

# The Darién: Indigenous governance and territorial control to protect one of Mesoamerica's great forests



The Darién forest constitutes one of the most extensive and continuous forest landscapes in Mesoamerica. It is considered a key ecological corridor at the continental level, connecting Central and South America through a continuous landscape between Panama and Colombia. Its state of conservation is largely explained by the continuity of its forest cover—reflected in the so-called Darién Gap—as well as by the territorial control exercised by Indigenous peoples through their governance systems.

To strengthen this system and the forest's protection capacities, the European Union, through the *Five Great Forests of Mesoamerica initiative—a regional initiative for climate, biodiversity, and people*—has funded community grants implemented through the Wildlife Conservation Society (WCS) and its partners.



[Watch the video!](#)

## A key landscape for biodiversity

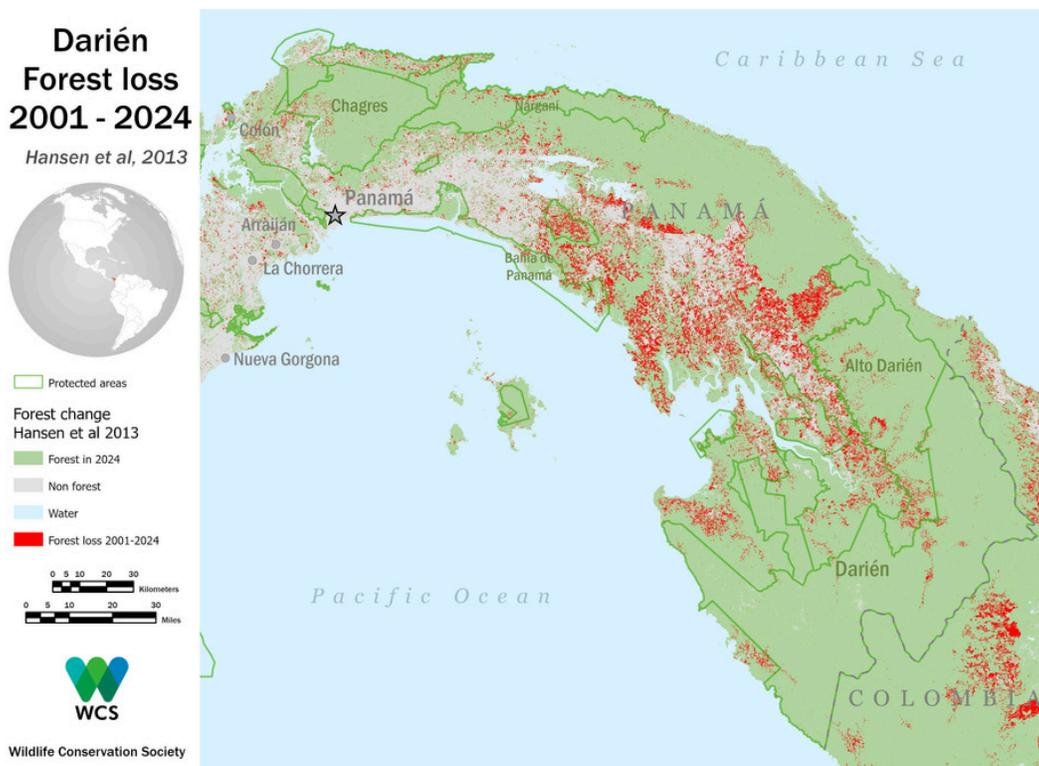
The Darién is home to emblematic species such as the jaguar (*Panthera onca*), the Central American tapir (*Tapirus bairdii*), and the harpy eagle (*Harpia harpyja*), as well as a high level of biodiversity resulting from its role as a continental bridge.

At the same time, it plays a strategic role in the country's water regulation, as it forms part of watersheds that supply human populations and sustain key infrastructure such as the Panama Canal.

It is also one of the forests with the lowest forest cover loss over the past 20 years, demonstrating the effectiveness of Indigenous governance systems. However, this stability is under pressure.

## Human Footprint: increasing pressures along the forest edges

According to the Mesoamerican Human Footprint study conducted by WCS, between 2000 and 2020 the area of the Darién with low human influence decreased by 19%, from approximately 22,000 km<sup>2</sup> to 18,000 km<sup>2</sup>. This change reflects a progressive transformation of the landscape, with pressures concentrated along the territory's edges. The study also identifies cattle ranching as the dominant land use in areas undergoing change in the Darién, accounting for 64% when excluding secondary vegetation.



Map by WCS Mesoamerica

These dynamics are particularly visible along the southern boundaries of the comarcas, where the expansion of farms and access via roads facilitate the entry of external actors. As a result, the forest is beginning to show signs of fragmentation: what once functioned as a continuous block now faces higher levels of pressure.

Additional threats identified in the field include illegal logging, hunting, mining, and the establishment of unplanned settlements.



Some key results in the Darién of Panama, within the framework of the *Great Forests of Mesoamerica project: a regional initiative for climate, biodiversity, and people*, funded by the European Union.

## Strengthening territorial control in the Emberá Wounaan Comarca

In the Emberá Wounaan Comarca, the project “Strengthening territorial protection processes of the Comarca” was implemented across more than 3,000 km<sup>2</sup>, directly benefiting 29 communities. This comarca is legally recognized, with its own authorities responsible for managing and protecting natural resources.

The process was led by the Emberá General Congress, with the participation of traditional authorities, including the General Cacique and his team, and focused on verifying and recovering territorial boundaries.

Through patrols covering more than 30 km in critical areas—particularly along the stretch between Río Chatí and Aguas Claras—territorial markers were inspected and areas affected by external activities were documented. During these inspections, specific pressures were identified, including the presence of cattle, deforestation processes of around 100 hectares per year, and recurring illegal burning.

Other forms of occupation were also recorded, such as the installation of fences for cattle expansion, the introduction of non-traditional crops, and extractive activities. Although the presence of permanent settlements remains limited, these processes reflect increasing pressure on the comarca’s boundaries, particularly in areas such as Chucunaque, Bellavista, and Laja Blanca.

Beyond monitoring, the project advanced internal governance processes, including the reactivation of the Emberá Wounaan Comarca Foundation, the definition of a roadmap for protection, and the strengthening of coordination mechanisms with government entities.



*As Rodolfo Berrugate, Secretary to the General Cacique of the Emberá Wounaan Comarca, noted, this process made it possible to “advance in verifying territorial boundaries in areas where there were problems due to cattle ranching and logging, and to take the first step toward protecting our region.”*

### **Presence on the ground: control and monitoring in Guna Yala and Térraba**

In the Guna Yala Comarca, the project “Strengthening and Protection of the Boundary Areas of the Gunayala Comarca, Panama” was implemented by the Guna General Congress and the Kuna Yala Research and Development Institute (IIDKY). This comarca is an Indigenous territory with a high level of organization and self-governance, where traditional authorities play a central role in forest management and protection.

The project was carried out across the Guna Yala Comarca, which includes 49 communities, with actions focused on strengthening governance in areas where external pressures are increasing.

One of the most concrete achievements was the installation of territorial control cabins at strategic points such as Cerro Banega and the route to El Llano Cartí. These structures enable a permanent presence in critical areas and improve response capacity to threats.

The project also included training forest rangers in monitoring, patrolling, biodiversity, environmental legislation, and conflict resolution, as well as the use of technologies such as drones for surveillance.



In addition, the institutional structure was strengthened through the creation of the Territorial Defense Secretariat, consolidating a more robust management and protection system.

Despite the comarca's high level of organization and its control over the entry of people and tourism, threats continue to grow, particularly due to the expansion of agricultural, livestock, and urban frontiers, as well as illegal activities such as logging and wildlife trafficking.

*As noted by Mitzi Arias, representative of the Guna General Congress, the project made it possible to “train personnel from the Territorial Defense Secretariat in the use of drones and environmental protection laws,” and to advance in building infrastructure that facilitates fieldwork.*

## **Training new generations**

The third line of intervention focused on training new generations of forest guardians through the project “The Young Guardians,” led by Geoversity.

This initiative aimed to train a new generation of territorial guardians in Panama, integrating Indigenous knowledge, local experience, and environmental science to strengthen forest conservation and climate resilience.

The project developed educational processes in communities such as La Zahina, Mamoni Arriba, and El Giral, through seminars, workshops, and field activities addressing topics such as the importance of forests, their relationship with water, and Indigenous forest culture.

Citizen science activities were also implemented, where young people built instruments such as rain gauges, monitored organisms in rivers to assess water health, and collected environmental data, strengthening their connection to the territory.

In total, the project involved 72 children and youth and 19 adults, generating environmental data and educational materials that can be replicated in other communities.

## Defending the Darién

The Darién remains one of the best-preserved landscapes in Mesoamerica, but ongoing changes show that its balance is increasingly vulnerable. In the face of these pressures, actions supported by the European Union reinforce a fundamental element: the capacity of Indigenous peoples to exercise territorial control, maintain a presence along their boundaries, and pass on the knowledge needed to sustain the forest over time.

*“We inherited from our ancestors the responsibility to protect the forests and live in harmony with nature.”*  
— Rodolfo Berrugate



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