

## Superior cocoa quality based on community processing

Training, participatory risk analysis, the development of good practices and the design of solar dryers using photovoltaic panels predicts a rebirth for the cultivation of cocoa in the binational basin of the Sixaola River.

Costa Rica /Panama /Panamá

- 

2

prototypes of solar dryers built
- 

60

families directly benefited
- 

3000

families with access to generated information



Why does cocoa processing matters?

### Initiative

The project seeks to strengthen the livelihoods of families dedicated to the production of cocoa in the Caribbean region of Costa Rica and Panama and to reduce the vulnerability of these populations to extreme hydrometereological events. The optimization of fermentation and

drying, which impact the final quality of cocoa, constitute the central axis of the initiative. Led by the National University of Costa Rica and supported by FONTAGRO, it had as main actors two organizations (APPTA and COCABO) which represent about 3000 producers.

Cocoa processing impacts on quality

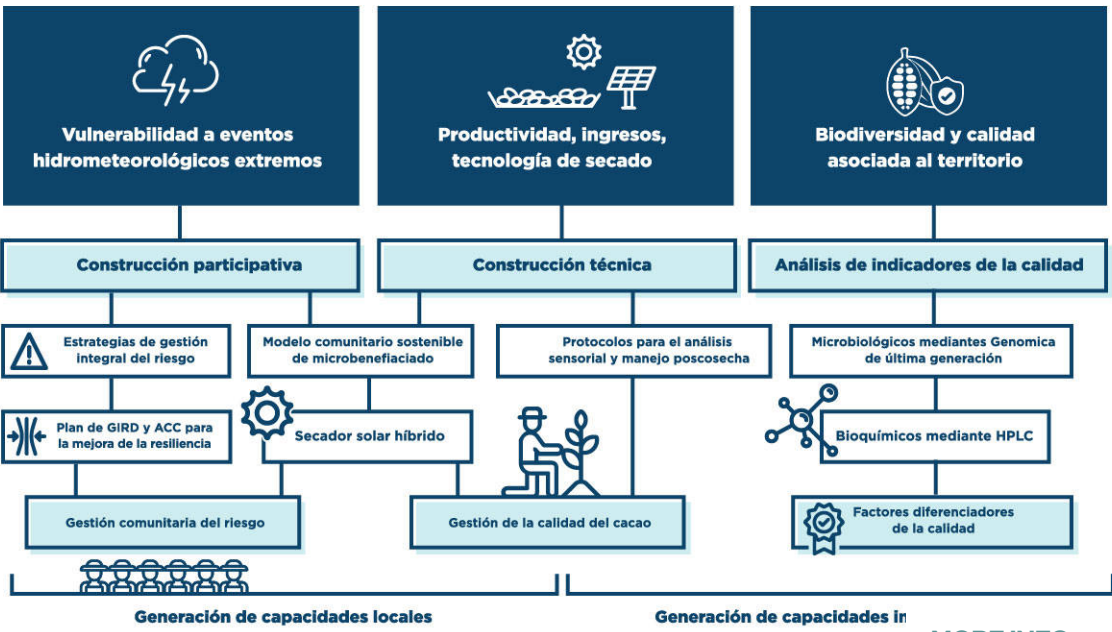
### Tech solution

In the cultivation of cocoa, productivity and quality must go hand-in-hand, both for market demands and for the need and expectation of producers to improve their living conditions. A good genetic base certainly contributes to quality, however, it is not enough to achieve it. Cocoa processing, in particular fermentation and drying, are as or more important than the genetic constitution of the plant in quality optimization.

The transport of freshly harvested

cocoa for long hours and by rudimentary means decreases the total quality. Within this framework, the design of small-scale solar dryers that can allow fermentation and drying of cocoa in situ (particularly in communities far from central processing centers), contribute not only to the quality of the final product but also to the economy of the producer. The scaling of this technological solution can change for good the quality and profitability of the crop.

### Project´s methodology



MORE INFO



### Impacts and Results

- Solar drying pilot systems were built with photovoltaic panels to minimize reported losses by up to 50%. Dryers can process 200 kg / week, enough for current and future productivity
  - A state-of-the-art genomic analysis allowed the identification of more efficient organisms for fermentation
  - Workshops were organized for the participatory analysis of risks and
- vulnerabilities in the face of possible extreme events or changes in the regional climate
  - The project generated tasting and good practice guides as well as training to recognize sensory profiles and differentiate cocoa qualities
  - The project activated a network of professionals, responsible for the production, processing and commercialization of cocoa.

#### Main Donors



#### Organizations

