Sustainable Amazonian Landscapes

Peru and Colombia, which encompass 23% of the Amazon rainforest, are committed to reducing net losses of their natural forests to zero as well as to designing national action plans for mitigating and adapting to climate change.

In order for the two countries to meet these commitments, they urgently need to identify agricultural systems of proven effectiveness for increasing carbon sinks, protecting endangered forests, enhancing the adaptation capacity of local communities to climate change, and improving agricultural productivity.

CIAT has embarked on a project aimed at assessing options at two sites – Loreto (Perú) and Caquetá (Colombia) – which were chosen due to their high rates of deforestation (associated with cattle ranching, expansion of commercial agriculture, reduction in the productive capacity of the soil, and road building) and because local policymakers show strong interest in reversing land degradation.

The project’s goal is to provide national environmental authorities and local farmers in Colombia and Peru with science-based evidence that will enhance their capacity to mitigate and adapt to climate change, while enhancing ecosystem services and socio-economic benefits for farmers.

Project scientists will collect field data, engage with farmers using participatory approaches, model the potential impacts of climate change on crops and ecosystem services, and analyze national development pathways and their implications for the transformation of selected landscapes. Through this research, the project will help determine to what extent:

- Mitigation options also better enable communities to adapt to climate change.
- Assess how agricultural systems contribute to the conservation and sustainability of landscapes.
- Sustainability can be quantified through indicators based on scientific evidence as well as local perceptions and this, in turn, facilitates dialog with policy makers.

Figure 2. Project goal and approach