Wetlands in India

Introduction: Wetlands are the link between water and land. These ecologically sensitive areas are getting depleted fast, causing a threat to **the environment. Conservation programmes for them is the need of the hour.**

Wetlands

Defined as areas of marsh, fen, peatland or water (permanent or temporary), with water that is static or flowing. They can be natural or manmade.

Wetland characteristics

The soil must remain water logged or submerged for whole or part of the year. The wetland biota depends upon and is adapted to this waterlogging or submergence during atleast part of their life cycle.

India has a varied terrain and climate that supports a rich diversity of inland and coastal wetland habitats which are unique ecosystems. The health of inland freshwater wetlands affects the health of coastal wetlands also. They hold rainwater, snowmelt and sediments; act as filters, thereby protecting and purifying sources of drinking water.

Wetlands have the **dual capacity** of being 'water providers' and 'water users'. Being critical components of the water cycle that delivers the fresh water, the wetlands need some quantities of water to keep their functions in perfect order.

Wetland and water play an important role in the livelihood security of the rural poor. Globalization has prevented rural communities from developing trading initiatives to market wetland products. Promoting sustainable trade in wetland products is a way to alleviate poverty and conserve wetland.

Wetlands Help In

- Controlling floods
- Water storage or supply
- Water purification, retention of pollutants/nutrients/sediments
- Ground water recharge or discharge, maintenance of underground water tables
- Freshwater cycle
- Staging ground for waterfowl, nurseries for fisheries and wildlife
- Stabilization of local climate
- Protecting bio-diversity
- Recreation, tourism and cultural heritage
- Providing livelihoods to local people.

Wetland Habitats Have Been Destroyed By

- Draining and land filling
- Over-exploitation of fish resources
- Pollution
- Agricultural production and residues, industrial wastes reach wetlands and suffocate them
- Other human activities like cultivation and to meet the demands of the increasing population.

Loss of Wetlands Result In

- Increased flooding
- Decline in water quality
- Degraded freshwater supply
- Threatening the ecosystem, the flora and fauna
- Clogging of the natural conduits in the marshland
- The runoff in the low-lying marshland gets blocked.

Facts

- More than ½ of the worlds remaining wetlands have been destroyed in the 20th century, especially in developing countries by the demands of industrialisation.
- 1/3rd of Indian wetlands has already been wiped out or has been severely degraded.
- Coastal wetlands provide nearly 12% of the total fish catch.
- Nearly 1.1 billion people do not have access to safe freshwater, and nearly 1.7 billion people live in water scarce areas. (*Source*: The World Summit On Sustainable Development, 2002)
- One of the most important wetlands in India is the Keoladeo National Park, Bharatpur, Rajasthan, which is a manmade wetland. Various migratory birds visit this park almost every winter.
- Chilka in Orissa is another important wetland and is the largest (1100 sq km) Brackish-water Lake in India.
- The Government identifies 6,48,507 hectares as wetland in India.

Degraded Wetlands in India

- **Ladakh:** It is home to a large variety of flora and fauna. This land of the Indus River is considered a cold desert. The environment is ideal for the endangered black necked crane, Brahmini ducks, Kiangs and various medicinal flowers. These wetlands face dangers from the nomadic tribes, growing demand for Pashmina wool, over-grazing in the pasturelands, non-biodegradable garbage thrown into the lakes, pollution, cars washed in water

bodies, off track driving by tourists, all is harmful for the balance of the eco-system.

- **Wular lake** (Jammu and Kashmir)**:** This lake in is grossly encroached by farmers who convert vast catchment area into agricultural land. Besides, pollution from fertilisers and animal waste, hunting pressure on waterfowl and migratory birds and weed infestation has led to problems.
- **Tsomoriri lake** (Jammu and Kashmir)**:** This basin was connected by road that promoted tourism and economic activities, however, affecting the breeding of waterfowl population.
- **Harike wetland** (Punjab): Surface and ground water are utilised on a large scale for irrigation. Untreated waste from catchment town is discharged into the lake. Deforestation is on the rise in lower Shivaliks, causing soil erosion and siltation.
- **Ropar lake** (Punjab): Siltation from the adjoining barren and soft hills cause threat to the lake. Water quality degradation is caused by fertilizer and thermal power plants in the vicinity. Besides, interference with the resident and migratory birds, illegal fishing and poaching of wildlife puts these species in danger.
- **Point Calimere** (Tamil Nadu): Illegal extraction of timber and non-timber produce has led to an ecological imbalance in this wildlife and bird sanctuary which already faces danger from industrial pollution and poaching.
- **Sambhar lake** (Rajasthan): Grazing pressure from the 20-odd villages around the lake causes desertification.

World Wetlands Day

It is observed on **February 2**, every year since 1997, which was also the 16th anniversary of the Ramsar Convention on Wetlands signed in 1971 in Ramsar, Iran, by 18 countries. Today the convention has 135 members.

Aim of WWD: to focus attention on the importance of wetlands for the environment and the people.

Ramsar is the only global environment treaty dealing with a particular ecosystem.

Aim of Ramsar convention: conservation and wise use of wetlands as a means to achieving sustainable development throughout the world.

The countries that signed the contract committed to include internationally important wetlands in the Ramsar list and ensure the maintenance of the ecological character of each site. Also decisions regarding the implementation of the convention, especially with regard to trans-frontier wetlands, shared water systems, shared species, and development projects affecting wetlands are done only after parties consult each other.

WWD is celebrated by government and non-government organisations that organise lectures, seminars etc to increase public awareness and help communities to protect their local wetlands.

Wetland day is highly significant for India, as draining and land filling has destroyed the wetland habitats here.

- **East Calcutta Wetlands** (West Bengal): Landuse changes over a period of time have led to conversion of some of the largest fish farms pisciculture to paddy cultivation in these wetlands. Waste water effluents of the industries are emptied into the city outfall channels, illegally, resulting in metal deposition in the canal sludge. Thus this waste water is incapable of ensuring the edible quality of fish and vegetables grown in the wetland.

- **Asan Barrage** (Dehradun): This 3.2 sq.km wetland has been host to a number of migratory water fowls. Though covered under the national bio-diversity strategy action plan and declared as 'important bird areas (IBA)', poachers kill the birds indiscriminately, also turning the wetlands into unfit marshy lands. This is because of the delay in declaring them as sanctuaries.

Solution

- **Sensitisation camps** for tourists, tour operators, and army officials through lectures and slide shows.
- **Cleanliness drives** to clear nesting sites and lake area of all rubbish lying there.
- **Awareness** among students and local people on the flora and fauna of the area. World Wetlands Day is observed to improve public awareness.
- **Government initiatives**

Existing Government Initiatives

- **Wetland Conservation Programme**
  The forest ministry took up this programme in collaboration with state governments to revive the dying lakes and ponds of the country. The ministry has identified 24 wetlands that require urgent conservation and management. Financial assistance has also been released to the state governments for supporting various activities for conserving water points.

- **National Lake Conservation Plan (NLCP)**
  Urban wetlands subjected to deterioration due to urbanisation and other anthropogenic pressures, are incorporated in this plan, taking up 10 lakes initially.
- The ministry has also asked the state governments to survey and demarcate the areas, take up activities of weed control, catchment area treatment, desiltation, conservation of biodiversity, pollution abatement, education awareness, community development etc.
- State steering committees are set up in various states with the chief secretary as the chairman, for carrying out these activities.

These unique ecosystems have been subjected to large-scale human interventions and we are therefore left with 2/3rd of our wetlands. Their value has not yet struck a chord with the government because their conservation programmes are yet to be incepted.

WWF-India as an ENVIS Centre/Node has been keeping a tab on the media activity on environment related issues and carries out analysis on different issues in media.

For further information contact:

G. Areendran
Head-ENVIS Centre/Node

Indira Gandhi Conservation Monitoring Centre
World Wide Fund for Nature-India
172-B, Lodi Estate, New Delhi - 110 003
Telephone : +91-011-51504791/51504794
Fax : +91-011-51504779/4795
E-mail: igcmc@wwfindia.net
Website : http://www.wwfenvis.org / www.wwfindia.org