Ramsar Convention: Global Efforts for Conservation and Sustainable Use of Wetlands

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Abstract: The 20th century saw a new era of environmental revolution, with nations signing conventions and treaties to protect biodiversity. The Convention on Wetlands of International Importance, especially as Waterfowl Habitat, emphasizes the conservation and wise use of wetlands, especially as habitat for waterbirds. Wetlands are now recognized as ecosystems that are vital for biodiversity conservation and sustainable development, and the treaty is also known as the ‘Convention on Wetlands’. The Convention on Wetlands is an intergovernmental treaty adopted in 1971 in Ramsar, Iran. It is the first multilateral environmental agreement on the conservation and sustainable use of natural resources, and its provisions are relatively straightforward. The global movement to preserve wetlands began in the 1960s, led by ornithologists concerned about the worldwide loss of migratory bird habitat. The Ramsar Convention was signed in 1971 by 18 nations, addressing the need to protect the ecosystem as a whole. It has been amended twice since its adoption, focusing on the need to promote the benefits of sustainable development and protection of wildlife, wetlands, etc. The convention is successful because it does not focus on the need to protect a species or a group of species, but instead emphasizes the need to protect the ecosystem as a whole.

Keywords: Ramsar Convention, Conservation, Wetlands, Sustainable Use

I. INTRODUCTION
The 20th century was a whole new era of environmental revolution, people were becoming more aware of the environmental hazards that humankind was imposing upon nature such as the depletion of the resources, increase in the level of pollution worldwide, population growth, etc. And the emerging nations of that time realized the importance of a safe environment and the need to protect it. Various conventions and treaties were also being signed amongst the nations for safeguarding the environment. The main objective of these treaties and conventions was to safeguard biodiversity. The official name of the treaty is The Convention on Wetlands of International Importance, especially as Waterfowl Habitat. This name emphasizes on the conservation and wise use of wetlands, most importantly as habitat for waterbirds. Wetlands are now recognized as ecosystems that are vital for biodiversity conservation, as well as sustainable development, and for this wholesome purposiveness, the treaty is also commonly known as the ‘Convention on Wetlands’.(Joshi et al., 2021)

II. RAMSAR CONVENTION
The Convention on Wetlands is an intergovernmental treaty adopted on 2 February 1971 in the Iranian city of Ramsar, on the southern shore of the Caspian Sea. Thus, though the name of the Convention is written “Convention on Wetlands (Ramsar, Iran, 1971)”, it has come to be known popularly as the “Ramsar Convention”. Ramsar is the first of the modern multilateral environmental agreements on the conservation and sustainable use of natural resources, and compared with more recent ones, its provisions are relatively straightforward. It is unusual in establishing commitments at site level as well as at the level of national policy. The official name of the treaty. The Convention on Wetlands of International Importance especially as Waterfowl Habitat, reflects the original emphasis upon the conservation and wise use of wetlands primarily as habitat for waterbirds.(Ramsar Convention Secretariat, 2016)

The idea of "wise use" is at the core of the Convention and its global wetlands ambitions. The study's authors contend that over time, the concept of wise use has changed to narrowly focus on maintaining the "ecological character of the wetlands," which currently "provides the frame and heuristics" for wetlands management and governance. Initially, the authors conceptualized wise use to also take into account the human dimensions of wetlands use and management. That maintaining the ecological character of wetlands—defined and understood as the "structure and inter-relationships between the biological, chemical, and physical components of the wetland"—is prioritized in Ramsar Convention guidelines and interventions, creating a "human-nature dualism" at odds with the guiding principle of wise use.(Joshi et al., 2021)

III. HISTORY
The global movement to preserve wetlands began in the 1960s, which was led by the concerned ornithologists who were worried about the worldwide loss of migratory bird habitat, because of various underlying reasons such as conflicts between the nations itself, the threat of pollution due to increasing infrastructural developments, thus inculcating involving many nations in this mission to save the waterfowl. The few initial conferences addressed the issue of management and conservation of the habitat of these birds and the wetlands themselves but the greater issue was including the nations and to develop a dedicated international body for this purpose. The participants included IUCN (International Union for Conservation of Nature), Birdlife International, and Wetlands International. These were the key players who struggled upon various issues to develop a consensus, such as methods to identify and conserve wetlands, issues of sovereignty, and enforcement mechanisms.(Alikhani, Nummi and Ojala, 2021)
The meeting to sign the treaty was organized by Mr. Eskander Firouz, Director of Iran’s Game and Fish Department, and it was held in the Caspian seaside resort of Ramsar in Iran. The Convention was signed on 2 February 1971, by the delegates of 18 nations the next day. Earlier, the notion of conservation was only focused on conserving the species, not the ecosystem or the habitat in which they were living. Addressing the wetlands as an ecosystem was a notable development in the field of international conservation. Initially, six hundred wetlands were listed, and the task given to the participant countries included developing inventories of their wetlands. The Ramsar Convention has been amended twice since its adoption, the first amendment was made in the year 1982 via a protocol, and the second amendment was made in 1987.

The convention has adapted to the shifting global concerns. There has been a notable shift, which has emphasized the need to promote the benefits of sustainable development benefits of protection of wildlife, wetlands, etc. The main reason this convention is successful and is world-renowned is that it doesn’t focus on the need to protect a species or a group of species instead it emphasizes the need to protect the ecosystem as a whole which in turn will be able for the sustenance of a whole lot of species in it. (Giosa, Mammides and Zotos, 2018)

IV. STRATEGY

The strategy was to maximize the protection of a small amount of very important sites against local and global threats, expecting that these islets of protection will be sufficient even for migratory species, such as waterbirds. Because of the great biological importance of these sites, several protection statuses may overlap them, strengthening their protection. Locally, waterbirds have been shown to increase more rapidly in Ramsar designated wetlands than in unprotected wetlands. Currently, like other environmental conventions, the Ramsar Convention is expected to deliver greater benefits for species of higher conservation concern, which are specifically targeted by conservation efforts. The Second Warning to Humanity for Wetland Management and Policy, international assessments of the Ramsar Convention effectiveness are still scarce. (Gaget et al., 2020) The Ramsar Convention's main conservation tool is the implementation of management plans in Ramsar sites. Such management plans provide guidelines to the stakeholders based on assessments of the ecological characteristics of each Ramsar site and the socio-economic features of the region, for maintaining the ecological functions of wetlands and protect them against loss and degradation. However, the Ramsar Convention is not necessarily supported by legal regulations nor accompanied by binding measures, meaning that conservation effectiveness may depend on the country's governance. (Gaget et al., 2020)

V. IMPORTANT PROVISIONS

Since its inception, there have been notable provisions under ramsar convention which reflect its importance:

- Article 2(1) states that each contracting party shall declare a suitable wetland in its territory to be included in the list of wetlands of international importance. The boundaries of each wetland must be exactly depicted on a map and they may have riparian and coastal zones adjacent to the wetlands, marine water bodies or islands which are deeper than six meters at low tide to be lying within the wetlands, especially where these wetlands have the importance of waterfowl habitat.

- Article 3(1) of the convention elaborates that signatories to the convention must formulate and implement their plans so as to conserve the wetlands included in the list which lie in their territories as far as possible for their wise use.

- Article 3(2) directs that the signatory parties shall arrange to be informed as soon as possible, if there is any change in the ecological character of any wetland within its territory or is likely to change due to technological developments, human interference, or due to an increase in the population.

- Article 4(2) talks about the liability imposed upon the signatory country, if due to any urgent national interest it becomes important to destroy, decrease the boundary or any kind of compromise is made on that listed wetland, then in that case, as far as possible it is mandatory to compensate for any kind of loss of wetland, its resources, and the life within it. In particular, it should create additional natural reserves for the waterfowl either in the same area or somewhere else in the country, it should be an adequate portion of the original habitat.

- Article 4(3) The signatory parties shall encourage research and development regarding the wetlands and their flora and fauna, it shall also encourage publication regarding the same.

- Article 5(1) The signatory parties shall consult with each other about the implementation of the obligations which arise from the convention, especially in the case of extending the territory of a wetland of one or more contracting parties. At the same time, they must coordinate and support each other in devising and implementing future policies that concern the conservation of wetlands and the flora and fauna within it. (Rupp, Munoz and Lopez, 2015)

VI. EFFECTIVENESS

With the increasing population in coastal and floodplain areas, the threat to the flora and fauna is also increasing tremendously. Wetlands are ecosystems and host a wide variety of life in it, but it is decreasing due to urbanization and population boom. In a study which was conducted in the Mediterranean region, it was revealed that the water consumption rate in the wetland area increased as the water renewal rate decreased significantly, five watersheds showed a potential decrease of 20% to regulate floods of rivers. Significant improvement has been seen where the regulations have been implemented for example, the use of international environmental conventions improved waterbird population trends and facilitated climate warming adaptation of their communities. Still, in today’s scenario, the Ramsar Convention has not resulted in the overall improvement of the wetlands globally, instead, many more measures have been taken by the countries themselves to protect the flora and fauna of the wetlands. Hence, reformatory changes must be made in the regulations of the convention so that it is able to create an effective impact that is crucial in environmental protection. (Shine and Klemm, 1999)

VII. RAMSAR SITES IN INDIA

India has recently designated 11 additional wetlands as Ramsar sites, bringing the total number of Ramsar sites in the country to 75. This milestone was achieved during the 75th year of India's independence, and the total area covered by these Ramsar sites is 13,26,677 hectares.
India became a signatory to the Ramsar Convention in 1982. Since then, it has added 26 wetlands to the Ramsar sites list from 1982 to 2013. However, from 2014 to 2022, India has added 49 new wetlands to the Ramsar sites list, highlighting the country’s increased commitment to wetland conservation and management.

In 2022, a total of 28 wetlands in India have been designated as Ramsar sites. Of these, 19 were designated in 2022, and 14 were designated in 2021, based on the date of designation mentioned on the Ramsar Certificate. Tamil Nadu currently has the highest number of Ramsar sites in India, with 14 sites, followed by Uttar Pradesh with 10 sites. (Vipin, Solanki, 2021)

### Year wise designation of 75 Ramsar sites

<table>
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<tr>
<th>S. No.</th>
<th>Year of Designation</th>
<th>No of site designated (As per date of designation)</th>
<th>Sites designated up to 2013 and after 2014 to till date</th>
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### VIII. INTERESTING FACTS ABOUT RAMSAR CONVENTION/SITES IN INDIA

In the Indian context, the Ramsar Convention has been an important mechanism for the conservation and sustainable use of wetlands. India has designated 42 Ramsar Sites, which cover a wide range of wetland ecosystems, including lakes, rivers, coastal lagoons, and marshes. The Ramsar Sites in India are home to many rare and endangered species, such as the Indian skimmer, Siberian crane, and greater adjutant. They also provide important ecosystem services, such as water storage, groundwater recharge, and flood regulation. Despite their ecological and socio-economic significance, Ramsar Sites in India face several threats, including habitat degradation, pollution, over-extraction of water, and invasive species. The Ramsar Convention provides a framework for the conservation and sustainable use of these wetlands, and India has taken several initiatives to enhance their protection, such as through the National Plan for Conservation of Aquatic Ecosystems and the Wetlands (Conservation and Management) Rules, 2017. (Vipin, Solanki, 2021)

### IX. CONCLUSION

The Ramsar Convention seeks peace through shared water management, which can help to prevent conflict between nations and reduce institutional instability. Effective agreements can contribute to a government’s legitimacy and help in sustaining peaceful conditions. It also helps to address the problem of transboundary issues, such as cross border pollution, which further supports the goal of regional sustainable development. The ecological process and life can be enhanced technologically and by the help of legislations and management frameworks. By its effective work worldwide, the convention is building the capacity required for effective governance, which is essential for maintaining global peace.

### Reference