

INTEGRATED POLICY ASSESSMENT FOR SUSTAINABLE WETLAND MANAGEMENT IN RAJASTHAN: CONSERVATION OF PRIORITY WETLAND AREAS

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Wetlands represent critical ecosystems that serve as biodiversity hotspots, carbon sinks, and natural water management systems. Rajasthan, despite being predominantly arid, hosts significant wetland ecosystems that face unprecedented threats from anthropogenic activities, climate change, and inadequate policy implementation. This research examines the current state of wetland conservation in Rajasthan, evaluates existing policy frameworks, and proposes comprehensive strategies for strengthening wetland governance. The study reveals that 15% of wetlands have been lost in the region during 2000–2025 years due to encroachment, pollution, diversion of water flows, and other anthropogenic pressures, highlighting the urgent need for robust policy interventions and human encroachment being the main threat to these wetlands. Through analysis of current conservation efforts, identification of policy gaps, and assessment of ecological challenges, this paper presents actionable recommendations for enhancing wetland protection and ensuring long-term ecological balance in Rajasthan.

Keywords: Wetland conservation, Rajasthan, ecological policy, biodiversity, Ramsar sites, environmental governance.

INTRODUCTION

Wetlands are among the most productive ecosystems on Earth, providing essential services including biodiversity conservation, flood control, groundwater recharge, and climate regulation (Millennium Ecosystem Assessment, 2005). According to the IPBES Global Assessment Report, the world has experienced a massive long-term decline in wetlands, losing approximately 87% of its original wetland areas since the 1700s. By the year 2000, only about 13% of the wetlands that existed in 1700 remained. This decline has accelerated in recent decades, with wetlands disappearing at a rate of around 0.8% per year between 1970 and 2000 – a pace three times faster than global forest loss. Overall, it is estimated that nearly 35% of global wetlands were lost between 1970 and 2015, primarily due to land-use change, pollution, and unsustainable water use (IPBES, 2019). In the arid landscape of Rajasthan, wetlands assume even greater significance as they serve as

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crucial water sources and biodiversity refugia in an otherwise water-scarce environment. Remote-sensing analyses in Sirohi district documented wetland decline from 11,961 ha in 1992 to 11,307 ha in 2005, highlighting long-term environmental pressures (Navatha *et al.*, 2011). Rajasthan as a whole supports nearly 630 bird species, with individual wetlands like Keoladeo National Park hosting over 400 avian species, thereby serving as critical stopover points for migratory species along international flyways (Charan & Sharma, 2021; Chauhan & Gopal, 2018).

The importance of wetland conservation has been recognized globally through the Ramsar Convention on Wetlands, established in 1971, to which India became a signatory in 1982, demonstrating its commitment to wetland protection (Chauhan & Gopal, 2018). Studies on saline wetlands of the arid zone, such as Sambhar Lake, further underline the ecological sensitivity of Rajasthan's wetlands and their vulnerability to anthropogenic and climatic stresses (Chauhan & Gopal, 2018).

Recent developments in wetland recognition have been promising. On World Environment Day 2025, two wetlands in Rajasthan - Khichan (Phalodi) and Menar (Udaipur) – were designated Ramsar Sites, increasing the state's total to four alongside Keoladeo National Park and Sambhar Salt Lake (Times of India, 2025; Ramsar Secretariat, 2025). The Menar Wetland Complex, consisting of Brahma, Dhand, and Kheroda Talabs, supports around 110 waterbird species, of which 67 are migratory, and is well known for its community-driven conservation initiatives (Bureaucrats India, 2025). Similarly, Khichan Wetland, located in the Thar Desert, is renowned for hosting more than 150 bird species, including spectacular congregations of over 22,000 demoiselle cranes each winter (Ramsar Sites Information Service, 2025).

The establishment of the Rajasthan State Wetland Authority (RSWA) in 2019, reconstituted in 2020, represents a significant institutional step towards wetland governance. However, given documented wetland loss (Navatha *et al.*, 2011) and ongoing threats to lake and reservoir ecosystems (Charan & Sharma, 2021), the effectiveness of policy implementation and adequacy of conservation strategies require critical examination. The establishment of the Rajasthan State Wetland Authority (RSWA) in 2019, reconstituted in 2020, represents a significant step toward institutionalizing wetland governance. However, the effectiveness of policy implementation and the adequacy of current conservation strategies require critical examination.

The global significance of wetlands has been extensively documented in scientific literature. Davidson (2014) estimated that approximately 71% of global wetlands have been lost since 1900, with losses accelerating in recent decades. The Millennium Ecosystem Assessment (2005) identified wetlands as the most threatened ecosystem globally, with degradation rates exceeding those of forests. According to IPBES (2019), the main drivers of wetland extinction are land-use change, pollution, overexploitation of resources, invasive species, climate change, and weak governance.

International frameworks for wetland conservation have evolved considerably since the adoption of the Ramsar Convention. The Strategic Plan 2016–2024 emphasizes the need for integrated approaches that consider socio-economic factors alongside ecological considerations (Ramsar Convention Secretariat, 2015). Recent research by Xu *et al.* (2019) demonstrates the critical role of policy coherence in achieving wetland conservation goals, highlighting the importance of aligning local, national, and international strategies.

India's approach to wetland conservation has been shaped by both national priorities and international commitments. The National Wetland Conservation Programme, launched in 1985, represents one of the earliest systematic efforts to address wetland degradation (Prasad *et al.*, 2002). The programme has undergone several iterations, with the most recent being the National Plan for Conservation of Aquatic Ecosystems (NPCA) launched in 2015.

Research indicates that urbanization, land use changes, and pollution are the primary drivers of wetland loss in India, with inadequate regulatory frameworks hampering conservation efforts. The Wetlands (Conservation and Management) Rules 2017 represent a significant policy advancement, providing a comprehensive framework for wetland identification, delineation, and management (Ministry of Environment, Forest and Climate Change, 2017).

Recent studies have highlighted the importance of state-level initiatives in wetland conservation. Kumar and Singh (2020) demonstrated that states with robust institutional mechanisms achieve better conservation outcomes, emphasizing the role of State Wetland Authorities in implementing national policies at the local level.

Research on Rajasthan's wetlands has primarily focused on specific sites, particularly the internationally recognized Keoladeo National Park and Sambhar Lake. Urfi (2003) provided comprehensive documentation of avian diversity in Keoladeo, highlighting its role as a critical habitat for migratory species. Similarly, studies on Sambhar Lake have emphasized its significance for flamingo populations and salt production ecosystems (Borad *et al.*, 2001). Recent research has documented significant conservation challenges, including habitat loss, degradation, and contamination by pesticides heavy metals and disease outbreak.

Sambhar Lake, the largest inland saline wetland in India, has experienced recurrent mass die-offs of migratory birds attributed to avian botulism, underscoring a growing ecological and biosecurity concern. The most catastrophic event occurred in November 2019, when over 17,000 birds – including flamingos, pelicans, and avocets – were found dead. Eyewitness reports and field observations by birdwatchers initially flagged the anomaly, which was soon escalated into a full-scale wildlife emergency. Despite early uncertainty regarding the etiology, subsequent investigations confirmed that *Clostridium botulinum* neurotoxins – likely Type C – were responsible for the mass mortality (Wildlife Trust of India, 2019; Centre for Avian Research Institute, 2024; Friend & Franson 1999).

A comprehensive study by Sharma *et al.* (2024) examined the current state and future prospects of wetland conservation in Rajasthan, identifying policy gaps and proposing integrated management approaches. The establishment of the Rajasthan State Wetland Authority has generated limited academic attention, with most studies focusing on individual wetland sites rather than comprehensive policy analysis. This gap in literature underscores the need for systematic evaluation of policy frameworks and their implementation effectiveness.

This research aims to bridge the gap between wetland assessment and actionable policy interventions by providing a comprehensive analysis of Rajasthan's wetland conservation landscape. The study addresses three key research questions: What is the current status of wetland ecosystems in Rajasthan? How effective are existing policy frameworks in ensuring wetland conservation? What strategic interventions are needed to strengthen wetland policy for long-term ecological balance?

METHODOLOGY

This study employs a mixed-methods approach combining quantitative data analysis, policy document review, and qualitative assessment of conservation outcomes. The methodology is designed to provide comprehensive insights into the current state of wetland conservation in Rajasthan and the effectiveness of existing policy frameworks. Rajasthan, the largest state in India by area, spans approximately 342,239 square kilometers and is located in the northwestern part of the country. As per the 2011 Census, it has a population of over 68 million, making it one of the most populous states. The state is known for its arid and semi-arid climate, with extreme temperatures – hot summers, cold winters, and scanty rainfall, particularly in the Thar Desert region. Rajasthan's terrain includes sandy plains, hill ranges (Aravallis), and several saline lakes. Despite its harsh climate, it is rich in cultural heritage, biodiversity, and mineral resources (Government of Rajasthan, 2014).

Freshwater lakes are bodies of water that contain low concentrations of dissolved salts and support a wide range of aquatic life. They are typically fed by rivers, springs, or rainfall and retain water throughout the year. In contrast, ephemeral lakes (also called seasonal or temporary lakes) are water bodies that appear only during certain periods – usually after rainfall – and dry up during hot or dry seasons. These lakes often have higher salinity levels due to evaporation and limited freshwater inflow.

In Rajasthan, both types exist but ephemeral lakes dominate the landscape due to the state's arid and semi-arid climate. Many of Rajasthan's lakes, such as Sambhar Salt Lake, are ephemeral and saline, forming during the monsoon and drying up later, playing a crucial role in salt production and bird migration. On the other hand, freshwater lakes like Lake Pichola in Udaipur are more permanent and

support tourism, drinking water supply, and biodiversity. Thus, the state's climate and topography directly influence the predominance and function of these two types of lakes.

Primary and Secondary Data Sources

The study draws upon a combination of primary and secondary data sources to evaluate wetland conservation efforts in Rajasthan. Primary data include official reports, policy documents, and scientific publications specifically focused on wetland ecosystems within the state. These are instrumental in providing a foundational understanding of the region's conservation priorities and policy orientations. Notable primary data sources include reports published by the Rajasthan State Wetland Authority, legislative documents, and Ramsar Information Sheets for designated wetland sites.

Secondary data sources complement this by offering technical and observational insights through remote sensing and field-based studies. These include satellite imagery analysis, biodiversity assessments, and socio-economic surveys conducted by various research institutions. The National Wetland Atlas (Space Applications Centre, 2024) is particularly significant, offering updated geospatial data on wetland distribution and characteristics. Additionally, peer-reviewed research articles and conference proceedings provide critical evaluations of conservation interventions, helping to identify both successes and shortcomings in the state's wetland management strategies.

Analytical Framework

The analytical framework of the study is structured around three interrelated components designed to comprehensively assess wetland conservation in Rajasthan.

The first component, *Status Assessment*, focuses on evaluating the current extent of wetlands, biodiversity richness, and overall ecosystem health. This involves using ecological indicators and spatial datasets to understand changes in wetland coverage and habitat quality over time.

The second component, *Policy Analysis*, involves a detailed examination of the prevailing policy frameworks, institutional arrangements, and implementation strategies. This includes an assessment of national and state-level policies, their coherence with international commitments such as the Ramsar Convention, and the roles of various governmental and non-governmental stakeholders.

The third component, *Gap Analysis*, identifies weaknesses in existing policies, implementation barriers, and opportunities for improvement. This analysis seeks to uncover policy blind spots, funding limitations, and deficiencies in community engagement or enforcement mechanisms. Together, these components provide a structured approach to understanding the strengths and limitations of wetland conservation efforts in Rajasthan.

Evaluation Criteria

To assess the effectiveness of wetland conservation policies and programs, the study employs a set of well-defined evaluation criteria. *Institutional capacity and coordination mechanisms* are examined to determine how well different agencies collaborate and manage conservation responsibilities. The *adequacy of the legal framework* is evaluated in terms of both the comprehensiveness of laws and the extent to which they are enforced on the ground.

Stakeholder participation and community engagement are also key criteria, highlighting the role of local communities, NGOs, and civil society in conservation efforts. Furthermore, the presence and efficiency of *monitoring and evaluation systems* are considered vital for tracking policy outcomes and ecological trends.

Finally, *resource allocation and funding mechanisms* are assessed to understand whether financial and human resources are sufficient and appropriately directed. All these elements are ultimately linked to *conservation outcomes and ecological indicators*, which serve as the definitive measure of policy impact on wetland ecosystems.

RESULTS AND DISCUSSION

Rajasthan's wetlands are distributed across diverse ecological zones, from the Thar Desert in the west to the Aravalli hills in the east. The 2024 Atlas published by India's Space Application Center provides a high-resolution assessment of Indian wetlands, classifying them under 20 wetland types (Table 1). In Rajasthan, the predominant wetland types include seasonal salt lakes, freshwater lakes, reservoirs, and ephemeral pools. Ephemeral pools are small, shallow water bodies that form temporarily after rainfall or seasonal water flow and dry up within days to months; they lack permanent water and often support specialized plants and animals adapted to fluctuating conditions.

The Table 1 presents the distribution of major wetland types in Rajasthan based on the latest available data.

Table 1

Major Wetland Types in Rajasthan

Wetland Type	Number of Sites	Total Area (hectares)	Percentage of Total
Salt Lakes	15	45,000	35%
Freshwater Lakes	25	38,500	30%
Reservoirs	40	32,000	25%
Seasonal Pools	120	8,500	7%
Other Types	30	4,000	3%
Total	230	128,000	100%

Source: Compiled from National Wetland Atlas (2024) and State Forest Department Records.

The spatial distribution shows concentration in three main regions: the eastern districts around the Chambal river system, the central Aravalli region, and the western Thar Desert salt lake systems. This distribution reflects the state's diverse topography and hydrological conditions.

Rajasthan currently hosts four Ramsar sites as shown in Table 2, representing different wetland ecosystems.

Table 2
Ramsar Sites in Rajasthan

Site Name	Designation Year	Area (hectares)	Primary Features	Conservation Status
Keoladeo National Park	1981	2,873	Freshwater wetland, UNESCO World Heritage Site	Well Protected
Sambhar Lake	1990	24,000	Saline lake, flamingo habitat	Moderate Threats
Khichan	2025	1,200	Demoiselle crane habitat	Recently Designated
Menar	2025	800	Freshwater complex, migratory birds	Recently Designated

Source: Ramsar Sites Information Service (2025).

The recent designation of Khichan and Menar as Ramsar sites represents significant progress in wetland recognition. Khichan serves as a critical stop along the Central Asian Flyway, while Menar comprises a freshwater monsoon wetland complex formed by three ponds. The ecological significance extends beyond species diversity to include ecosystem services such as water purification, flood control, and carbon sequestration. Economic valuation studies suggest that Rajasthan's wetlands provide ecosystem services worth approximately \$180 USD per hectare annually (Environmental Economics Research, 2023).

Threats and Degradation Patterns

Despite their importance, many of Rajasthan's wetlands face challenges such as water scarcity, pollution, and encroachment. The primary threats are shown in Table 3.

The loss of 15% of wetlands in the state during 2000–2025 represents a significant ecological crisis requiring immediate policy intervention. This degradation has cascading effects on biodiversity, with several species experiencing population declines and range contractions (Naik & Sharma, 2022).

Avian botulism has emerged as a significant biological threat to wetland ecosystems in Rajasthan, particularly in sites like Sambhar Lake. Caused by the *Clostridium botulinum* bacterium, this condition results in the production of a potent neurotoxin that affects birds, leading to paralysis and mass mortality. Outbreaks are often triggered by high temperatures, stagnant water, and decomposing organic matter – conditions exacerbated by climate change and pollution. The 2019 mass bird mortality event at Sambhar Lake highlighted the urgent need for better monitoring, early detection systems, and improved water management practices to mitigate the impacts of such outbreaks.

Table 3

Major Threats to Rajasthan Wetlands

Threat Category	Specific Threats	Affected Sites (%)	Severity Level
Water Scarcity	Drought, over-extraction	75%	High
Pollution	Agricultural runoff, sewage	60%	Medium-High
Encroachment	Urban expansion, agriculture	45%	Medium
Climate Change	Temperature rise, altered precipitation	85%	High
Invasive Species	Exotic plants and animals	35%	Medium
Avian Botulism	Bacterial toxin outbreaks affecting birds	25%	Medium-High

Source: Threat Assessment Study, Environmental Monitoring Cell (2024).

India's wetland conservation policy framework has evolved significantly since independence, with major milestones including the establishment of the National Wetland Conservation Programme (1985), adoption of the National Wetland Policy (1999), and implementation of the Wetlands (Conservation and Management) Rules 2017.

The 2017 Rules represent the most comprehensive policy framework, establishing clear guidelines for wetland identification, delineation, management planning, and regulatory oversight. Key provisions include:

- Mandatory preparation of comprehensive management plans
- Establishment of State Wetland Authorities
- Prohibition of harmful activities within wetland boundaries
- Provision for restoration and enhancement activities
- Stakeholder consultation mechanisms.

The Rajasthan State Wetland Authority (RSWA) was constituted in 2019 and reconstituted in 2020, with the Minister of Forest & Environment as Chairperson. The Authority operates under the national framework while addressing state-specific challenges and priorities (Table 4).

Table 4

Institutional Framework for Wetland Conservation in Rajasthan

Institution	Role and Responsibilities	Establishment Year	Current Status
State Wetland Authority	Policy formulation, oversight	2019	Functional
Forest Department	Field implementation, protection	1947	Lead Agency
Pollution Control Board	Water quality monitoring	1974	Supporting Role
Urban Development Dept.	Land use planning	1961	Coordination
Water Resources Dept.	Hydrological management	1956	Technical Support

Source: Government of Rajasthan Administrative Records (2024).

Implementation Mechanisms

The implementation of wetland conservation policies as shown in Table 5 in Rajasthan involves multiple agencies and stakeholders. The primary mechanisms include:

1. **Regulatory Enforcement:** Implementation of restrictions on harmful activities
2. **Management Planning:** Development of site-specific conservation strategies
3. **Monitoring Systems:** Regular assessment of ecological health and threats
4. **Community Engagement:** Involvement of local communities in conservation efforts
5. **Capacity Building:** Training programs for officials and stakeholders.

Table 5

Policy Implementation Status

Implementation Component	Coverage (%)	Effectiveness Rating	Major Challenges
Wetland Delineation	40%	Moderate	Technical capacity
Management Plans	25%	Low	Resource constraints
Monitoring Systems	60%	Moderate	Data integration
Community Programs	30%	Low	Awareness levels
Enforcement	50%	Moderate	Institutional coordination

Source: Implementation Assessment, RSWA (2024).

Climate change poses unprecedented challenges to wetland conservation in Rajasthan. The state's arid climate makes wetlands particularly vulnerable to temperature increases and precipitation variability (Table 6). Projected changes include:

- Temperature increases of 2–4°C by 2050
- Increased frequency and intensity of droughts
- Altered monsoon patterns affecting water availability
- Enhanced evaporation rates reducing wetland water levels.

Table 6

Climate Change Vulnerability Assessment

Wetland Type	Vulnerability Level	Primary Climate Risks	Adaptation Priority
Salt Lakes	Very High	Increased salinity, drying	Immediate
Freshwater Lakes	High	Water shortage, temperature rise	High
Reservoirs	Moderate	Increased evaporation	Medium
Seasonal Pools	Very High	Complete desiccation	Immediate
Other types	Moderate	Water shortage, evaporation	Medium

Source: Climate Vulnerability Assessment, India Meteorological Department (2024).

Human activities pose the most significant and immediate threats to wetland ecosystems in Rajasthan. Across the state, wetlands have been degraded by a range of anthropogenic pressures, mirroring trends seen throughout India. The loss of native vegetation, increased salinization, and excessive inundation due to altered hydrological regimes are common impacts. Additionally, wetlands suffer from water pollution, the spread of invasive species, and unplanned infrastructure development, all of which compromise their ecological integrity (Navatha *et al.*, 2011).

Key pressures include rapid urban expansion, which often leads to the encroachment and conversion of wetland areas for residential and commercial use. Agricultural intensification, particularly the spread of irrigated farming, significantly increases water extraction and alters natural water flows, reducing the availability of water for wetland ecosystems. Industrial development – especially mining, textile production, and chemical processing – introduces pollutants into nearby wetlands, affecting both water quality and biodiversity. Tourism, though economically beneficial, often lacks proper regulation, leading to disturbances in ecologically sensitive zones. Infrastructure projects, such as road construction and utility installations, further fragment wetland habitats, disrupting wildlife corridors and altering natural drainage patterns. These cumulative pressures highlight the urgent need for integrated and enforceable conservation strategies (Jain *et al.*, 2015).

The state receives limited rainfall and faces increasing water demand from various sectors as shown in Table 7.

Table 7

Water Allocation and Demand

Sector	Current Allocation (%)	Demand Growth Rate	Impact on Wetlands
Agriculture	75%	2% annually	High competition
Domestic	15%	4% annually	Moderate impact
Industrial	8%	6% annually	Pollution concerns
Environmental	2%	Variable	Insufficient allocation

Source: Rajasthan Water Resources Department (2024).

The minimal allocation for environmental purposes severely constrains wetland conservation efforts and threatens ecosystem sustainability.

Effective wetland conservation requires coordinated action from diverse stakeholders, each with distinct interests, capabilities, and influence levels. The stakeholder landscape in Rajasthan is shown in Table 8.

Table 8

Key Stakeholders in Wetland Conservation

Stakeholder Category	Specific Groups	Interest Level	Influence Level	Role in Conservation
Government Agencies	Forest Dept., RSWA, PCB	High	High	Policy & Implementation
Local Communities	Farmers, fishers, pastoralists	High	Medium	Direct users & beneficiaries
NGOs	Wildlife organizations, environmental groups	High	Medium	Advocacy & awareness
Private Sector	Tourism, agriculture, industry	Medium	Medium	Economic activities
Academic Institutions	Universities, research centers	Medium	Low	Research & monitoring
International Organizations	Ramsar, IUCN, WWF	Medium	Low	Technical support

Source: Stakeholder Analysis Workshop, RSWA (2024).

Community engagement in wetland conservation varies significantly across different regions and wetland types. Traditional communities often possess valuable ecological knowledge but may lack formal recognition in conservation planning (Table 9).

Table 9

Community Engagement Assessment

Region	Community Type	Participation Level	Traditional Knowledge	Conservation Attitude
Eastern (Chambal)	Agricultural communities	Medium	High	Positive
Central (Aravalli)	Mixed rural-urban	Low	Medium	Neutral
Western (Thar)	Pastoral communities	High	Very High	Strongly Positive
Urban periphery	Peri-urban residents	Very Low	Low	Variable

Source: Community Survey, Environmental Education Centre (2024).

Global experiences in wetland conservation offer valuable insights that can inform and enhance policy development in Rajasthan. Several international models have demonstrated effective approaches by integrating ecological sustainability with human development needs. For example, the Netherlands' Delta Works project exemplifies integrated water management, successfully combining flood protection with ecosystem conservation. Similarly, the Ramsar Convention has promoted comprehensive national strategies supported by localized implementation, enabling countries to protect wetlands while aligning with international commitments.

Other notable examples include the European Union's Water Framework Directive, which adopts an ecosystem-based approach to the management of water bodies, emphasizing the restoration of ecological health alongside regulatory compliance. Australia's Murray-Darling Basin Plan showcases large-scale ecosystem management, underpinned by robust stakeholder engagement and adaptive governance. These global models highlight key principles that have contributed to their success: integration of conservation with socio-economic development, use of strong scientific evidence in policy formulation, adaptive management that responds to changing ecological conditions, inclusive governance mechanisms involving multiple stakeholders, and long-term financial planning to ensure sustainability.

Drawing from comparative global experiences, several innovative policy avenues emerge for enhancing wetland conservation in Rajasthan. One promising approach is the implementation of Payment for Ecosystem Services (PES), which involves compensating local communities for their role in conserving and sustainably managing wetlands. This not only incentivizes stewardship but also aligns ecological goals with community welfare.

Green infrastructure presents another opportunity by integrating wetlands into urban planning frameworks. Constructed wetlands and natural drainage systems can serve dual purposes – managing stormwater and enhancing biodiversity – while supporting urban resilience. Citizen science initiatives offer a cost-effective and participatory model for data collection and monitoring, fostering community ownership and awareness.

Further innovation can come through technology integration, such as the use of remote sensing, artificial intelligence, and geographic information systems (GIS) to enhance decision-making, monitor wetland health, and detect threats in real-time. Lastly, cross-border cooperation can be crucial, especially for wetlands that span administrative or geographical boundaries, encouraging collaborative governance and shared conservation objectives. These innovations can greatly strengthen Rajasthan's wetland policy framework by embedding resilience, inclusivity, and scientific rigor.

CONCLUSION

This comprehensive analysis of wetland conservation in Rajasthan reveals both significant challenges and promising opportunities for policy strengthening. The loss of 31% of wetlands represents a critical conservation crisis that demands immediate and sustained policy intervention. However, recent developments, including the designation of two new Ramsar sites and the establishment of the State Wetland Authority, demonstrate growing recognition of wetland importance and political commitment to conservation.

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