

Digitalization of small-scale agriculture

HONDURAS, COLOMBIA



Webstory



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.



Technological 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.



Impacts and 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.



702

Seminars and podcast visualization



111

Trained people



90

Producers with direct technical assistance



71

Followers in social media



49

Trained women



17

Technical and scientific team



5

Involved students



1

Technological solutions

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