekstra, D.; Langan, S. 2016. Institutions for irrigation water management in Ethiopia: Assessing diversity and service delivery. Nairobi, Kenya: International Livestock Research Institute. 31p. (LIVES Working Paper 17). https://hdl.handle.net/10568/76127

6. Mekonnen, A.; Gebreegziabher, Z.; Beyene, A. D.; Hagos, F. 2020. Valuation of access to irrigation water in rural Ethiopia: Application of choice experiment and contingent valuation methods. Water Economics and Policy 6(1): 1950007. https://doi.org/10.1142/S2382624X19500073

7. Government of Ethiopia. Email dated 23 July 2020 inviting IWMI to participate in policy reform technical committee. Confidential. https://cgiar.sharepoint.com/:u:/s/WLE/EW250zxWpLFLrX3LqZKFJeQB-Tj28-aPUs4fSimHAw7leg?e=E7Qo6u

8. Ethiopian Ministry of Water, Irrigation and Energy. Email dated 11 January 2021: Request for comments and inputs on the revised draft national water policy and strategy. Confidential. https://cgiar.sharepoint.com/:u:/s/WLE/EXZnBiXiE-5Kmu_u2RBYGKsBuULkRbnRMfDaNkWQ8s2ODA?e=ADOW0Q

9. Ethiopian Ministry of Agriculture. Email dated 9 January 2021: Confirmation of IWMI's contribution to policy reform on irrigation in Ethiopia. Confidential. https://cgiar.sharepoint.com/:u:/s/WLE/ETFsNEja-vJBsUffRQ3mJQsBODwNdRLvgMotIz-qs0YtBA?e=YMeEi6

**Quantification:** <Not Defined>

**Gender, Youth, Capacity Development and Climate Change:**
**Gender relevance:** 0 - Not Targeted
**Youth relevance:** 0 - Not Targeted
**CapDev relevance:** 0 - Not Targeted
**Climate Change relevance:** 1 - Significant
Describe main achievements with specific **Climate Change** relevance: All the outcomes, i.e. multiple water value, payment for economic services and cost recovery, are ways of adapting to climate change.

**Other cross-cutting dimensions:** Yes

**Other cross-cutting dimensions description:** The disparity of access to water and water productivity for head, middle and tail irrigators (4).
Low involvement of women in irrigation water user associations (5).
Diversity of water values between gender, landscape etc. and the need to understand context (2).

**Outcome Impact Case Report link:** Study #3950

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