

**NAWPA COMMITTEE
 CLIMATE CHANGE WORKING GROUP**

CASE STUDY OF CLIMATE CHANGE IMPACTS AND SOLUTIONS

LAGUNA DEL MANTE, CONANP

SIERRA DEL ABRA TANCHIPA BIOSPHERE RESERVE



KEY MESSAGE

Livelihood strengthening for climate change adaption in Laguna del Mante, México

IMPLICATIONS FOR PROTECTED AREA MANAGERS RESULTING FROM DROUGHTS AND WILDFIRES –

- Drought events have impacted cane cultivation, which is the main economic activity.

- Wild and intentional fires (for slash and burn cane agriculture) threaten productive activities and biodiversity.
- Health of community members affected by the increased gas emissions due to wildfires.
- Increasing plagues have effects on cane cultivation.
- Land use change has diminished the flow of rivers and streams severely.
- Extreme precipitation events impact flowering lime trees, reducing production.
- Community members perceive increasing temperatures and decreasing precipitation. Meteorological records have confirmed these perceptions.

CRITICAL STRATEGIES AND ACTIONS TO MITIGATE OR ADAPT TO IMPACTS

- Implementation of rainwater catchment systems such as cisterns.
- Design and foster the creation of an artisanal irrigation system, while promoting watering efficiency.
- Community capacity building to reduce wild and induced fire risk.
- Diversification of productive systems and agricultural products to reduce land use change.
- Strengthening of ecotouristic schemes to promote conservation and reduce land use change.

LAGUNA DEL MANTE FACT SHEET

- The Laguna del Mante community is located within the Sierra del Abra Tanchipa Biosphere Reserve.
- The population of Laguna de Mante is 2,030 inhabitants.
- The main vegetation is tropical humid forest.
- 40% of the population is indigenous.
- Ecotourism is an important income to the community.
- Community organization is intermediate, thanks to different federal government programs.
- Community members are highly dependent on natural resources, agrobiodiversity in particular.
- Vulnerability analyses were developed by CONANP and academy members in a participatory way through community involvement.
- Community mapping, timeline, and farming calendar were created in a participatory way. Community members identified key issues and solutions.