

## NAWPA COMMITTEE CLIMATE CHANGE WORKING GROUP

### CASE STUDY OF CLIMATE CHANGE IMPACTS AND SOLUTIONS

#### TELOLOTLA, CONANP

#### CUENCA HIDROGRÁFICA DEL RÍO NECAXA NATURAL RESOURCE PROTECTION AREA



#### KEY MESSAGE

*Community based approach to identify its vulnerabilities and potential adaptation strategies to climate change in a coffee-farming community in Puebla, Mexico*

#### IMPLICATIONS FOR PROTECTED AREA MANAGERS RESULTING FROM CLIMATE THREATS TO AGROFORESTRY SYSTEMS

- Landslides have occurred due environmental conditions and poor land management practices.

- Water is scarce; they depend on one spring and it has been contaminated.
- Community is entirely dependent on extensive coffee farming. Coffee, in turn, depends on the rainy season.
- Frequently frost events have led to a complete loss of crops.
- Wildfires threaten natural and cultural resources.
- Forest plagues threaten native species and coffee crops.

## **CRITICAL STRATEGIES AND ACTIONS TO MITIGATE OR ADAPT TO IMPACTS**

- Productive diversification by designing and implementing agroforestry systems.
- Nurseries establishment to produce species that can be grown with coffee.
- Combine tree species to increase carbon capture, to prevent landslides and erosion and to promote agrobiodiversity.
- Use of coffee plantations as carbon sinks.
- Capacity building through knowledge network promotion and workshop development.
- Social capital strengthening through fostering knowledge exchange.
- Promote sustainable community forest management.
- Incorporation of appropriate techniques for the production, harvesting and processing of agroforestry products.
- Land zoning plans for a sustainable use of natural resources

## **TELOLOTLA FACT SHEET**

- The Telolotla community is located within the *Cuenca Hidrográfica el Río Necaxa* Natural Resource Protection Area.
- Land is mostly covered by cloud forest and farming land.
- The population of Telolotla is under one thousand inhabitants.
- Most of the community members are *nahuatl* speaking; indigenous population is around 50%.
- Community members depend almost entirely on coffee farming.
- Community organization is poor. There is a lack of social leadership.
- There is no access to government subsidies programs because of the poor organization skills.
- Land tenure represents a challenge in management. There are different types of tenure and this signifies inequalities among community members.
- There is unequal access to resources across the community.
- Vulnerability analyses were developed by CONANP and academy members in a participatory way through community and local stakeholder involvement.
- Community land zoning, timeline, and farming calendar were created in a participatory way. Community members identified key issues and solutions.