International Tropical Peatlands Center

This document briefly outlines a new global peatlands institution to be based in Indonesia. This is also serve as preliminary draft and, as such, should be considered a starting point for getting the process underway.

MINISTRY OF ENVIRONMENT AND FORESTRY
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FORESTS MATTER

Rationale

Peatlands: A central challenge. Climate change is a defining dilemma of our times. Storing 30 to 40 percent of global soil carbon deposits on only 3 percent of the world's land surface, tropical peatland ecosystems are a key component for mitigating climate change, and their preservation is crucial. Yet, tropical peatlands are diminishing every day under the combined pressures of an advancing agricultural frontier (oil palm, rubber and pulp plantations, and aquaculture); extractive economic activities (gas, petrol and logging); climate change (more hurricanes and droughts, and evapotranspiration); growing human populations; infrastructure development; and pollution. The draining, clearing and burning of peatlands not only produces deadly toxic haze, but also endangers the multitude of critical ecological services these landscapes provide. It also has direct and dire consequences for human livelihoods, health and wealth. There is an urgent need for coordinated, interdisciplinary, science-based national and international political responses that juggle the development and climate objectives of tropical countries.

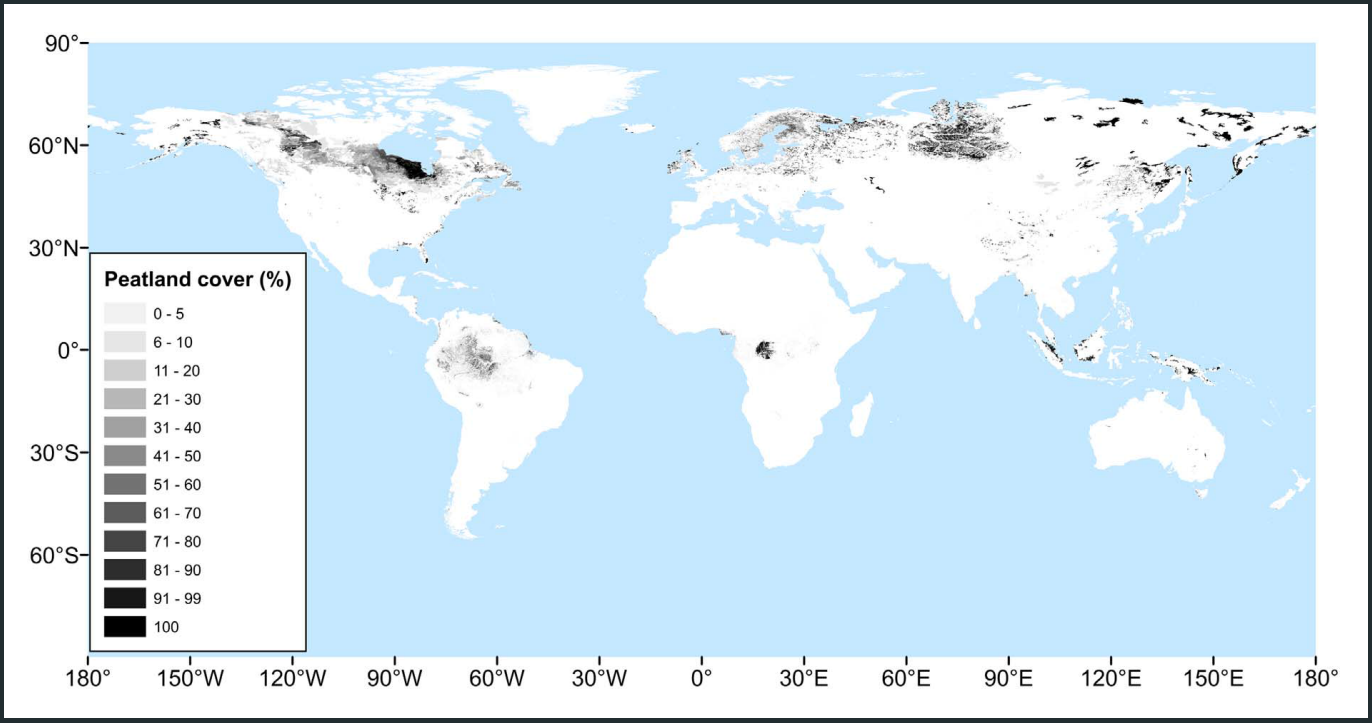
Tropical peatlands are found in more than 80 countries, yet they remain among the least understood and monitored of the world's ecosystems. Conducting new integrated research and development is paramount to informing proper prioritization between countries' sometimes competing climate and development goals, and finding ways for peatland conservation, management and restoration to serve as a plausible aid to both. Peatland management is more advanced in some countries than others. This offers valuable opportunities for South-South cooperation and the sharing of lessons learned in peatland policy- and decision-making processes.

Objectives

At this point in time, it is essential to establish an International Tropical Peatlands Center in the global South in order to:

1. Serve as a go-to space for **South-South cooperation** which supports the dissemination of strategies and practices for tropical peatland management, through coordinating and supporting collaborative international relationships and connecting different stakeholders;
2. Conduct and disseminate **scientific research** on tropical peatland management for sustainable development;
3. Become a **center of excellence** for tropical peatland research to support policy development; and
4. Provide **capacity building** and **technical services**.

The Center's main objective is to **ensure that policy makers, practitioners and communities have access to sound, credible and legitimate information, analyses, and all other tools needed to design and implement conservation and sustainable management of tropical peatlands.** The Center will seek to make effective, cost-efficient and equitable solutions more readily available; create the necessary enabling conditions for good policy; support national goals for sustainable development and climate mitigation and adaptation (e.g. NDCs); and provide international visibility to the participating partners and multiple donors successfully addressing peatland conservation, restoration and management to the benefit of people and the local and global environment. In the spirit of international, multi-stakeholder and multi-donor South-South cooperation, the Center is to be built on the principle of true cross-sector collaboration and integration, building a resilient and holistic platform for science, policy and practice, and attracting the best minds working on research and practice in this field.



∧ **Distribution of global peatlands.** The black shading classes indicate percentage peatland cover in Canada, where the source data were provided as grid cells rather than shape files; and regions where peatland cover was estimated from histosols of HWSD v1.2. Elsewhere, where shapefiles are freely available, individual peatlands and peat complexes are shown in solid black.

Source: Xu J, Morris PJ, Liu J, Holden J. 2018. PEATMAP: Refining estimates of global peatland distribution based on a meta-analysis. *Catena* 160(2018):134–140.

Priorities

The Center will endorse and support current initiatives such as the Global Peatlands Initiative (GPI), but will bring a new, distinctly science-based approach to the dialogue. As a physical entity, it will crystallize a home base for global tropical peatland science, sustained policy debates, capacity building efforts, international coordination, and strategy development.

International Tropical Peatlands Center activities will include the following:

1. **Compile best practices localized:** sustainable peatland management, improve livelihood, including multistakeholder engagement with an emphasis on gender and minority equity;

2. **Data field laboratory (observation center)** thorough Measurement, Reporting and Verification (MRV) for water level, subsidence and GHG emission, early fire detection and fire management;

3. **Producing accurate and precise data:** inventories and maps of tropical peatland resources (area, carbon stores, GHG emissions, deforestation/degradation rates, biodiversity, extractable and non-touchable assets), current levels of exploration, states of livelihoods, and analyses of current governance, policies, and institutional and legal frameworks;

4. **Reducing risks:** early-warning and risk management for fire and degradation, prioritizing actions that target the drivers of destruction;

5. **Finding new pathways for green development:** integrated planning for sustainable peatland management and deforestation-free value chains, and best management practices for peatland conservation, restoration and rehabilitation (rewetting, revegetation, paludiculture, agroforestry, sustainable forest and crop

management over peat), including for commercial purposes such as agriculture, oil and gas, logging and energy production;

6. **Ensuring participation and rights:** indicators for income generation and equality, public health, socioeconomic status of peatland-dependent communities, land tenure, and truly equitable participation of women and youth;

7. **Setting up the ITPC's management, governance and partnership structure, and physically establishing the center** in Bogor, Indonesia;

8. **Supporting policies and measures:** national and international policymaking including policies and means, NDCs, IPCC support etc., MRV for peatland monitoring and reporting, NAMAs for peatland mitigation, and NDC follow-up under the Transparency Framework of the Paris Agreement; and

9. **Dissemination, engagement and outreach:** Establish a strategy and undertake activities for dissemination, engagement and outreach of the ITPC and its knowledge products.

Outcomes

Expected outcomes are the establishment of a Center of Excellence for tropical peatlands; enhanced South-South cooperation; improved science-based, reliable and accurate knowledge documented through high-quality research and peer-reviewed publications; advanced and appropriated technologies to be implemented by practitioners; and robust policies and measures for peatland management.

Impacts

Expected impacts are preserved carbon stocks in sustainably managed peatlands, improving livelihoods and equitable incomes.

Organizational structure

Stakeholders with relevance to the International Tropical Peatlands Center include governments, international organizations, universities and research centers, the private sector, civil society, donors and practitioners. In line with the Government of Indonesia's considerable political interest in establishing such a center, the ITPC will be based in Indonesia. The Center will adopt a lean leadership structure, including a Coordinator and international Steering Committee, and will initially hire approximately 10 members of staff.

Priority activities (2019–2025)

Implementation Approaches and Key Priorities	Timeline 2019	2021	2023	2025
Main Goal: Governing peatland knowledge to ensure sustainable ecosystems and human wellbeing for national and international benefits				
Strategic Priority 1. Establishment and implementation of a tropical peatlands center				
Expected Outcomes: Establishment of an International Tropical Peatlands Center (ITPC) in collaboration with all stakeholders, and the implementation of research				
1.1 Mapping stakeholders' challenges and opportunities in coordination and consultation with all stakeholders				
1.2 Mapping stakeholders' contributions and commitments to the ITPC				
1.3 Mapping stakeholders' peatland management experiences				
1.4 Developing ITPC infrastructure, including establishing a secretariat				
1.5 Developing ITPC short-, medium- and long-term strategic plans				
1.6 Organizing and managing the ITPC				
1.7 Promoting the ITPC in the national and international communities				
1.8 Establishing ITPC communications, network, and outreach				
1.9 Develop a participation strategy where all stakeholders are represented, and an effective communication system is established among stakeholders				
1.10 Organize a general meeting with all stakeholders to present the above mapping exercises.				
1.11 Evaluate possible legal organizational structures for the ITPC and associated trade-offs				
1.12 Decide on and finalize the set-up of the physical facilities of the ITPC				
1.13 Decide on and legally formalize the organizational structure and associated roles of the ITPC (Board, committee, secretariat, members, etc)				
1.14 Identify financial measures for self-sustaining the ITPC in the near future				
1.15 Decide on and formalize the regulations of the functioning and management of the ITPC, including monitoring of performance and transparency				
1.16 Legally establish and launch of the ITPC before the end of 2019				
1.17 Clarify role, vision and mission of the ITPC orbiting around four main pillars: a. The ITPC will serve as a go-to space for South-South cooperation that supports the dissemination of strategies and practices for tropical peatland management, through coordinating and supporting collaborative international relationships and connecting different stakeholders; b. The ITPC will conduct and disseminate scientific research on tropical peatland management for sustainable development; c. The ITPC will become a center of excellence for tropical peatland research to support policy development; and d. The ITPC will provide capacity building and technical services.				
1.18 Finalize a short-term 5-year program and associated priorities				
1.19 Link the ITPC activities to Sustainable Development Goals and selection of milestones				
1.20 Assess the economic cost of and legal frameworks for various, alternative long-term sustained monitoring systems				
Strategic Priority 2. Implementing research on peatland management				
Expected Outcome: The generation of knowledge and technologies				
2.1 Inventorying (remote sensing, satellite imagery, peat characteristics, hydrology, geochemistry)				
2.2 Biodiversity and peatland conservation (biodiversity, peatlands, and wildlife)				
2.3 Peatland ecosystem management (carbon stock, storage, GHG emissions, fires)				

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	2019	2021	2023	2025
2.4 Restoration, rehabilitation, reclamation (rewetting, revegetation, reclamation, paludiculture, agroforestry, and crop management)				
2.5 Socioeconomic factors -legislation/regulations, cultural significance and education regarding peatlands				
2.6 Peatland ecotourism				
2.7 Peatland production: timber, non-timber peatland products (NTPPs)				
2.8 Financing and investment for sustainable peatland governance				
2.9 Peatlands for food, energy, and medicine for wellbeing and livelihoods				
2.10 Sustainable landscapes for a natural balance				
2.11 Peatland equity and ownership				
2.12 Climate change and low carbon development				
2.13 Gender equity, equal opportunities, and sustainable peatland management				
2.14 Peatland forestry crime and violence				
2.15 Define a framework to monitor ITPC performance in relation to agreed goals and activities, assess achievements and feedback on short and medium-term priorities for the ITPC				
2.16 Characterize data needs for different stakeholders				
2.17 Agree on rules for data harmonization and standardization for peatland datasets, agreeing on definitions and units for the effective functioning of the ITPC				
2.18 Develop a public database to characterize tropical peatlands, which will contain the most updated data and maps on: • **Biophysical properties of tropical peatlands:** type of peat, area, volume, stocks, biodiversity, climatic characteristics, fire regimes, GHG emissions; • **Livelihoods, governance and social aspects:** characterization of livelihoods dependent on peatlands, land tenure frameworks, current governance, policies, institutional and legal frameworks, gender roles and equity; • **Management practices on peatlands:** degradation, restoration and protection status of tropical peatlands, levels of exploitation and use, management practices and activities on peatland, risks for peat conservation; • **Financial aspects:** characterization of fiscal incentives to protect or destroy peatlands, locate peatland areas under extractive concessions, mapping business interests, identification of stakeholders in agro-commodities value chains, characterize business cases for peatland practices; • **Climate change** aspects: approaches and experiences for peatland mitigation and adaptation to climate change				
2.19 Identification and prioritization of data gaps and needs for improved knowledge on sustainable peatland management				
2.20 Develop new methods to cost-efficiently identify, map, measure and monitor peatland area, volume, stocks, degradation status, biodiversity, water balances and GHG emissions.				
2.21 Set up a Knowledge Management Platform (physical facility and management team) to: • Serve as a repository of South-South knowledge exchange on peatland management practices and experiences including activities on: ecotourism, paludiculture, restoration, agricultural production, wood extraction, non-timber product use, carbon crediting, etc • Act as a facilitator to stimulate debate and to provide advice to households, communities, governments and donors working on peatland sustainability. • Characterize trade-offs among peat practices in their impacts on carbon, water balances, biodiversity, GHGs				
2.22 Characterize the actors and causes of peatland degradation including legal incentives and frameworks that promote the use of peat and peatlands				
2.23 Identify alternatives to current practices including fiscal incentives				
2.24 Identify and characterize existing monitoring systems in peat countries and their capabilities to measure and monitor peatland status for carbon, water, biodiversity, GHGs				
2.25 Develop synergic MRV systems to zoom in on peatland areas and monitor their status for carbon, water, biodiversity, GHGs				

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	2019	2021	2023	2025
2.26 Develop early warning systems for short-term responses of peatland degradation linked to policies and measures that provide associated on the ground responses				
2.27 Develop legal and policy frameworks to support the effective and efficient on the ground responses linked to the early warning systems				
2.28 Carry out experiments on rewetting and establish permanent monitoring of biophysical parameters on re-wetted sites (development of carbon, peat growth, establishment and diversity of vegetation)				
2.29 Study current peatland management strategies around the globe, and establish their value following a set of biophysical, social and economic indicators				
2.30 Develop a catalogue of sustainable peatland management technologies; link it to WOCAT and other relevant databases				
2.31 Understand reasons and causes of fire, identify and quantify health effects of fire/haze				
2.32 Identify fire-free land management alternatives				
2.33 Develop life-cycle analyses and value-chain studies for commodities over peat in order to: • identify involved stakeholders, • assess associated peatland deforestation and degradation processes along the value chain, • characterize costs, values and beneficiaries of/in each section of the value chain				
2.34 Characterize the international legal frameworks and policies around tropical peatlands (i.e. UNFCCC mitigation and adaptation for wetlands and peatlands, RAMSAR Convention, Aichi Targets, UNCC carbon neutrality, Bonn Challenge restoration goals, etc) and identify overlaps, strengths, weaknesses, gaps and opportunities and need for harmonization				
2.35 Characterize the land tenure and governance structures around peatlands and elaborate pathways to enhance governance and legalize land tenure				
2.36 Identify financial incentives that promote peatland degradation (development policies, agricultural policies, forest policies, etc) and search for alternatives including the reversing of current financial measures				
2.37 Elaborate options to fiscally promote and sustainably manage peatlands (i.e. a national carbon tax, Payments for Ecosystem Services including carbon credits, etc)				
2.38 Identify barriers for the development and enabling of national legal frameworks to protect and sustainably manage peats and search for possible solutions and pathways for action				
2.39 Characterize the economic needs of selected policies and measures to support sustainable peat management and identify possible self-sustained options to cover costs				
2.40 Connecting monitoring efforts with the development of policies and measures that will support the operationalization of early warning responses				
Strategic Priority 3. ESTABLISHING PEATLAND MANAGEMENT DEMONSTRATION PLOTS IN INDONESIA, DEMOCRATIC REPUBLIC OF THE CONGO, REPUBLIC OF THE CONGO, PERU				
Expected Outcome: Establishment of pilot exercises in selected sites as a national priority				
3.1 Establishing pilot exercises on private land, community land, and government estates				
3.2 Maintaining pilot exercises				
3.3 Implementation and intervention in peatland areas				
3.4 Extending benefits from pilot exercises for ecotourism and education				
Strategic Priority 4. ESTABLISHING COLLABORATION AND COOPERATION WITH STAKEHOLDERS/PARTNERS/INTEREST GROUPS				
Expected Outcomes: Increased research collaboration with national and international institutions to enhance peatland management knowledge and technologies, as well as education and human resource capacity development				
4.1 Proposal development and generating funds to donors and partner				
4.2 Developing community-private-government partnerships				
4.3 Assess the current legal status of peatlands in different countries, elaborate pathways to have peatlands legally defined, recognized and protected, and remove stumbling blocks				

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	2019	2021	2023	2025
4.4 Identify legal barriers and controversies around peatland and wetland conservation, with a focus on cross-sectoral negative legal incentives for peatland conservation (i.e. agriculture subsidies over peat)				
4.5 Assess the Institutional competences for peatland conservation and management in different countries and elaborate pathways to clarify competences and identify accountabilities				
4.6 Organize a permanent knowledge-sharing and exchange platform and hold meetings with stakeholders on specific topics both for discussion and capacity building				
4.7 Foster partnerships and collaborations of public-private-government entities				
4.8 Collaboratively develop proposals for funding on agreed needs and lines of research and support				
Strategic Priority 5. ESTABLISHING COMMUNICATIONS, NETWORKS, CAMPAIGNS, AND OUTREACH				
Expected Outcomes: Establishment of close relationships with all stakeholders, and the mobilization of resources for involvement in, and adopting/adapting sustainable peatland management practices				
5.1 Development and dissemination of publications, shared learning of strategic research results				
5.2 Shared learning and policy dialogues at the district, provincial, national and international levels				
5.3 Establishing a logo, a website and any necessary on-line data exchange channel to foster communication and dissemination, considering different stakeholders' needs				
5.3 Production of media publications, such as books, leaflets and videos of activities				
5.4 Conducting campaigns for all stakeholders				
5.5 Disseminate and share the extracted knowledge through a website and outreach activities including workshops and seminars with stakeholders				
Strategic Priority 6. HUMAN RESOURCES, GENDER, AND FUTURE GENERATIONS				
Expected Outcomes: Generation of knowledge and technologies; human resources skills development and education; and ensuring the next generation has the human resources necessary for future peatland management				
6.1 Capacity building for new researchers to gain new knowledge from national/international experts				
6.2 Convene and/or dispatch in various educations and trainings for Human Resources				
6.3 Establishing technology transfer and education for younger and female stakeholders				
6.4 Develop programs for capacity building on hot topics around peatland management, including training on the following activities: • restoration, rehabilitation, rewetting • conservation-ecotourism • paludiculture • sustainable management of peats for agriculture and forest activities, • agroforestry • fire management • mineral extraction • mitigation and adaptation strategies including carbon crediting through REDD+ or NAMAs • inclusion of peats into NDCs and reporting under the UNFCCC, etc				
6.5 Develop further peatland research programs in association with national and regional universities and research centers with the aim to develop MSc and PhDs that support research on urgent knowledge and data gaps for policy making				

The International Tropical Peatlands Center is a multi-stakeholder cooperation and collaboration. All of its member countries will each provide input in contributing to its development.

Photos by: Nanang Sujana/CIFOR (page 1), Deanna Ramsay/CIFOR (page 3), Sigit Deni Sasmito/CIFOR (page 4).