

# STATEMENT ON THE WISE USE OF PEATLANDS

Prepared by the International Peat Society and  
International Mire Conservation Group

## INTRODUCTION

This document highlights the nature and importance of peatlands and identifies problems resulting from their use. The International Peat Society (IPS) and International Mire Conservation Group (IMCG) provide suggestions on how these problems may be resolved through application of the “wise use” approach. The challenge is to develop mechanisms that can balance the conflicting demands on the global peatland heritage to ensure its continued wise use to meet the needs of humankind. It is understood in this Statement that the term “peatlands” is inclusive of “mires”<sup>1</sup>.

## WHAT ARE PEATLANDS?

Peatlands are the most widespread of all wetland types in the World, representing 50 to 70% of global wetlands. They cover over four million km<sup>2</sup> or 3% of the land and freshwater surface of the planet. In these ecosystems are found one third of the world's soil carbon and 10% of global freshwater resources. These ecosystems are characterized by the unique ability to accumulate and store dead plant matter commonly, from moss, sedge, reed and tree species, as peat, under conditions of almost permanent water saturation. Peatlands are adapted to the extreme conditions of high water and low oxygen content, of toxic elements and low availability of plant nutrients. Their water chemistry varies from alkaline to acidic. Peatlands occur on all continents, from the Tropical to Boreal and Arctic Zones from sea level to high alpine conditions.

## WHY PAY ATTENTION TO PEATLANDS?

Wise use of peatlands is essential in order to ensure that sufficient area of peatlands remain on this planet to carry out their vital natural resource functions while satisfying the essential requirements of present and future human generations. This involves evaluation of their functions, uses, impacts and constraints. Through such assessment and reasoning, we must highlight the priorities for their management and use, including mitigation of damage done to them to date.

They are important ecosystems for a wide range of wildlife habitats supporting important biological diversity and species at risk, freshwater quality and hydrological integrity, carbon storage and sequestration, and geochemical and palaeo- archives. In addition, they are inextricably linked to social, economic and cultural values important to human communities worldwide. Their total carbon pool exceeds that of the world's forests and equals that of the atmosphere.

Peatlands are natural systems performing local, regional and often global functions but they mean different things to different people. They can be considered as land, wetland, geological deposit, water body, natural habitat or forest stand. In many cases, they may be

---

<sup>1</sup> A “peatland” is an area with a naturally accumulated peat layer at the surface. A “mire” is a peatland where peat is being formed and accumulating. All mires are peatlands. Sites no longer accumulating peat would not be considered mires anymore.

all of these at one time. They are analogous to living organisms because they grow, mature and may even die. Peatlands are used by many stakeholders for agriculture, forestry, fuel production, industry, pollution control, recreation, tourism, nature conservation and scientific research, while also supplying for the needs and life support of local communities and many indigenous peoples. Any human influence on peatlands, or their surrounding landscape, can affect their form and function. This necessitates an integrated environmental impact assessment approach prior to approval of any development affecting peatlands.

The global area of peatlands has been reduced significantly (estimated to be at least 10 to 20%) since 1800 through climate change and human activities, particularly by drainage for agriculture and forestry. The latter continue to be the most important factors affecting change in peatlands, both globally and locally particularly in the Tropics. Human pressures on peatlands are both *direct* through drainage, land conversion, excavation, inundation and visitor pressure, and *indirect*, as a result of air pollution, water contamination, contraction through water removal, and infrastructure development. The range and importance of the diverse functions, services and resources provided by peatlands are changing dramatically with the increases in human demand for use of these ecosystems and their natural resources.

## PEATLANDS - A VITAL LOCAL, REGIONAL AND GLOBAL RESOURCE

Peatlands satisfies many essential human needs for food, freshwater, shelter, warmth and employment. With the growing understanding of their ecological importance to the Planet, conflicting uses of peatlands become apparent. There are many examples of such conflicting demands and needs, several of which are outlined below.

- In Europe, agriculture has been the principal sector use of peatlands for several centuries, occupying 125 000 km<sup>2</sup>. Well-managed peatland soils are among the most productive agricultural lands available, facilitating the efficient production of essential food crops. Drainage and conversion of peatland to agriculture has been going on for many centuries and continues to this day.
- In the Tropics, peatland utilization mainly commenced after 1900; peatland conversion speeded up after the Second World War. The main impacts on peatlands in the Tropics are through agriculture and human settlement by forest removal, fires and land drainage.
- Extensive commercial forestry operations have been established on peatlands in many nations. It is estimated that nearly 150 000 km<sup>2</sup> of the World's peatlands have been drained for commercial forestry.
- In several countries, peat is extracted and burned for its energy value, providing an important local and national source of heat and power. In total, some 21 million tonnes of peat generate about five to six million tonnes of oil equivalent per year.
- Peat offers an ideal substrate for horticultural and silvicultural plant production. Peat forms the basis of growth media that are readily available, easily processed, uniform, high performance and cost-effective, a business that is worth around \$US 300 million annually. In 1999, nearly 40 million m<sup>3</sup> of peat were used across the World in horticulture.
- The global area of peatland used for energy generation and production of plant growing media is around 2000 km<sup>2</sup>.
- There are many other uses of peatlands and peat, including building and insulation systems, animal stable litter, alcoholic drinks, environmental improvement and purification systems, balneology, therapy, medicine and textiles.
- All these uses of peatlands underpin downstream businesses that support the livelihoods of many thousands of people and generating billions of dollars annually.

## PEATLAND WISE USE CONFLICTS

Peatlands have been depleted or degraded in many countries around the World owing to short-term or single sector development strategies, leading to conflicts between different user groups. For example:

- the drainage of peatlands may affect their flood control functions leading to damage of downstream valley farmlands, bridges and buildings;
- drainage of peatlands for agriculture may lead to loss of carbon storage and climate change mitigation functions;
- drainage of peatlands and planting them with forests impacts on biodiversity and constrains their use for recreation, berry picking and hunting;
- strict nature conservation may impact upon the local socio-economic situation, especially in developing countries.

These conflicts often relate to trade-offs between different stakeholder groups and result in “win-lose” situations with the more influential or powerful stakeholders “winning” and the less powerful “losing”. An example is peat extraction for energy or horticulture that does not take into account peatland conservation issues or after-use. There can also be “lose-lose” situations in which all stakeholders lose, for example, the Indonesian Mega Rice Project that commenced in 1996. This project was abandoned in 1998 after drainage of almost one million ha of peatlands, destruction of approximately 0.5 million ha of tropical peat swamp forest and the investment of \$US 500 million. The project was cancelled without producing any economically viable agricultural crops.

“Win-lose” situations can sometimes be turned into “win-win” situations by appropriate rehabilitation and after-use in which, for example, formerly drained and cutover peatlands are re-wetted, conditions for peat formation restored, essential functions revitalized, and biodiversity increased.

A key issue in the management of peatlands is the lack of human and financial resources. This includes appropriate understanding of these complex ecosystems, implementation techniques, and the human capacity to manage peatlands appropriately. There are those who wish to use peatlands for their production functions, and others who wish to preserve and manage these ecosystems for their regulating and non-material life-support functions. Conflicts arise between these competing views of protection and production.

Clearly, criteria are needed to assist in land use decision-making regarding peatlands. The following criteria could assist in governing the wise use of peatlands:

1. If the use of a peatland resource ensures the availability of the same quantity and quality of that resource, there is – except for side effects – no reason to refrain from using the resource.
2. Even when the supply is decreasing, a particular peatland use can be continued as long as that resource is abundant.
3. If that peatland resource is not abundant and getting rare, it is wise not to use the resource to the point of exhaustion, in the event that the resource might be needed for more urgent purposes in the future.
4. The use of a peatland for a specific purpose may have considerable side effects. All other functions must be taken into account in the full assessment of the suitability of an intervention.

5. With respect to side-effects, an intervention could be considered permissible when:
  - no negative side effects occur, or
  - the affected resources and services remain sufficiently abundant, or
  - the affected resources and services can be readily substituted, or
  - the impact is easily reversible.
6. In all other cases, an integrated cost-benefit analysis should be carried out involving thorough consideration of all aspects of the intervention.

## **IMPLEMENTING WISE USE**

The International Peat Society and International Mire Conservation Group believe that wise management of peatland ecosystems requires a change in approach. This must involve change from that of single sector priorities to an integrated, holistic planning strategy, involving all stakeholders, such that consideration is given to potential impacts on the ecosystem as a whole. The design of peatland resource management projects involving a wide group of stakeholders is a major challenge, in which stakeholders should be prepared to ensure benefits for future generations. Wise use of peatlands will be enhanced by initiatives such as:

1. Adoption and promotion of the Ramsar Convention's *Guidelines for Global Action on Peatlands* (GGAP) and implementation of its wise use themes.
2. Publication and distribution of the joint IPS/IMCG Report *The Wise Use of Mires and Peatlands - Background and Principles*.
3. Implementation of the *Global Peat Initiative* (GPI) being facilitated by Wetlands International and its partner organizations.
4. Publication of a handbook of *Wise Use Guidelines* by the Ramsar Convention and its partner agencies as a means of delivering key aspects of the GGAP.
5. Refinement of global criteria for identifying and protecting key peatland sites for conservation purposes.
6. Refinement and standardization of peatland classification systems and terminology.