



Briefing paper: accelerating action to Save Peat for Less Heat!

Emissions from drained and degrading peatlands (organic soils) amount to almost double the amount of CO₂ emissions from aviation¹, even when skyrocketing emissions from peat fires are not included. This briefing paper shows where the most urgent action is needed and presents a roadmap and policy recommendations for accelerating action.

Peatlands cover only 3% of the global land surface. Some 15% of these peatlands have been drained for agriculture, forestry and grazing, which leads to the release of the carbon stored in their soils. Degrading peatlands contribute no less than 5% to total global anthropogenic emissions². These emissions can be reduced by rewetting the drained peatlands, which can involve alternative forms of utilisation³.

Rewetting prevents soil subsidence and eventual flooding and salt water intrusion as well as soil erosion and desertification. Rewetted peatlands store water and so helps adaptation to a changing climate. The wet peatlands can be sustained in a productive state, so reducing pressure on remaining land, and helping to sustain valuable wildlife habitat.

Although the problem has recently been emphasized by IPCC, FAO and some individual parties, initiatives to reduce emissions from the land sector tend to largely overlook peatlands. The publication of IPCC Guidelines on organic soils has raised interest in proper reporting. Effective rewetting approaches and methods have been tried and tested. Now, funding to conserve and restore the productive, hydrological and ecological functions of peatlands is urgently needed.

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. IPCC 2014. 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands. Geneva, IPCC.

Roadmap to accelerate action

Peatland hotspot countries, global conventions, climate funds, the private sector and civil society need to collaborate in order to kickstart action to curb the alarming emissions from peatland oxidation.

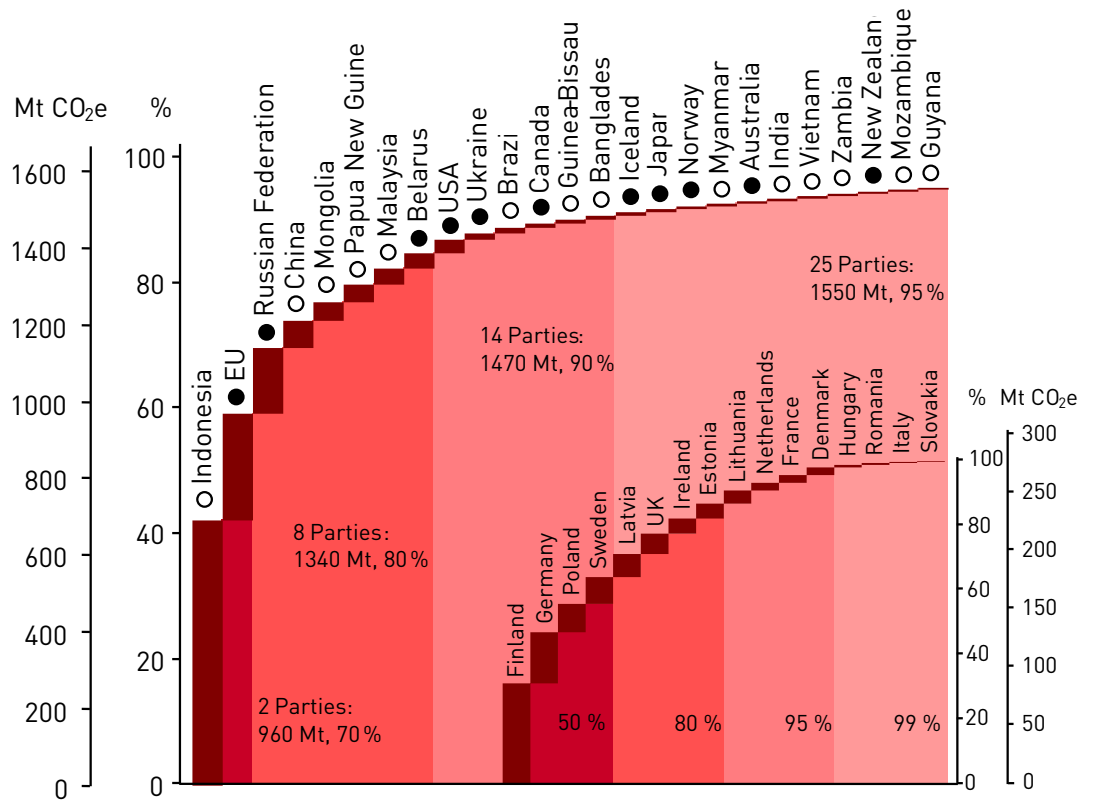
We propose the following roadmap:

- Hotspot analysis shows which countries should take action to reduce global and national peatland emissions.
- An online Global Peatland Hotspot Atlas makes visual the carbon stocks, emissions of peatlands and risks associated with drainage.
- International collaboration mobilises and targets finance through involving funding agencies, countries, expert organisations, private sector and civil society to identify actions and start peatland conservation, restoration and sustainable management.
- Capacity building and upscaling of national priority actions, approaches and methods for conservation, restoration and sustainable management of peatlands is achieved through integration in national development and investment plans.
- Large scale implementation via major programmes through partnerships of government, private sector and civil society for:
 1. Conservation of intact peatlands
 2. Restoration of degrading peatlands
 3. Phasing out of unsustainable land-use, and
 4. Phasing in of alternative, sustainable commercial use of rewetted peatlands (paludiculture).



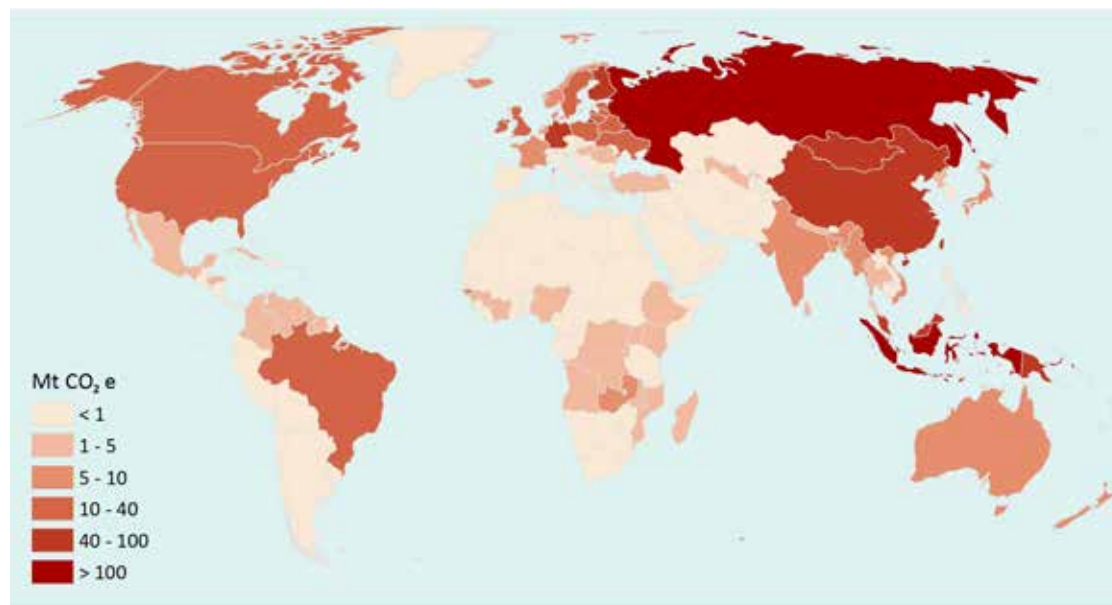
GRAPH Key Parties with emissions (without fires) from drained organic soils (peat).

The graph shows the amount of greenhouse gas emissions in a cumulative way in Mt CO₂e per year (Mt = 1 000 000 tonnes) and as percentage of the total global emissions from degrading organic soils. Emissions are shown for the 25 Parties responsible for 95 % of the emissions in descending order. White dots denote non-Annex 1 Parties, black dots Annex 1 Parties. Red shades indicate where the 70, 80, 90 and 95 percent marks are crossed. The inset depicts the relative contributions of the 16 EU countries that are together responsible for 99 % of EU and 17 % of global emissions from organic soils.



MAP 1 Emissions from Peatlands per country (in Mt CO₂e)

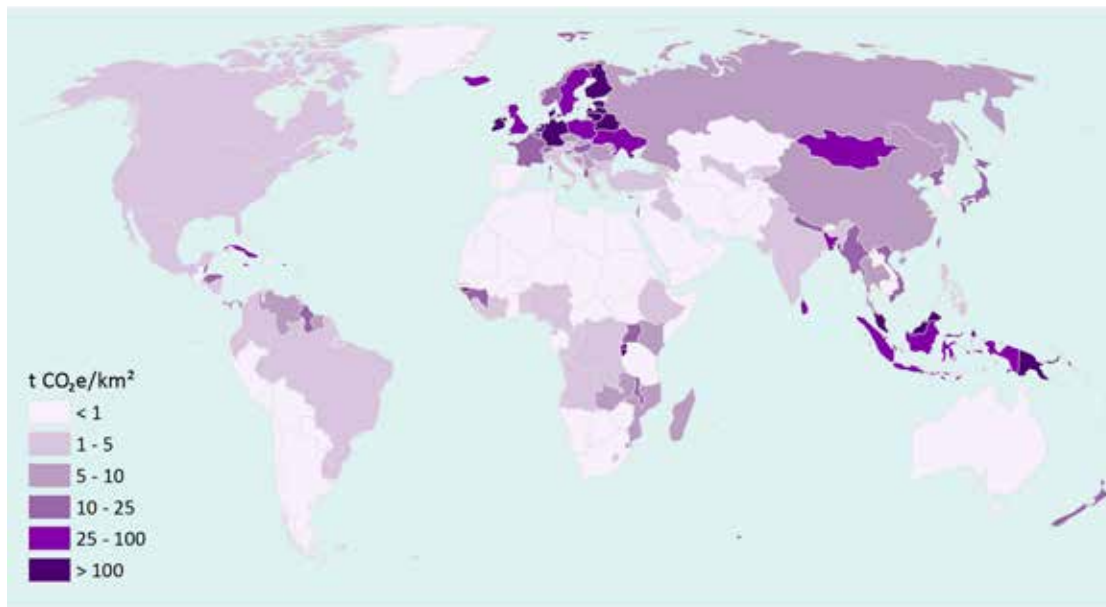
indicating countries that contribute most to global peatland emissions and where it is most urgent to undertake peatland rewetting action.



MAP 2

Emissions from peatlands per unit national land area (in tCO₂e/km²)

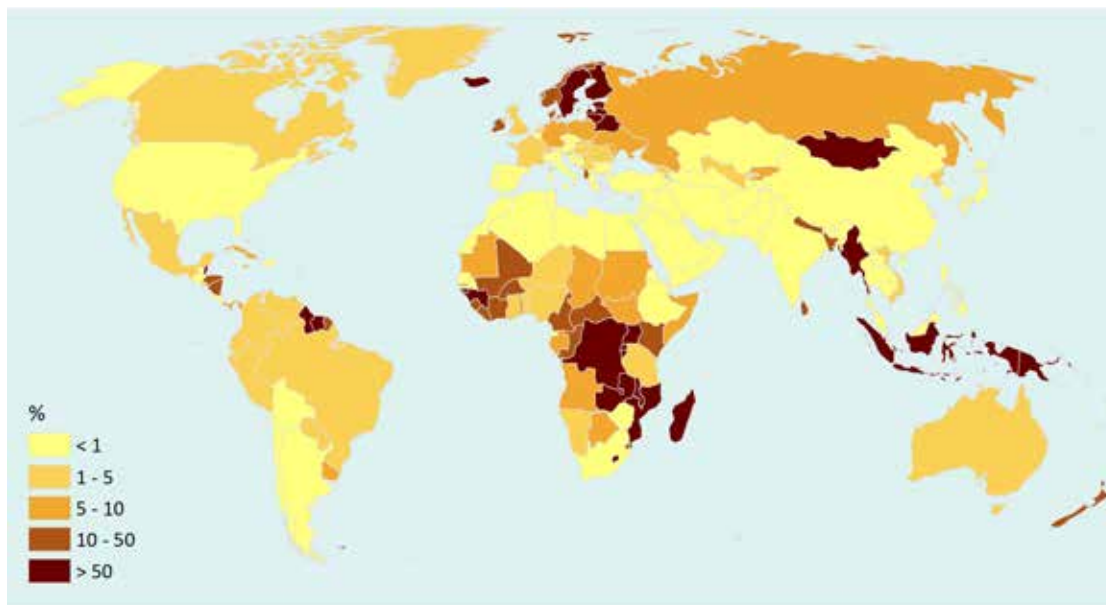
indicating where peatland emissions are most relevant for land use policies.



MAP 3

Peatland emissions as % of national fossil fuel and cement emissions

indicating the importance of peatlands for national climate policies.



Facts from the Peat Hotspot Maps:

- 25 countries are together responsible for 95% of global emissions from peatland drainage, excluding fires. Fires raise the importance of particularly Indonesia and 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. Most of these countries are developing countries in Africa, Asia and the Americas, but this list also includes seven countries from Europe, all of which Annex-I.
- In an additional 25 countries emissions from peatlands equal 10-50% of the emissions from fossil fuels and cement.

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.
- As peatland emissions are disproportionately large, but concentrated, and offer a large reduction potential, it is essential that accounting for peatlands becomes mandatory after 2020 – either through a wall-to-wall AFOLU accounting or by focussing on this hotspot (accounting for Wetland Drainage and Rewetting).
- The AFOLU sector should use similar reporting and accounting rules as the other sectors to guarantee comparability, fungibility and transparency.
- It is paramount to prevent peatland drainage and to incentivise rewetting of peatland in non-Annex 1 countries through REDD+ and NAMA's.
- 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 organizations
 - 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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Methods:

Data on area and land use of drained organic soils were collected from the 2014 National Inventory Submissions and the latest National Communications to the UN-FCCC, from the Statistics Division of FAO, and from maps and scientific publications. All data were integrated in a comprehensive update of the Global Peatland Database. Conflicting information was cross-checked using satellite imagery. We used emission factors for all relevant gases (CO₂, CH₄ and N₂O) from the 2013 IPCC wetlands supplement. For high altitude areas in the tropics we applied emission factors for the temperate climate zone. Emissions from fossil fuel and cement were taken from the Global Carbon Project (<http://www.globalcarbonproject.org>). Further information on the Global Peatland Database can be found at <http://tiny.cc/globalpeat>

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