

## Protecting Peru's Amazonian Peatlands for People, Nature and Climate



"The peatlands of the Peruvian Amazon are important because they house resources for the local population and their livelihoods, and because they are key for sequestering carbon" WCS Peru. Photo ©Diego Perez – WCS Peru

The Amazon Basin contains the largest forest cover (approx. 5.8 million  $\text{km}^2$ ) and river (220,000m<sup>3</sup>/s) in the world; it is one of the most biodiverse places on the planet; it contains the largest wetland area on earth, and it is therefore the world's largest freshwater ecosystem. All of this serves to sustain the economy of the Amazon population.

Peatlands are a type of wetland which, among other functions, store carbon thanks to their accumulation of deep underground peat deposits. Peru boasts peatlands from its Pacific coast all the way to the Amazon Basin, which is one of the largest peatland areas in the tropics. 28.2% of the Peruvian Amazon is made up of wetlands, with peat soils covering a total of 7,540km<sup>2</sup>, and recent studies have extended their known distribution by 61% within the Pastaza Basin. It is important to note that only 15% of the area's unique pole forests, a wetland with a high peat content, lies within a protected area, while 26% forms part of indigenous territories, for example the community of Nueva York in the Tigre River Basin in the Loreto region.

There are different kinds of peatlands in the Amazon – 60% are minerotrophic, fed by surface water, groundwater and precipitation; the remaining 40% are ombrotrophic, depending exclusively on rainfall. Both kinds are key to regulating the water cycle – they are repositories where water supplies are formed, stored and recovered, and they improve water quality through interactions between the water and the vegetation, among other ecosystem services.

These peatlands are rich in flora and fauna and home to species such as monkeys, macaws, tapirs (Tapirus terrestris), white lipped peccaries (Tayassu pecarí), agouti (Dasyprocta spp.) and tortoises (e.g. Chelonoidis *denticulate*), as well as a variety of fish. The peatlands take the form of open swamps, forest marshes or unique swamp pole forests. The palm swamps and open swamps are dominated by the aguaje (Mauritia flexuosa, Arecacaea). The swamp pole forests have exceptional carbon density despite being less biodiverse are dominated by thin-trunked ligneous species adapted to nutrient-poor soils.



Among other species of fauna, the Tapir (Tapirus Terrestris) roams the peatlands in search of food and water. Photo ©Pablo Puertas – WCS Peru

### Peatlands and People

Local populations have ancestral relationships with the peatlands, which are interlinked with profound aspects of the different indigenous cultures, from daily life (water, food, fibre, building materials etc.) to the realm of the sacred, worldview and well-being. Of all the

resources offered by peatlands, the aguaje deserves a special mention as food for peatland fauna as well as a fundamental part of local populations' diets, and as a source of income.

The importance of aguaje to the people of Loreto, in the northern Peruvian Amazon, is reflected in the plant's name in local Indigenous languages – for example, the Kukuma call it the "bread tree", since both their population and many forest species depend on these fruits for nutrition, with an estimated 50 tonnes consumed per day in the Peruvian Amazon. These communities hold a wealth of traditional knowledge about the sustainability and wise use of peatlands.

Wildlife Conservation Society (WCS) Peru works to identify suitable approaches that support the protection and sustainable use of peatlands based on traditional knowledge and informed by local communities. WCS is currently supporting the communities of the Marañón River in the production and sale of aguaje oil for cosmetic use, and in crafting artisan products using the fibre of the chambira palm, ensuring the sustainable management of the ecosystems in which these trees grow.

# **Threats facing peatlands**

<u>The threats facing Peru's peatlands</u> are largely the same as those facing its tropical forests: land-use changes and infrastructure development in the Amazon have already had a sizeable impact on peatlands. The construction of roads, such as a new proposed 700km highway between lquitos and Saramiriza, have both ecological and social impacts. The proposed road would cross approximately 13 rivers and open up new areas to settlement and rapid access to urban markets. This would threaten the hydrology of the Abanico del Pastaza peatlands in Loreto, the largest Ramsar site in the Peruvian Amazon, and increase the pressure on their resources and ecosystem services, potentially driving unsustainable harvesting practices if not properly regulated.

WCS Peru has been producing information about the <u>wetlands in Loreto</u> to increase understanding of how they function, in order to identify the impact of different extractive and infrastructure development projects. As such, WCS Peru has been working at the regional level in Loreto on mitigating the impacts of infrastructure through territorial planning and development instruments, as well as on the national level, incorporating sustainability criteria into Peru's infrastructure planning instruments.

Climate change is another direct and significant threat to peatlands, impacting their water levels and dynamics. Rising temperatures, droughts and changes in precipitation patterns will affect all peatlands, whether they depend on rain, rivers or both.

These threats take on a greater significance because peatlands are particularly fragile ecosystems which can be difficult to restore, and they form over thousands of years and hold precious irrecoverable carbon. The formation of peat requires specific conditions such as a low topography and a high water table. Their drainage or disturbance would cause serious

degradation and result in the release of greenhouse gases through the oxidation of carbon accumulated over millennia. Protecting peatlands is undoubtedly one of the key nature-based climate solutions necessary to achieve the Paris Agreement goal of keeping global average temperature increase below 2°C. Peatland protection can be compatible with the sustainable use of these ecosystems, and this knowledge and understanding needs to be further shared and promoted.

WCS has been working hard in partnership with Research Institute of the Peruvian Amazon (IIAP) to increase knowledge about these <u>critical ecosystems</u> including by <u>mapping the carbon</u> <u>content</u> of some peatlands, and by producing communication materials <u>like this video</u> to help more people learn about their existence, their functions, how they are formed, and to encourage them to be properly valued for their important role in mitigating and adapting to climate change, sustaining biodiversity, and supporting human well-being.

WCS Peru concluded: "The peatlands of the Peruvian Amazon are important because they house resources for the local population and their livelihoods, and because they are key for sequestering carbon."

Dianna Kopansky, Global Peatlands Coordinator at UNEP, commented: "Peatlands are valuable for so many reasons and need to be conserved and sustainably managed. Working with indigenous and local communities of Loreto to deeply understand the peatlands and at the same time identify solutions and livelihood opportunities that include investing in peatlands' sustainable management is important. We look forward to the outcomes of this important work by WCS and partners helping to articulate locally-specific best practice that will result in regional and global multiple benefits."

Learn more about these ecosystems here:

Amazonian peatlands: important ecosystems for the planet



This release is part of the Global Peat Press Project (GP3) campaign, bringing together international partners to highlight the importance of peatlands as vulnerable but valuable ecosystems. It is a coordinated media outreach from the UNEP's Global Peatlands Initiative (GPI) and the North Pennines AONB Partnership to promote the UN Decade on Ecosystem Restoration (2021-2030). It was conceived to raise awareness and enthusiasm about the role of peatlands in climate action in the run-up to the UNFCCC COP26 in November, and has now pivoted to focus on the vital importance of peatlands for nature, aiming to build momentum and interest in advance of the Convention on Biological Diversity (CBD) COP15 in April next year. A relay of stories from peatland projects worldwide, GP3 started with the UK, as the host of COP26, which took place in Glasgow, Scotland.

The relay has already featured:

- the North Pennines AONB
- the Care-Peat project in Belgium
- NUI Galway/ Insight Centre
- Five EU transnational projects (Carbon Connects, Care-Peat, DESIRE, LIFE Peat Restore, and
- CANAPE)
- Bax & Company who straddle the UK, Spain and The Netherlands
- Ulster Wildlife
- The Lancashire Wildlife Trust
- The GPI and EUROSITE Peatlands Social Media Campaign
- NABU
- Moors for the Future Partnership
- Metsähallitus with its Hydrology LIFE Project
- Natural Resources Wales with the LIFE Welsh Raised Bogs Project
- Community Wetlands Forum and the Landscape Finance Lab
- Terra Motion
- Green Restoration Ireland Coop (GRI)
- a major restoration effort in Belarus recognized by the Ministry of Natural Resources and
- Environmental Protection of the Republic of Belarus
- a second release from Ulster Wildlife
- The World Conservation Monitoring Centre (WCMC) at the UN
- Griefswald Mire Centre in Germany
- Conservatoires d'éspaces naturels in France
- the Cairngorms National Park, Scotland
- a second contribution from the North Pennines AONB
- CINEA LIFE
- Baltic Environmental Forum Lithuania
- Yorkshire Peat Partnership
- APB-BirdLife Belarus
- Frankfurt Zoological Society
- Tompkins Conservation and Rewilding Argentina

- Wetlands International
- Moors for the Future Partnership
- The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat
- Wildlife Conservation Society Canada

and now the baton is held by Wildlife Conservation Society Peru.

*Join us* – share, learn, inspire, experience and act for peatlands, people and the planet. Follow and share using *#PeatlandsMatter* and *#GenerationRestoration*.

#### Notes to the Editor:

#### About Wildlife Conservation Society Peru:

Wildlife Conservation Society (WCS) is an international organization working in Peru since 1969 promoting the integrated management of biodiversity, the sustainable use of natural resources and the conservation of species and natural landscapes. Learn more about us and our work on our website.

#### About the Global Peatlands Initiative (GPI):

The Global Peatlands Initiative is an international partnership launched at the UNFCCC COP in Marrakech, Morocco, in late 2016. Led by the United Nations Environment Programme (UNEP), our goal is to protect and conserve peatlands as the world's largest terrestrial organic carbon stock and to prevent it being emitted into the atmosphere.