

# Fundación Ecotop



## The Situation

While Bolivia has some of the most biodiverse-rich ecosystems in the world, it also has one of the highest deforestation rates. Where the Andes connect with the Amazon, the agricultural frontier impedes on the forests. Here, Andean migrants have been traditionally burning forests and implementing monocultures for around 60 years. They intersect with local indigenous people who practice subsistence agriculture complemented with hunting and gathering. Core crops include cocoa, coffee and legal coca. The area has entered in a “fallow crisis” where soils are depleted, production is low, and attacks of pests and diseases increase the use of agrochemicals, many banned for their toxicity. Climate change exacerbates the challenges through extreme weather events, prolonged droughts, and increased heat affecting working conditions. Unfortunately, childhood malnutrition prevails along with vulnerability to food insecurity, while obesity and related non-communicable diseases are also strongly on the rise.

## The Solution

Fundación Ecotop joined with farmers in a participatory process to implement successional agroforestry systems (SAFS, also “dynamic agroforestry systems”). These SAFS feature multi-purpose and natural regeneration trees and many crops, based on natural succession dynamics: crops and trees are grouped depending on their life cycle, to form a composition in which all stories (spatial) and all phases (temporal) are occupied, maximizing density and diversity. Where cacao is the main crop, a SAFS can start with maize and rice in combination with manioc and pigeon pea, followed by banana and papaya, pineapple and Inga sp., providing shade for slowly growing primary forest species such as cacao, fruit trees, mahogany, and palm trees. The high diversity provides environmental services like soil regeneration, organic matter accumulation, improved microclimate, and pest control. Optimal implementation of SAFS can result in high yields from a range of crops without external inputs. Further, the advantage of SAFS can be seen already after a couple of months, which helps to encourage farmers to extend learning plots step by step to the whole plantation. A study of the first year showed that farmers implementing SAFS over monoculture with rice increased revenues by BOB3,366 (\$472USD) and that with cocoa, the return on labor was twice as high.

**Ecosystem:** Forest

**Area Impacted:** 3,500 ha

**Production Quantity:** 8,392 kg/ha/y

**People Employed:** 20 (at Ecotop)

**Population Impacted:** ~ 2,000 direct beneficiaries





# Farming for Biodiversity

Unsustainable agricultural practices remain one of the greatest threats to ecosystems and biodiversity. As the world population is expected to reach nine billion by 2050 and climate change further threatens livelihoods, we have to find ways of agricultural production that support farmers and the environment we all rely on.

The good news is these solutions already exist: From modern beekeepers who work on reviving ancient local wisdom to phone apps connecting rural farmers with urban consumers.

With Farming for Biodiversity, we are on a global mission to surface these local solutions, celebrate them and bring them to scale.

Our vision is to make these community-led initiatives shine and reach:

- Over 200 million globally through media impressions and publications
- Over 100,000 active website participants and readers of online publications
- 200 selected agriculture & biodiversity pioneers through eight technical and campaign trainings, hosted across the globe
- 800,000 farmers, conservationists and other land users at the community-level



Through our crowd-sourcing contest Solution Search, we have identified over 300 innovative and replicable ideas that connect agriculture, livelihood and the environment. These selections were assessed by our renowned panel of expert judges from leading organizations around the world.

Based on the solutions surfaced, we will host eight in-country workshops to introduce the most promising approaches to local influencers. Trainings will equip participants with the skills to implement locally driven solutions in their own communities. Longer term grants will provide an additional incentive to continue their work. These efforts will expand these approaches globally, reaching 800,000 people!

Throughout the project, we will gather, analyze and publish lessons learned. An online peer-to-peer network will connect all solution providers and facilitate interactive exchange across countries and themes. We will actively engage in global environment and agriculture policy processes – such as the Convention for Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC) and Sustainable Development Goals (SDG) meetings, drawing attention to community leaders and local champions.