

Decisive action against the climate crisis

Tackling the climate crisis has never been more urgent. Each year, climate records are being toppled and 2024 is set to be the Earth's warmest year in recorded history. As global temperatures increase, extreme weather events are becoming more frequent and damaging, often hitting the most vulnerable people and ecosystems the hardest.

Despite the clear imperative to act, national climate action plans are "falling miles short" of what is needed, according to the UN. In addition, leading climate policy experts – including Christiana Figueres, former head of the UN's climate body (UNFCCC) – have declared the annual Climate COP summits "no longer fit for purpose". But while governments fail to act at the scale and urgency required, businesses around the world are stepping up to the challenge.

At World Land Trust (WLT), we are profoundly grateful for your support of our Carbon Balanced programme. Established in 2005, this programme is closely aligned with the recommendations of the International Panel on Climate Change, which asserts that the single most effective climate action we can take is to avoid further forest loss, particularly in the tropics. Trees are the oldest and most reliable carbon capture technology we have and by protecting and restoring tropical forests, we also deliver an array of other benefits for people and wildlife.

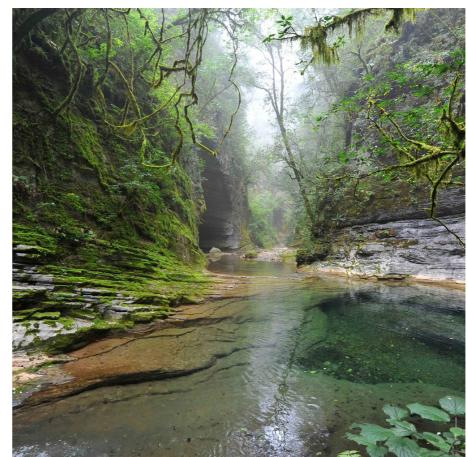
We are proud to be supporting a committed network of organisations who are actively working to reduce their environmental impact and tackle climate change. In so doing, you belong to a thriving and diverse community of Carbon Balanced businesses dedicated to making a difference at this critical time. By striving towards net zero, you are contributing to the low-carbon economy that this world desperately needs.

We are delighted to share with you the most recent updates from our Carbon Balanced projects. We hope each of these illustrates how Nature-Based Solutions to tackle the climate crisis also pave the way for a whole host of other benefits. Together with our partners who are at the frontlines of the climate and biodiversity crisis, you are making a real and tangible difference to protecting and restoring thriving forests for people, wildlife and the climate.











Sierra Gorda and Sierra de Xilitla, Mexico

WLT partner: Grupo Ecológico Sierra Gorda (GESG)

Area of forest protected by Carbon Balanced: 14,248 hectares (35,208 acres): 9,538 hectares (23,569 acres) in Sierra Gorda and 4,710 hectares (11,639 acres) in Xilitla

Total estimated carbon benefit: 228,687¹ tCO₂e (120,635 tCO₂e Sierra Gorda and 108,052 tCO₂e Xilitla)

In the rugged mountains of the Sierra Madre Oriental, our partner GESG protects two exceptionally diverse cloud and temperate forest regions as part of the Carbon Balanced programme. These include 9,538 hectares (23,569 acres) within the Sierra Gorda Biosphere Reserve and 4,710 hectares (11,639 acres) in the neighbouring Sierra de Xilitla. Together, these provide a refuge for iconic predators such as the American Black Bear (*Ursus americanus*), rare amphibians like the Endangered Bigfoot Splayfoot Salamander (*Chiropterotriton magnipes*), and all six of Mexico's cat species.

Despite the global importance of these forests in the fight against climate change, they are under threat from illegal logging, agricultural expansion, and increasingly catastrophic fires. These threats do not act in isolation but often feed into each other. Historical forest loss across the Sierra Madre, for example, exacerbates forest fires by reducing rainfall and creating drier conditions. This is why it is so important to keep these forests standing and thanks to your continued support, GESG are doing just that.



Tackling fires during one of Mexico's worst droughts since 2011

The start of 2024 in Mexico was marked by ongoing drought as record-breaking heat dragged on from the preceding months. As this spread across the country, GESG readied themselves for a difficult year. Before the worst heat hit, GESG's fire brigade – which is funded by the Carbon Balanced programme – had already attended a specialist firefighting workshop by the National Forestry Commission (CONAFOR).

From March onwards, this training was put to the test as fires broke out across the Sierra Gorda's usually humid cloud forest, sometimes within days of each other. Tackling these is extremely demanding, necessitating arduous hikes up steep slopes, all while carrying heavy water-laden backpacks. The rocky limestone terrain easily hides embers and GESG have even observed fires spreading underground, smouldering along a trees' root system. On two occasions GESG observed gusts of wind blowing embers far away from the original and already extinguished blaze, reigniting it several hundred metres away.

Despite these very challenging conditions, GESG and the region's other fire brigades successfully kept the worst of these fires at bay. By working as a tightknit team, they minimised damage to this precious forest and on 19 July 2024 – after a very long delay – the rains finally returned. In their Hoya del Hielo reserve, the magnolias are recovering and newly germinated cedars are already filling in the gaps left by the fires. More than that, the Sierra Gorda's eastern areas – which form GESG's Carbon Balanced project –

suffered only minor damage from the heatwaves and drought. GESG found that less than 5% of the vegetation here was affected and, as with the magnolias and cedars, the worst affected areas are quickly resprouting.

"Because of the climate crisis, cloud forests are burning now. It is our pressing duty to protect them and stop the flames. Without a doubt, having the brigade thanks to WLT's Carbon Balanced programme was crucial. It's amazing to have our own firefighters to defend the reserves."

Roberto Pedraza Ruiz, GESG's Head of Conservation

To celebrate the end of the fires and the return of the rainy season, a festive lunch was held in the picturesque city of Jalpan de Serra, hosted by the City Council. This was attended by all the fire brigades in recognition of their joint achievements during this challenging time. Collaboration was critical to their success and these strong ties – forged during shared moments of difficulty – will now provide a solid foundation going forward into 2025.

New record of the rare Tamaulipas Pygmy Owl (*Glaucidium sanchezi*)

GESG had their third ever sighting of the Tamaulipas Pygmy Owl, one of the world's smallest owls that is only found in the mountainous and humid forests of northeast Mexico. As with the previous sightings, this owl was seen within the Fresno Canyon region of the Sierra Gorda Biosphere Reserve, highlighting the importance of its protection.

Xilitla

Site visits confirm effective forest conservation

In GESG's Xilitla project area, the forest is protected by four *ejidos* – areas of communal land tenure in Mexico that are managed and cared for by the local communities. The Carbon Balanced programme supports these communities with income to safeguard the *ejidos*, while also helping develop sustainable livelihoods.

This year, GESG regularly visited all four *ejidos* in Xilitla as part of their forestry monitoring programme. Fortunately, the drought has been much less severe in this region than in the Sierra Gorda and GESG's visit confirmed that all four *ejidos* are in a very good state of conservation, with no forest fires. Community collaboration has also prevented any illegal wood extraction from these sites.

In April, GESG delivered the semi-annual payment to each of the *ejidos* during their community assemblies. With these payments, the local communities have the financial support they need to plough back into community projects and to continue preserving these precious forests.

Wildflower gardens, waste collecting marathons, and online diplomas

GESG's environmental education programme was very active in 2024 with over 150 classes delivered to 27 schools in 13 local communities.

At the Héroes de la Reforma primary school, children and parents built a wildlife-friendly garden, complete with an abundance of native wildflowers and vegetables. This was accompanied by poster-making sessions where everyone drew and coloured in their favourite pollinators. The finished posters were

then displayed around the school together with murals featuring butterflies, beetles, and Margays (*Leopardus wiedii*). Environmental awareness raising also took centre stage during three Earth festivals held by GESG in the communities of Zacatipa, Soledad de Zaragoza, and Tlaletla. Between them, these festivals involved 10 schools and brought together an audience of over 600 parents and children.

Impact Update

GESG also met with directors of the local primary and secondary schools to organise a waste collecting marathon, where children were challenged to collect as much recyclable waste as possible. This was met with a very enthusiastic response and the collection of over 100 kg of iron, 30 kg of aluminium, and 400 kg of plastic for recycling.

Meanwhile, nine teachers from the local communities began studying for an online diploma in Didactic Tools for Climate Action. Supported by WLT-funded scholarships and delivered by Mexico's Monterey Institute of Technology, this pioneering course equips teachers with the skills, knowledge and competencies required to create the next generation of climate leaders. The nine teachers join 200 others across Latin America in the fourth running of this highly impactful course.

This partnership with GESG supports the following Sustainable Development Goals (SDGs):













4 © Roberto Pedraza Ruiz

Nangaritza, Ecuador

WLT partner: Nature and Culture in Ecuador (NCE)

Area of forest protected by Carbon Balanced: 2,190 hectares (5,412 acres)

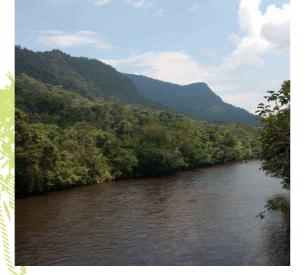
Total estimated carbon benefit: 78,966² tCO₂e

Located in south-eastern Ecuador, Nangaritza Valley is Ecuador's only remaining forest corridor that connects the mountainous Andes to the west with the vast Amazonian rainforests to the east. This valley is one of the world's most wildlife-rich regions – home to a staggering 3,500 plant species, over 40% of which are found nowhere else on Earth. But today, these forests are under threat, not only from deforestation for pasture but also illegal gold mining. In 2012, NCE established the Maycú Reserve with support from WLT to safeguard these precious foothill forests for generations to come.

Since 2020, the protection of the Maycú Reserve has been supported by the Carbon Balanced programme. This has provided critical funding to protect the reserve's extraordinary wildlife while also tackling the global climate crisis. Moving forward, this project will be integrated into provincial REDD+ implementation plans under Zamora-Chinchipe's Amazonian Platform agreement and WLT will therefore no longer sell carbon credits from this project. Instead, Carbon Balanced funding will be directed to other impactful projects with our partners. We would like to take this opportunity to thank you for everything you have helped achieve since 2020.

With your support, NCE has expanded the Maycú Reserve by 385 hectares (951 acres), significantly advancing protection of this stunning tabletop forest. While many neighbouring properties are now being exploited for illegal gold mining, your funding has helped safeguard Maycú Reserve against this threat. More than this, large areas of degraded pasture have been brought back to life, with Carbon Balanced funding supporting the planting of over 35,000 trees of 30 native species, including the nitrogen-fixing tree Cedrelinga cateniformis.

As with all of WLT's core programmes, your support for the Carbon Balanced programme has enabled many other activities to take place. This includes the discovery just last year of a new species of snake, Welborn's Snail-eating Snake (*Dipsas welborni*), and a new species of bat, the Lesser Yellow-shouldered Bat (*Sturnira boadai*).











NCE has also formed close ties with the local community of Las Orquídeas, whose main source of fresh drinking water is within the reserve. Over the years, they have worked together to maintain and improve the reserve's water catchment and treatment plant, as well as the reserve's access tarabita (cable car) over the Nangaritza River.

Collaboration with the Shuar

Since 2022, NCE have been supporting the Shuar Indigenous community of Mura Nunka as they work to establish Indigenous protected areas within their territory. During 2024, NCE has continued helping the Mura Nunka Association to gain formal recognition from the Ecuadorian government. In addition to facilitating extensive community consultations and assemblies, NCE has also given training in territorial governance, supported agrobiodiversity fairs, and helped with environmental education in the local schools.

Monitoring the forest carbon

In autumn 2024, NCE began an evaluation of the carbon held within the trees protected by the Carbon Balanced programme. Led by a forestry carbon specialist, NCE's carbon monitoring team took measurements in 12 forest plots at Maycú Reserve, ranging from newly planted forest to long established or "old-growth" forest.

By taking data on the trees' species, condition, diameter, and height, the team will estimate each trees' biomass and from this its carbon content. When paired with information on the carbon held in the deadwood and leaf litter, this will give NCE a reliable estimate of exactly how much carbon you have helped lock away since the start of the project.

Donating building materials for a local school

Over the years, your support has unlocked many other opportunities and secondary benefits from this project. For example, in 2024, NCE donated building materials to help repair the local Las Orquídeas community school, following conversations with parents and school directors about its declining condition.

Reserve patrols identify alarming increase in illegal gold mining

Each year, ranger Joel Vélez carries out regular patrols through Maycú Reserve's mountainous slopes. This work not only reinforces NCE's presence in the area but also provides a critical early warning system for any conservation challenges. To support these patrols, Joel is now using the digital software Epicollect5 to help speed up the data collection process. By making use of digital technology, it is easier to keep track of changes and threats. This is particularly relevant in terms of illegal gold mining which has expanded rapidly in the last five years.

Since 2020, dredging of the riverbed for illegal gold has disrupted the natural course of the Nangaritza River, resulting in widespread flooding. Maycú Reserve's tree-lined riverbanks are vulnerable to this secondary threat from the mining industry and several areas were flooded during 2024. To tackle this, NCE are currently exploring all powers available to them to protect the reserve including its landmark Amazon Platform initiative within Zamora Chinchipe province. This initiative aims to establish and connect protected areas across six provinces within Ecuador.

Carbon Balanced Impact Update

Meanwhile, NCE have observed wider work currently taking place within Ecuador to bring greater awareness to illegal gold mining. For instance, a popular social media campaign in 2024, "Ni por todo el oro del mundo" / "Not for all the gold in the world", has brought much-needed attention to this rapidly increasing threat.

Keeping the reserve's trails and signs in good condition

This year, Joel has cleared and improved three of the reserve's main trails: one which extends to the border with Peru, and another that takes visitors to the habitat of the threatened Orange-throated Tanager (Wetmorethraupis sterrhopteron). This has also included keeping the reserve's signs free of overgrown vegetation.

35,000 saplings independent and thriving

Over the course of this year, NCE carried out surveys of three of the reserve's main restoration sites: Sánchez, Ortega, and Fajardo. This revealed that all saplings are thriving and have adapted very well to life outside the tree nursery. As a result, NCE did not need to carry out any replacement planting or additional activities this year, apart from routine weeding and general maintenance.

Camera traps and reptile surveys

Supported by ornithologists and herpetologists from the Private Technical University of Loja (UTPL), NCE have been busy carrying out regular ecological surveys and camera trap monitoring within Maycú Reserve. This has revealed promising results, with high numbers of the rare Pebas Stubfoot Toad (Atelopus spumarius) and the recently discovered snake, Welborn's Snail-eating Snake (Dipsas welborni).

In addition, a team of mammal researchers deployed nine camera traps throughout the reserve in April 2024.



Visitina Mavcú

In June, our Carbon Programme Manager Mary McEvoy visited the Maycú Reserve to get an on-the-ground update of their progress. During her visit, she not only witnessed first-hand the threat of illegal gold mining but also the dogged determination of NCE's tree planters. Planting trees on former pastureland is far from easy - the ground is often boggy and requires first tearing away an extremely thick and tangled mat of non-native grass. With their characteristic determination, NCE were unfazed by this, and their persistence is now being rewarded, with young forest where there was previously only barren grassland.

Mary was also lucky enough to see one of the reserve's most threatened and significant flagship species: the Orange-throated Tanager. The reserve has always been an important refuge for this bird, but the NCE team began to worry after it was not spotted at all last year. Fortunately, any concerns were eased during Mary's visit when, just after entering the tanager's moisture-laden habitat of Cecropia trees, its tell-tale call was heard, swiftly followed by a sighting of its colourful plumage.

"The NCE team were really pleased because the last time they'd seen one was December 2022 and they were worried it may have disappeared, Mary McEvoy, Carbon Programme Manager

This partnership with NCE supports the following Sustainable **Development Goals (SDGs):**

















Khe Nuoc Trong, Vietnam

WLT partner: Viet Nature Conservation Centre (Viet Nature) Area of forest protected by Carbon Balanced: 21,127 hectares (52,206 acres)

Total estimated carbon benefit: 472,6643 tCO₂e

Located in North Central Vietnam, the Khe Nuoc Trong forest contains an extraordinary diversity of species, many of which are Critically Endangered and little known. Among the most striking are the Sunda Pangolin (Manis javanica), Red-shanked Douc Langur (Pygathrix nemaeus), and Largeantlered Muntjac (Muntiacus vuquangensis). Despite being home to such unique and rare wildlife and one of the largest remaining areas of Vietnamese Lowland Forest, Khe Nuoc Trong has long been at risk from logging and illegal poaching. But from 2014 onwards, your support to the Carbon Balanced programme has enabled Viet Nature to make huge strides towards its longterm protection.

This project has now been integrated into a national scheme by the Vietnamese government and WLT is therefore no longer selling carbon credits from this project. As our longest-running Carbon Balanced project has therefore drawn to a close, we'd like to take this opportunity to celebrate everything you have helped achieve over the past decade. Together, your support has provided £1.34 million and made a huge difference to the future of this forest, its wildlife and people. But most importantly for Carbon Balanced, it has made a real and tangible

difference to tackling climate change by reducing illegal logging. Read on for the biggest wins from this ten-year period, all of which were made possible by you.

Official Nature Reserve designation

In 2021, the Vietnamese government announced a major win for the Khe Nuoc Trong, with its official designation as a Nature Reserve – the highest level of government protection. The move came following 10 years of tireless campaigning by Viet Nature, supported by Carbon Balanced funding, and puts the conservation of its wildlife front-and-centre.

"While the previous status of Watershed Protection Forest already protected the trees from logging, it didn't have any mandates for wildlife conservation. The new status puts biodiversity protection as a key objective - the level that its outstanding biodiversity deserves. We will now be able to access a higher level of funds for conservation from local as well as national governments." Pham Tuan Anh, Viet Nature President and Co-founder

Major reduction in illegal hunting and trapping

Over the course of this project, Viet Nature have worked tirelessly to lower levels of poaching and illegal wildlife trapping within Khe Nuoc Trong. This has been achieved through Viet Nature's dedicated team of rangers who undertake daily forest patrols, each year racking up thousands of kilometres between them. Being wellrespected members of the local community, they are also uniquely placed to galvanise support for the protection of these forests and their wildlife. This includes tackling the illegal bushmeat trade and, in 2023 alone, they helped remove 3,082 traps and snares from the forest, providing a lifeline for many species, including the Sunda Pangolin and Large-antlered Muntjac.

This direct action is important but not enough on its own. That is why these activities are complemented by two community protection groups which, funded by the Carbon Balanced programme, have together run numerous awareness campaigns and events to reduce the demand for illegal bushmeat.

Delivering tree seedlings to reduce illegal logging

Since 2014, Viet Nature have provided 13,670 seedlings of native hardwood timber species to over 160 households in the villages of Kim Thuy and Vinh O. Once fully grown, these trees provide abundant timber, thereby reducing demand on the nearby Khe Nuoc Trong forest. Thanks to the success of this initiative and funding for enhanced forest patrols, the rate of illegal logging within the reserve has now fallen substantially.

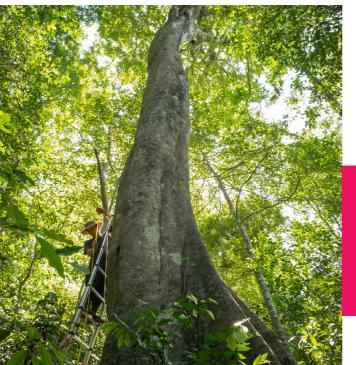
Supporting certification by the Forest **Stewardship Council**

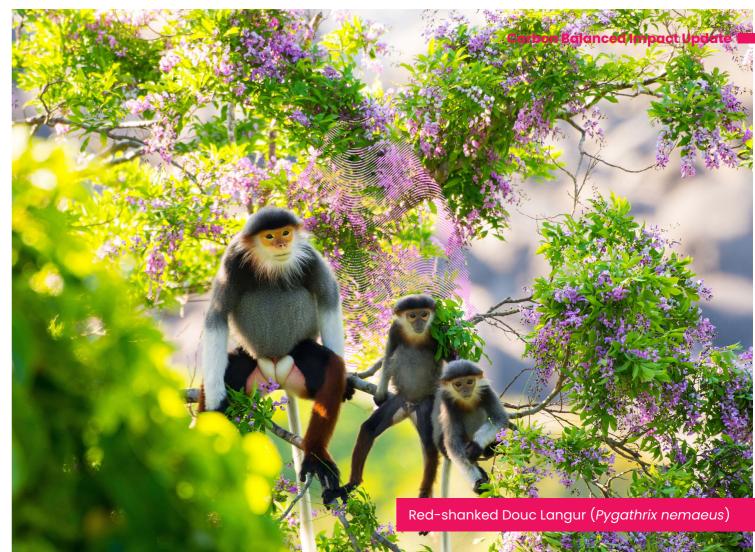
With Carbon Balanced funding, Viet Nature has been providing technical and financial support for smallscale Acacia plantation owners. With this assistance, the plantation owners have been able to obtain higher prices for their crop by extending the rotation period from 2-3 years to 5-8 years. These older more mature trees are sold for wood instead of low-profit pellets, thus tackling rural poverty - the main driver of forest degradation in this region.

Since these longer-rotation farms are also more sustainable, Viet Nature has been helping plantation owners to register their crop as Forest Stewardship Council (FSC) certified. Today, 1,756 hectares (4,339) acres) of acacia plantations across three districts are FSC-certified. This includes 765 hectares (1,890 acres) adjacent to Khe Nuoc Trong within the Le Thuy district, spread between 93 households of which 34 belong to the Indigenous Bru-Vân Kiều ethnic minority.









Support of the Dong Chau-Khe Nuoc Trong Management Board

Your Carbon Balanced funding has also supported the development and running of the Dong Chau-Khe Nuoc Trong Management Board, a local governing body dedicated to the protection of this forest. This local partner now has the investment and resources needed to continue delivering high-quality conservation on the ground.

Wildlife monitoring

Since 2016, Carbon Balanced funding has supported wildlife monitoring within Khe Nuoc Trong. This has included a total of 10 camera trap surveys as well as regular surveys of three of the reserve's Critically Endangered indicator species, the Southern White-cheeked Gibbon (Nomascus siki), Vietnamese Crested Argus (Rheinardia ocellata), and Red-shanked Douc Langur.

Viet Nature is currently compiling all this information into a comprehensive Biodiversity Report. Once complete, this document will provide a record of all the wildlife recorded in this forest over the last eight years. This report will not only be extremely valuable scientifically but also for garnering further conservation support going forward.

This partnership with Viet Nature supports the following Sustainable Development Goals (SDGs):

















