

Wet Lands, Their Conservation And Tourism

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Abstract: Wet lands are world's most productive ecosystems. They provide essential services for people such as water, food, construction material, coastline protection etc. They also offer a great range of recreational activities which include Sunbathing, swimming, Boating, Diving, Snorkeling, Sport fishing, Duck hunting, Photography, Bird watching and simple enjoying the landscape. People all round the world are therefore naturally attracted towards such places and offer significant opportunities for Tourism thus generating income for government Tourism industry itself and local community as well. India' rich and varied geographical diversity provide us some of the world's best wetlands. They are renowned tourist attractions apart from being ecologically important. Increasing tourism can expose these wetlands to a variety of risks and dangers. Siltation, pollution, shrinkage of total area, overfishing are some of these risks. All these can deplete the significant plant and animal life supported by wetlands. They can be enjoyed today and tomorrow only if their visitors are managed sustainably.

Key words: Marsh: low lying wetland, Hinterland: District lying behind coast, Mangrove: Tropical area which grows on muddy banks, Siltation: Mud deposited by water, Denudation: the act of stripping of covering or removing the surface; a making bare, Ecotone: A zone of transition between two habitats or an area that separates one ecosystem from the other.

I. INTRODUCTION

Wetlands are broadly defined under Ramsar Convention and include Rivers, Lakes Ponds Mangroves, Coral reefs reservoirs mudflats sandy beaches salt pans and more. They include area that can be coastal or inland, natural or artificial. Wetlands have been identified as the most useful natural resource systems, coral reefs are major attraction for the tourists because of .Scuba diving and snorkeling. There is an impressive network of wetlands world over that meet the criteria of biodiversity and uniqueness. These wetlands have various opportunities in terms of job provisions and other economic benefits and many challenges like damage to ecosystem, deforestation, soil and culture erosion, loss of flora and fauna etc but this can be managed by sustainable tourism.

OBJECTIVE

- ✓ To gather information about Indian wetlands.
- ✓ To study the functions and importance of these wetlands.

- ✓ To study the impact of tourism on wetlands.
- ✓ About the possible ways of their conservation.

II. WHAT THESE WETLANDS ARE?

Wetlands are defined as [under Ramsar convention] Rivers, Lakes. Ponds Mangroves Coral reefs, Reservoirs, mudflats, Sandy beaches Salt pans Marshes whether natural or artificial, permanent or temporary with water that is static or flowing, fresh, brackish or salt including area of marine water the depth of which does not exceed six meters'.

India's wetlands are distributed in different geographical regions ranging from the cold arid zone of Ladakh to the wet humid climate of Imphal; the warm arid zone of Rajasthan to tropical monsoonal central India, and the wet humid zone of the southern peninsula. List of Ramsar sites in India comprise of Indian wetlands deemed to be of International importance under the Ramsar convention. There are 26 wet lands in India and area wise they cover about 4.1 million hectares, of which

1.5 million hectare is covered by natural wet lands and 2.6 million hectare by manmade wetlands. The basic knowledge of these wetlands is essential for the students of tourism and tourists because vast expanse of water spread area are pleasant sights and invariably attract tourists both domestic and foreign. There may be additional attraction like boating, yachting, sailing, fishing, dolphin, migratory bird's wild life etc. Some of the wetlands of India are world's biggest tourist attractions; Chilka Lake, Udaipur Lake, Dal Lake Etc are some of them. Wet lands perform useful function in the maintenance of overall balance of nature they also play a significant role towards flood control, water storage and purification, protection of shoreline and hinterlands therefore the knowledge about them is essential.;

III. IMPORTANCE OF WETLANDS

The importance of wetlands has to be viewed in the context of physiochemical and biological processes which occur in wetlands. They include:

- ✓ Sedimentation
- ✓ Storage
- ✓ Ion exchange
- ✓ Nutrient uptake
- ✓ Absorption, Adsorption
- ✓ Bacterial and fungal dissimulation
- ✓ Gasification
- ✓ Nitrification
- ✓ Bioconversion etc.

IV. REQUISITE FEATURES OF WETLANDS

It should be good representative of a natural or near natural wetland characteristic of the appropriate bio geographic region

It should play hydrological, biological or ecological role in the natural functioning of a major river basin or coastal system

It should be specific type of wetland rare or unusual.

It should support an appreciable assemblage of rare vulnerable or endangered species or sub species if plants and animals.

V. FUNCTIONS OF WETLANDS

Wetlands are the habitat of a wide variety of plants and animals, since they are shallow water areas, they provide ideal habitat for water birds. Donana of Spain is the housing ground of half of the total no of bird species in Europe, many of them are endangered species. , Similarly Alyki kitrous Lagoon of Greece has the most important gull colony. In India Bharatpur in Rajasthan is the seasonal home of Siberian cranes. Preservation of endangered and rare species and sustenance of migratory birds are two specific functions of the wetlands.

They are the nursery ground for several species of fish and shell fish and wide variety of aquatic organisms. Chilka in Orissa has Dolphins who move around in the area where the

lake meets the sea. Coastal wetlands being an Ecotone between the fresh water and sea have high species diversity. Ecologically they regulate water, act as natural filters, and help in nutrient recovery and cycling, release excess of nitrogen, deactivate phosphate remove toxins, chemicals and heavy metals through absorption by plants

Furthermore coastal wetlands with their unique mangrove are a natural bulwark against erosion by sea when there is a storm in the sea. Mangrove wetlands of India and Bangladesh act as buffer against the devastating storm of Bay of Bengal. Wetlands thus help in mitigating floods recharging aquifers and reducing surface run off and the consequent erosion.

VI. INDIAN WETLANDS

Most of the natural wetlands of India are connected with river systems of the north and south. On the other hand various multipurpose projects launched to harness water systems have provided a no of wet lands e.g. Harike barrage at the confluence of the Beas and Sutlej in Punjab, Bhakra Nangal Dam in Punjab and the Cosi Barrage on the Bihar Nepal border. We also have a good net work of lakes natural as well as manmade e.g. Kabar lake Pichola complex and Sukhna lake etc. In addition to this there are 6,740 square kilometers of Mangroves, Andaman, Nicobar and Sunder bans holds the 80 percent of mangroves in India. Rest of them is in Orissa, Andhra Pradesh, Tamilnadu, Karnataka, Maharashtra, Gujarat and Goa.

Some of most important wetlands are; Kolleru [Andhra Pradesh], Wullar [Jammu and Kashmir], Chilka [Orissa] Loktak [Madhya Pradesh], Samber [Rajasthan], Pichola[Rajasthan], Asthamudir [Kerala], Harike[Punjab], Kanjli [Punjab] Pong Dam Lake [Talwara, Punjab], Sukhna[Chandigarh], Renuka[Himachal Pradesh], Kabar [Bihar]and Dal [Jammu and Kashmir].

VII. IMPACT OF TOURISM

Tourism has been considered as one of the major issues as far as environmental damage to natural tourists is concerned. Poor planning of the tourism schemes and growth of the Industry are the chief factors responsible for the damage e.g. Dal lake of Jammu and Kashmir which was 25 square kilometers five decades ago has shrunk to 10 square kilometers

Chilka in Orissa which is called the Tourist paradise is a vast expanse of water surrounded by small green hillocks and thousands of migratory birds. There are a large no tourist spots around the lake which can be developed into tourist sites to diffuse the huge no of tourists at chalk lake, These sites are samala islands, Rambha, Barkul and Satpada, water sports complex is being established at Barkul and tourist lodges at Satpda to diffuse the tourists, besides it there is a famous Kalijai temple which attracts many tourists, there some other tourist spots around chilka which need to be developed. Dolphins which move around the area between satpda and Arakhud i.e. where lake meets the sea. Secondly some wild black bucks stay in the narrow area between the Bay of Bengal

and the lake therefore Chilka Lake is a blend of adventure, religious and eco-tourism.

However when the no of tourists exceeds the carrying capacity of the environment there is a trouble in that case just run after money without thinking of its impact on the environment. Hotels and lodges are constructed near or on the bank of the river. Their refuse leftover and sewer water gets into the lake thus polluting it, at times jetties are also constructed for the boats. The construction doesn't always take into account the wave pattern of the lake and may have adverse effect on the lake and silt may start getting depositing next to it, country boats are being replaced by mechanized boats which not only create a lot of noise but also leave traces of oil/ Diesel/Petrol into the lake water thud destroying the rare flora and fauna of the ecosystem. This is the state of almost all the other lakes also. Tourism construction, development and all the related activities should blend harmoniously.

VIII. EXCESSIVE TOURISM AND WETLANDS

A. EXCESSIVE TOURISM EFFECT THE WETLANDS IN THE FOLLOWING WAYS

Reduced arrival of migratory birds; the migratory birds fly thousands of miles in winters to reach a far away lake and then back journey after three months but these birds go to a particular lake only if they find the environment friendly and peaceful and food supply is also in abundance. Excessive tourism means increased noise pollution and blaring music by the insensitive tourists which leads to the decreased arrival of these migratory birds. Siberian crane which used to migrate Bharatpur have stopped coming because of such, disturbance by the excessive tourism, similarly Chilka Lake has also been deprived of many life forms because of such reasons.

B. OVER FISHING

The wet lands are rich in variety of fish forms. The use of mechanical boats near the fish movement for spawning scare them away and sometimes even kill them.

C. SILTATION

Siltation is one of most common problem of almost all the wetlands. Increased activity of the tourists in the catchment area brings silt with it thus damaging the wetland. Siltation increases as result of denudation of forests because in such cases rain carries more amount of silt than usual. The silt settles at the bottom of the wetland thus raising the water level as a result the vegetation at the bed of wetland gets destroyed thus depriving the birds of important source of food.

D. SHRINKAGE OF WATER AREA

The encroachment of the peripheral area of the wetland for tourists activity, for setting up of tourist complex, for leasing out the periphery for prawn culture, pisciculture etc

leads to its shrinkage. The shrinkage of Dal lake and Chilka lake is the result of all this.

E. POLLUTION

The solid waste and sewer water from the human habitation on the periphery of lakes find their way into them thus polluting them, also damage the flora and fauna in them. When the lake water gets polluted the water birds cannot breed.

All these problems are definitely enhanced by excessive tourism but complete ban on the tourists is not the right way in fact we should search for methods to let the tourists appreciate the natural beauty of these wetlands without disturbing the ecological balance.

F. CONSERVATION OF WETLANDS

The importance of wetlands at the global level was invented after the first International convention on wetlands which was held in Ramsar in Iran in 1971 at that time only two wetlands of India Chilka and Bharatpur got the place. But after that Govt of India constituted a National wetland Management Committee which started working on conservation of wetlands, and many wetlands were added into the list of global wetlands.

G. WETLANDS HAVE BECOME CENTRAL PLACE OF ATTRACTION FOR BIRDS

Chilka Lake is an example of that. It was therefore proposed to develop other wetlands also as tourist attraction centers. After all a century is not worth its value if human beings and birds cannot communicate with each other.

However important thing to realize is the strict regulation of traffic. For this reason the wetland area is divided into three distinct zones

IX. ACTIVITY ZONE AT THE PERIPHERY OF THE WETLAND BUFFER ZONE

CONSERVATION ZONE FORMING THE WET LAND CORE AREA WHERE NO TOURIST IS ALLOWED

Wetland doesn't mean setting aside it as a protected area but use them as an important resource. Successful management of wetlands require much more study on them so that they can sustainably be used for pisciculture, aquaculture, general environment improvement and scientific research

More migratory birds visited Harike this season, Vulture breeding a success in HP ,these kind of news that appear clearly indicate that work is being done to conserve Wetlands. The protection and management of wetlands is just not based on sentimentality or preservation of rare species rather it hinges on real ecological and economic benefits of this ecosystem. The concept of world conservation strategy

- ✓ Maintenance of ecological processes and life support system
- ✓ Preservation of genetic diversity

✓ Sustainable utilization of species and ecosystem
Anticipatory environmental policies all have to be looked
into

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