

# The Pakistan Wetlands Programme

## Executive Summary

**What is a wetland?** Pakistan is a signatory to the international *Ramsar Wetlands Convention* and has adopted the comprehensive wetlands definition used by the parties to this Agreement: "Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static, flowing, fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six metres."

**Where do wetlands occur in Pakistan?** Pakistan is blessed with about 225 significant man-made and natural wetlands spread over approximately 10% of the country. Lakes, canals, dams and lagoons formed as part of Pakistan's extensive *Indus Basin Irrigation System* are classified as man-made wetlands. Natural wetlands, whether permanent or seasonal, exist as peatlands, rivers, streams, lakes, marshes, estuaries, mudflats and intertidal areas. Pakistan's wetlands occur in a broad variety of ecological zones including arid, semi-arid, alpine and coastal areas.

**How do we benefit from wetlands?**

- Sustenance for agriculture, grazing and fisheries;
- Provision of vital habitat for wildlife, especially waterfowl;
- Maintenance of water quality and abatement of pollution;
- Flood and erosion control;
- Maintenance of both surface and underground water supplies;
- Tourism, outdoor education, sport and recreation; and
- Contribution to global climate control and stability.

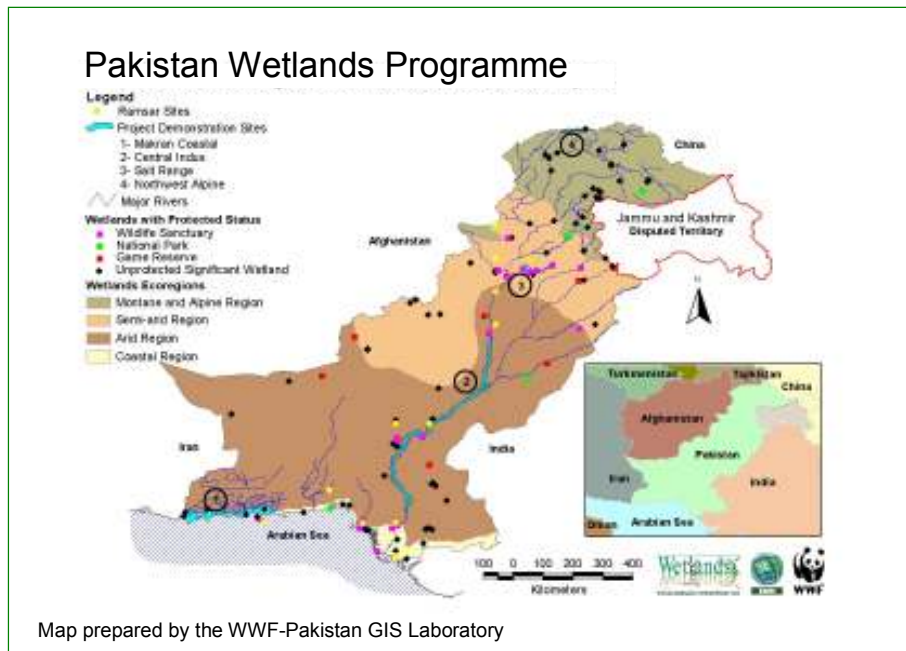
**What is the socio-economic value of our wetlands?**

Wetlands and their resources make a significant, though largely unrecognised, contribution to Pakistan's economy. Both freshwater and marine fish, for example, form a noteworthy portion of fish production and exports. Further, they provide livelihoods for several rural communities such as fisher folk, hunters, graziers and forest users living close to wetlands. Other people also use wetland products on a daily basis. Fish and fish products, baskets, blinds and reed mats and herbal medicines comprise just a few examples of these products. Rural people, especially poor households, also extract and process wetlands material for meeting daily needs. Thatched roofs - a common sight in rural areas - are made from emergent wetlands vegetation and fire wood is often gathered from forests found around wetlands.

**What is the biological value of our wetlands?** Pakistan's wetlands support a broad spectrum of important plant species and invertebrate and vertebrate animals. The latter includes a range of threatened, endemic and endangered species: five species of mammals, nine bird species, six forms of reptile, and about six freshwater, estuarine and marine fish types. Several of these animals are world famous such as the Indus Dolphin, Punjab Urial, Marsh Crocodile and Green and Olive Ridley Turtles. Many types of migratory birds including White-headed Duck, Siberian Cranes, Sarus Cranes, Greater Flamingos and Spot-billed Pelicans use Pakistan's wetlands as wintering grounds.

**What are the threats to Pakistan's wetlands?** Our wetlands are generally degrading due to a whole range of human-induced threats including the following:

- Conversion of wetlands and their immediate surroundings for agriculture and other purposes;
- Damming of rivers and changes in water flow regimes;
- Over harvesting of many forms of wetlands resources;
- Felling of timber and deforestation of catchment areas;
- Organic and inorganic pollution of wetlands;
- Policy deficiencies and inadequate management.



**The Pakistan Wetlands Programme:** Headquartered in Islamabad, the Programme aims to promote the conservation of the country's freshwater and coastal wetlands and their associated biodiversity by means of two distinct sub-sets of interventions:

- The creation of a positive, enabling national environment for wetlands conservation through policy development, training, capacity and awareness building;
- The provision of replicable working examples in the form of community-based management plans for four wetlands complexes, each representing a specific eco-region.

**Programme Approach:** The Programme takes a broad participatory approach to promote increased public, institutional and policy support for wetlands conservation. It focuses on both Pakistani society at large and on key stakeholders to build awareness, improve capacity and elicit technical and financial support for wetlands conservation in Pakistan. Partner institutions will comprise of government agencies, non-governmental organisations, educational and research institutions, media and civil society organisations.

Community involvement will be underpinned by supporting local institutions, user-rights agreements, participatory planning and management of wetlands complexes and alternative income generation initiatives. These measures, together with increased awareness, will enable rural communities to conserve wetlands resources and manage them for maximum sustainable benefit.

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## Programme components:

### 1. Creation of a national enabling environment:

- ❑ Strengthening of appropriate institutions for the sustainable management and conservation of wetlands;
- ❑ Development and implementation of a comprehensive, inter-sectoral, National Wetlands Conservation Strategy;
- ❑ Enhancement of planning and management capacity for wetlands conservation by the introduction of decision-making tools such as Geographic Information Systems;
- ❑ Enhancement of technical capacity within key government agencies and communities to conserve wetlands;
- ❑ Improvement of public awareness and support for wetlands conservation; and
- ❑ Development of effective financial sustainability mechanisms for wetlands conservation.

### 2. Implementation of participatory wetlands management in four demonstration sites:

**Makran Coastal Wetlands Complex:** Extending westwards along Balochistan's Makran Coast from the Basol River to Jiwani on the border with Iran, this Complex supports a range of cetaceans such as Finless Porpoises and Hump-backed Whales as well as the endangered Marsh Crocodile. Local communities are dependent on fishing and port activities that have led to pressures on marine biodiversity through over-harvesting and pollution. A lack of alternate resources for fuel, fodder and timber has led to unsustainable utilisation of mangroves in the Dasht estuary.

**Central Indus Wetlands Complex:** Home to Pakistan's endemic Indus Dolphin, this Complex presents a picture of intensive resource over use to meet subsistence needs. Over-fishing, harmful fishing techniques, agrochemical, industrial and urban pollution, hunting and extraction of wetlands vegetation pose the main threats to wetlands and their associated biodiversity in this Complex. Potential for alternative income generating ventures such as eco-tourism is high and can be encouraged to provide income for people who are acutely dependent on wetlands resources

**Salt Range Wetlands Complex:** Comprising of a series of adjacent lakes - Kallar Kahar, Khabbeki, Uchali, Jhalar, and Namal - this Complex provides an important wintering ground for migratory birds and is core habitat for the endemic Punjab Uril. The lakes are degrading in quality and extent due to encroachment of agriculture, over-extraction and pollution of water and a range of other intensive resource-use practices. Fortunately, the local inhabitants are well organised in community-based organisations and recognise the dire need to conserve the wetlands biodiversity and other resources of the area.

**North-west Alpine Wetlands Complex:** Located in the upper Yarkhun River Valley at elevations from 3,000 to 4,200 m, this Complex includes some of the highest biologically active wetlands on earth. Its glacial lakes, braided stream beds and extensive peatlands provide a seasonal refuge to Palaearctic bird migrants and Marco Polo sheep. They also support a substantial local population composed essentially of hardy Wakhi people whose semi-permanent habitation is established well above the tree line. Emergent and peripheral wetlands vegetation is seasonally subjected to unsustainable use by Wakhi people and their livestock.



Jiwani: Makran Coastal Wetlands Complex



Taunsa: Central Indus Wetlands Complex



Uchali Lake: Salt Range Wetlands Complex



Yarkhun River: North-west Alpine Wetlands Complex

### Key facts about the Pakistan Wetlands Programme

- GEF Implementing Agency: UNDP
- Implementing Partner: Ministry of Environment
- Programme Implementing Agent: WWF – Pakistan
- Duration: 7 years
- Scope: Nation-wide
- Total Programme Cost: US \$12.134 million
- Principal Donors: The Royal Netherlands Embassy, The Global Environment Facility, Pakistan Poverty Alleviation Fund, United Nations Development Programme and WWF Global Network

