

A photograph of a wind farm at sunset. The sun is low on the horizon, creating a bright orange glow. Several wind turbines are visible, with one in the foreground being particularly prominent. The sky is filled with large, dark clouds. The overall scene is a mix of natural and industrial elements.

**NATURE
BASED SOLUTIONS**

CLIMATE CHANGE

As part of our efforts toward a sustainable environment, the "Territorial Strategy for Climate Restoration and Mitigation" project was launched in late 2024 in order to comprehend the feasibility of developing NBS projects on three Grupo México's properties located in Sonora and Peru, with a total area of 30,000 hectares.

The first phase of this project included estimating a baseline of the carbon currently captured by the biomass present on these properties.



Ite's Wetlands, Perú.



La Churea, Sonora, Mexico.



La Cabellera, Sonora, Mexico.

As a first step, the methodology consisted of analyzing several components, using satellite images and scientific literature, that could be considered as variables for the conservation of biodiversity at these sites, for example, loss or gain of vegetation cover, water availability in aquifers, fire risk, population pressures, among others.

Subsequently, a field tour of the properties in Sonora and Peru was conducted to generate high-resolution images using drones, which served as a reference for identifying vegetation types and estimating carbon stores.

The images were processed to form mosaics and transformed into a density map, useful for estimating heights, counting the number of trees per hectare, and estimating current carbon storage using allometric equations.

To validate the information generated, a cross-reference was made between the previously analyzed satellite images (Sentinel-2) and the images taken by drone flights in the field.

The actions described above allowed for the construction of a more accurate carbon storage baseline for each property analyzed, resulting in the estimates presented below.



Example: measuring vegetation heights using drones.

Carbon Storage (tCO ₂ e)			
Year	La Cabellera	La Churea	Ite’s Wetlands
2024	48,455	121,402	4,087

As a next step, we will be identifying potential additional activities and practices that are eligible, in accordance with international standards, to increase CO2 removals in the short and medium term.