

Digitalization of small-scale agriculture

HONDURAS / COLOMBIA / NICARAGUA



i Webstory



The technological solution

The project designs a technological solution to measure soil moisture, specifically a robust, highly usable and low-cost device that allows producers to monitor the behavior of soil moisture during the crop cycle.



Description

The device has been designed to collect data autonomously in the field for up to six months, without remote connection, in different types of soil and withstanding adverse conditions, such as bad weather and abuse. It has also been reduced to the operational minimum to simplify its use and reduce cost.



Results

After a participatory design process, using the creative visualization methodology, and after the field test of three technological solution prototypes, the project already has a design for a device to measure soil humidity, robust, highly usable, and low cost. The selected design has multiple improvements with respect to the prototypes, maintaining a charging autonomy of up to six months in the field, with automatic switching on when the sensor is connected, greater robustness, a more elegant design, and greater ease of downloading data and charging the device. 90 replicas have been made of this sensor, which will be tested with producers in the three participating countries.

Additionally, the team of researchers has given two webinars, in which the experience in the design of the devices has been socialized, keeping in mind the reality of small and medium-scale farmers and sharing part of the results of the project.

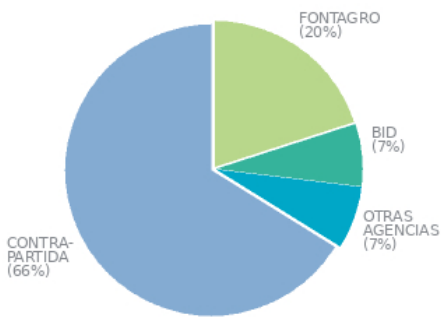


ABOUT FONTAGRO

FONTAGRO is a unique cooperation mechanism for agricultural innovation in Latin America and the Caribbean (ALC) and Spain, that works through regional platforms. It is composed of 15 countries that have contributed capital exceeding 100 million dollars and the Inter-American Development Bank (IDB), which is its legal representative.

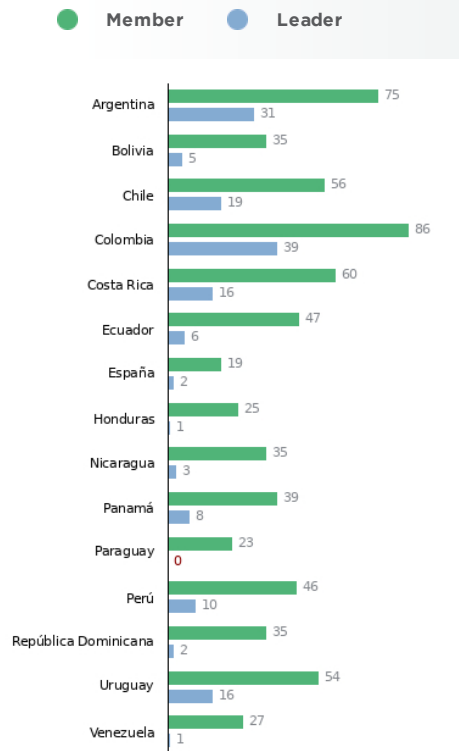


ORIGIN OF RESOURCES



- **Counterpart contribution**
93.177.555
- **FONTAGRO**
28.989.468
- **IDB**
9.922.700
- **Other agencies**
9.809.078

PARTICIPATION AND ROLE IN CONSORTIUMS SINCE 1998



FONTAGRO IN NUMBERS

193 Number of projects approved

141.9 Approved total amount US\$
MILLONES

9.8 Contribution from other agencies
MILLONES

32 Benefited countries

63 Generated technologies

15 New technologies for ALC

8 Technology of global relevance

MEMBER COUNTRIES

- | | | | |
|------------|--------------------|-----------|----------|
| Argentina | Bolivia | Chile | Colombia |
| Costa Rica | Dominican Republic | Ecuador | Honduras |
| Nicaragua | Panama | Paraguay | Peru |
| Spain | Uruguay | Venezuela | |