



STRATEGIC PLANNING FOR PEATLANDS CONSERVATION AND WISE USE IN MONGOLIA: POLICY BRIEF



MINISTRY OF ENVIRONMENT
AND TOURISM



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Japan
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FOREWORD



I am pleased to present you with the findings of the “Strategic Planning for Peatlands in Mongolia” project, which was implemented in collaboration with the Ministry of Nature, Environment and Tourism, and supported by the Japanese Government, the Japan Fund for Poverty Reduction and the Asian Development Bank. The project responded to the importance of conserving water ecosystems and biological diversity, and supporting the livelihoods of the rural population of Mongolia.

The project was implemented over a short time, starting in August 2015. It conducted bio-physical, geographic and socio-economic studies covering priority

areas of peatlands in Mongolia. It also implemented important work such as capacity building on conservation and wise use of peatlands in relevant organizations, upgrading of research methodologies and equipment, and development of a draft national strategic action plan for peatlands conservation and wise use in Mongolia.

In particular, attention is drawn to the fact that according to the project study, peatlands occupy 1% of the total territory of Mongolia, which is 50% lower than previous estimates based on maps and other information from the 1960s and 1970s. The results of this study were reflected for the first time in the **Report on state of the environment from the Ministry of Environment and Tourism 2015-2016**, which led to the State Great Khural addressing the issue and attention from Government, which has allowed for policy decisions to be made based on scientific rationale and dissemination of information to the public.

It is a pleasure to announce to readers the new sources of information for organizations, professionals, and decision-makers in this field. These include three key documents from the project related to the strategic planning for peatland conservation and wise use:

1. The Assessment Report on peatlands was published in English and Mongolian and includes topics such as the distribution of peatlands in Mongolia, their current status, their use, adverse impacts on peatlands, challenges and ways to conserve peatlands.

2. A Policy Brief was developed which provides background on how the strategic plan for peatlands fits within the broader Mongolian policy environment. It provides information on the natural features, values and ecosystem services of peatlands before identifying threats and then approaches to conservation, focusing at the local, national and international levels, and also awareness raising and capacity development.

3. The draft Strategic Action Plan on Peatlands Conservation and Wise Use in Mongolia was released and includes the rationale for the document, strategic objectives, a framework for strategic actions, and proposed actions for priority areas.

Due to a previous lack of data and research on the status of peatlands, including their role, distribution, and threats they face, peatland issues are not adequately addressed in the policy documents of the Mongolian government, and no conservation measures have been taken. However, through this project, scientifically-oriented information has been generated and a ready-to-use draft for strategic planning is now available and ready for endorsement.

Due to climate change, fire and overgrazing, there is a risk of the loss of thousands of square kilometers of peatlands in the main Mongolian river valleys like the Orkhon, Onon, Baldj, Uldz and Ider and the Darkhad mountainous basins, followed by rapid thaw of permafrost. Due to the planning of economic activities such as mining, road construction, overuse of rivers and lakes and hydropower dams that do not take into account the specific ecological features of peatlands, especially their role in maintaining water resources and permafrost, there have been negative impact on peatlands. Peatlands are mainly used for grazing pasture and are considered the most productive pasture areas resistant to zud and their capacity as such is under the threat.

Therefore, policies focusing on peatlands and regulation of their use are essential for the prevention of and protection from climate change impacts and human-induced aridity, water shortages, pollution, and permafrost thaw. It is essential is to make possible the effective implementation of peatland restoration activities.

As Mongolia joined the Paris Agreement and is implementing its “Intended Nationally Determined Contribution”, it is clear that documents from the project will become the main tool for providing a basis for creating a supportive policy and legal environment for peatlands in the future.

Finally, I would like to congratulate and thank the Japanese Government, the Japanese Fund for Poverty Reduction, the Asian Development Bank, Wetland International and the project team for both funding the project and for the fruitful cooperation.

Let the good deeds of those who dedicate their heart to the conservation of the country’s beautiful nature continue .

MEMBER OF THE STATE GREAT KHURAL,
MEMBER OF THE GOVERNMENT
MINISTER OF ENVIRONMENT AND
TOURISM, MONGOLIA



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POLICY BRIEF

STRATEGIC PLANNING FOR PEATLANDS IN MONGOLIA

1. Background for Strategic Planning on Peatlands

Mongolia has a clear and consistent national policy aimed at sustainable development, driven both by national priorities and the need to fulfil international obligations. Peatlands play a crucial role in contributing to sustainability in Mongolia. They store fresh water and carbon, protect permafrost, provide productive pastures and regulate climate, both locally and globally.

Mongolia has adopted a number of national strategies to meet the tasks of sustainable development and several are currently being developed. Key strategies include:

- Green Development Policy and associated Action Plan
- Sustainable Development Vision 2030
- National Action Program on Climate Change, and its implementation plan
- Intended Nationally Determined Contribution (INDC)
- National Adaptation Plan on Climate Change
- Transparency, Accuracy, Completeness, Comparability, Consistency (TACCC) framework for GHG reporting
- National Water Programme

The draft Strategic Action Plan on Peatlands Conservation and Wise Use in Mongolia provides the framework to integrate specific actions related to peatlands into the strategies and programmes listed above.



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2. Natural features, functions, values and ecosystem services of peatlands

Peatlands are unique self-maintained ecosystems that are one of the main parts of the global hydrosphere. Although only 3% of the world's land surface, peatlands hold 30% (550 GT carbon) of all soil carbon, an amount equivalent to 75% of all atmospheric carbon and twice the carbon stock in the entire forest biomass of the world. The majority of the carbon in peatlands is stored below ground, in the peat soil.

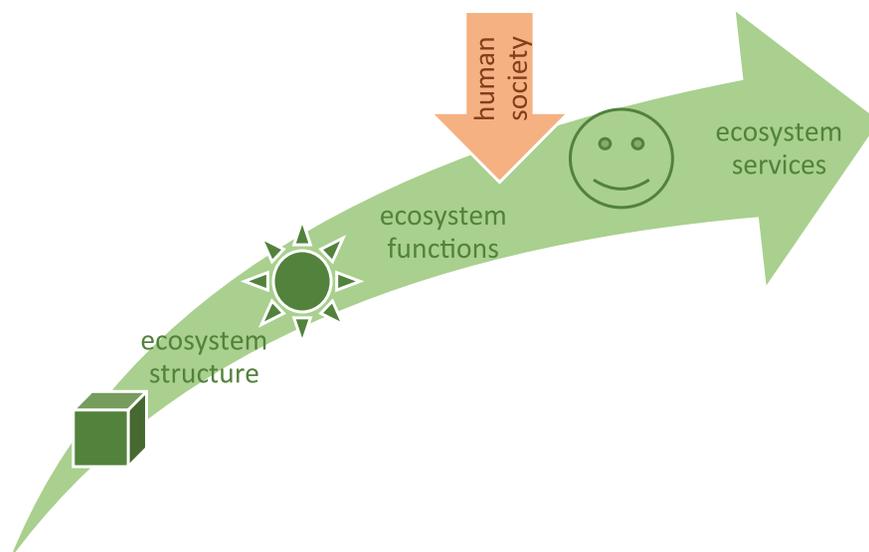
This carbon is released to the atmosphere when a peatland is drained, when vegetation is (partly or totally) removed, and when peat fires occur. When drained, devegetated or degraded, peatlands release the peat carbon much faster than it was sequestered (Couwenberg, 2011; Couwenberg et al., 2010). Emissions from drained peat soils are disproportionally large. Drained peatlands are responsible for some 6% of total global anthropogenic CO₂ emissions (Joosten, 2010).

Figure 1. Trampled vegetation and peat



Peatlands in Mongolia carry out valuable natural ecosystem functions such as water retention and accumulation, local cooling, maintenance of permafrost and ground water levels including in surrounding areas, and providing productive habitats. As shown in Figure 2, these functions are based on the structure of the ecosystem (for example, the presence of a peat layer, or specific peatlands vegetation). The ecosystem functions in turn are the basis for the highly significant ecosystem services enjoyed by different stakeholders in human society. In the Mongolian context, these include, for example, climate change mitigation, productive pastures, water supply, productive lands, and protection of rare species. The connection between degradation of ecosystem structures and the immediate reduction of ecosystem services is extremely important to understand when considering strategies for the conservation and wise use of peatlands.

Figure 2. Relationship between ecosystem structure, functions, human society and ecosystem services



The key natural features, values and ecosystem services of peatlands include:

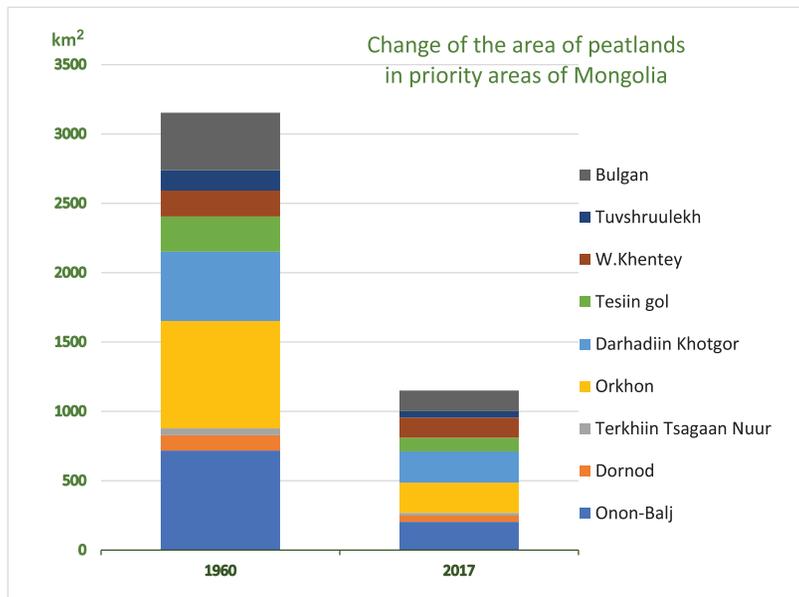
- Peatland are significant parts of the water cycle and should be considered as water objects and included in integrated basin management schemes.
- Peatlands have high water retention potential – they store water and gradually release it.
- Peatlands are natural filters that absorb various types of pollutants and clean water.
- Peatlands often have a role in moderating local climatic conditions.
- Peatlands are tightly connected with permafrost – they protect it from thawing and are maintained where permafrost occurs.
- Wet peatlands in natural conditions accumulate and store significant amounts of carbon, maintain habitats for various species and provide the conditions for high biomass production.
- Natural peatlands are resistant to climate change which will aid in the natural adaptation of the peatlands.
- Degraded peatlands are significant sources of greenhouse gases, including those which are released from the underlying permafrost.
- Degraded peatlands lose their water retention and productivity capacities; when peatlands degrade, permafrost becomes more vulnerable to climate change.
- Peatland degradation causes a reduction of habitats and losses in biodiversity.

In Mongolia, the direct use of peatlands is mainly for grazing and sometimes as arable land; peatlands are considered to be the most productive pasture areas in the country. The indirect use of peatlands is connected to mining. Small peatlands at the headwaters of rivers are destroyed by mining; in terms of large valley peatlands, industry constructs dams to accumulate water for use during mining activities, thereby destroying the peatlands of the whole valley downstream.



Preliminary research findings indicated that almost 27,000 square kilometres of Mongolia used to be covered by peat (or almost 2% of the total territory of the country) (Minayeva et al., 2016). This was based on analysis of maps and other information from the 1960s and 1970s. Updated research in 2015 and 2016 indicated that the estimated area of peatland has now fallen to 1% of the land area of the country (see Figure 3). The remaining peatlands should be addressed urgently.

Figure 3. Change in area of peatlands in selected sites, 1960 to 2017



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3. Vulnerability and threats to peatlands

The key vulnerabilities and threats to the peatlands of Mongolia were derived from the assessment undertaken as part of the development of the draft Strategic Action Plan on Peatlands Conservation and Wise Use.

Key vulnerability and threats include:

- Mongolia is heavily affected by progressive climate change.
- Changes in climatic conditions increase the vulnerability of peatlands through the thawing of permafrost, decreasing water storage, increasing evapotranspiration, mineralization and destruction of peat, changing water quality, and decreases in productivity.
- Peatlands are overlooked by experts, land users and local communities.
- Most pastures in Mongolia are former peatlands which are degraded as a result of overgrazing.
- Loss of peatlands causes losses in habitat for unique and globally significant biodiversity, including in areas designated by international conventions, such as Ramsar sites and Important Bird and Biodiversity Areas.
- Peatlands are affected by any change of the hydrological regime caused by overgrazing, dams, roads and other linear constructions.
- Peatlands are vulnerable to fires. If fire gets into peat it is very difficult to stop and can last for years and produce more dangerous haze than forest or grass fires. Forest fires cause permafrost to thaw, while permafrost is a source of water for most of the peatlands.
- Many mining activities are conducted in peatlands which are the sources of rivers. Peat is removed without any awareness of its importance and it is simply discarded.
- The pollution and deterioration of water and peatland areas due to the operations of mining companies leads to irreversible changes in peatlands.
- Peatlands are not considered as a target of restoration by the mining industry.
- Pasture restoration programs do not consider peatland restoration.
- The construction of roads and other linear infrastructure does not take into account the surface and ground water flows responsible for supplying the water required to maintain peatlands. In many areas, this has a crucial impact on the condition of peatlands.
- There are a number of institutional challenges for peatland management:
 - Peatlands are not addressed by a specific sector, nor by cross sectoral management;
 - There is a low level of knowledge and awareness about peatlands, including among decision makers and experts;
 - There is little background knowledge on peatland distribution, diversity, ecosystem functions, values and services;
 - Management mechanisms for protected areas do not consider peatlands;
 - Peatlands are not considered as fresh water resources in integrated basin management schemes, including evaluations related to the planning of hydropower facilities;
 - The connection between peatlands and permafrost is not recognized, and therefore no actions take this link into consideration.



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4. Approaches to the conservation of peatlands

Taking into account the natural features of peatlands and the threats they are facing, there are a number of approaches to conservation that can be taken at the national, local and international levels. Awareness raising and capacity building are required across these different levels.

National level

1. Incorporate provisions related to the utilisation, conservation and restoration of peatlands into environmental sector legislative acts and all policy papers, and implement those provisions.
2. The conservation of peatlands should be reflected in the scope of work and management plans of state administrative central organisations, inter-sectoral coordination committees, river basin area administrative offices and strictly protected area management offices.
3. Peatlands should be referred to in the National Strategies on the implementation of the relevant international multilateral agreements, first of all the updated versions of the Climate Change Adaptation National Strategy and Action Plan, and the Ramsar Convention Implementation Strategy.
4. The information on peatland distribution should be formed into a cadastre and be an official document to be referred to during land use planning and decision-making processes.
5. The presence of peatlands should be one of the criteria for the nomination of protected areas.
6. A specific provision should be incorporated into the Water Census Regulation dedicated to registering peatlands areas.
7. Information and data should be generated on the distribution and ecosystem services of peatlands and made widely available for all sectors and the general population.
8. The instruments and framework provided by the World Network of Biosphere Reserves and management regulations for Ramsar sites should be used to develop and disseminate best practices for peatlands wise use, looking for a balance between the utilization of peatlands for the purposes of pastureland, hay making, farming and tourism.

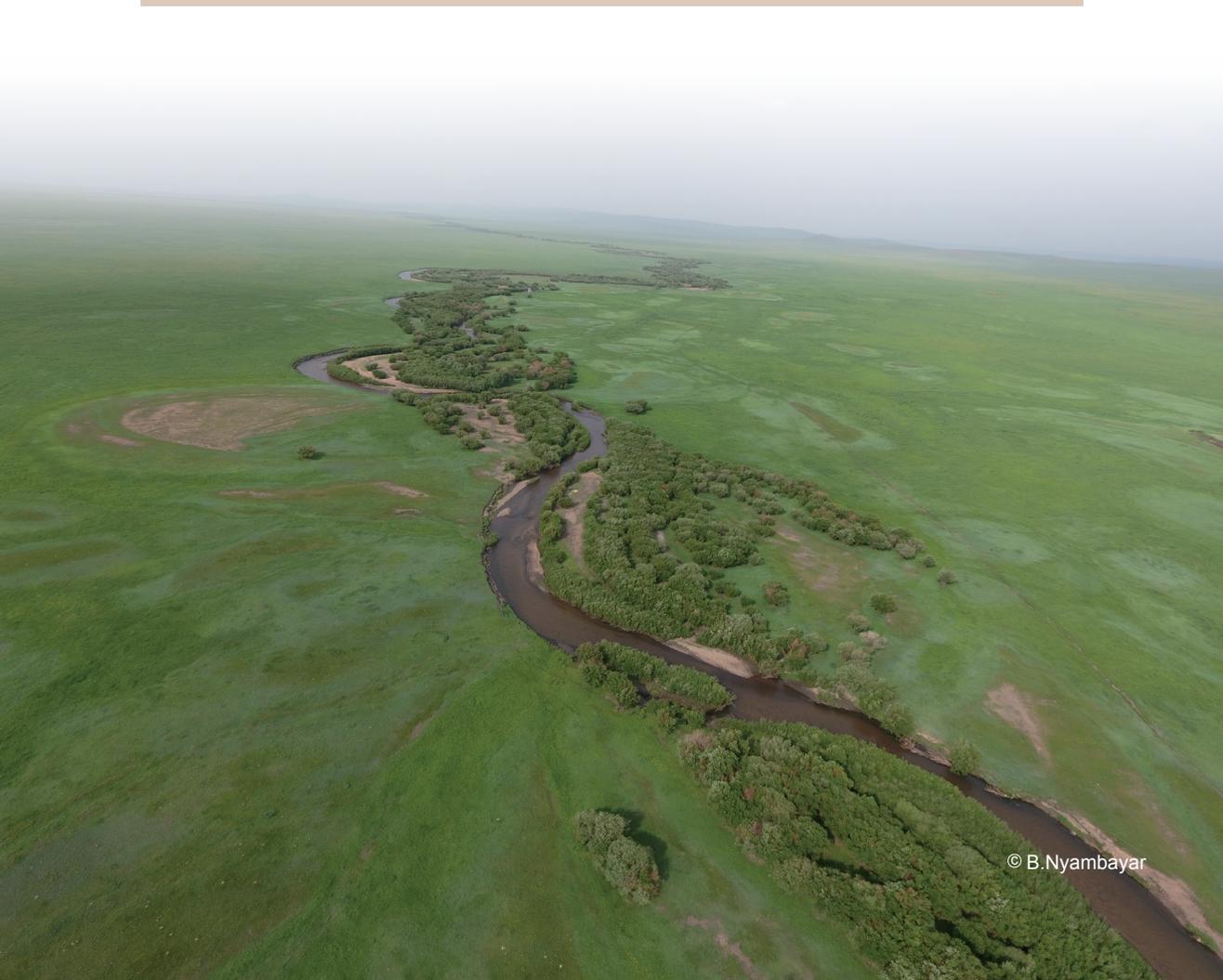


Local level

1. Develop initiatives to conserve peatlands in line with the rights and responsibilities of the Citizens' Representatives' Meeting, Governors, economic entities and local citizens, as stated in the package of environmental laws.
2. Develop and introduce best practices on sustainable and wise peatland use to balance the need to maintain the long-term ecosystem services of peatlands and meet current livelihood needs; these best practices could be developed as part of a Biosphere Reserves approach and involve economic incentives.
3. Introduce ecosystem restoration as part of land improvement programs with state support; develop methodological support and economic incentives for peatland ecosystem services restoration.

International level

1. Ensure implementation of the United National Framework Convention on Climate Change (UNFCCC) recommendations regarding peatlands to address emissions from non-forested ecosystems, such as non-forested peatlands.
2. Implementation of Convention of Biodiversity decisions, including the Aichi targets calling for restoration of 15 % of disturbed ecosystems.
3. Implement Mongolia's obligations under the Convention on Wetlands (Ramsar Convention), and extend cooperation in existing sites and through the establishment of new sites.
4. Promote international partnerships and integrate the conservation of peatlands in such arrangements, including the implementation of existing bilateral, tri-lateral and trans-boundary agreements, and the establishment and joint management of transboundary protected areas.
5. Improved integration of the many organisations and individuals working on the conservation of water and peatlands at different levels.



Awareness raising and capacity development

The awareness and knowledge of state agencies, natural resource users, the general public, non-governmental organizations and the private sector with respect to peatlands and appropriate management approaches needs to be increased. This should focus on: i) the importance of peatland ecosystems for their multiple environmental services; ii) proper utilisation, conservation and restoration of peatlands. Strategies for awareness raising include:

1. Implement a comprehensive awareness raising program aimed at equipping decision makers, agricultural organisations and their officers, businesses (construction, extractive industries), protected area managers, and the general public with proper knowledge about the environmental services of peatlands.
2. Provide farmers, herders and local communities with knowledge, information and new technologies that support peatland conservation and wise use.
3. Train and prepare national peatland specialists, and educate current officers about scientific knowledge on peatlands.
4. It is vital to receive regular updates from rangers, researchers and information centre officers working at the sites registered under the Ramsar Convention about the work they implement, and to include that information in the Ramsar National Information Database.
5. Communicate the results of research and monitoring and evaluation to the general public through the environmental information centres that are part of the integrated environment information and promotion system, and through the non-official education system.



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