

Oaxaca

Biodiversity conservation and sustainable use in a highly biocultural diverse state



Oaxaca is located in southwestern Mexico. It covers 95,364 km², and it is one of the most biodiverse states in the country.

In addition, it is known for its cultural diversity, with more than 16 ethnic groups, resulting in a variety of traditional knowledge and use of biodiversity, and also a great agrobiodiversity.

Oaxaca shows the effects of an economic development based on the exploitation of natural resources, associated with the

rapid population growth, migration to cities, problems due to unplanned urbanization, results in drastic impacts on the ecosystems, causing an increase in pollution of soil, water and air, among other problems. To address these, the IEED conducts actions to prevent, control and monitor environmental crimes; it has strengthened the Law on the Prevention and Waste Management of the State, as well as increased environmental education strategies to promote respect and care for the environment.

CONABIO
IEEDS
INALI
CORENCHI
SICOBFI

National Commission for Knowledge and Use of Biodiversity
State Institute of Ecology and Sustainable Development
National Institute of Indigenous Languages
Committee of Natural Resources Chinantla Alta C.A.
Community System for Biodiversity Management and Protection

Not all five Strategic Goals are covered due to the following reasons:

Although the state of Oaxaca is one of the states with the greatest biological and cultural diversity, the integration process has been slow, which is reflected in the lack of information about this, that would contribute to meeting the strategic goal D.

- 11 Enacting of six Protected Natural Areas into the state
- 12 Declaration of remarkable trees
- 12 Generating projects and programs for protection of threatened species

A



IEEDS has promoted activities for the general public in order to inform and develop capacities for people interested in different environmental issues.

The State Institute of Ecology and Sustainable Development (IEEDS), in an effort to raise awareness in society about the importance of conserving and sustainably use of biodiversity, has promoted activities for the general public in order to inform and develop capacities for people interested in different environmental issues.



Turtle releasing. RHCO. Image Provided by Red de Humedales de la Costa de Oaxaca

These activities involve workshops, talks and consultancies in environmental management, state and municipal environmental regulations, waste management, materials recycling and preparation of organic fertilizers, performance of environmental reports, and importance of biodiversity of Oaxaca.

It has also broadcasted several posters for citizenship, about waste management and materials recycling; priority species for conservation, mainly about American Crocodile (*Crocodylus acutus*), causes and consequences about climate change; and how doing composting.

- Activities to broadcast the state biodiversity and raise public awareness
- Drawing up the Program of Urban Development and Ecological Zoning

B



There are different projects to promote the implementation of sustainable practices in order to conserve natural resources while continuing to use them.

There are different projects and initiatives of different organizations, to promote the implementation of sustainable practices in order to conserve natural resources while continuing to use them. Some examples are:

- Efforts to establish sample plots of native maize using biogestors for fertilization.
- The Autonomous University of Chiapas has milpa planting projects in Sierra Norte, Cañada and Costa using environmentally friendly techniques.
- There are also efforts to sow alternated corn with fruit to prevent soil erosion.
- The use of floating cages in reservoirs of dams Cerro de Oro and Temascal and farming of exotic trout in the Sierra Norte, avoid impact to the native populations of the species.
- There is a national example of a forest plantation on "La Sabana" in the Bajo Mixe, which through several years forest resources have been used under sustainable management, reaching their conservation, to the point that today this zone is a Protected State Natural Area.

- Drawing up of Fisheries Management Programs
- Changing practices of farming, aquaculture and forestry toward sustainable resource management
- Actions to reduce water, soil and air pollution



C



IEEDS to contribute to the preservation of trees, published the decree on the criteria for the declaratory, registration and preservation of historic and/or remarkable trees in the State of Oaxaca

In the state of Oaxaca found a great diversity of trees, some of them have endured over time and reached a great importance because of its size and beauty as well as forming part of the traditions of the place where they are, causing the society is closely linked to them. In 2005, the Ecology and Environment Committee of the LXI Legislature of the State urged the IEEDS, to take actions for the development of the State Register of historic and / or remarkable trees, in order that authorities are able to implement measures to protect them.

Therefore, the IEEDS published on December 6, 2008 in the Official Gazette of the State Government, the decree on the criteria for the declaratory, registration and preservation of historic and/or remarkable trees in the State of Oaxaca, in order to and preservation of historic trees and/or notable in the state of Oaxaca, in order to raise public awareness about the importance of protecting and conserving these relevant trees statewide. So far, 33 individuals have been declared as state heritage.



Tule tree (Taxodium mucronatum). Image provided by Ioree Luis Santiaño

E



Oaxaca is known as one of the most culturally diverse states in the country

According to the National Indigenous Languages catalog of the National Institute of Indigenous Languages (INALI), there are 364 variants indigenous languages in Mexico, concentrated in 64 groups belonging to 11 families. As regards, Oaxaca has 5 families, 15 languages and 176 language variants.

These groups have different uses of biodiversity and some of them are considered as traditional knowledge. Therefore, indigenous associations have been created in order to protect their natural heritage and traditional practices. Some of these groups are:

- Committee of Natural Resources Chinantla Alta C.A. (CORENCHI)
- Community System for Biodiversity Management and Protection (SICOBFI)
- Cooperative Societies Union of Wetlands Network of Oaxaca Coast.
- Ecotourism Network of the Cañada Oaxaqueña.
- Ecotourism Network of the Mixteca
- Union of Forestry Production Communities Zapoteco-Chinanteca

All of these indigenous groups have the main goal of protecting natural resources, getting economic benefits that allow them their livelihoods, while promoting the implementation and maintenance of their traditional practices.

- Creating different community partnerships for sustainable use of biodiversity
- Including targets for conservation of cultural diversity and traditional practices into the State Development Plan 2011-2016

IMPRINT

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AICHI BIODIVERSITY TARGETS STRATEGIC GOALS

A Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

- Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
- Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
- Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.
- Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

B Reduce the direct pressures on biodiversity and promote sustainable use

- Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
- Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.
- Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
- Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
- Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

C To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

- Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
- Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
- Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

D Enhance the benefits to all from biodiversity and ecosystem services

- Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.
- Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.
- Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

E Enhance implementation through participatory planning, knowledge management and capacity building

- Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.
- Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.
- Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.
- Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.