

# Guanajuato Biodiversity Conservation and Sustainable Use in the center of Mexico



The State of Guanajuato is located in North-Central Mexico.

Its main types of vegetation are: oak and coniferous forests, deciduous tropical forest, desert scrub, wetland and grassland. However, all of them are heavily damaged. They have suffered changes in their structure and floristic composition, so that their distribution areas have been reduced, especially in areas used for agriculture in the center and south of the state.

The government of Guanajuato developed environmental policy instruments for the conservation and sustainable use of biodiversity. Since 2000, the Government has created the Institute of Ecology of the State (IEE), and it has enacted the Law for Environmental Protection and Preservation of the State of Guanajuato, and the Land Code of the State and Municipalities, oriented to manage the protected natural areas and restoration zones. Guanajuato has published "The Biodiversity in Guanajuato" and "The Strategy for Conservation and Sustainable Use of Biodiversity of Guanajuato".

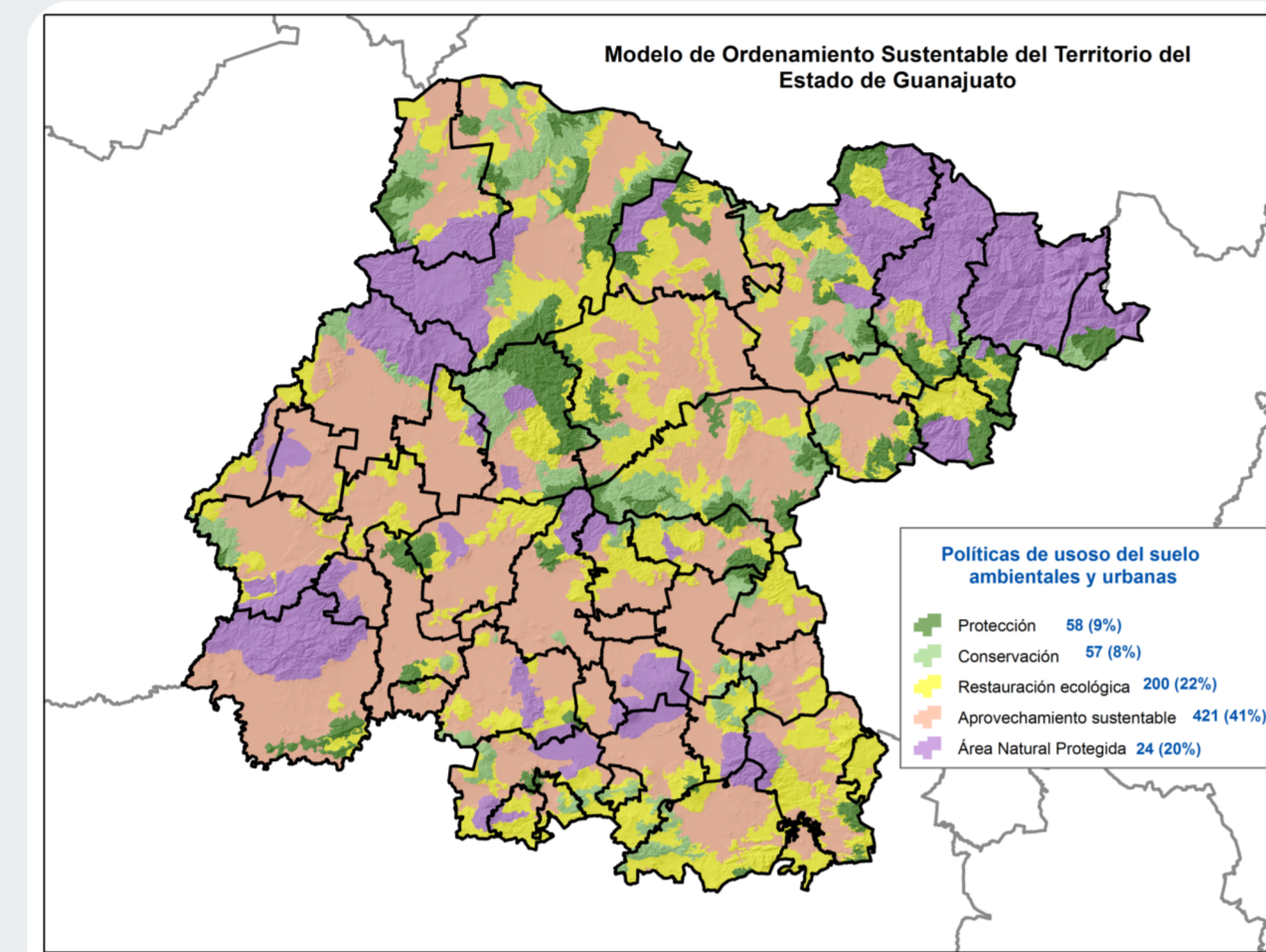


Instituto de Ecología del Estado



Acronyms  
IEE Institute of Ecology of the State  
PNA Protected Natural Areas  
CONABIO National Commission for Knowledge and Use of Biodiversity

## A



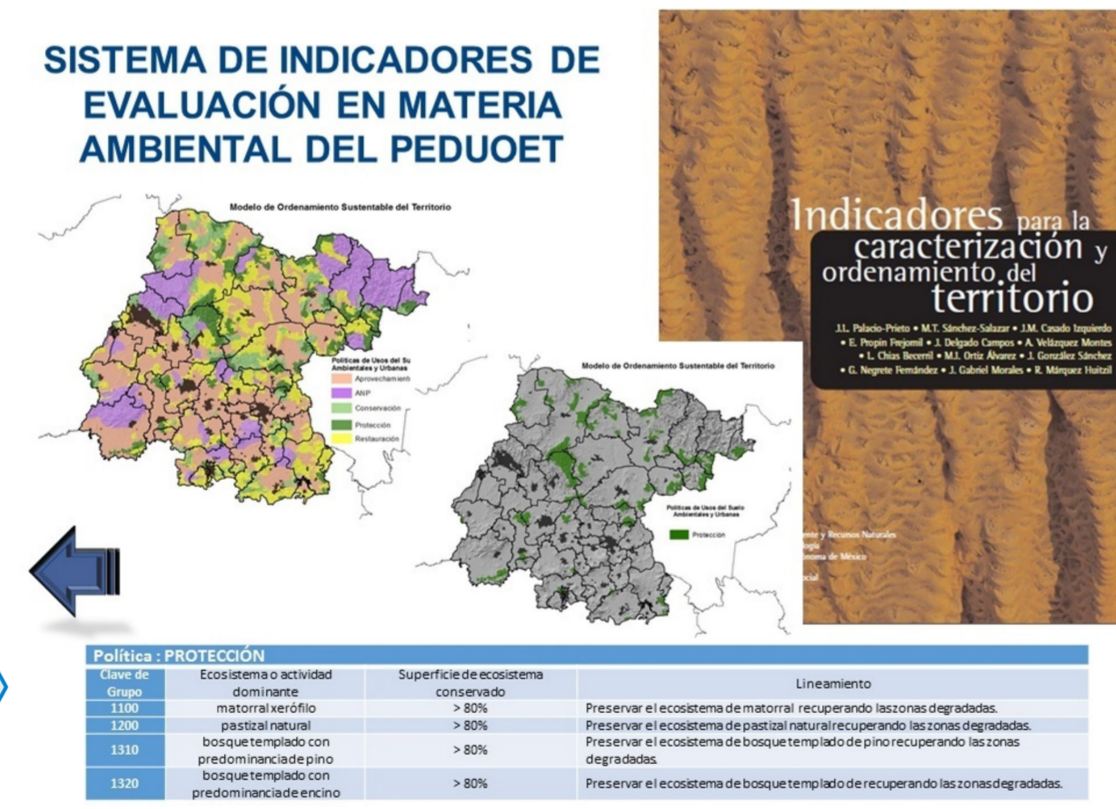
The Government of Guanajuato generated the Program of Urban Development and Ecological Zoning

This fact has contributed to develop other policy instruments. The objective of this program is to have a long term prospective view, which represents the territorial dimension of guidelines and objectives already expressed in the State Development Plan-2035.

It is a planning tool where policies are set for consolidation, conservation, improvement and growth of population centers. Also, it plans areas for protection, conservation, ecological restoration, and sustainable use of natural resources. This Program has a control and monitoring system, with specific indicators.

In this sense, the formulation of this planning tool has caused the development of other environmental and urban tools, like:

- The Environmental Technical Standard for Housing Units
- The Training Program for a New Environmental Culture
- The Program to Identify Areas Suitable for Restoration
- The Water Culture Program.



Ecological zoning map. Image provided by Institute of Ecology of the State

- 1 Activities to broadcast the state biodiversity and raise public awareness
- 1 Drawing up the Fauna Inventory of the Protected Natural Areas (PNA)
- 2 Drawing up the Program of Urban Development and Ecological Zoning
- 4 Drawing up the Program of Environmental Autoregulation for Industrial Company

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

Guanajuato is one of the 22 states that currently collaborates with CONABIO within the State-level Biodiversity Strategies Initiative since 2008. However, there is few information about actions and initiatives for meeting Aichi Targets.

## B



Guanajuato "Zona Premium" is a food certification that ensures quality conditions, plant health, safety, traceability, labor and environmental responsibility, from planting and harvesting to the presentation at consumers.

This Certification is granted by the Ministry of Agro and Rural Development and the State Committee for Vegetable Handling of Guanajuato.

They have worked closely with local farmers to improve production techniques, such as:

- Use of a peripheral fence to prevent the crossing of domestic animals
- Use of a drip irrigation system to allow the exact amount of water and nutrients to be applied
- Specific measures for the proper use of Agrochemicals.
- Apply extreme hygienic measures by workers during all process
- A strict compliance with labor laws and standards.

The foods that are currently implementing these standards are: broccoli, lettuce, garlic, celery, cauliflower, spinach, carrot, tomato, pepper, tomato, strawberry and raspberry. There are over 40 acres of land certified in pollution risk reduction and Agrochemicals good use and management.

Much of the production of these crops is exported to countries such as the United States, Europe and Japan. In Mexico they are sold at recognized supermarkets and prestigious restaurants.



Farmer harvesting. Image provided by Institute of Ecology of the State

- 5 Management and restoration activities
- 5 Declaration of 23 State Protected Natural Areas
- 7 Certified agricultural production: "Guanajuato Zona Premium"
- 7 Installation of irrigation systems on 201 thousand hectares for the sustainable and efficient use of water

## E



The State Biodiversity Strategy: Estrategia para la Conservación y el Uso Sustentable de la Biodiversidad del Estado de Guanajuato

This strategy was made by the combined efforts of: a panel of experts, officials from the three levels of government, and members of civil society organizations.

It intends to become the instrument of planning and execution of biodiversity to guide state public policies through axes and strategic objectives, action lines and specific actions involving different levels of government, productive and development sectors, academic and research institutions, and civil society organizations and all the society.

For its preparation, 4 workshops were held in the city of Guanajuato, attended by 102 people from 52 institutions. Also, three regional workshops were organized in order to feed back the strategy and have the representation of all regions of the state.

It consists of seven strategic axes: 1. Research and knowledge; 2. Legal and institutional framework; 3. Culture and education; 4. Protection, conservation and restoration; 5. Sustainable use; 6. Governance; and 7. Attention of the biodiversity threats. It has 30 action lines and 100 specific actions with stakeholders and implementation deadlines.

The State Biodiversity Strategy was published in 2015, and so far, they have been carried out 30% of specific actions contained in the strategy.



Fenced protected area. Image provided by Institute of Ecology of the State

- 17 Drawing up the State Biodiversity Diagnostic: Estudio de Estado: la Biodiversidad de Guanajuato
- 17 Drawing up and implementation of the State Biodiversity Strategy: "Estrategia para la Conservación y el Uso Sustentable de la Biodiversidad del Estado de Guanajuato"

### 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.

June 2016



Layout by GeoMedia/MediaCompany

rbecerrilp@guanajuato.gob.mx

Zipe code: 36040

Col. Pueblito de Rocha,

Guanajuato, Guanajuato.

Institute of Ecology of the

State (IEE)

IMPRINT

Director of Natural Resources

Biol. Rodolfo Becerril Patlán