



## An insight into Ramsar convention and Ramsar sites in India

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### Abstract

There are 2210 wetlands of international importance (Ramsar sites) all over the world and 26 of them are located in India, which constitutes 1.17 percent of total Ramsar across the globe. Other than Ramsar sites it is estimated that India has wealth of 27, 403 wetlands covering an area of 4.1 million hectares. The wetlands which provide social, economic, ecological benefits are under stress due to anthropogenic activities, pollution, urbanization, illegal mining, unplanned tourism etc. This paper discusses about the condition of major Ramsar sites in India. It examines the existing legal framework and its adequacy for the protection, conservation and management of wetlands.

**Keywords:** ramsar convention, India, conservation, protection, management, wise use, legal frame work

### Introduction

Out of numerous definitions, widely accepted definition of term wetland is contained in Article 1.1 of the Ramsar Convention, according to which “...wetlands are areas of marsh, fen, peat land 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 meters.” More clearly wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. It generally includes swamps, marshes, bogs and similar areas [1].

Wetlands are made up of hydric soil and the hydrology of wetlands which creates unique conditions makes it the most biologically diverse ecosystem when compared to all other ecosystems. Wetlands are home for various kinds of flora including –mangrove, cypress, sedges, tamarack, black spruce, water lilies, cattails and fauna which includes – reptiles, amphibians, birds and forbears. Wetlands play a crucial role in regulating the water movement both within watersheds and global water cycle. Wetlands also serve as natural waste water purification system and they are often described as “kidneys of the landscape” (Mitch and Gosselink, 1986). It has been calculated that 2.50 acres of total wetland can do job of \$123,000 worth of state of earth waste water treatment and many communities and companies are now recreating wetland to clean their waste [2]. It plays a key role in storm protection and stabilizing climatic conditions of a region and. It is reported that the large scale destruction of mangroves and deforestation caused super-cyclone which resulted huge devastation in the State of Orissa in 1999 [3]. Economic benefits are in the form

of fish, fuel wood, agriculture, recreation etc [4]. Other important functions of wetlands include- nutrient recycling, filtration of sediments and nutrients from surface water, floods mitigation, ground water recharging, and buffer shorelines against erosions [5].

Growing human population and uncontrolled anthropogenic activities such as agricultural and industrial revolution has resulted in overexploitation of natural resources and disappearance of wetlands. In USA it is estimated that about 54% wetlands which once existed are believed to have been lost. Nearly 40% of the coastal wetlands of Britain have been lost since 1960 and two-third of the remainder is seriously affected by drainage and similar activities. In south-west France, some 80% of the marshes of the lands have been drained. In Portugal some 70% of wetlands have been converted for agricultural and industrial development. In New Zealand it is estimated that 90% of wetlands have been destroyed.

Loss of wetlands has resulted in reduction in terrestrial carbon sequestration, degraded water quality, flood, shoreline erosion, low nutrient cycling, economic loss, extinction of various flora and fauna. Realizing the importance of wetlands, in 1971, there came to existence an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources [6]. The convention titled The Convention on Wetlands of International Importance, especially as waterfowl habitat or Ramsar Convention addresses global concerns regarding wetlands loss and degradation. The primary aim of the convention is to list wetlands of international importance and to promote their use, with the ultimate goal of

<sup>1</sup> T.S. Doabia, environmental and pollution laws in india, 855-859 (2<sup>nd</sup> ed.2010)

<sup>2</sup> doabia, Supra note 1

<sup>3</sup> Id at 858

<sup>4</sup> Report of the Task Force on Islands, Coral reefs, mangroves and wetlands in Environment and Forests, ,

[http://planningcommission.nic.in/aboutus/committee/wrkgrp11/tf11\\_Island s.pdf](http://planningcommission.nic.in/aboutus/committee/wrkgrp11/tf11_Island s.pdf) (last updated March,2007)

<sup>5</sup> National Wetland Conservation Programme Guidelines for Conservation and Management of Wetlands In India,

[http://www.saconenvis.nic.in/publication%5CGuidelines%20\\_revised\\_NW CP.pdf](http://www.saconenvis.nic.in/publication%5CGuidelines%20_revised_NW CP.pdf) (last updated June 12, 2009)

<sup>6</sup>The Ramsar Convention and its mission, <http://www.ramsar.org/about/the-ramsar-convention-and-its-mission>, (last updated January 1,2013)

preserving the World's wetlands. Other objects of convention includes- monitoring of biodiversity in wetlands, study anthropogenic impact and provide recommendations thereto, to promote wise use of wetlands, creating awareness and promoting public participation for the protection, conservation and management of wetlands.

As of now there are 158 contracting parties to the Convention and it has listed 1758 wetland sites, totaling 3978396 acres, having international importance. When it comes to Indian topography, 18.4% of the total land area of the country is occupied by wetland ecosystem and the Directory of Asian wetlands has identified 27, 403 wetlands, of which 23,444 are inland wetlands and 3,959 are coastal wetlands<sup>[7]</sup>. It is estimated that India has wealth of 4.1 million hectares of wetlands out of which an estimated area of 6,750 sq.km are occupied by coastal wetlands largely dominated by mangrove forest<sup>[8]</sup>. India's wetlands are generally differentiated into 8 eight categories depending on their regional presence<sup>[9]</sup>

- a. The reservoirs of the Deccan Plateau in the south, together with lagoons and other wetlands of the southwest coast.
- b. The vast saline expanses of Rajasthan, Gujarat and the Gulf of Kutch.
- c. The fresh water lakes and reservoirs from Gujarat eastwards through Rajasthan and Madhya Pradesh (Keoladeo Ghana National Park )
- d. The delta wetlands and lagoons of India's east coast ( Chilka Lake)
- e. The freshwater marshes of Gangetic Plains and the flood plains of the Brahmaputra.
- f. The marshes and swamps in the hills of northeast India and the Himalayan foothills.
- g. The lakes and rivers of mountain region of Kashmir and Ladakh
- h. The mangroves and other wetlands of Andaman and Nicobar Islands.

The aforementioned data proves it beyond doubt that India is rich with wetland ecosystem. But rapid growth of population, uncontrolled anthropogenic activities, agricultural activities, deforestation, pollution, salinization, hydrologic activities, and climate change has contributed to the decline in quantity and quality of wetlands<sup>[10]</sup>. The Wildlife Institute of India's survey reveals that wetlands are disappearing at an alarming rate of 2-3 % every annum<sup>[11]</sup>.

India realizing the importance and usefulness of wetlands became signatory of Ramsar Convention is 1981. But to give life to the convention there has to be national mechanism or legal framework. This research project aims at answering three questions which ultimately reveals whether the "Wealth is protected or not".

### 1. Whether the Wetlands are Protected, Effectively Managed and Conserved in India?

To answer to this question it is essential to study about the condition of major wetlands in India. (Appendix I). On August 01, 2013, a renowned Indian E-paper published an

article titled "The vanishing wetlands in India"<sup>[12]</sup>. It pointed out that the destruction of nearly one-third of India's wetlands is setting of alarm bells in conservation cycles. The country has 26 Ramsar sites (Appendix II) and these sites are plagued by destructive development and illegal encroachment. India's largest and well known lakes – Wular in Kashmir, Sambhar in Rajasthan to Chilka in Odisha – each one of them is rapidly shrinking<sup>[13]</sup>. The famous Pulicat lake which is country's second largest lagoon sharing border with Andhra Pradesh and Tamil Nadu is adversely affected by Dugarajapatnam port project. Nearly 2000 acres of its area has already been acquired for the project. Country's second biggest freshwater lake, the Kolleru Lake, located in the State of Andhra Pradesh is victim of unchecked anthropogenic activities. Nearly 90% of the lake which has been occupied for fish tank have turned into a drain. The condition of Vembanad Lake, which is country's longest lake and regarded as rice bowl of central Kerala is adversely affected by waste dumping, unauthorized and unplanned tourist activities and land use changes.

On August 19, 2012 The Hindu reported that the Ashtamudi lake of 61sq.km located in State of Kerala, was declared a Ramsar site in 2002. However since then the area of the lake has shrunk to 34sq.km<sup>[14]</sup>. The condition of Sasthamkotta lake, another Ramsar site and largest freshwater lake in Kerala, has become solid waste dumping location with plastics turning out to be the biggest threat. Rapid sand mining, discharge of hydro-carbon into lakes from over 1,000 mechanized fishing boats also add to the problem<sup>[15]</sup>. The Loktak lake, listed as Ramsar site in 1990, is regarded as the 'lifeline of the people of Manipur' is in the verge of extinction. This wetland which totals an area of 266 sq.km is under severe stress mainly due to human interventions like the construction of Ithai Barrage Dam, weed infestation, pollution, encroachment, overexploitation of resources etc<sup>[16]</sup>.

The Basai wetland of Gurgaon in Haryana is one the important bird areas of the country have been adversely affected by human encroachment and data reveals that the migratory bird count of this wetland has declined<sup>[17]</sup>.

Kanjia Lake located in State of Orissa which totals an area of 100 hectares is rich in biodiversity. But various illegal activities such as unchecked quarrying and pollution caused by dumping of solid waste pose a threat to this wetland<sup>[18]</sup>.

It is to be noted that in many cases of wetland destruction, Government itself is directly involved in the destruction of wetlands. In the case of Deepor Boel in Guwahati and Pallikarai marshland in Bengaluru the encroachment of

<sup>12</sup> Ananda Banerjee, The vanishing wetlands in India, <http://www.livemint.com/Politics/rOFyi3baM1800Zif2DDrK/The-vanishing-wetlands-in-India.html>, (last updated Aug 01, 2013)

<sup>13</sup> Id

<sup>14</sup> Ignatius Perera, Ashtamudi Lake : a shrinking Ramsar site, <http://www.thehindu.com/news/national/kerala/ashtamudi-lake-a-shrinking-ramsar-site/article3785198.ece> (last updated March 15, 2013 )

<sup>15</sup> Id at 14

<sup>16</sup> Abha Lakshmi Singh, Dying wetlands : A threat to livelihoods of Loktak Lake Dwellers, 2 Greener Journal of Physical Sciences, 107-110(2012)

<sup>17</sup> Anand Bodh, Wetlands facing threats in India, <http://timesofindia.indiatimes.com/home/environment/flora-fauna/Wetlands-facing-threat-in-India/articleshow/45190155.cms>, (last updated Nov 18, 2014)

<sup>18</sup> Ramnath Chndrasekhar, Vanishing Wetlands, <http://www.thehindu.com/features/kids/vanishing-wetlands/article6860776.ece> (last updated Feb 5, 2015)

<sup>7</sup> Supra note 5

<sup>8</sup> Id

<sup>9</sup> Supra note 4

<sup>10</sup> Supra note 4 at 77

<sup>11</sup> Supra note 5 at 4

wetlands were done by respective State Governments in the name of development<sup>[19]</sup>. Pallikaranai wetland which was once a bird sanctuary is now Chennai's largest official dumping site. Similarly, the case of government encroachment of Sola Beel in Guwahati where the state revenue department allotted lake-bed for construction in spite of Guwahati High Court's order to protect all wetlands in the state<sup>[20]</sup>.

**Conclusion I:** The condition of various wetlands including the ones having international status is worsening. In a survey conducted by Wildlife Institute of India it was revealed that nearly 70-80 percent of individual fresh water marshes and lakes in the Gangetic flood plains have been lost in last five decades and at present the country is left with only fifty percent of wetlands which are being lost at the rate of 2-3 % per annum<sup>[21]</sup>. The survey proves it beyond doubt that the wetlands are not protected, effectively managed and conserved in India and so it is necessary to look into the existing laws and policies that aims at preventing the degradation and loss of wetlands.

## 2. What all are the Existing Laws and Policies to Prevent Degradation of Wetlands

Judicial and Legislative approach has been adopted to answer this question and so for the sake of convenience the question shall be answered in two parts.

### Important Judicial decisions on wetlands protection in India

*People United for Better Living in Calcutta- Public v. State of West Bengal*<sup>[22]</sup>- The present case was with regard to the protection of Ramsar sites the city of Kolkata. The Court decided the case in favor of the petitioner by staying all developmental activities at the sites. It was held that "Wetland acts as a benefactor to the society and there cannot be any manner of doubt in regard thereto and as such encroachment thereof would be detrimental to the society which the Law Courts cannot permit. This benefit to the society cannot be weighed on mathematical nicety so as to take note of the requirement of the society - what is required today may not be a relevant consideration in the immediate future, therefore, it cannot really be assessed to what amount of nature's bounty is required for the proper maintenance of environmental equilibrium."

In the matter of *MC Mehta v. Kamal Nath*<sup>[23]</sup>, Honorable Supreme Court applied the Common law principle of Public Trust Doctrine and observed that "... the public trust is more than an affirmation of State power to use public property for public purposes. It is an affirmation of the duty of the State to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust.....". The Court's decision was in favor of petitioner and ordered the Motel which illegally acquired riverbed to pay compensation for causing ecological damage in the

area.

It is evident from the judicial decisions that the Courts have already recognized the importance of wetlands.

### Insight into existing legal framework

At present protection, conservation and wise use of wetland is being ensured through following laws, policies, plans and programs.

#### a. Constitutional provisions

Article 48A Protection and improvement of environment and safeguarding of forests and wildlife- "*The state shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country*"

Article 51A Fundamental Duties- "*It shall be the duty of every citizen of India (g) to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures*".

#### b. Legislations

Indian Forest Act, 1927 ; Forest (Conservation) Act, 1980; Wild life (Protection) Act, 1972; Air (Prevention and Control of Pollution) Act, 1974; Water (Prevention and Control of Pollution) Act, 1974; Water Cess Act,1977; Environment Protection Act, 1986; Biological Diversity Act, 2002; Coastal Regulation Zone Notification,1991; and their respective amendments<sup>[24]</sup>.

#### c. Programs

National Wetlands Conservation Program (NWCP) – The program is initiated by Government of India and is in force since 1985-86. It aims at conservation of wetlands and preventing their degradation. It promotes wise use of wetlands and conservation of biodiversity. Three fold objects of the program include- laying down effective policies for conservation and management of wetlands, to provide technical and financial assistance for achieving its objects, to monitor implementation of program and to prepare an inventory of wetlands<sup>[25]</sup>. A Research sub-Committee on Wetlands has also been constituted to identify more wetlands of national importance and to supplement management action plan for intensive conservation on thrust areas of research<sup>[26]</sup>. The program was successfully implemented and 71 wetlands have been identified so far.

State Wetland Conservation Authority- States have been advised to constitute the Authority having expertise in wetlands, for effective execution of scheme in their respective State<sup>[27]</sup>.

### 3. Whether the Present Legal Framework is Sufficient for the Protection of Wetlands.

*M. Indira and 55 Others v. State of Tamil Nadu*<sup>[28]</sup> is a direct wetland involved case. The petitioners questioned the de-notification of 317 hectares of marsh land in Pallikaranai. The Court pointed out that "*absence of specific laws is an impediment to protect wetlands in States and so there must be a Union Law on wetlands to be followed by the states for protecting, managing and conserving wetlands in India.*"

<sup>19</sup> Amandeep Kang, Briefing Paper: Legal, Institutional and Technical Framework for Lake/Wetland Protection, 3,(June 2013) unpublished manuscript) (on file with author)

<sup>20</sup> Id at 2

<sup>21</sup> Id at 3

<sup>22</sup> (AIR 1993 Cal. 215)

<sup>23</sup> (1997)1 SCC 388)

<sup>24</sup> Supra note 5

<sup>25</sup> Id

<sup>26</sup> Supra note 4

<sup>27</sup> Id

<sup>28</sup>( W.P.Nos.17233, 20469 and 21261 of 2009 and W.P. No.7941 OF 2010, Judgment dated 7 March 2012. )

**Conclusion II:** It was pointed out by the Court that at present there exist no specific law that aims at protection, management and conservation of wetlands. Policies, plans or programs can never be substitute to effective law. Therefore the Legislature considering the importance of wetlands must fill this gap by enacting an effective law that aims at protecting and conserving wetlands.

### Conclusion

The hypothesis of this research project had two aspects. One, there is a need to protect, manage and conserve wetlands in India and second, there is a need for effective legislation.

Chapter one of the research projects threw light into miserable conditions of major Ramsar sites in India. There is no doubt that Ramsar Convention is not effectively implemented in India. Chapter two points out that NWCP has identified only 71 wetlands of national importance. But there exist thousands of other wetlands that are important but have no legal status.

**Prevention is better than cure:** Keeping in mind conclusion I and II, it can be derived that Wetland loss in India is at an alarming rate and if it continues the Country would soon face a total disaster. Considering the prevailing threat it's high time for the law makers to enact a specific law that aims at protecting, conserving, managing wetlands and promoting wise use of wetlands.

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