

## Evidences

### Study #3946

#### Contributing Projects:

- P611 - Restoration of deforested/degraded areas in Colombia, Peru, Haiti and El Salvador
- P1924 - Implementation of the "Agua de Honduras" Platform in Development Region 13 and Implementation of a web tool for the identification of sites with rainwater harvest potential in Central America

#### Part I: Public communications

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

**Status:** Completed

**Year:** 2021

**Title:** A water management investment decision-support tool developed by WLE/CIAT in Honduras was expanded to other Central American countries and is being disseminated to nine new countries

#### Short outcome/impact statement:

The "Agua de Honduras" platform, initially developed and piloted in western Honduras, is now an indispensable decision-support system for the south of the country as well. While it is being extended to facilitate water planning in the country's main basins with new flood analyses and capabilities, AGRI (AGua para RIego), its most attention-grabbing tool, has now been extended into other Central American countries, and is being adapted for application in Latin America, Africa and the Caribbean.

#### Outcome story for communications use:

<Not Defined>

#### Links to any communications materials relating to this outcome:

#### Part II: CGIAR system level reporting

**Link to Common Results Reporting Indicator of Policies :** No

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

#### Links to the Strategic Results Framework:

Sub-IDs:

- Increased resilience of agro-ecosystems and communities, especially those including smallholders
- Increased capacity of partner organizations, as evidenced by rate of investments in agricultural research

Is this OICR linked to some SRF 2022/2030 target?: Yes

SRF 2022/2030 targets:

- Increase in water and nutrient (inorganic, biological) use efficiency in agro-ecosystems, including through recycling and reuse

Description of activity / study: <Not Defined>

#### Geographic scope:

- Global

Comments: <Not Defined>

**Key Contributors:**

Contributing CRPs/Platforms:

- WLE - Water, Land and Ecosystems

Contributing Flagships:

- F1: Restoring Degraded Landscapes (RDL)

Contributing Regional programs: <Not Defined>

Contributing external partners:

- CDB - Caribbean Development Bank
- Government of Honduras
- SDC - Swiss Development Cooperation
- FAO - Food and Agriculture Organization of the United Nations
- USAID - U.S. Agency for International Development

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**

This is an open online platform initially developed in Honduras but now being extended to support design of water harvesting for agriculture and domestic water. Started in Honduras and in 2021 was expanded to three African countries. The most attention-grabbing tool of the platform, AGRI (AGua para Riego), a decision-support tool for identifying sites for irrigation and drinking water [7], has demonstrated its potential to reduce time, costs, and risk of failure associated with the development of low-cost irrigation systems [2].

**Innovations:**

- 2112 - Agri-WorldSources, an open online platform that integrates hydrological models and environmental data to inform design of water harvesting for agriculture

## **Elaboration of Outcome/Impact Statement:**

In 2020, WLE/CIAT reported the nationwide scaling out and international adoption of "Agua de Honduras" - a platform initially developed and piloted in western Honduras at the request of and with the conceptual and financial support of USAID/Honduras to improve water management investment decisions [6].

The platform [5, 7] has been supported by several international cooperation agencies with an approximate budget of USD 1.5 million and is now benefiting Honduras' most climate-affected people [4]. It will potentially benefit many more by supporting improved investments for water conservation and access to water for smallholder farms and human consumption. Although this platform was brought to the southern agricultural region of Golfo de Fonseca just in March 2021 [4], project implementers are already basing their water planning work on the platform. Now, after four years of offering free information on water resources in the country, a USD one-million USAID investment [3, 10] will enable its expansion [1] to facilitate water planning in the country's main river basins with new flood analyses and capabilities. By 2023, this new intervention aims to strengthen local capacities and improve water planning in a highly flood-prone area that is in turn the most important economic and industrial region of the country (Sulla Valley). Thus, the platform with all its tools will finally cover 44% of Honduras in 3,104 micro-watersheds.

Meanwhile, the most attention-grabbing tool of the platform, AGRI (AGua para RIego), a decision-support tool for identifying sites for irrigation and drinking water [7], has demonstrated its potential to reduce time, costs, and risk of failure associated with the development of low-cost irrigation systems [2]. As a free and open-source tool (AGRI - World Sources) supported by FAO, it has been expanded to all Central America and since November 2021 is ready for use in three Sub-Saharan African Countries (Rwanda, Ethiopia, and Kenya) [8]. Through an amendment of the current Letter of Agreement [8], this new and robust version of AGRI will be used in the Caribbean in 2022, covering Saint Kitts and Nevis, Antigua and Barbuda, Barbados, Jamaica, and Grenada in partnership with the Caribbean Development Bank and also through an amendment of a current contract [9]. Under the new FAO support, people in thirteen northern Argentine provinces will also benefit from AGRI's newly developed components that support decision-making on the hydrological viability of identified alternative sites and micro-watersheds.

**References cited:**

- [1] Water management activity: appropriation of the "Agua de Honduras" platform by local and national stakeholders to improve country capacities in water resources planning in Honduras. Scope of work proposed by the Alliance and approved by USAID (<https://tinyurl.com/y78q6omh>)
- [2] WLE/Alliance. 2020. Nationwide scaling out and international adoption of "Agua de Honduras": A platform developed by WLE/Alliance to improve water management investment decisions. WLE study 3946. MARLO: (<https://tinyurl.com/ybkv429p>)
- [3] Contract for Consultant's Services between the Caribbean Development Bank (CDB) and the International Center for Tropical Agriculture. Amendment recently signed to upgrade the AGRI Desktop version for Grenada to the online AGRI World Sources platform (<https://tinyurl.com/ybwrne3x>)
- [4] Martín-López, J. M., Da Silva, M., Valencia, J., Monserrate, F., Leverón, S., & Quintero, M. (2021). Digital mapping of soil properties in the Center and West of Honduras, Central America. Harvard Dataverse, V1. (<https://doi.org/10.7910/DVN/MBHUV4>)
- [5] Valencia, J., Monserrate, F., Casteleyn, S., Bax, V., Francesconi, W., & Quintero, M. (2020). A GIS-based methodological framework to identify superficial water sources and their corresponding conduction paths for gravity-driven irrigation systems in developing countries. *Agricultural Water Management*, 232(106048), 9. (<https://doi.org/10.1016/j.agwat.2020.106048>)
- [6] The Honduras Water Platform is now available for Development Region 13 (R13) Gulf of Fonseca: (<https://tinyurl.com/yakd483k>)
- [7] Letter of Agreement between the Food and Agriculture Organization of the United Nations (FAO) and Centro Internacional de Agricultura Tropical (CIAT) to Provide Technical Support to: the Implementation of the AGRI-World Sources web tool for the identification of sites with rainwater potential in African countries. Amendment recently signed to extend AGRI to five countries in the Caribbean and 13 Argentine provinces (<https://tinyurl.com/yavszgkj>)
- [8] Inter-institutional team tackles Honduras's water crisis: (<https://tinyurl.com/r3fvcw6>)
- [9] Website for AGRI (AGUA PARA RIEGO), an automated GIS tool (<https://alliancebioiversityciat.org/tools-innovations/agri-agua-para-riego>)
- [10] Agua de Honduras will be expanded to facilitate water planning in the country's main basins: (<https://tinyurl.com/y86wd4lq>)

**Quantification:** <Not Defined>

**Gender, Youth, Capacity Development and Climate Change:****Gender relevance:** 0 - Not Targeted**Youth relevance:** 0 - Not Targeted**CapDev relevance:** 2 - Principal

Main achievements with specific **CapDev** relevance: Several training courses and meetings were conducted for/with strategic stakeholders from government institutions, NGOs, municipalities and international cooperation agencies, among others, who are involved in water-related decision-making processes of high relevance for Honduras [4, 5] as well as for Central America, the Caribbean, and Africa (e.g., launch meeting of AGRI World Sources).

**Climate Change relevance:** 1 - Significant

Describe main achievements with specific **Climate Change** relevance: This topic is addressed in the platform by providing information to the users resulting from hydrological analyses combined with data from current and future climate scenarios and other data. The future climate change scenarios were downscaled for the whole of Honduras and made available to the users through interactive web applications. As a consequence, the capacities of national institutions have been improved to assess or address climate change risks. On the other hand, AGRI provides superficial water sources to increase water availability in drought-prone areas, supporting thus small farmers to increase climate resilience [2, 7].

**Other cross-cutting dimensions:** <Not Defined>**Other cross-cutting dimensions description:** <Not Defined>**Outcome Impact Case Report link:** [Study #3946](#)**Contact person:**

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