



**WORLD
LAND
TRUST**

Saving land
Saving species

Registered Charity 1001291



**Grupo Ecológico
Sierra Gorda**^{AP}

ENSURING CONNECTIVITY IN THE SIERRA GORDA, MEXICO



Country

Mexico

Partner/Organisation

Grupo Ecológico Sierra Gorda (GESG)

Biome

Tropical and Subtropical
Coniferous Forests

Ecoregion

Sierra Madre Oriental
pine-oak forests

Habitats

High in the mountains of the Sierra Madre Oriental, the project area protects around 10,000 ha (24,700 acres) of temperate and cloud forest within the Sierra Gorda Biosphere Reserve. At elevations above 1,800m, the landscape is dominated by oaks, pines, and cypresses that form cool forests along the mountain ridges. In lower altitudes, pockets of relict, mist-laden cloud forests support an exceptionally rich variety of tree species and provide refuge for many plants and animals that depend on cool, moist conditions.

Beyond the forests, the wider landscape has been heavily altered over time. With much of the surrounding land having been transformed into a patchwork of cropland and livestock pasture, only small fragments of forest remain.

Project summary

The Sierra Gorda Biosphere Reserve is one of the most ecologically diverse protected areas in Mexico. Because the reserve stretches across a mountain range from 270 m to over 3,000 m in altitude, the landscape experiences dramatic changes in climate and rainfall, allowing many different ecosystems to exist within an area that is small but bursting with life.

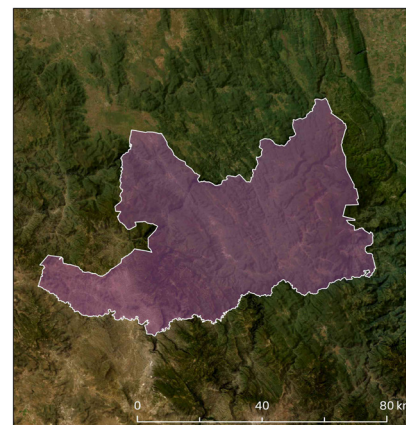
Despite its importance, the forests of the Sierra Gorda face increasing pressure. Cattle ranching on low-productivity land and forest degradation continuously threaten the region's natural habitats.

This project covers approximately 10,000 Ha and brings together rangers and fire brigades to help protect more than 7,400 ha (18,200 acres) of Sierra Gorda reserves, while incentive programmes encourage forest owners to conserve a further 2,500 ha (6,100 acres) of land belonging to individual landholders or under Mexico's unique ejido land tenancy system.

WLT has supported GESG's work in Sierra Gorda for many years, including funding land purchases and reserve protection activities. This project has been supported through WLT's Carbon Balanced programme over the period 2021-2025, and WLT is selling vintage 2023-2026 emission reductions derived from the project until 2027. GESG is continuing to protect the project and wider area through its own biodiverse carbon project.

Main threats to the area

The forests of the Sierra Gorda face a pattern of growing pressures including increasingly intense heat and prolonged periods of drought due to climate change. These conditions make the landscape more vulnerable to wildfires, which can spread rapidly through dry vegetation and cause severe damage to habitats that are not adapted to frequent fire. In many areas, forests are also affected by cattle browsing, which can degrade plants and prevent young trees from regenerating. Logging, both commercial and local, continues to place additional pressure on forest resources, particularly in remote areas where enforcement can be difficult.



10,000+ ha enrolled in the project
over the ~380,000 ha Sierra Gorda
Biosphere Reserve



Global prioritisation

The Sierra Gorda Biosphere Reserve is designated as a UNESCO Man and Biosphere Reserve as it is a landscape where biodiversity conservation is combined with sustainable ways of living. The reserve protects habitat within two globally important Biodiversity Hotspots as it lies on the edge of the Mesoamerican Biodiversity Hotspot, while also safeguarding forests belonging to the Madrean Pine-Oak woodland. Because of its importance for bird life, Sierra Gorda is also recognised as an Important Bird Area (IBA).

Biodiversity

Sierra Gorda is one of Mexico's richest region for mammal diversity, with more than 110 recorded species. Remarkably, all six wild cat species found in Mexico live within the reserve: Jaguar, Puma, Bobcat, Margay, Ocelot and Jaguarundi.

Bird diversity is equally impressive as more than 349 bird species, both resident and migratory have been recorded here, including 27 species found only in Mexico. Sharing the skies, around 800 butterfly species have been recorded in the reserve, including the stunning Migratory Monarch Butterfly, which spends its winters in the region, clustering on tree branches so densely they bow under the weight. The streams of the project area shelter an array of threatened amphibians and reptiles, including several shy salamander species. Scientists continue to discover new plant species here and in recent years, new species of magnolias, agaves, and carnivorous plants have been recorded in the Sierra Gorda.

Key species¹

Mammals

Jaguar (*Panthera onca*, NT)

Birds

Great Curassow (*Crax rubra*, VU), Bearded Wood Partridge (*Dendrortyx barbatus*, VU), Maroon-fronted Parrot (*Rhynchopsitta terrisi*, EN), Military Macaw (*Ara militaris*, VU), Red-crowned Amazon (*Amazona viridigenalis*, EN)

Amphibians

Bigfoot Splayfoot Salamander (*Chiropetrotriton magnipes*, CR), Bell's False Brook Salamander (*Pseudoeurycea bellii*, EN), Chunky False Brook Salamander (*Pseudoeurycea cephalica*, EN)

Plants

Magnolia (*Magnolia pedrazae*, EN)

¹The Red List of Threatened Species, maintained by the International Union for the Conservation of Nature (IUCN), includes categories of Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC) and Data Deficient (DD).



Bell's False Brook Salamander

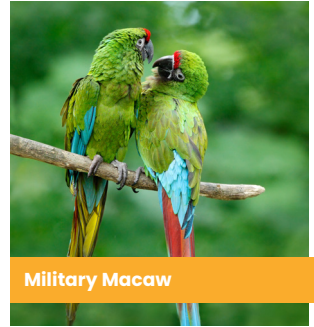
Local communities

Around 100,000 people live within the Sierra Gorda Biosphere Reserve, spread across 638 communities in five municipalities. Through this project, GESG works with more than 30 landowners to support a more sustainable approach to managing the landscape. By helping landowners access funding for protecting their forests, the project encourages crucial conservation all while supporting local livelihoods.

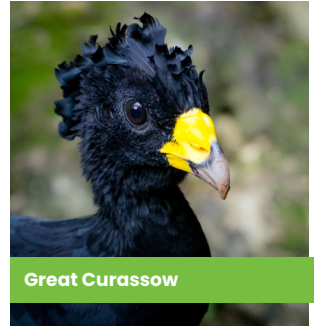
Beyond forest protection, GESG also works with communities on environmental education programmes, and hosts festivals that celebrate the region's cultural and environmental heritage. The organisation also supports recycling centres run voluntarily by local women and promotes sustainable tourism initiatives designed to provide long-term benefits for local people.

Partner/Organisation

GESG has been a trusted partner of WLT since 2007. Through this partnership, we support land purchases that help expand GESG's network of protected areas within the Sierra Gorda Biosphere Reserve. WLT has also contributed to the long-term protection of the forest through its Carbon Balanced programme, which helped fund payments to local landowners participating in the carbon project as well as rangers and critical fire management activities across the landscape. GESG has been running this carbon sequestration programme in the Sierra Gorda since 2005, supporting the long-term conservation and restoration of these important forests.



Military Macaw



Great Curassow



Magnolia Rzedowskiana

UN Sustainable Development Goals directly advanced by this project:



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