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.