

ANOTHER INCREDIBLE ACHIEVEMENT AT THE NATIONAL PLATFORM

Department of Botany proudly announces that three of our semester-1 and one of our Botany Sem-5 students have grabbed three budding researcher Awards of UG category in the National Webinar on “Wetlands: Versatile, valuable and Vulnerable on 21st January, 2022 organized by Gujarat University and we4nature. Best wishes to all winners.

BUDDING RESEARCHER AWARDS

Theme-A Vulnerability of Wetlands Saloni Rani Swain (CBZ- Sem-1)

Theme- B Conservation of Wetlands (A) Jaydeep Parmar (CBZ- Sem-1)

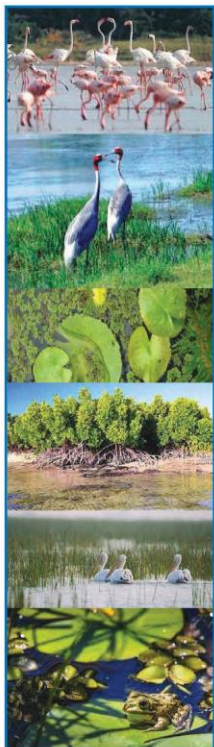
(B) Pooja Dubey (CBZ- Sem-1)

Theme-C Biodiversity of Wetlands Nivedita Tripathi (T.Y. Botany Sem-6)

Heartily Congratulations to all students and their mentors Dr. Dhruv Pandya and Dr. Urvi Gupta.

BUDDING RESEARCHER AWARD CERTIFICATES WITH POSTERS





GUJARAT UNIVERSITY BOTANICALS SOCIETY



CERTIFICATE

This is to certify that **Jaydip Parmar**
 Participated in the online poster competition in the UG Category
Theme B : Conservation of wetlands of Gujarat during the
National Webinar on WETLANDS: VERSATILE, VALUABLE & VULNERABLE on **Friday, 21st January 2022** organized by Gujarat
 University Botanicals Society, Department of Botany, Bioinformatics
 and Climate Change Impacts Management, Gujarat University,
 Ahmedabad, Gujarat and was awarded the **Budding Researcher Award**.

Prof. Dr. Bharat Maitreya
 Professor-in-Charge, GUBS
 Department of Botany,
 Gujarat University, Ahmedabad - 380 009, INDIA.

Dr. Archana U. Mankad
 Patron, GUBS
 Professor & Head, Department of Botany,
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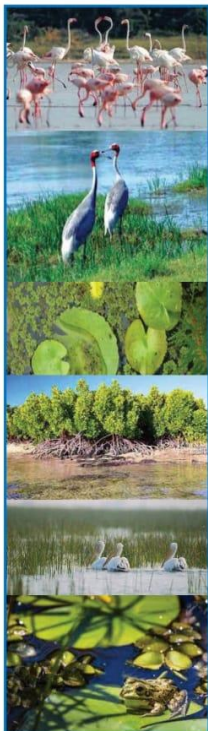


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Theme B : Conservation of wetlands of Gujarat during the
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CERTIFICATE

Nivedita Tripathi

This is to certify that
Participated in the online poster competition in the UG Category
Theme C: Biodiversity in wetlands of Gujarat during the **National Webinar on WETLANDS: VERSATILE, VALUABLE & VULNERABLE** on **Friday, 21st January 2022** organized by Gujarat University Botanicals Society, Department of Botany, Bioinformatics and Climate Change Impacts Management, Gujarat University, Ahmedabad, Gujarat and was awarded the **Budding Researcher Award**.

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The image is a composite of four photographs arranged in a 2x2 grid, each showing a different type of wetland. Each photograph has a text overlay describing the wetland type and its pH level.

- Top Left:** A photograph of a wetland with a small pond and surrounding vegetation. The text overlay reads: "A phreatophyte is a wetland that is acidic." and "pH < 7".
- Top Right:** A photograph of a wetland with a large body of water and trees. The text overlay reads: "A fen is a wetland that is alkaline." and "pH > 7".
- Bottom Left:** A photograph of a wetland with dense, tall grasses. The text overlay reads: "A swampy wetland, where standing vegetation is trees and woody plants." and "pH < 7".
- Bottom Right:** A photograph of a wetland with a large body of water and trees. The text overlay reads: "A marsh is a wetland with dense forms of vegetation dominant." and "pH > 7".

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CONSERVATION STRATEGIES OF WETLANDS OF GUJARAT (THEME B)

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ABSTRACT

A wetland is a distinct ecosystem that is flooded by water, either permanently (for years or decades) or seasonally (for weeks or months). Flooding results in oxygen-free (anoxic) processes prevailing, especially in the soils. The water in wetlands is either freshwater, brackish or saltwater. There are environmentally significant and economical benefits of wetland because of these benefits conservation of these wetlands is required. There are mainly four conservation strategies can be implemented for the conservation of wetlands.

Keyword: Wetland, Conservation, Protection

RAMSAR'S DEFINITION OF WETLAND

"wetlands are areas of marsh, fen, peatland 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 metres"

TYPE OF WETLAND CONSERVATION

1. Physical conservation
2. Mechanical conservation
3. Chemical conservation
4. Legislative Conservation



Conservation Practices

CRP CP-39: Farmable Wetlands Program

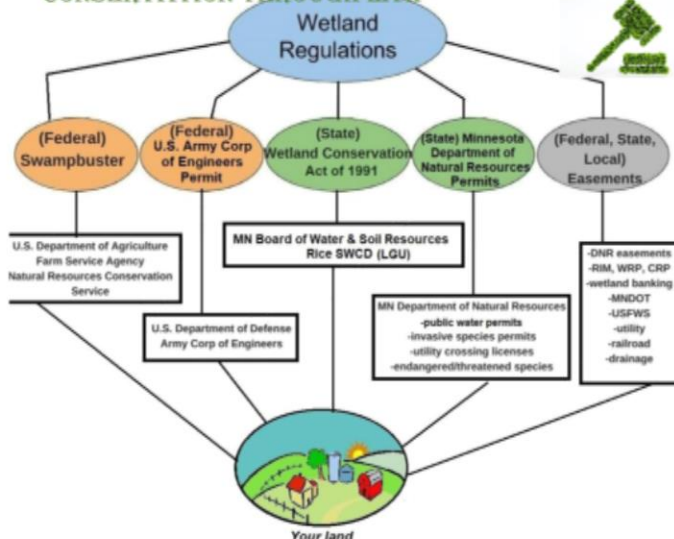
- 50% cost-share
- 40% practice incentive payment
- \$100/acre signing incentive payment
- CRP annual soil rental payments + 20%

ADAPT Network

- Nitrogen field trials on corn (rate, timing, methods)
- Corn stalk and soil testing, aerial imagery to determine nitrogen uptake
- Nitrogen management plan



CONSERVATION THROUGH LAW



CONCLUSION

After assessment of vulnerability, conservation is required which can be implemented through four different methods. For weed control mechanical and physical methods can be implemented. To control water pollutants different chemicals and for remediation of hazardous chemicals organisms can be cultivated such as plants and certain microorganisms like *Azolla*, *Nostoc*, *Typha* etc. At the end to control its over exploitation legislative methods can be implemented like Ramsar Site conservation.

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Conservation strategies of wetlands of Gujarat

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Abstract

Wetland is an area where water logged conditions are observed throughout the year or for some time. Even for environmental and economical prospective wetlands play a very important role in biome or in biosphere. It is very important to conserve it because it has so many endemic, endangered, critically endangered species which naturally propagate in the area. As per IUCN guidelines, conservation of these areas is necessary. Different approaches can be used for the conservation of wetlands.

Keywords: Wetland, Conservation, Ecofriendly methods

What is wetland

A wetland is a place in which the land is covered by water—salt, fresh, or somewhere in between—either seasonally or permanently. It functions as its own distinct ecosystem. You can recognize wetlands from other land forms or bodies of water primarily by the vegetation that has adapted to wet soil.

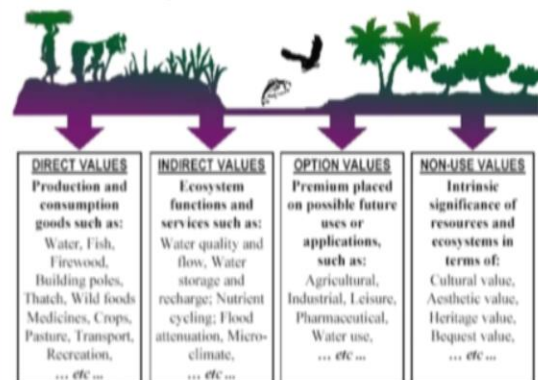
Kinds of species lives in wetland

capybaras, tigers, sloths, beavers, and waterbucks, ducks, geese, ibises, kingfishers, and sandpipers

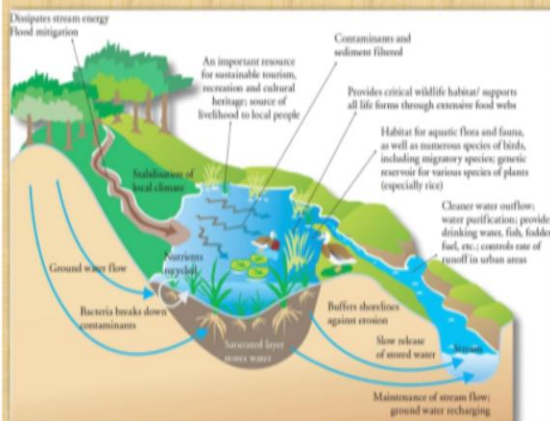
Types of wetlands

Wetlands take many forms including marshes, bogs, mangroves, mudflats, ponds, swamps, billabongs, lagoons, lakes, and floodplains.

Figure 1: Total Economic Value of Wetlands

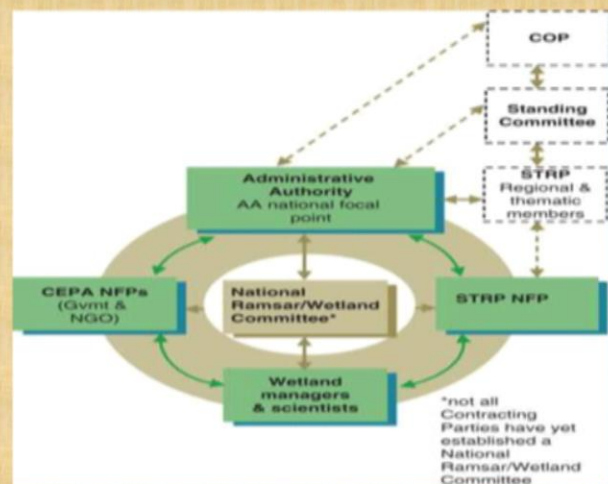


From Finerston 1999



CONCLUSION

- From all the conservation approaches Legislative Ramsar site conservation plan is the best conservation strategy to protect wetlands of India.
- Ministry of Environment, Climate Change Impacts Management has to further focus on individual wetland and has to form individual conservation plan for each wetland.



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