

# Baja California: Biodiversity Conservation and Sustainable Use in the north of Mexico



Baja California is the northernmost and westernmost state of México. It covers an area of 71,777 km<sup>2</sup> and it has 880 km of coastline (Pacific Ocean and Sea of Cortez).

It is one of the most biodiverse states of Mexico. It has 700 plant endemic species, 25 endemic species of terrestrial fauna, and 740 marine endemic species with 40% of all marine mammals in the world. It is also the state with the largest area under some environmental protection status.

Three main ecosystems are present in Baja California: Sonoran desert, coniferous forest and coastal shrub. 38.5% of the state is under federal protection. It has 740 marine endemic species and 40% of all marine mammals in the world. The Sea of Cortez is one of the top five marine ecosystems of the world in terms of productivity and biodiversity. Unplanned urban growth has caused direct and indirect negative impacts on biodiversity. Agricultural areas also represent a major problem, mainly due to the unregulated use of pesticides and fertilizers and water overuse in a region with a marked shortage of this resource. The State Ministry of Environment Protection has performed an environmental regulation policy to contribute to a better quality of life for society and to ensure sustainable development of the region, reconciling economic growth and natural resources conservation.



## A



### The State Development Plan and its environmental targets

The State Development Plan (PED) 2014-2019 includes in its axis 3 "Sustainable Economic Development", within the sub axis 3.8 "Environment and Sustainable Development", in 3.8.2.2 "Integrate the natural capital conservation with the social and economic development" and in 3.8.2.4 "Develop and implement protection zones, strategies and management plans for biodiversity conservation and sustainable use of natural resources of Baja California".

Derived from the PED, the State Environmental Protection Program (PE-SPA) 2015-2019, includes goals such as:

- enact three state priority conservation areas and develop and publish their management programs;
- sign agreements for the co-management of Protected Natural Areas under national jurisdiction (National Parks), and assign financial resources annually for their implementation;
- promoting sustainable use in management units for wildlife conservation (UMA), through annual workshops for local communities, and monitoring their implementation through annual assessments;
- conduct an annual UMA forum to promote information exchange and generate new proposals for technical wildlife management;
- operate the Forest Germplasm Bank.



Wildlife conservation reintroduction of Pronghorn

### The State Development Plan and its environmental targets

- Children are aware of environmental values
- Plan for Environmental Education, Training and Communication is adopted

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

For strategic goal D and E there is only very specific information and important gaps. It is a challenge to systematize traditional knowledge, generate diagnosis on ecosystem priority services, as well as the impact of public policies on them.

## B



### Eradicating invasive alien species in Estero de Punta Banda

Estero Punta Banda is included in the list of Wetlands of international importance. The polygon demarcating the Ramsar site covers an area of 23.93 km<sup>2</sup>. This wetland has a good conservation status and contains a variety of intertidal salt marshes, mud flats and salt, mantles of marine grass and coastal dunes with the greatest plant diversity of Baja California.

The coastal dunes are the most affected, mainly by the removal of vegetation for tourism development, increasing wind and water erosion. These modifications allow the introduction and establishment of invasive alien species.

The main goal of the program is to restore and improve the degraded wetland areas, recovering the balance between the different flora populations, so they can continue playing their role in this fragile ecosystem. The activities are:

- Remove introduced species as *Carpobrotus aequilaterus* and *C. edulis*, because those are opportunistic species that displace native species, forming large vegetation patches and not allowing the establishment of other important ecological species.
- Native plants will be planted in areas where the vegetation has been removed, in order to keep a vegetation cover that conserves and stabilizes the coastal dune system.



Remotion of *Carpobrotus aequilaterus* in Estero Punta Banda

### Eradicating invasive alien species in Estero de Punta Banda

- Implementation of the Clean Beaches Program
- Management Program to Improve the Air Quality
- Actions for the reproduction and conservation of endemic and endangered marine species are taken

## C



### Safeguarding ecosystems through protected areas

National and State Governments have collaborated closely, aiming at a harmonized approach with regards to conservation and sustainable use of the natural environment and the respective flora and fauna. The goal is to increase the surface area of protected natural habitat without entirely banning human activities from these areas. Human activities are to be carried out under a scheme of conservation and sustainable use and in a way that does not destroy the habitat. By doing so, conservation and sustainable use can go hand in hand.

Allowing for a maximum of flexibility and thus aiming at an increase in local populations, different forms of protection of land are included in this approach. Protection can manifest itself through the declaration of land as a national park, as a national and/or state reserve, as a national monument, as a priority area for flora and fauna conservation, as areas voluntarily intended for conservation, or as management units for wildlife conservation (UMA).

Currently, the state of Baja California comprises the following forms of protected areas:

- four national protected areas,
- four areas voluntarily intended for conservation,
- and 256 management units for wildlife conservation.

Competition	Number of PA	Approximate area (Ha)	Percentage equivalent to the total state area (%)
National Estate	4	2'767,252	38.57
Areas voluntarily intended for conservation	4	5,860	0.08
UMA	256	1'600,000	22.30
Total	265	4'374,255	60.95

### Safeguarding ecosystems through protected areas

- Actions for the protection of threatened species
- Creation of a forest germoplasm bank for the State Government

## 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.

### IMPRINT

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