

Short Communications

Pakistan National Wetlands Policy

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1. Introduction

In 1976, Pakistan joined the Ramsar Convention, which stresses the importance of developing a National Wetlands Policy as a key feature in the implementation of the concept of "Wise Use" of wetlands promoted by the Convention. A Wetlands Action Plan was prepared and approved in 2000, but it is now considered to be "wholly inadequate for comprehensive application"; thus, "in the absence of a pragmatic and living policy framework, the existing national and site level initiatives are likely to have little sustainable impact upon the conservation of globally important wetlands and their associated biodiversity in Pakistan".

2. Pakistan National Wetlands Policy

Pakistan has no designated definition of wetlands, so for this policy the definition of the Ramsar Convention is used:

"...areas of marsh, fen,¹ peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres."

In case of Pakistan, all future legislations will consider the adaptation of this definition to include glaciers and the areas of wetlands that fluctuate in size to include the 10-year high water levels.

Pakistan's National Wetlands Policy recognises the importance of Pakistan's wetlands, which include valuable ecosystem services, such as: water regulation, wetlands and climate, biodiversity importance, human health and livelihoods.

Threats to wetlands: The policy addresses a number of threats including loss and degradation of wetlands, demands for water, land and natural resources, lack of awareness, lack of co-ordination, lack of capacity and resources, and lack of policies, laws and regulations

Opportunities for wetlands: The policy encourages many opportunities that exist for increasing the value of wetlands for human use without damaging or degrading the wetland natural resources. These include: enhancing wetland productivity for water supply and food production, using wetlands for water treatment, optimising multiple uses of man-made wetlands, using wetlands as an educational resource and using wetlands for recreation and tourism.

3. The Need For A National Wetlands Policy

Starting with the adoption of the National Conservation Strategy (NCS) in 1992, Pakistan has developed a number of environmental and natural resource policies, and incorporated environmental concerns into ongoing and future national plans.

These policies are fundamental to the overall National Vision 2030 prepared by the Pakistan Planning Commission in 2007. They contain elements supporting wetlands conservation and management, but are inadequate in their scope and have gaps in their coverage. They highlight the importance of water availability and water resources rather than wetlands.

Climate change is a big issue for both Pakistan and its wetlands. Models show that Pakistan will grow warmer by about 1°C by 2030 (CICERO, Report 2002-2), and could even rise up to 4-5°C higher in the last three decades of this century. The Indus basin depends heavily on the western Karakorum and Himalayan glaciers that act as a reservoir, maintaining the rivers that feed the irrigation system of the country. Rising temperatures will increase the melting of glaciers over the next 50 years.

Precipitation during Pakistan's summer monsoon is likely to increase substantially between 20 to 30%, but the rainfall will be poorly distributed temporally and spatially; much of the additional rainfall is likely to occur as high-intensity storm events. Climate change will have an adverse impact on wildlife and their habitats. Wetlands and their biodiversity will be under even greater threat. Policies encouraging adaptation to climate change for wetlands and wetland users are urgently required,

These policies do not specifically address wetland issues and there is a growing concern that wetlands conservation may "fall through the gaps" of other environmental and conservation policies. There is already a National Forest Policy, even though forest cover amounts to only 5 % of the land area of Pakistan compared with 10 % covered by wetlands. The National Environment Policy highlights the need for developing a separate national wetlands policy.

There is a clear need for a separate wetland policy that is focused on rehabilitation, restoration, sustainable management and wise use of wetlands. It must be closely co-ordinated with other environmental, water and natural resource use policies. There is also a legal obligation under the Ramsar Convention to formulate a National Wetlands Policy.

4. National Wetlands Policy

Vision Statement: The Vision Statement for the future of Pakistan's wetlands provides a goal for all wetland conservation and management work for the future:

"Pakistan manages its wetlands for effective performance of ecological functions and services; and for realising opportunities for sustainable livelihoods, recreation and culture, research and education."

Policy principles: A wide range of different principles underlie the design of the Pakistan National Wetlands policy; these can be summarised as:

- 1. Ecosystem approach** – endorsed by the Convention on Biological Diversity, the ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It is based on the application of appropriate scientific methodologies that encompass the essential processes, functions and interactions among organisms and their environment. It recognises that humans, with their cultural diversity, are an integral component of ecosystems;

1 Fen = Alkaline marsh.

2. **Equity** – the aim of sustainable management of wetlands is an equitable sharing of water and wetland resources at community, district and provincial levels;
3. **Good governance** – the implementation of the national wetland policy is based upon good governance, transparency, informed decision-making and accountability;
4. **Stewardship** – the policy aims to engender a sense of stewardship in wetland management so that the wetlands of Pakistan may be used and enjoyed by future generations;
5. **Integration with other policies and development planning decisions** – the policy aims to ensure that wetland issues, risks and opportunities are incorporated into decision-making and planning of all major developments;
6. **Transboundary co-ordination** – the policy aims to facilitate transboundary co-ordination in the management of wetlands and upstream/downstream impacts of developments upon wetlands;
7. **No net biodiversity loss** – in the long term, the policy aims at halting further loss of wetland biodiversity and enhancing biodiversity values wherever possible. The policy will consider the concept of wetland biodiversity offsets, in which loss of wetlands in one area is offset by gains and improved management in another area;
8. **Knowledge-based** – wetland policies, plans and management are based upon on best available knowledge and understanding; the policy encourages easy access to such information for wetland users, managers and stakeholders;
9. **Implementation** – the policy aims to act as a guide for the implementation of a range of initiatives to promote sustainable use of wetland resources, address the loss and degradation of wetlands, and reduce the poverty and vulnerability of wetland users;
10. **Involving stakeholders** – implementing the policy is the responsibility of all wetland stakeholders – wetland users, including both men and women, riparian communities, wetland managers, local government officials, provincial and federal agencies, private sector companies, academia and research organisations, community-based organisations and non-governmental organisations (NGOs) – recognising their different roles and responsibilities;
11. **Resourcing** – sustainable financing for implementing the policy will be raised through a variety of different sources, and will not rely solely upon government budgets and donor funds.

Policy objectives: The seven objectives detailed below have been specified for Pakistan's Wetland Policy to address the principal issues. These objectives are

1. **Addressing primary threats to Pakistan's wetlands** – providing for direct action to tackle the principal threats to Pakistan's wetlands, covering water availability and quality issues, unplanned land use change, overuse and illegal use of natural resources and climate change induced degradation of wetlands.
2. **Creating and implementing a regulatory framework for the conservation and sustainable use of wetlands** – addressing the issue of conflicting and overlapping policies, laws and regulations, and envisaging the enactment of new legislation covering wetland conservation and sustainable use.
3. **Greater co-ordination and collaboration between agencies and sectors on wetland issues encouraged**

from local to international levels – addressing the lack of co-ordination between different agencies and sectors at provincial and national levels, and encouraging greater collaboration at the international level.

4. **Promoting wetland research, education and data management** – recognising that further research is required to increase understanding of wetland resources and processes, and the valuation of wetland services. Wetland education is needed to extend this knowledge base about wetlands to build the capacity for wetlands management for future generations. Improved data management is required for monitoring changes in wetlands, and for more effective site management.
5. **Building Pakistan's capacity for sustainable wetland management** – building the capacity for current and future management of wetlands at site level and among provincial and national agencies. Strengthened capacity will lead to improved decision-making about specific wetlands as well as improved implementation of wetland policies and sectoral development plans.
6. **Promoting improved understanding, perceptions and attitudes towards wetlands conservation and wise use** – creating a broad understanding and awareness of wetlands, their importance and threats at all levels – the general public, wetland stakeholders and users, including vulnerable communities that are dependent on wetland resources, and specific influential groups (e.g., industries that use or have an impact on wetlands, government officials, politicians and senior decision makers).
7. **Securing financing mechanisms for sustainable management of wetlands** – recognising that without adequate financing, all efforts envisaged by this policy will be undermined. A range of sources of financing, such as environmental funds, government budgets, corporate sector funding and donor funded projects, are identified.

5. Implementing The Policy

Strategies for Action: For each objective, the policy framework outlines a number of strategies for action. These are indicative and further actions in line with the objectives will be added as the policy matures. The strategies explain the meaning and intentions of the policy objectives and their implementation.

1. **Addressing primary threats to Pakistan's wetlands.**
 - 1.1. *Ensuring water availability for priority wetlands in Pakistan*
 - 1.2. *Ensuring water quality in Pakistan's wetlands, especially rivers, lakes and coastal zones*
 - 1.3. *Managing land-use change to protect Pakistan's wetland resources*
 - 1.4. *Encouraging sustainable use of Pakistan's wetland resources*
 - 1.5. *Addressing issues of climate change and natural disasters affecting wetlands*
2. **Creating and implementing a regulatory framework for the conservation and sustainable use of wetlands**
 - 1.1. *Harmonising national wetland policy with other policies*
 - 1.2. *Clarifying legal status for the protection and sustainable use of wetlands and developing new wetland legislation*
3. **Greater coordination and collaboration between agencies and sectors on wetland issues achieved from local to international levels**
 - 3.1. *Ensuring greater coordination between institutions with wetland responsibilities*
 - 3.2. *Developing site-level collaborative wetland management*
 - 3.3. *Establishing co-ordination, collaboration and support*

- mechanisms for wetlands at the provincial level*
- 3.4 *Developing collaboration with other provinces on wetland issues*
- 3.5 *Developing international collaboration on wetland issues*
- 4. Promoting wetland research, education and data management**
- 1.1 *Encouraging wetland education at all levels from primary to tertiary education*
- 1.2 *Improving the understanding of wetlands science – processes, use, threats and management*
- 1.3 *Developing and improving wetland maps and data management*
- 1.4 *Valuing the benefits and services of Pakistan's wetlands*
- 1.5 *Providing access to wetland information*
- 5. Building Pakistan's capacity for sustainable wetland management**
- 5.1 *Building the capacities for site-level wetland management*
- 5.2 *Building the capacity for addressing wetland issues among provincial government agencies*
- 5.3 *Building the capacity for addressing wetland issues among federal government agencies*
- 6. Promoting improved understanding, perceptions and attitudes towards wetlands conservation and wise use**
- Creating awareness about wetlands among:*
- *The public*
 - *Wetland stakeholders and users*
 - *Specific influential groups*
 - *Government officials*
 - *Senior decision makers.*
- 7. Securing financing mechanisms for sustainable wetlands management**
- 7.1 *Sourcing wetland finance from various environmental funds*
- 7.2 *Ensuring specific wetland allocations in government budgets*
- 7.3 *Developing corporate sector finance for wetlands*
- 7.4 *Developing donor-funded projects*

Pakistan's National Biodiversity Clearing House Mechanism

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Pakistan's National Clearing House Mechanism (CHM) is a network that provides information on the biodiversity in Pakistan in support of the UN Convention on Biological Diversity (CBD). The National Focal Point (NFP) of CBD and NFP of CHM has jointly set up a national CHM in the Forestry Wing of Ministry of Climate Change through the financial assistance of Global Environment Facility (GEF) through United Nations Environment Programme (UNEP) and with the technical support of WWF - Pakistan. The CHM aims to contribute significantly to the implementation of the CBD by promoting and facilitating technical and scientific cooperation among Parties, other Governments and stakeholders at the national level. The main objectives of the Pakistan's CHM are as under:

1. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
2. Reduce the direct pressures on biodiversity and promote sustainable use
3. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
4. Enhance the benefits to all from biodiversity and ecosystem services
5. Enhance implementation through participatory planning, knowledge management and capacity building

A national level CHM technical Committee was constituted and notified by the NFP CHM with the following Terms of References:

1. Review the requirements of CHM – PoW and to provide technical guidance accordingly.
2. Identify sources of biodiversity data and information and gaps
3. Provide technical backstopping for establishing world-class CHM of Pakistan
4. Define terms of partnership for data sharing, data specification and standards
5. Ensure full and timely implementation of CHM component of BEAP project

Pakistan's National Biodiversity CHM has two major components:

- CHM Data Repository Center
- CHM Website

Data Repository Center will be established under the NFP - CBD. Data that is held by Centre includes both manual and electronically held data, and comes from a variety of sources, including species via data exchange agreements, habitat & species surveys, national reports, reference materials, historic biodiversity reports, historic maps, photographs etc.

The national CHM website administered by the national CHM Focal Point, contains all national biodiversity-related information to assist policy makers and interested stakeholders to meet obligations under the CBD and to conserve and ensure sustainable use of biodiversity. The Pakistan's CHM website is serving as a gateway to all available biodiversity information at the National level.

Ministry of Climate Change through the NFP of CBD and NFP of CHM is the custodian of the Pakistan's National CHM and WWF – P is assisted the Ministry of Climate Change in establishing the CHM through this project. Ministry of Climate Change will officially acquire, authenticate and make available necessary documentation and data required for the Pakistan's National CHM.

An inception workshop on Pakistan's national biodiversity Clearing House mechanism was organised in Islamabad from May 7-8, 2012 with the following major objectives:

1. Provide information on the Convention on Biological Diversity (CBD) and its implementation in Pakistan
2. Share information on the status of biodiversity in Pakistan
3. Disseminate draft National CHM Strategy document with the stakeholders
4. Share design and layout of the National CHM website
5. Develop links to Internet-based biodiversity information in Pakistan
6. Offer a window for scientific and technical cooperation in the field of biodiversity
7. Integration of Biodiversity conservation issues and principles into national policies and plans

Three working groups were defined to give suggestions for the improvement of CHM Strategy and Website and how this could effectively address Pakistan's commitment to CBD and also share information with the global community about the biodiversity status of Pakistan.

Group 1: Identification of Stakeholders and Terms of Partnership

The main responsibility of the Group 1 was to identify the stakeholders that are not included in the draft CHM Strategy, and to edit the terms of partnerships between the data producers and data users.

Group 2: Data Standards

This group discussed about the spatial data specifications. The main purpose of this working group discussion was to identify the number of spatial data layers and their standards.

Group 3: Strategy Implementation Working Group

This working group discussed about the implementation phase of the CHM project and identified the stakeholders as the resource persons in the provinces. This group was also assigned the duty of compiling the Terms of References for the data users.

It was concluded in the workshop that due to large volume of data, CHM data repository center will only have the lists/electronic catalogue of the data available with different organisations. This can also be achieved by uploading the list of historic datasets and literature on biodiversity on relevant organisation's website or CHM website. Website design and layout was finalised with the suggestions from stakeholders.

After the launching of national CHM website, capacity building workshops will be organised in all provinces, AJ&K and Gilgit Baltistan. GIS Nodes established by Pakistan Wetlands Programme in provincial headquarters will be used for CHM capacity building workshops. Representatives of provincial nodes will be trained on Content Management System (CMS) programme, which can be used to set up and maintain website for national CHM database building. As part of this activity, participants are trained to database management system, web portal use, data/metadata entry processes, metadata standards, use of open source applications for data sharing and spatial data handling in open source web GIS interface. Encourage the use of CHM website as a means of dialogue between civil society, the stakeholders and policy makers.