

Guatemala's Maya Forest: A shared responsibility to protect Mesoamerica's largest forest



In Guatemala, the Maya Biosphere Reserve is the largest protected area in the country and forms part of the Maya Forest, the largest continuous tropical forest in Mesoamerica, spanning 5.7 million hectares. It is one of the key intervention landscapes of the *Great Forests of Mesoamerica* project, a regional initiative for climate, biodiversity, and people funded by the European Union.

The strategy has promoted ecological restoration, strengthened sustainable livelihoods, and supported community conservation agreements in response to threats such as illegal cattle ranching, land grabbing, wildfires, and agricultural expansion.



[Watch the video!](#)

In 2025, the governments of Mexico, Guatemala, and Belize signed a historic agreement through the [Declaration of Calakmul](#), creating the Gran Selva Maya Biocultural Corridor. This corridor consolidates a trinational vision that integrates biodiversity, cultural heritage, and sustainable development. It recognizes the importance of the Maya Forest for climate stability and regional ecological connectivity.

In Guatemala, this commitment builds on ongoing efforts in the Maya Biosphere Reserve, particularly in the Multiple Use Zone (MUZ), where coordinated work among the Wildlife Conservation Society (WCS), the National Council of Protected Areas (CONAP), the Association of Forest Communities of Petén (ACOFOP), the Ministry of Agriculture (MAGA), community organizations, and other local partners has advanced ecological restoration, fire prevention, territorial monitoring, and community conservation agreements.



Key results in Guatemala's Maya Forest under the *Great Forests of Mesoamerica project*, a regional initiative for climate, biodiversity, and people funded by the European Union.

Between growing pressure and emerging threats

The regional Human Footprint analysis coordinated by WCS indicates that the Maya Forest was among the landscapes with the greatest increases in human influence during this period. The area classified as wilderness declined from more than 55,000 km² in 2000 to nearly 37,000 km² in 2020—a 33% reduction, equivalent to more than 1.8 million hectares previously identified as low human influence areas. This shift reflects intensified landscape transformation, driven primarily by cattle expansion and the recurrent use of fire for forest conversion.

These pressures are compounded by the reappearance of the screwworm fly (*Cochliomyia hominivorax*), a sanitary threat already detected in wildlife in areas such as Laguna del Tigre National Park, including possible infestations in tapirs and pumas. Its presence in wild species highlights new ecosystem health challenges and reinforces the need for monitoring, interinstitutional coordination, and integrated territorial management.

Selva Maya Forest loss 2001 - 2024

Hansen et al, 2013



Protected areas

Forest change
Hansen et al 2013

Forest in 2024

Non forest

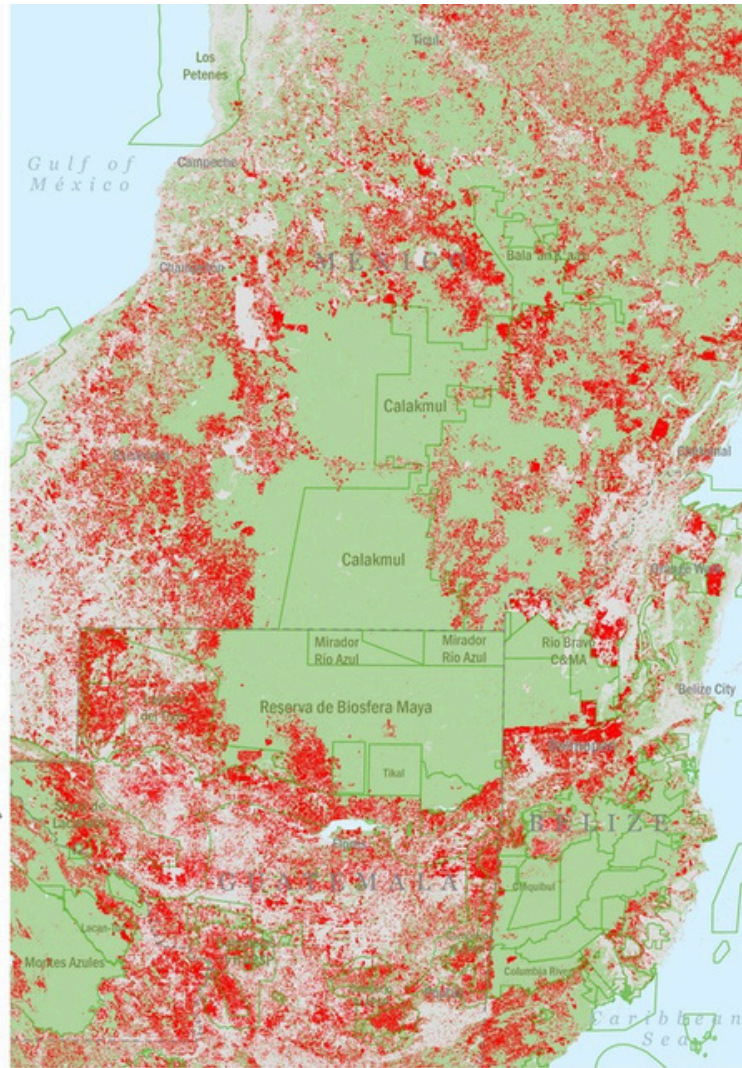
Water

Forest loss 2001-2024



WCS

Wildlife Conservation Society



Map by WCS Mesoamerica.



Left: Puma (*Puma concolor*), one of the Maya Forest's large felines and an indicator species of well-conserved ecosystems.
Right: Scarlet macaw in a cantemó tree. Photos: Department of Biological Research / WCS Guatemala.

Restoring forests, transforming lives

In the Reserve's Multiple Use Zone (MUZ), efforts have focused on restoring areas degraded by illegal logging, agricultural and cattle expansion, and wildfires. In sectors such as La Colorada, El Tanque, and El Molino, forest was replaced by invasive pasture for cattle, leading to forest cover loss, soil degradation, and impacts on biodiversity.

Restoration begins with the removal and control of invasive grasses—one of the most demanding stages—and continues under an integrated approach led by community organizations, in coordination with CONAP and with technical support from WCS.

Actions combine active restoration—through planting native species such as mahogany and cedar (high long-term timber value), ramón and allspice (medium-term economic benefits), and cantemó (key for wildlife)—and passive restoration, protecting areas where forest can regenerate naturally under local management. Currently, more than 3,000 hectares are under restoration, and in recent years more than 4,500 additional hectares have been incorporated with support from local partners.



Restoration integrates ecological recovery, sustainable production, and the conservation of key species. Animation courtesy of WCS Guatemala.

The process generates immediate income through wages while projecting long-term productive and ecological benefits. In approximately eight years, ramón and allspice will allow sustainable harvests; over a 25–30 year horizon, cedar and mahogany will consolidate a productive forest under sustainable management. At the same time, species such as cantemó strengthen the ecological value of the restored landscape by providing habitat for wildlife, including nesting sites for the scarlet macaw.

In communities such as San Miguel La Palotada and Uaxactún, this strategy is complemented by maize, bean, and pepitoria cultivation, which improves soil fertility and supports families without expanding the agricultural frontier—linking production and conservation within the same territory.

For those involved, changes are visible both in the forest and in the community. As explained by Casimiro Méndez Pantí, WCS Guatemala technician:

“I feel happy because what we are doing is something good; we plant trees, restore the forest, and also generate employment.”

From the community organization, Felisa Navas, member of the Asociación Forestal Integral Cruce a La Colorada (AFICC), highlights:

“We see that it improves life for people in the community. Each family that receives its small plot of land commits to planting, caring for, and maintaining it.”

Forest nurseries: producing plants for landscape recovery

A key component of this strategy is the nurseries established in Cruce a La Colorada and San Miguel La Palotada, where nearly 40,000 plants of species such as mahogany, cedar, ramón, and allspice have been produced.

In Uaxactún, in coordination with the Organization for the Management and Conservation of Uaxactún (OMYC), 22,200 xate palms (*Chamaedorea* sp.), a commercially valuable ornamental species, were introduced across 1.2 hectares between 2022 and 2023. Approximately 15,000 additional plants are currently in production for future planting efforts.



Left to right: Casimiro Méndez Pantí, Felisa Navas, and Débora López. Photos by Claudia Novelo Alpuche.

Beyond plant production, these nurseries have become spaces for participation and economic autonomy, particularly for women.

As noted by Débora López, one of the nursery coordinators in San Miguel La Palotada:

“This work has been a great benefit for us women. Here we find employment, we support one another, and we are part of the restoration.”



Women actively participate in planting, caring for, and maintaining forest seedlings, strengthening knowledge and leadership in local productive processes. Photo by César Paz / WCS Guatemala.

Fire management and territorial monitoring

Wildfires remain one of the main threats to the forest and to restoration areas. During this period, fire prevention and suppression were priorities to protect progress in the MUZ.

More than 200 kilometers of firebreaks were maintained, reducing risk in critical sectors. These actions were coordinated with community organizations such as AFICC, Selva Maya del Norte, AFISAP, and OMYC, strengthening local response capacity during the dry season.

Trainings were also conducted in fire prevention and control, as well as in the use of technological tools for territorial monitoring. Ground patrols and drone flights were carried out in areas facing high pressure from land grabbing and cattle expansion. Community monitoring personnel strengthened the use of the SMART system to record incidents, track threats, and improve territorial decision-making.

Beekeeping: sustainable income that protects the forest

Beekeeping has become a productive alternative compatible with forest conservation in communities along the route to Carmelita and Paso Caballos. During this period, two beekeeping schools—located in San Miguel and Paso Caballos—were strengthened as practical training and technical support spaces for local producers.



Beekeeping has become a productive alternative compatible with forest conservation. Photos by Melvin Mérida / WCS Guatemala.

Forty-eight families participated, receiving technical assistance in apiary management, harvest preparation, honey moisture control, and practices to reduce wildfire impacts on hives. Water sources were also installed to address dry-season water scarcity.

These actions were implemented with complementary contributions from institutions including MAGA and the University Center of Petén (CUDEP), as well as community counterpart funding. The DeSIRA project contributed to technical and organizational strengthening, consolidating local capacities for sustainable beekeeping management.

Community conservation agreements

Restoration, fire prevention, and territorial monitoring are complemented by formal governance instruments and long-term conservation commitments.

During this period, progress was made in managing and implementing three community agreements in the MUZ, including the fourth phase of the San Miguel La Palotada Conservation Agreement and agreements for Selva Maya Norte and Paso Caballos in coordination with CONAP and other civil society and government partners.

These agreements establish concrete commitments for ecological restoration, fire prevention, territorial control, and sustainable forest management, consolidating shared responsibility among communities, authorities, and technical partners.

In San Miguel La Palotada, follow-up was also provided to the contract focused on ecological restoration and recovery following the cancellation of the concession, reinforcing protection and sustainable management mechanisms.

A forest defended from the ground up

The experience in Guatemala's Maya Forest demonstrates that territorial sustainability depends not only on regional policies, but on the daily work of the communities who live there. Landscape restoration, community organization, fire management, and income diversification show that threats can be addressed through collaboration, knowledge, and shared responsibility. Ensuring the long-term sustainability of the Maya Forest is a shared responsibility that transcends borders.



Tour of restoration plots in the Maya Forest during the gathering of community and Indigenous organizations under the *Great Forests of Mesoamerica* project, October 2025. Photo by Manfredo Martínez / WCS Guatemala.



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