

Briefing Note

30 Good Reasons to Safeguard Peatlands!

Results from the International Workshop

Peatland Conservation and Wise Use in the Context of Climate Change: A Contribution to the Implementation of the Ramsar Convention

held at the

International Academy for Nature Conservation, Island of Vilm (Germany),
11th – 14th September 2016

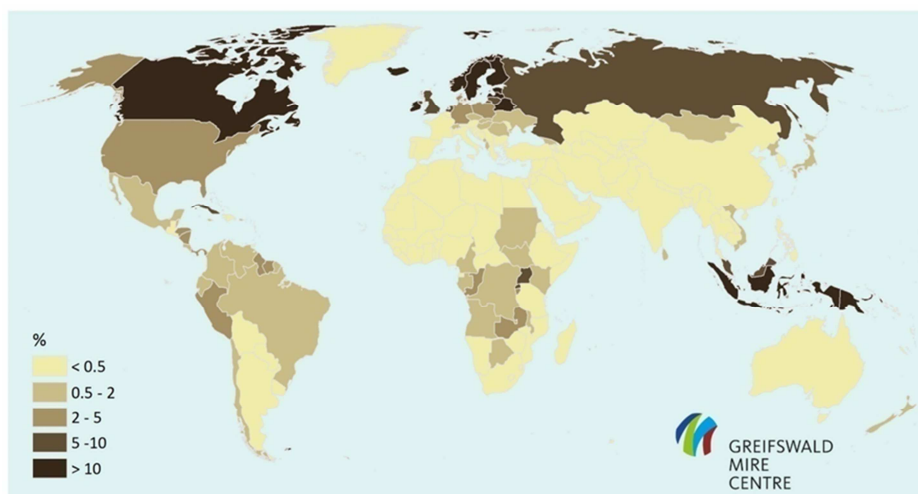


Fig. 1: Global distribution of peatlands/organic soils (Greifswald Mire Centre).

Peatlands and climate change – crucial facts

1. Peatlands **cover** 3% (4,5 million ha) of the global land area, or one third of the global wetland area.
2. Peatlands **store** as much carbon (550 Gtonnes) as all terrestrial biomass and twice as much as all above-ground forest biomass.
3. Peatlands **contribute** to climate change mitigation and adaptation through carbon sequestration and storage and by providing important climate-smart livelihood options through sustainable forms of paludiculture.
4. Peatlands also **fulfil services**, which are important for human life and well-being, including storage and purification of water, biodiversity conservation, and reduction of flood risks.
5. However, as a result of drainage, peatland ecosystem services are jeopardized and peatlands **become a major source of net greenhouse gas emissions**, produced by both microbial peat oxidation and peat fires.

Peatlands - a concern for the Ramsar Convention on Wetlands

6. At the 2015 Conference of the Parties (COP12) of the Ramsar Convention on Wetlands in Punta del Este, Uruguay, the Contracting Parties discussed the importance of peatlands and adopted *Resolution XII.11 on Peatlands, climate change and wise use*.
7. The Resolution encourages Contracting Parties to foster the maintenance of peatland ecosystem services for future generations, building on Ramsar *Resolution VIII.17 (2002)*.
8. Ramsar *Resolution VIII.17* produced *Guidelines for Global Action on Peatlands*, providing guidance inter alia on the development of policy and legislative instruments, adaptive management, and international cooperation.

Selected Workshop findings

9. The **workshop ascertained** that:
 - **Drained peatlands emit greenhouse gases**, which count as 5% of the total global anthropogenic greenhouse gases (GHG). These emissions remain largely unrecognized as a result of undifferentiated treatment of the land use sector (where forest sinks compensate for peatland sources). More than 95% of all peatland emissions are caused by only 25 UNFCCC parties (incl. the EU).
 - **Rewetting drained peat soils contributes to substantial emission reduction, it:**
 - a. stops soil degradation, subsidence, salt intrusion, and consequent loss of productive land,
 - b. improves water purification, meso-climate, flood control, and biodiversity,
 - c. is consistent with a wide variety of global and regional policy agreements,
 - d. contributes to emission reductions and closing the global emission gap (Global Emission Gap Report 2017),
 - e. only concerns a small part of total agricultural land. Reaching similar emission reductions in rice cultivation (CH₄), animal husbandry (CH₄), and fertilization (N₂O) will much stronger affect agricultural productivity,
 - f. does not imply discontinuation of agricultural use. Paludiculture allows continuing production while avoiding the environmental burden of drainage-based agriculture.
 - In 25 countries (18 Developing and 7 European Annex-I countries), emissions from drained peat exceed 50% of their total emissions from fossil fuels and cement. In an additional 25 countries, emissions exceed 10% of those from fossil fuels and cement. Hence, many countries could kick-start national emission reductions by focussing on peat soils.
10. Furthermore, the **workshop noted** that:
 - since *Resolution VIII.17 (2002)* considerable progress has been made in assessing distribution and status of peatlands worldwide (e.g. GMC-Global Peatland Database, FAO FAOSTAT database, CIFOR Global Wetlands Map),
 - 15% of the peatlands worldwide (650,000 km² or 0.4% of the total land area) has been drained, mainly for cropland, grazing land, and forestry (90% of the drained peatlands are found in Asia and Europe),
 - detailed assessment of peatland location, extent, and drainage status is still 'work in progress', especially in tropical regions of Africa, Asia, and Central and South America,
 - the 2013 IPCC Supplement on Wetlands and its update provide robust emission factors for drained and rewetted peatlands worldwide,
 - current knowledge is sufficient for identifying hotspots of degradation and areas for action,

- the Ramsar Convention is the only global agreement explicitly dealing with peatlands, since *Resolution VIII.17* (2002) the Convention's peatland policy has progressed from opportunity-driven to more strategic approaches, simultaneously, consideration of and reporting on peatlands has greatly improved.
11. However, many Ramsar Contracting Parties are still insufficiently aware of the risks and opportunities that peatlands pose. Raising progress to implement *Resolution VIII.17* requires:
 - a. identifying remaining gaps in the Convention's framework and adequate strategies to fill them,
 - b. recognizing deficiencies in knowledge, information, priority setting, and activities,
 - c. refining Ramsar's currently implemented "questionnaire process" on peatlands by: improving the questionnaire format (tick boxes, limited free text, max. 3 p.), including questions on awareness of the Ramsar Global Action on Peatlands (CCGAP), national peatland assessment, reporting to other Conventions, and national implementation capacity,
 - d. providing external data (from global databases) on national peatland distribution and status with a request for verification,
 - e. seeking synergies and avoiding overlaps with reporting to other MEAs
 - f. promoting national peatland strategies and policies,
 - g. developing guidance for Contracting Parties for designating peatlands as Ramsar sites (especially for the tropics, STRP task 1.2).
 12. The Ramsar Convention has the authority and capacity– in cooperation with other multilateral environmental agreements - to deal in the international policy arena with peatlands, both drained and undrained.
 13. The Ramsar Convention should explore complementarities and synergies of targets and actions among the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), the UN Convention to Combat Desertification (UNCCD), the UNESCO World Heritage Convention (WHC), and the United Nations Sustainable Development Goals (SDGs).

Further opportunities for peatland restoration

14. Many peatland rewetting and restoration projects have been and are being implemented worldwide. They cover less than 1% of the globally drained peatland area and require rapid and massive scaling-up.
15. There is a role for the Ramsar Convention to collect information and elaborate comprehensive practical guidance for rewetting and restoration (STRP task 5.), differentiated for different biogeographic and climatic zones. A draft outline for a Technical Report was developed during this Workshop.
16. The lack of long-term monitoring seriously limits comprehensive evaluation of project results and proper formulation of lessons learned. This lack should urgently be addressed.
17. The rapid development of remote sensing technology and coverage will simplify wall-to-wall monitoring of peatland status. Remote sensing, however, still lacks the capability to directly assess the key peatland characteristics 'peat occurrence' and 'peat depth', which still largely have to be assessed by time-consuming field work.
18. **Paludiculture**, i.e. agriculture and forestry on rewetted and wet peatlands:
 - is a promising strategy to rewet peatlands while maintaining their agricultural production function and reinstalling lost ecosystem services,
 - still lacks sufficient pilot examples and company level demonstration projects with long-term business plans, but interest and research capacity is growing rapidly,

- requires adaptation of legal frameworks and incentives, which are not designed for and inadequate to cover this innovative land use practise,
 - so far offers limited opportunity for food production, however, paludiculture will contribute to food security when production of food is stronger concentrated on mineral soils and that of energy crops and raw materials on rewetted peatland.
19. The workshop also noticed that the correct attention to the climatic role of peatlands veils their important role for (all three levels) of **biodiversity conservation**, and that no global overview of peatland biodiversity and no comprehensive overview of key biodiversity peatlands and hotspots exist yet.
20. Also on a national level, only few countries have an up-to-date and integrative peatland policy with:
- adequate information on peatland distribution and extent as well as analysis and recognition of national responsibilities in an international context,
 - identification and adequate protection of key sites and clear indicators of peatland status,
 - best practical internal (active) and external (passive) management,
 - wall-to-wall monitoring by cost-effective methodologies,
 - comprehensive assessment of socio-economic opportunities and risks, including ecosystem services and perverse incentives,
 - elaborated strategies for Communication, Education & Public Awareness.
21. With respect to policies the workshop specifically observed a lack of:
- integrative policies for peatland management, frequently leading to conflicts between sectors, conflicting legislation, and perverse incentives,
 - coordination between (local) authorities and site managers, and
 - overlaps and conflicts between national and regional agreements.

Progressing with the peatlands agenda

22. The **workshop stressed the importance** of:
- a. promoting national policies for peatland management and peatland dedicated international directives,
 - b. harmonization of conventions, policies, methodologies, and definitions,
 - c. promoting participative planning processes (including all stakeholders),
 - d. education and public awareness raising, especially by accompanied excursions,
 - e. full cost accounting of peatland interventions, and
 - f. preparing for scenarios of future change.

Research needs and gaps

23. The **workshop identified the following gaps and needs**:
- objective criteria and guidance for choices to address conflicting aims, e.g. between various levels and scales of biodiversity or between different ecosystem services,
 - the development of better predictive models for the outcome of planned actions,
 - the development of practical proxies (incl. remote sensing) and methods for monitoring and valuing ecosystem services,
 - the realization of sufficient inter- and transdisciplinary critical mass in peatland research to address the ecological, economic, and moral aspects of peatlands in an integrated way,
 - the demands of future generations for ecosystem services provided by peatlands,
 - the transformative value and the educational role of peatlands.

Peatland restoration and long-term benefits

24. Peatland rewetting creates direct and long-term economic benefits by reducing economic losses and health problems by fire and haze, GHG emissions and climate change, land subsidence, land degradation and land loss, flood risk and water pollution and by improving water retention, supply and purification.
25. This wide variety of societal benefits, effecting stakeholders on various spatial, temporal and institutional scales (policy makers, civil society, private sector, finance sector), enables the application of a wide range of funding instruments, including - next to traditional incentives and government funding.

These **funding sources** could be:

- a. certification, labelling, and mark-up of products from rewetted peatlands,
 - b. microcredits for dedicated local action,
 - c. ecosystem restoration concessions (cf. Indonesia) for offsetting unavoidable High Conservation Value losses and carbon emissions,
 - d. various types of carbon credits and other payments for ecosystem services,
 - e. wetland mitigation banking,
 - f. biosphere reserve designation,
 - g. community investments,
 - h. a UNFCCC Reducing Emissions from Drainage of Peatland (REDraP) mechanism similar to REDD+,
 - i. Green Impact Bonds where public or private sector directly benefits from peatland investments,
 - j. CSR peatland funds, such as the NABU/Volkswagen International Peatland Fund,
 - k. a Global Peatland Fund, dedicated to peatlands, and financed by private donors and the Global Environmental Facility, the Worldbank, and the Green Climate Fund,
 - l. more general biodiversity/climate funds such as the Global Environmental Facility, or the German International Climate Initiative, which have already funded important peatland projects, with scope for further projects,
 - m. a funding source eligible to more strict application of the 'polluter pays' principle.
26. The finance sector may explore **business opportunities** of peatlands using as assets:
 - the urgency and large scale of the problems,
 - the spatial concentration enabling cost effective investments,
 - the necessary breakthrough of the positive feedbacks inherent to drained and degraded peatlands with respect to climate change ('emissions lead to more emissions') and livelihoods ('poverty leads to more poverty'),
 - the synergies between climate change mitigation and adaptation, production (cf. paludiculture), security/stability, and biodiversity,
 - the possibility to express peatland features in financial/investment language (peat grows for free and for ever, capital providing interest).

Finally workshop participants welcomed

27. the launch of the Global Peatlands Initiative (GPI) at UNFCCC COP22 in Marrakech, as a an umbrella and long-term commitment of major global governments, international organisations, and academia in addressing the peatland challenge,
28. the integrative role that the secretariats of the Ramsar Convention, the UNFCCC, and the CBD may play in governing the GPI,

29. a possible linkage of GPI with the Intergovernmental Panel for Biodiversity and Ecosystem Services (IPBES),
30. the introduction of a (tri-annual) 'State of the World's Peatlands' report as a long term involvement of CCGAP and GPI to improve global peatland management.

The workshop organisers - the German Federal Agency for Nature Conservation (Bettina Hedden-Dunkhorst), Ramsar Convention Secretariat (Tobias Salathé), Greifswald Mire Centre (Hans Joosten, Franziska Tanneberger) and the Ministry of Environment and Food of Denmark (Lars Dinesen) - thank the workshop participants for providing their vast knowledge and valuable inputs on peatland conservation, restoration, and wise use.

