

Saving Peat for Less Heat!

An update

Emissions from drained and degrading peatlands (organic soils) are almost double the amount of CO₂ emissions from aviation¹, even without skyrocketing emissions from peat fires. This briefing shows the progress on tackling peatland emissions against a roadmap we set-out with three global conventions in 2015. We showcase examples of initiatives leading the way to safeguard and restore peatlands and call on countries to act on peatlands.

Peatlands and climate change

Despite the growing recognition of the importance of peatlands for climate change mitigation and adaptation and biodiversity conservation, they are subject to degradation worldwide. Some 15% of these peatlands have been drained for agriculture, forestry and grazing, which leads to oxidation and the release of the carbon stored in their soils. Degrading peatlands contribute at least 5% to the total global anthropogenic emissions² despite covering only 3% of the global land surface. These emissions can be reduced by rewetting drained peatlands and implementing alternative forms of use, such as paludiculture (wet peatland use)³. The Nationally Determined Contributions (NDCs) submitted by countries either do not recognise or do

not quantify the contribution of peatland restoration and wise use to mitigate the impacts of climate change.

Socio-economic disaster

Besides its disproportionately high contribution to climate change, peatland degradation has other important consequences with major social and economic effects. Drained peatlands are extremely fire prone, and fires have repeatedly destroyed millions of hectares and impacted the health of people and the economy. Loss of peat soil due to oxidation and fire results in subsidence of the peatland, which in coastal lowlands brings the land surface down to sea or river level and eventually leads to frequent or even permanent flooding and loss of productivity.

We call for:

- conservation of intact peatlands
- phasing-out drainage-based peatland use, and
- peatland restoration for nature or alternative economic land-uses.

1. Aviation generated 724 million tonnes of CO₂ in 2014. This is around 2% of the 36 billion tonnes of CO₂ generated by human activities every year. Air Transport Action Group, September 2015.
2. Joosten, H. 2009. The Global Peatland CO₂ Picture. Peatland status and emissions in all countries of the World. Ede, Wetlands International. 10 pp.
3. Greifswald University, 2012. Paludiculture: Sustainable productive utilisation of rewetted peatlands.

Degraded peatland landscape in West Kalimantan. Photo by Reza Lubis



Wetlands
INTERNATIONAL

Progress on roadmap

Global Peatland Hotspots Map

Global Peatland Hotspots Atlas

International collaboration to share knowledge and tools

Finance for accelerating action in peatland hotspots

Global Peatland Hotspots Map

For several countries peatland emissions constitute a significant part of their total emissions. The Global Peatland Hotspots Map published in 2015⁴ shows that:

- 25 countries are together responsible for 95% of global emissions from peatland drainage, excluding fires (see figure 1). Fires are particularly significant contributors to emissions in Indonesia and the Russian Federation.
- In 25 countries emissions from peatland degradation are over 50% of the emissions from fossil fuels and cement production combined, hence peatland emissions are of national significance.
- There is considerable overlap between the list of countries of global importance and the list of countries where peatland emissions are of national importance (15 countries).
- In an additional 25 countries emissions from peatlands equal 10-50% of the emissions from fossil fuels and cement.

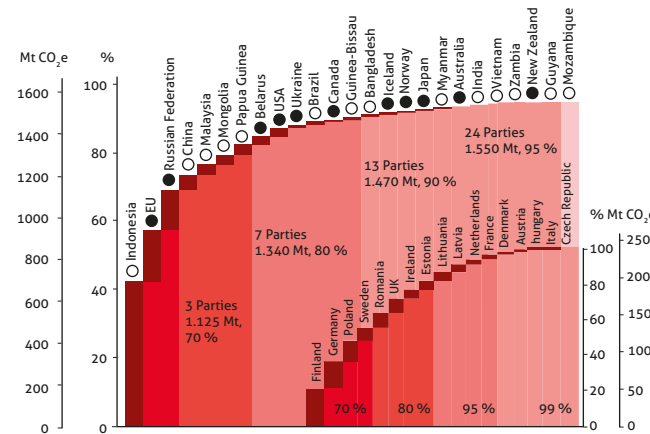


Figure 1. Key Countries with annual emissions (without fires) from drained organic soils (peat). By Greifswald Mire Centre.

Peatland restoration and sustainable use in Indonesia

The government of Indonesia has established the Peatland Restoration Agency (BRG) which aims to restore 2.4 million hectares of peatlands by 2020. We work with BRG and the Ministry of Environment and Forestry to provide technical guidance and advice on peat management and restoration. This will help to prevent huge amounts of greenhouse gas emissions, fires and flooding. However, in other areas, oil palm and pulp wood plantations continue to threaten sustainable development of lowland peatlands by draining and degrading peatlands. We advocate for phasing-out drainage based plantations on peatlands and engage with stakeholders to enhance their knowledge on peatland management and jointly find solutions, such as paludiculture. We recognise the importance of working with local communities and actively support them through capacity building and providing funds for managing peatlands well.

Wetlands International is one of the key partners of PT Rimba Makmur Utama in the effort to restore and conserve 300,000 ha of peatland forest in Katingan, Central Kalimantan. This project is currently the biggest Verified Carbon Standard approved REDD+ project in the world, with potential emissions reductions reaching 7 million tonnes of CO₂e per year, creating sustainable development opportunities for people and restoring valuable ecosystems and habitat for endangered wildlife.

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Peat sampling, Katingan, Central Kalimantan. Photo by Reza Lubis

Implementation: safeguarding and restoring peatlands

Global Peatland Initiative

Wetlands International is a member of the Global Peatlands Initiative. This initiative brings together key UN agencies, governments, and NGOs to provide support to key countries for the conservation, better management and restoration of peatlands, and to facilitate South-South cooperation. In this way the Initiative will contribute to several Sustainable Development Goals, including by reducing greenhouse gas emissions, maintaining ecosystem services and securing lives and livelihoods through improved adaptive capacity. It aims to better map and understand the issues related to peatland degradation and calls for action from governments to address them.

More information: globalpeatlands.org

Restoring peatlands in Russia

This project, supported by the German government (IKI), represents one of the largest ecosystem restoration projects in the world, dealing with large-scale ecological rewetting of abandoned cutover peatlands in the Russian Federation. Rewetting helps restore peatland ecosystem services, reduce fire danger and CO₂ emissions, promotes mitigation of climate change and conserves biodiversity. To date, over 35,000 hectares of drained peatlands have been restored using ecological methods, with another 10,000 hectares currently underway. The total amount of emission reductions achieved is currently estimated at 175,000 to 220,000 ton CO₂e per annum.

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Dam in Taldom, Moscow region, Russia. Photo by Irina Kamennova

Capacity building for policy & practice and upscaling

Strategic planning and restoration pilot in Mongolia

In collaboration with the government of Mongolia and funded by the Asian Development Bank, Wetlands International developed a Strategic Plan for peatland restoration and sustainable management in Mongolia. Mongolia's peatlands preserve and depend on permafrost, and regulate water in riverine highland landscapes, which prevents desertification and supports livelihoods and biodiversity. They are also the most productive pastures and important carbon stores. During the last 50 years, half of the peatlands and associated permafrost have been lost due to both climate change and human impact from overgrazing, mining, infrastructure development and unsustainable water use. Current rapid loss of peatlands and permafrost leads to disasters for people and their cattle during long periods of droughts. The Strategic Plan shows the way for sustainable peatlands management in Mongolia including conservation and restoration. Restoration technologies have been tested within the pilot project. The strategic planning approach could be expanded to other regions and countries with similar peatland related problems, such as Central Asia and China.

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Animals grazing on peatland - Tzagan, Mongolia. Photo by Jill Heyde



Sloping bog near Tsagan lake, Terchijh.
Photo by Tatiana Minayeva

What does this mean for the global climate agreement?

- Peatlands should be treated as lands with a high mitigation potential that also offer strong opportunities for climate adaptation, biodiversity conservation and sustainable development. With this in mind they should be given priority for restoration and wise use in the NDCs and in national policies and strategies of countries with peatlands.
- As peatland emissions are disproportionately large, but concentrated, it is essential that accounting for peatlands becomes mandatory after 2020 – either through wall-to-wall Agriculture, Forestry and Other Land Use (AFOLU) accounting (accounting for 'Wetland drainage and rewetting').
- The AFOLU sector should use similar reporting and accounting rules as the other sectors to guarantee comparability and transparency.
- Countries should report greenhouse gas emissions and removals from wetlands by using the Intergovernmental Panel on Climate Change (IPCC) supplement on wetlands for national greenhouse gas inventory guidelines, which is a necessary first step for assessing mitigation potential.
- The SBSTA 47 negotiations on agriculture should agree on phasing out the cultivation of feedstock for the production of biofuels, bioliquids, biogas or bioenergy on drained peatland. However, its production should be explicitly allowed on rewetted peatlands, to encourage the rehabilitation of drained peatlands to sustainable alternative wet peatland use (paludiculture).
- It is paramount to prevent peatland drainage and to incentivise rewetting of peatlands in non-Annex 1 countries through REDD+ and Nationally Appropriate Mitigation Actions (NAMAs).
- A global mechanism on 'Reducing Emissions from Peatland Degradation' is called for, that would:
 - link peat hotspot countries with regional and international peatland professional networks and organisations
 - enhance policies and efforts for accounting, reporting, verifying and monitoring peat-related greenhouse gas emissions, and
 - mobilise finance for large scale implementation of peatland conservation and restoration programmes and integrated management of peatland landscapes.

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