



MISSING FROM THE PLATE

Edible Plants in Wetlands Lose Favour

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Citation: Vibha Varshney and Shimali Chauhan 2025, *Missing From the Plate: Edible Plants in Wetlands Lose Favour*, Centre for Science and Environment, New Delhi

Published by

Centre for Science and Environment

41, Tughlakabad Institutional Area, New Delhi 110 062

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CONTENTS

Foreword	6
1. Introduction	7
Importance of wetlands	12
Policies	14
Judicial interventions in wetland conservation in India	20
2. Objective and methodology	23
3. Observations	25
Case studies: <i>Bihar, Uttar Pradesh, Ladakh, Odisha and Karnataka</i>	26
Experts' opinions	56
Wetland wonders: Unlocking the potential of India's edible plant legacy	56
Wetland plants—Food security and livelihood warriors	59
Wetland plants in India—An overview	64
Community involvement in wetland conservation	70
Iconic species in wetlands	73
4. Results and discussion	81
References	85
Annexures	93
1. <i>Notified wetlands in India</i>	94
2. <i>Wetlands under Ramsar Convention</i>	96
3. <i>List of edible wetland plants in India</i>	99

Foreword

Wetlands—ranging from lakes, rivers, and underground aquifers to swamps, marshes, wet grasslands, peatlands, oases, estuaries, deltas, tidal flats, mangroves, and other coastal areas—are rich in biodiversity. These ecosystems, including human-made sites like fish ponds, rice paddies, reservoirs, and salt pans, have long supported communities that rely on them for both food and livelihoods.

From the crunchy makhana to the kewra essence, wetlands are home to a variety of edible plants that are not only nutritious but also source of livelihood for the local communities. However, these plants seem to be invisible to the policy makers who do not include them in assessments of biodiversity of a wetland. Even the elaborated Information Sheets prepared for each Ramsar Sites do not have anything on the edible plants. The Ramsar Convention, with 173 member countries, emphasizes the importance of wetlands as sanctuaries for birds, and this focus often overshadows their broader ecological value.

It is not wonder that over the past few centuries, not only have large portions of these wetlands been destroyed and degraded, but the critical ecosystem services they provide—such as freshwater supply, food, building materials, biodiversity, flood control, groundwater recharge, and climate change mitigation—have also been forgotten or overlooked.

In this report, we examine the plant biodiversity of wetlands and how it contributes to food security for local communities. Traditional knowledge about edible species plays a vital role in this context.

Wetlands were once called nature's supermarkets. It is time to bring them back to glory. It is essential that communities recognize the value of plants found in wetlands so they can take the necessary steps to protect these ecosystems. By doing so, they not only ensure their own food security but also increase the earth's adaptability to extreme weather events.

1

INTRODUCTION

Wetlands are dynamic and ecologically rich ecosystems where the land is saturated with water either seasonally or permanently. According to the Convention on Wetlands of International Importance, commonly known as the Ramsar Convention, wetlands include ‘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 marine water the depth of which at low tides does not exceed six metres’¹ (see *Figure 1: Types of wetlands*).

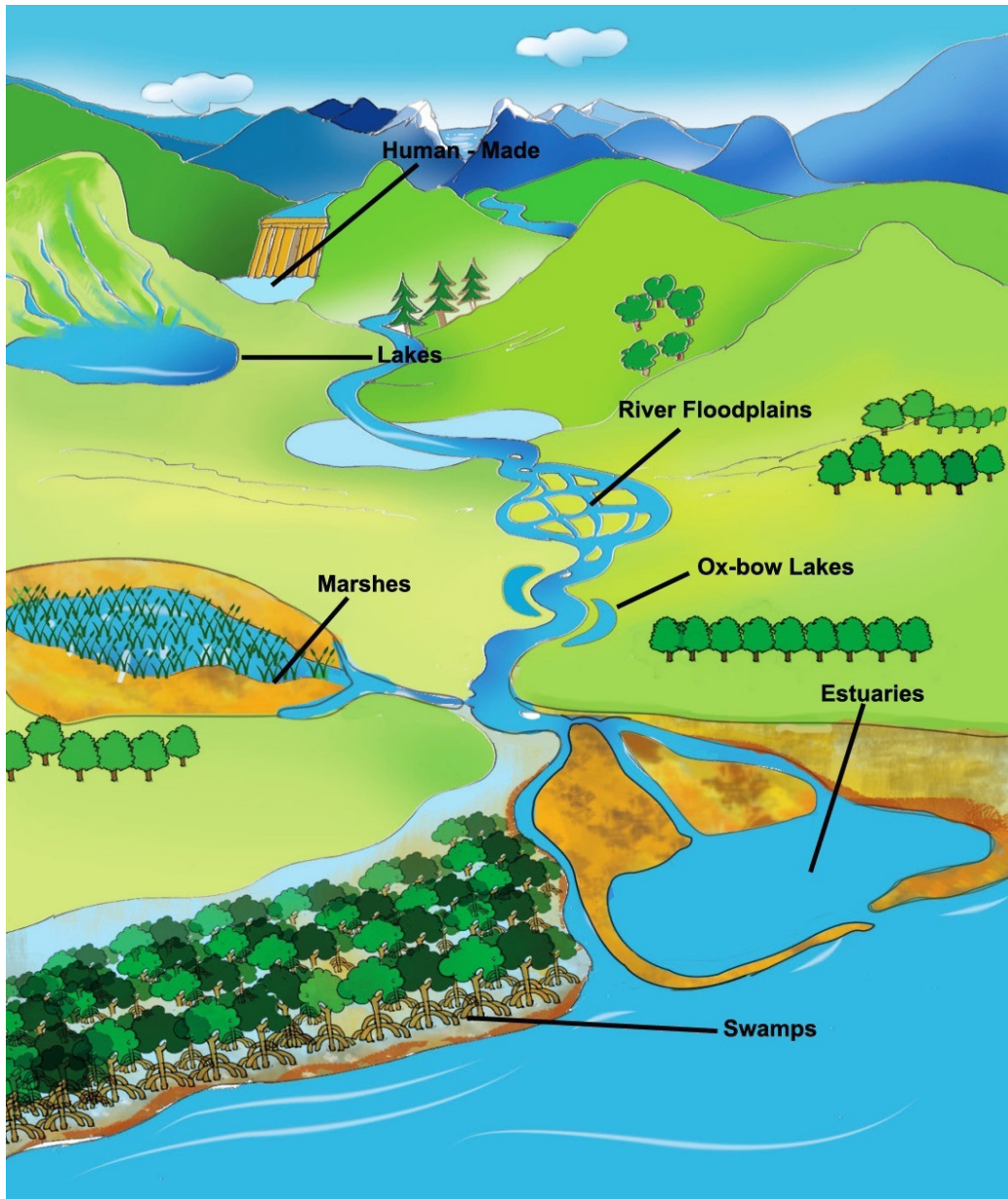
Recent global estimates indicate that inland freshwater, coastal, and marine wetland types as defined under the Convention on Wetlands extend over 1,800 million hectares.² Asia has the highest share of wetlands in the world (31.8 per cent), followed by North America (27.1 per cent), Latin America and the Caribbean (15.8 per cent), Europe (12.5 per cent), Africa (9.9 per cent) and Oceania (2.9 per cent).³

Wetlands across the world are disappearing rapidly. A study published in the journal *Nature* in February 2023 shows that though only about 21 per cent of wetlands have been lost globally since 1700 AD, there are regional variations. For example, over 50 per cent of wetlands were lost between 1700 and 2020, in the United States, Europe, Central Asia, India, China, Japan and Southeast Asia.⁴ The rate of loss has increased in the last 100 years, with about 64–71 per cent lost since 1900. Inland wetlands have faced more destruction than coastal ones. Between 1970 and 2015, both inland and coastal wetlands shrank by around 35 per cent, which is three times faster than forests. During this period, manmade wetlands such as rice fields and reservoirs nearly doubled, but they could not make up for the loss of natural wetlands. Wetlands are still being lost at an alarming rate, especially in Asia.⁵

The main reasons for wetland loss are population growth, urbanization, farming, water use changes, and construction projects like dams. This highlights the urgent need for better protection, monitoring, and awareness about the value of wetlands.

According to ISRO’s Space Application Centre’s assessment of wetlands, published in March 2024, the total area covered by wetlands in India is 16.89 million hectares (Mha), i.e. 5.15 per cent of the country’s total geographic area. Of these, a total of 2.49 million wetlands with area greater than or equal to 0.1 ha (total area 16.84 Mha) and 1.09 million wetlands with area less than 0.1 ha (total area 0.05 Mha) have been mapped.⁶

Figure 1: Types of wetlands



Source: <https://indianwetlands.in/wetlands-overview/wetland-types/>

The National Wetland Inventory of India has provided guidelines to categorize wetlands for both inland and coastal wetlands (see *Table 1: Wetlands classification as per the National Wetland Inventory of India*). According to the Wetlands of India portal, there are a total of 757,040 wetlands in India of which 200,205 wetlands are more than 2.25 ha each. A total of 1,309 wetlands, accounting for a total of just 4,084,263 ha, have been plotted on the portal.⁷

Table 1: Wetlands classification as per the National Wetland Inventory of India

Level I	Level II	Level III
Inland wetlands	Natural	- High-altitude Himalayan lakes - Wetlands in flood plains of major rivers - Saline and temporary wetlands in arid or semi-arid regions
		- Lakes: Oxbow lakes/cut-off meanders - High-altitude wetlands - Riverine wetlands - Waterlogged (natural) - Rivers or streams
	Manmade	- Reservoirs/barrages - Tanks/ponds - Waterlogged (manmade) - Salt pans (inland) - Aquaculture ponds (inland)
Coastal wetlands	Natural	- Lagoons/backwaters - Creeks - Sand/beach - Intertidal mudflats - Salt marshes - Mangroves - Coral reefs
	Manmade	- Salt pans (coastal) - Aquaculture ponds (coastal)

Source: India Wetland Portal and the Ministry of Statistics and Programme Implementation; <https://indianwetlands.in/wetlands-overview/wetland-types/>

Table 2: Decadal and one year change in wetland distribution in India

S. no.	Wetland type		2018-19		2017-18		2006-07	
			Wetland area (ha)	Per cent of wetland area	Wetland area (ha)	Per cent of wetland area	Wetland area (ha)	Per cent of wetland area
1	Inland	Natural	6,694,863	39.63	7,015,718	43.9	6,931,772	45.2
2		Manmade	6,070,343	35.93	4,834,232	30.2	4,311,366	28.1
3	Coastal	Natural	3,531,449	20.9	3,620,451	22.7	3,694,412	24.1
4		Manmade	543,278	3.22	511,115	3.2	402,284	2.6
Total		All wetlands	16,894,623	100	15,981,516	100	15,339,834	100

Source: Reports by Space Applications Centre, Indian Space Research Organization, Ahmedabad (https://indianwetlands.in/uploads/wetland_atlas_LISS3_final-SAC.pdf, https://vedas.sac.gov.in/content/vcms/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf)

India is a land of small wetlands. According to the India Wetland Atlas 2024, wetlands less than 0.1 ha comprise 90 per cent of the total wetlands. The total number of wetlands including the small ones is 3,506,847. The total number of wetlands rose from 2.12 lakh to 35.06 lakh between 2006-07 and 2018-19, showing a 16-fold increase due to improved mapping and inclusion of smaller wetlands (<2.25 ha) (see *Table 2: Decadal and one year change in wetland distribution in India*).

The total number of wetlands notified under the Wetlands (Conservation and Management) Rules, 2017 in the country is 102, and these are concentrated in just three states and one Union territory, i.e. Rajasthan, Goa, Uttar Pradesh and Chandigarh (see *Annexure 1: Notified wetlands in India*). Additionally, there are 93 wetlands designated as Ramsar Sites (see *Annexure 2: Wetlands under Ramsar Convention*). While they comprise a relatively small share of India's landscape, wetlands support nearly one-fifth of the nation's total biodiversity.

In response to a public interest petition filed in 2018 seeking measures for wetland conservation, the Supreme Court of India directed states in December 2024 to carry out on-ground verification of these wetlands as mandated under the Wetlands (Conservation and Management) Rules, 2017.⁸

The pace of work is however extremely slow, and taking cognizance, in August 2025, the Supreme Court asked state wetland authorities to publish the information on their respective government websites and file compliance affidavits before the next hearing, scheduled for October 7, 2025.⁹

The states are currently in the process of ground truthing the status of wetlands and updating the findings on the Save Wetlands Campaign portal. A total of 186,497 wetlands have been ground truthed and the boundaries of 89,935 have been marked. Wetland health cards have been provided for 6,283 wetlands.¹⁰

More recently, Maharashtra has recorded official health cards for only 18 of its 23,046 major wetlands, leaving the state far behind its peers, according to official data. In comparison, Madhya Pradesh leads with 94 health cards, followed by Odisha (77), Bihar and Tamil Nadu (71 each), and Uttar Pradesh (58). A wetland health card documents vital aspects such as hydrology, catchment, biodiversity, and governance, including mapping, management plans, and notification status.¹¹

According to assessments by the Space Applications Centre, Indian Space Research Organization, published in 2021 and 2024, the total wetland area in India increased from 15.34 million hectares (Mha) in 2006–07 to 16.89 Mha in 2018–19, a net gain of 1.55 Mha over the period.

This expansion, however, is driven almost entirely by the growth of manmade wetlands, while natural wetlands continue to decline. The growth of inland manmade wetlands reflects the rapid expansion of reservoirs, tanks, ponds and other constructed waterbodies for irrigation, industrial use and urban water demands. Increase in coastal manmade wetlands is largely driven by aquaculture

farms, salt pans and other constructed coastal waterbodies. This trend raises an important ecological concern: although manmade wetlands are increasing overall wetland area, they cannot replace the unique biodiversity, ecosystem services and climate resilience provided by natural wetlands.

Madhya Pradesh (+3.12 lakh ha), Maharashtra (+1.96 lakh ha), Rajasthan (+1.72 lakh ha), Odisha (+1.44 lakh ha), Telangana (+1.25 lakh ha), and Ladakh (+1.54 lakh ha) recorded the largest increases. These states together contributed ~66 per cent of India's total wetland gain. The rise is mainly due to recognition of manmade reservoirs and tanks, and better delineation of high-altitude wetlands (Ladakh, MP, Maharashtra). Uttar Pradesh (-1.03 lakh ha), Gujarat (-31,860 ha), Tamil Nadu (-14,651 ha), Uttarakhand (-9,154 ha), Nagaland (-11,617 ha), Andaman and Nicobar (-1,474 ha), Puducherry (-772 ha) and a few UTs like Daman and Diu (-2,725 ha) show net loss of wetlands. Uttar Pradesh shows the sharpest loss, possibly due to urban expansion, drainage of small wetlands, and agricultural pressure. Coastal UTs like Daman and Diu and Puducherry also lost wetland area, reflecting reclamation and coastal development (see *Table 3: Extent of wetlands and decadal change in different states*).

Importance of wetlands

Wetlands support a variety of hydrological functions and serve as one of the most biodiverse ecosystems on the planet. Mangroves, floodplains and other wetland types perform vital ecological functions such as water purification, flood attenuation, nutrient recycling, aquifer recharge, shoreline stabilization and habitat provision. In urban and peri-urban areas, wetlands reduce the impact of flooding and help manage storm water runoff. They buffer against climate extremes as they serve as carbon sinks and play a critical role in both climate mitigation and adaptation.¹²

Nearly 18,000 faunal species are known to occur in these ecosystems. Over 3,000 fish species alone are reported from such environments. These wetlands provide critical resting, roosting, feeding and foraging habitats for 276 recorded water-bird species.

Wetlands in India are home to a number of species threatened globally, including 28 species of freshwater turtles and 49 species of water birds of which four are critically endangered, seven endangered, 16 vulnerable and 22 are near threatened. Additionally, specific wetlands such as Chilika Lake in Odisha have a good population of the Irrawaddy dolphin; Keibul Lamjao, a floating national park on the south of Loktak Lake, is the only known natural habitat of globally endangered brow-antlered deer; riverine wetlands of the rivers Son, Girwa and Chambal are

Table 3: Extent of wetlands and decadal change in different states

S. no.		2018-19			2006-07			Decadal change
	State/UT	Number	Area (ha)	Area (% of wetland)	Number	Area (ha)	Area (% of wetland)	Area (ha)
1	Andhra Pradesh	83,862	1,197,707	7.09	23,022	1,075,099	7.01	122,608
2	Arunachal Pradesh	23,858	215,611	1	1,164	147,914	0.96	67,697
3	Assam	113,566	867,150	5.13	5,596	789,217	5.14	77,933
4	Bihar	253,438	476,521	2.82	4,555	389,713	2.54	86,808
5	Chhattisgarh	27,483	384,488	2.27	10,863	327,274	2.13	57,214
6	Goa	2,267	24,092	0.14	537	21,934	0.14	2,158
7	Gujarat	98,053	3,417,553.00	20.23	14,734	3,449,413	22.49	-31,860
8	Haryana	32,064	36,984.50	0.22	1,546	29,710	0.19	7,275
9	Himachal Pradesh	2,875	111,223.60	0.66	204	93,383	0.61	17,841
10	Jharkhand	225,694	241,129.00	1.43	2,477	180,668	1.18	60,461
11	Karnataka	330,648	766,559.90	4.54	14,457	787,104	5.13	-20,544
12	Kerala	14,354	156,686.90	0.93	1,396	154,453	1.01	2,234
13	Madhya Pradesh	190,490	1,070,518.20	6.34	10,570	759,016	4.95	311,502
14	Maharashtra	443,570	1,178,753.40	6.98	20,735	982,620	6.41	196,133
15	Manipur	5,530	64,733.40	0.38	139	62,657	0.41	2,076
16	Meghalaya	10,042	31,986.60	0.19	222	30,875	0.2	1,112
17	Mizoram	1,553	17,755.40	0.11	103	13,791	0.09	3,964
18	Nagaland	3,525	9,433.20	0.06	142	21,050	0.14	-11,617
19	Odisha	420,709	835,863.00	5	12,003	692,027	4.51	143,836
20	Punjab	19,545	67,479.80	0.4	1,245	48,389	0.32	19,091
21	Rajasthan	226,919	923,342.00	5.47	12,638	751,274	4.9	172,068
22	Sikkim	1,099	6,778.70	0.04	245	6,587	0.04	192
23	Tamil Nadu	80,703	910,197.10	5.39	27,011	924,848	6.03	-14,651
24	Telangana	83,994	624,115.00	3.69	10,058	499,563	3.26	1,24,552
25	Tripura	5,762	16,257.30	0.1	402	14,196	0.09	2,061
26	Uttar Pradesh	326,899	991,001.4	5.86	19,069	1,094,024	7.13	-103,023
27	Uttarakhand	1,762	92,617.10	0.54	173	101,771	0.66	-9,154
28	West Bengal	462,523	1,180,543	6.98	12,830	1,114,729	7.27	65,814
29	Andaman and Nicobar	4,550	152,137	1	2,445	153,611	1	-1,474
30	Chandigarh	51	127	0.81	10	335	0	-208
31	Dadra and Nagar Haveli	292	1,375	1.78	11	2,016	0.01	-641
32	Daman and Diu	34	109	2.47	55	2,834	0.02	-2,725
33	Delhi	967	2,219	1.51	114	2,537	0.02	-318
34	Jammu and Kashmir	2,478	173,944.60	1.03	403	164,230	1.07	9,715
35	Lakshadweep	82	82,897.10	0.49	1,036	79,728	0.52	3,169
36	Ladakh	4,912	519,235.50	3.07	50	365,294	2.38	153,942
37	Puducherry	694	5,178.00	0.03	125	5,950	0.04	-772
Total	All states/UTs	3,506,847	16,854,303	100	212,385	15,339,834	100	1,514,469

Source: Reports by Space Applications Centre, Indian Space Research Organization, Ahmedabad (https://indianwetlands.in/uploads/wetland_atlas_LISS3_final-SAC.pdf, https://vedas.sac.gov.in/content/vcms/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf)

habitats for the largest remaining populations of the critically endangered gharial; and the wetlands of Ladakh are the only known breeding grounds of the globally vulnerable black-necked crane.

Indian wetlands also attract 81 extralimital seasonal immigrants from the Palearctic Region beyond the Himalaya in Central and Northern Asia, and Eastern and Northern Europe. This includes the critically endangered Baer's pochard, spoon-billed sandpiper and sociable lapwing.

The diversity of Indian mangrove species represents nearly 60 per cent of the globe. Similarly, the coralline diversity in the country includes 478 species of 89 genera, and forms 60 per cent of the global reef building corals.¹³

A systematic documentation of edible wetland plant species, their uses and cultivation practices, however, is lacking. Even though many plants such as water chestnut (*Trapa natans*), makhana or fox nut (*Euryale ferox*) and water spinach (*Ipomoea aquatica*) are traditional dietary components in several regions, they are frequently dismissed as invasive weeds, and their potential as climate-resilient crops remains untapped. Due to this, their critical socioeconomic values remain largely unrecognized in policy and planning. It is therefore, not surprising that there is no national-level inventory or strategy focused on identifying or promoting plant-based food resources from wetlands and there is little emphasis on plant-based food systems or their role in local economies and food security. These remain under-recognized in India's conservation and policy frameworks too. As a result, ethnobotanical knowledge that communities have relied on for generations is disappearing.

Policies

India became party to the Ramsar Convention in 1982, more than a decade after it was adopted in 1971 in Iran. The Government of India identified two sites, Chilika Lake (Odisha) and Keoladeo National Park (Rajasthan), as Ramsar Wetlands of International Importance. Thereafter, in 1985–86, National Wetland Conservation Programme (NWCP) was launched in close collaboration with state governments to arrest further degradation and shrinkage of these wetlands due to encroachment, siltation, weed infestation, catchment erosion, agricultural run-off carrying pesticides and fertilizers, and wastewater discharge.

Until early 2000, there was no policy developed specifically for wetlands, and commitments made under the Ramsar Convention were met through an array of policies such as the National Conservation Strategy and Policy Statement on Environment and Development, 1992; Coastal Zone Regulation Notification,

1991; National Policy and Macro-level Action Strategy on Biodiversity, 1999; and National Water Policy, 2002.

The importance of wetlands was first recognised in the National Environmental Policy 2006 which set down regulatory mechanism for valuable wetlands to prevent their degradation and enhance conservation. A report by the National Forest Commission 2006 also emphasized the framing of a National Wetland Conservation Act and establishment of a National Wetland Inventory and Monitoring Programme to develop a sustained and serious programme for monitoring wetlands.

As a result, the Central government notified the Wetlands (Conservation and Management) Rules, 2010. As per the provision under Rule 5 of the wetlands rules, the Central Wetlands Regulatory Authority (CWRA) was constituted under the chairmanship of Secretary, Environment and Forest. The Expert Group on Wetlands (EGOW) was constituted for examining management action plans of newly identified wetlands. The rules put restrictions on the activities such as reclamation, setting up industries in vicinity, solid waste dumping, manufacture or storage of hazardous substances, discharge of untreated effluents, any permanent construction, etc. within the wetlands. It also regulates activities (which will not be permitted without the consent of state governments) such as hydraulic alterations, unsustainable grazing, harvesting of resources, releasing treated effluents, aquaculture, agriculture and dredging.¹⁴

The focus was on wetlands selected under the Ramsar Convention; wetlands in ecologically sensitive and important areas; wetlands recognized as UNESCO World Heritage sites; high altitude wetlands (at or above an elevation of 2,500 m with an area equal to or greater than 5ha); wetland complexes below an elevation of 2,500 m with an area equal to or greater than 500 ha; and any other wetland identified by the Authority.

Despite the national legislation, the majority of wetlands continue to be ignored. To resolve this, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, notified the new Rules as Wetlands (Conservation and Management) Rules, 2017. This decentralized the management of wetlands by giving the states the power to not only identify and notify wetlands within their jurisdictions but also keep a watch on prohibited activities. It also indirectly widened the ambit of permitted activities by inserting the 'wise use' principle, but failed to provide any guidance for wild edible food plants in wetlands and

included only indirect references to the cultivation, harvesting and sustainable use of aquatic vegetation.

In Section VII on ‘Wise Use and Ecological Character’, wetlands are described as valuable ecosystems that provide essential resources for human use. These provisioning services include supporting fisheries for food and income, wetland agriculture, and supplying materials from aquatic plants for various economic products. Wetlands are described as providers of provisioning services such as fisheries, wetland agriculture, and the use of aquatic vegetation for economic purposes. These categories include plant-based foods but fail to elaborate this aspect. The Rules divide activities in and around wetlands into prohibited, regulated and permitted categories under Sections IX and X. Sustainable practices like harvesting of wetland products within regenerative capacity, including aquatic plants, are considered permitted activities, as long as they align with the principle of ‘wise use’. This includes edible and medicinal plants like lotus stems, water chestnut and other traditional food plants.

Activities such as subsistence-level biomass harvesting, desilting, temporary constructions, and non-mechanized boat use fall under regulated activities, meaning they are allowed only under specified thresholds. These thresholds may be defined by the number of harvesters allowed; area and zones of collection; seasonal or time-based restrictions; tools or methods used (e.g. mesh size); and environmental conditions (such as water quality or plant regeneration cycles). For example, the seasonal collection of edible plants may be allowed in designated zones but only after reproductive cycles are complete. However, large-scale conversions of wetlands for agriculture or aquaculture purposes are not allowed unless approved by MoEF&CC through a special exemption.

Section XII of the Rules recognizes the existence of pre-existing rights and privileges of communities which include plant harvesting for food, medicine or cultural practices. The Rules distinguish between rights (inherent and irrevocable, such as access to clean water) and privileges (conditional, such as harvesting permissions or leases). Practices like subsistence harvesting of macrophytes are considered to support ecological health by helping control invasive species, and may be allowed to continue if they do not degrade the wetland ecosystem.

Every notified wetland must have an Integrated Management Plan (IMP) as per Section XIV. The IMP must include:

- A biodiversity inventory, including plant species;
- Assessment of harvesting practices (type, season, frequency);



- Zoning regulations for collection;
- Monitoring systems to ensure sustainability; and
- Clear assignment of responsibility to implementing agencies.

While the Rules provide a general framework for sustainable use, they fall short in acknowledging, inventorying or managing wetland-plant-based foods in a meaningful way. There are no comprehensive lists of edible aquatic plant species, no region-specific management protocols, and no recognition of the role these plants play in food security, climate resilience and seasonal livelihoods. This absence is a missed opportunity to align wetland conservation with the needs and knowledge of local communities, particularly in regions where wetland foods form part of the nutritional and cultural heritage.

Annex 2 of the Rules, which provides the Brief Document format for wetland notification, asks whether a wetland supports the cultivation of aquatic food plants, the harvest of plants (with or without lease) and agriculture or horticulture within wetland areas. The same section also asks about medicinal plant use, buffalo wallowing and other traditional activities hinting at the wide-ranging local uses of wetland ecosystems. However, there is no centralized inventory, ecological assessment or cultural valuation of plant-based foods from wetlands, nor is there a policy mechanism that safeguards these uses explicitly.

Annex 2 of the Rules further reinforces the need to document practices such as cultivation of aquatic food plants, harvest with or without lease, and agriculture or horticulture within the wetland. Despite this structured approach, however, there are no implementation guidelines or scientific assessments focusing on wetland-based food plants, leading to their continued exclusion from conservation and development planning.¹⁵

Lack of regulations, especially of wetlands smaller than 2,500 m², totally neglects the management and conservation of some of the crucial smaller wetlands in urban and rural areas which perform important socioecological functions and are under severe threat by land-filling and reclamation.

Only a few wetlands have been notified due to a combination of legal, administrative and political challenges. Wetlands in India are a state subject, meaning the responsibility for their identification, protection and notification lies with individual state governments.

While the Wetlands (Conservation and Management) Rules, 2017, provide the framework for conservation, they decentralized power to the states through the

RECENT DEVELOPMENTS IN WETLAND CONSERVATION IN INDIA FAIL TO HIGHLIGHT EDIBLE PLANTS

Wetlands of India portal: Launched on October 2, 2021, by the Ministry of Environment, Forest and Climate Change (MoEFCC), this portal provides comprehensive information on India's wetlands. It includes capacity-building materials, data repositories and dashboards for each state and Union territory.

National Wetland Decadal Change Atlas: Prepared by the Space Applications Centre (SAC), Ahmedabad, this atlas highlights the changes in wetlands across the country over the past decade. Though there is an overall increase in area, there are some places where the area has decreased.

Centre for Wetland Conservation and Management (CWCM): Established on World Wetland Day 2021, this centre focuses on addressing research needs and knowledge gaps in wetland conservation.

Integration with Namami Gange: On World Wetlands Day 2021, the Ministry of Jal Shakti highlighted the integration of wetland conservation with the Namami Gange programme. The National Mission for Clean Ganga (NMCG) has pioneered initiatives that serve as models for wetland conservation nationwide.

Amrit Dharohar Scheme: Launched with the Union Budget 2023–24, the Amrit Dharohar Scheme is a key initiative aimed at optimizing wetland utilization over the next three years. Its goals include enhancing biodiversity, increasing carbon stock, boosting eco-tourism and generating income for local communities, in line with the government's sustainable development vision.

Mission Sahbhagita, launched by the MoEFCC in 2023 during Azadi Ka Amrit Mahotsav, promotes community-led conservation and wise use of wetlands. It encourages public participation through initiatives like the Save Wetlands Campaign and supports ongoing efforts under the NPCA for conserving 165 wetlands, including 42 Ramsar sites across India.

MoEFCC's Wetlands Rejuvenation Programme: Launched in 2020, the Ministry of Environment, Forest & Climate Change (MoEFCC) initiated the Wetlands Rejuvenation Programme. This multifaceted approach includes developing baseline data, assessing wetland health, establishing stakeholder platforms, and creating comprehensive management plans. The programme covers over 500 wetlands, showcasing the government's dedication to conserving these essential habitats.

National Wildlife Action Plan: The National Wildlife Action Plan (2017–31) emphasizes the conservation of inland aquatic ecosystems, including wetlands. It advocates for a national wetlands mission to preserve these habitats, recognizing their importance for biodiversity and ecosystem services.

Source: <https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=152029&ModuleId=3>

creation of State Wetland Authorities (SWAs). Many states have, however, been slow to act, with several not even beginning the process of ground truthing or preparing the required Brief Documents for notification.

Additionally, the lack of legal enforcement mechanisms and the dilution of the 2017 Rules compared to the earlier 2010 version have further weakened the process. The 2017 Rules rely heavily on the principle of ‘wise use’ of wetlands, a vague term that leaves room for interpretation and potential misuse.

Moreover, the rules allow exceptions for otherwise prohibited activities with prior approval from the Central government, reducing their stringency. There are also administrative hurdles and poor inter-departmental coordination, especially between environment, revenue and urban development departments.

States often prioritize economic development, including real estate and industrial expansion, over ecological conservation, seeing wetlands as land banks. Only proactive states like Rajasthan and Goa have taken steps to notify a large number of wetlands. The rest lag behind, reflecting a larger systemic apathy and lack of political will towards protecting these critical ecosystems (see *Box 1: Recent Developments in Wetland Conservation in India fail to highlight edible plants*).

Judicial interventions in wetland conservation in India

Over the past decade, Indian courts have become a critical force in the conservation of wetlands, often stepping in to direct state governments and agencies to act where administrative will has been lacking. Together, rulings from the Supreme Court, various High Courts, and the National Green Tribunal (NGT) have shaped a strong judicial framework that underscores the ecological, hydrological and community importance of wetlands.

A turning point came in March 2022, when the NGT clarified that all wetlands above 2.25 hectares in size, amounting to more than 2,01,503 wetlands listed in the National Wetland Inventory and Assessment (2011), must receive protection under Rule 4 of the Wetlands (Conservation and Management) Rules, 2017. The Tribunal, supported by an earlier Supreme Court ruling of October 2017, emphasized that such wetlands must be conserved even if they have not been formally notified under the 2017 Rules. Following this order, the Ministry of Environment, Forest and Climate Change (MoEFCC) reminded States and Union Territories to implement the directive.¹⁶

The judiciary has also tackled the issue of encroachments on waterbodies with urgency. In March 2021, the Tamil Nadu High Court expressed alarm at the neglect and destruction of waterbodies across the state. It ordered all District Collectors to upload satellite images of all taluks as of March 15, 2021 to serve as baseline references. It further directed that any construction blocking or

damaging waterbodies could be demolished, ‘regardless of cost’, and instructed that full district-wise image sets be submitted to the Chief Secretary and the High Court Registrar-General for record-keeping.¹⁷

Ecologically sensitive wetlands have also received specific judicial protection. In November 2021, the Rajasthan High Court stayed the construction of a mega solar power project at Sambhar Lake, India’s largest inland saline wetland, recognizing its fragile ecosystem and role as a crucial habitat for migratory birds.¹⁸ Similarly, the Gujarat High Court in July 2021 held that land belonging to a water body cannot be allotted or repurposed even if the waterbody appears dry, stressing that such areas serve vital ecological functions beyond their visible water levels. At the national level, the Supreme Court in November 2019 ruled that water bodies cannot be diverted for industrial use, noting that such actions harm public resources and violate environmental laws.¹⁹

More recently, in December 2024, the Supreme Court ruled on a public interest petition filed in 2018 by bird enthusiast Anand Arya, advocate M.K. Balakrishnan, and NGO Vanashakti, seeking measures for wetland conservation. The Court directed states and Union Territories to complete on-ground verification or ‘ground truthing’ of wetlands as mandated under the 2017 Rules. During hearings, senior advocate Jayant Bhushan highlighted that several states and Union territories, including Andaman and Nicobar Islands, Arunachal Pradesh, Dadra and Nagar Haveli, Daman and Diu, Haryana, Goa, Jharkhand, Puducherry, Sikkim, Karnataka, and Ladakh, had completed less than 50 per cent of the work, while Delhi and Himachal Pradesh had achieved less than 40 per cent. The Court observed that this reflected the slow pace of the State Wetland Authorities and directed that once wetlands are identified, information must be published on government websites and compliance affidavits filed before the next hearing.²⁰

Alongside these landmark rulings, the NGT has continued to monitor specific wetlands across the country through ongoing litigation. In Odisha, the case of Agula Bandha in Berhampur, Ganjam district (Sisir Kumar Panda vs Union of India & Others) concerns illegal constructions and obstructions on a common waterbody and its embankment. In August 2022, the Tribunal directed the demolition of a temple constructed on 0.012 acres of the wetland, restoration of the site as ‘Jalasaya’, and the identification of 11.5 acres of equivalent land nearby to recreate a waterbody of the same size and depth. When these orders went unimplemented, the NGT took suo motu cognizance (MA No. 37/2022). MoEFCC later clarified that the matter falls under the jurisdiction of the Odisha Wetland Authority, which must take necessary action.^{21, 22}

In Delhi, the Tribunal in May 2024 ordered the creation of ten wetlands at the Asola Wildlife Sanctuary to address severe groundwater decline. A compliance report submitted by the Delhi Wetland Authority in December 2024 described progress on wetland construction in the Maidan Garhi, Sahoopur and Satbari areas. A joint inspection in June 2024 confirmed that work was underway, including dredging, bund construction, and plantation of trees along the bunds and planting of grasses and shrubs along the bunds.^{23, 24}

In Jammu and Kashmir, the NGT has been hearing a case filed by Raja Muzaffar Bhat on the Hokersar Wetland, Wular Lake and Kreentchoo-Chandhara Wetland, which face threats from waste dumping and encroachment. A joint report submitted in August 2020 by the J&K Pollution Control Board, the Department of Wildlife Protection, and Deputy Commissioners outlined conservation measures. The Tribunal ordered further steps through a joint committee headed by the Divisional Commissioner, Kashmir, and directed the National Wetlands Committee to compile compliance reports for all significant wetlands in the country. It also instructed State Pollution Control Boards and Wetland Authorities to submit wetland management reports to the MoEFCC for consolidation.²⁵

Older but still relevant NGT interventions demonstrate the judiciary's long-standing role in wetland protection. In West Bengal, a 2017 case (*People United for Better Living in Calcutta & Others vs Union of India & Others*) dealt with the preservation of wetlands in Dankuni (Mollarber and Panchghara), where the Tribunal directed the state's Department of Environment to clarify compliance with the 2010 Wetlands Rules.²⁶ In Madhya Pradesh, as early as 2013, the case of *Dr Alankrita Mehra vs Union of India & Others* addressed pollution in the Bhoj Wetland (a Ramsar site) and ten other lakes in Bhopal, with the NGT issuing orders to prevent further degradation.²⁷

Taken together, these judgements form a body of jurisprudence that consistently underscores the principle that wetlands and waterbodies must be preserved as ecological commons. Courts have ordered demolition of illegal encroachments, stopped industrial and infrastructure projects, demanded state-level accountability through mapping and ground verification, and even directed the creation of new wetlands. The cumulative effect is a strong legal recognition of wetlands as more than water storage units as ecosystems essential for biodiversity, groundwater recharge, flood control, and community sustenance. Yet, despite this robust legal backing, implementation remains patchy and slow, leaving the future of many wetlands dependent not on the law itself, but on whether states and their agencies heed judicial directions.

2

**OBJECTIVE
AND
METHODOLOGY**

This report seeks to fill a critical knowledge gap about plant-based food systems based in wetlands. We adopted a mixed-method approach combining secondary research and primary data collection.

We began by analysing the distribution of wetlands across Indian states and identified the top 15 states with the maximum area as a percentage of the total area under wetlands. These states are Gujarat, Andhra Pradesh, West Bengal, Maharashtra, Madhya Pradesh, Uttar Pradesh, Rajasthan, Tamil Nadu, Assam, Odisha, Karnataka, Telangana, Ladakh, Bihar and Chhattisgarh.

Of the 15 states, we identified five states and wetlands to represent as many wetland types as possible. These represented wetlands in a variety of geographies—in Bihar, Uttar Pradesh, Odisha, Ladakh and Karnataka—and habitats, such as coastal, inland, high altitude, manmade and seasonal.

The five wetlands and their categories are as follows:

1. Odisha (Chilika Lake): Ramsar Site, natural, coastal, largest brackish water lagoon;
2. Ladakh Tsokar Lake: Ramsar Site, natural, inland, high altitude, freshwater lake;
3. Bihar (Kabartal Jheel): Ramsar Site, natural, inland, freshwater lake, flood plain;
4. Uttar Pradesh (Haiderpur wetland): Ramsar Site, manmade, inland, freshwater, barrage (Ganga floodplain); and
5. Karnataka (Adavisomapur village pond): Manmade pond, inland, freshwater.

To find out about edible plants in these wetlands, we first looked for the secondary literature available in these areas. We then visited the five wetlands to understand the ground situation. To enrich our understanding, we engaged with state wetland authorities and experts to validate findings, identify gaps and contextualize the potential of wetland-based edible plants in broader sustainability and climate-resilience frameworks. We also looked for secondary literature available on edible plants. For preparing a database on edible plant species found in wetlands ecosystems across India, we conducted a literature search on Google Scholar with the keywords ‘wetlands’, ‘edible plants’ and ‘India’. We tabulated them on the basis of scientific names, common names and uses, and also incorporated the link to the study.

3

OBSERVATIONS

Case studies

Bihar

Bihar has around 0.47 Mha of land under wetlands, accounting for 5 per cent of total geographical area of the state. These sponges are very important for the state as it is under constant threat of floods. While the largest number of wetlands are in the flood-prone north Bihar, the central part of the state also has wetlands that are ecologically and culturally rich.

The dominant wetland category is inland wetlands-natural covering 81.06 per cent and 17.89 per cent manmade of total wetland area in the state during 2018–19. Major wetland class is river/stream covering an area of 66.3 per cent of wetlands (see Table 4: *Category-wise wetland distribution in Bihar*).

Literature review provides data on edible plants in two of Bihar's wetlands, Kabartal in Begusarai and Kusheshwarasthan in Darbhanga. In Kabartal, key edible aquatic species include makhana (*Euryale ferox*), singhara (*Trapa natans*) and lotus (*Nelumbo nucifera*). Traditional grains like wild rice (desaria) and Ramdana (amaranth) also feature in the local food basket. Other aquatic species such as *Ceratophyllum demersum* (used in water purification), *Colocasia esculenta* (edible tubers) and *Hydrilla verticillata* (bird and fish food) contribute to both biodiversity and livelihood security.

In Kusheshwarasthan and the chauras (seasonal wetlands) of Darbhanga, makhana and singhara are again key crops, cultivated for food and trade. Purain (*Nelumbo nucifera*) is used not only for food but also in rituals, as are bhent (*Nymphaea alba*) and tal makhana (*Asterantha longifolia*), the latter being consumed as a

Table 4: Category-wise wetland distribution in Bihar*

S. no.	Wetland type	Number of wetlands	Wetland area (ha)	Wetland area (per cent)	Wetlands per cent of total area of state
1	Inland—natural	8,710	386,289.10	81.06	4.08
2	Inland—manmade	145,415	85,265.80	17.89	0.91
3	Coastal—natural	—	—	—	—
4	Coastal—manmade	—	—	—	—
	Subtotal	154,125	471,554.90	98.96	
—	Wetlands < 0.1 ha (#)	99,313	4,965.70	1.04	
	Total	253,438	476,520.60	100	5.00

*According to the National Wetland Inventory and Assessment (NWIA) Atlas 2018

Source: https://vedas.sac.gov.in/static/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf

leafy vegetable and valued for its medicinal benefits. Jalkumbhi (*Eichhornia crassipes*), often considered invasive, is used innovatively as fuel and fodder, and serves as a shelter belt for fishing. Species like *Cyperus rotundus* (motha) are utilized in traditional crafts (e.g., *Shitalpaatimats*), while *Vetiveria zizanioides* (Kataraghas) supports flood control and handicrafts. Other useful species include *Scirpus articulatus* and *Aeschynomene indica*, with applications in food and crafting floating items.

We visited Kabartal, the Asia's largest freshwater oxbow lake and a unique wetland, which supports around 17 villages and over 15,000 households. It was the first wetland in Bihar to be listed as a site of international importance under the Ramsar Convention. According to the Ramsar Sites Information Service, the wetland is large and boasts of significant biodiversity, with a total of 165 plant species and 394 animal species recorded here. It is an important stopover along the Central Asian Flyway (CAF), one of the world's major water-bird migration routes, with 58 migratory water birds using it.



MOHD. IMRAN KHAN

Kabartal wetland, Bihar

We found that the wetland is under threat as are the people who depend on this ecosystem for survival. One such person is Sakhichand Sada, a middle-aged landless farm labourer, who informed us that Kanwar Lake remained dry this year (2025) till July 18 and reported water only after it rained on July, 2025.

‘Without edible plants and fish, our livelihood is impacted’ says Sakhichand, who belongs to the Musahar community, one of the most marginalized in the state. He said that the lake is shrinking every year and this is badly affecting the growth of wild edible plants. Till last year, he collected kamal gatta (*Nelumbo nucifera*), sarrukha (*Nymphaea sp.*), khubahi (*Scirpus articulatus*) bhent (*Nymphaea alba*) and water spinach (*Ipomoea aquatic*) from the wetland for food and also sold part of the collection and earned few rupees. He has seen a reduction in the collection over the last few decades.

Sakhichand’s story echoes that of Dukho Sahni, who is in his late 60s and belongs to fishermen caste. He too has spent decades around Kanwar Lake and has used edible plants and fruits available there. ‘Three decades ago, the lake was full of water and local people could harvest huge quantities of edible plants foods and fruits, but production of edible plants has come down and in the last two to three years due to lack of water.’

Kalo Devi, a landless labourer in her 50s, collects these edibles along with lotus flower and khubahi and sells them. She says that these plants are nutritious and the poor ensure that they consume them during the monsoon season. ‘When there is water in Kabartal, we have a source of food free of cost. But in dry season we have no such source.’ Khubahi is especially nutritious, and Kalo Devi collects the mature infructes after the rainy season and dries them. These are processed in the winter season (December–February) for obtaining seeds that are popped and sold in the market for making a local sweet.

Other than food, the wetland also provides green fodder and fuel and people used plants like Jalkumbhi (*Eichhornia crassipes*), Sarahanchi (*Alternanthera sessilis*) and Korhila (*Aeschynomence indica*) for this purpose.

The general view is that without water, the wetland is useless. Kanwar is part of an extensive floodplain wetland in the lower reaches of Gandak–Koshi interfan in north Bihar. Flood-control embankments constructed along the river Burhi Gandak during the 1950s have impeded the natural hydrological connectivity of the river with the wetland complex. The wetland complex has also been subject to extensive hydrological regime fragmentation and conversion for permanent

agriculture. Gajanan Mishra, retired Additional Secretary of Water Resources Department, government of Bihar, said that the age-old connection of river and wetland has snapped due to the construction of embankments, roads, and railways and human settlements. These are real culprits in wetlands dying as in the case of Kusheshwarsthan wetland in Darbhanga district.

Mahesh Bharti, who has run Kanwar Nature Club for over three decades, says that even after Kanwar Lake was declared a Ramsar Site in 2020, no serious effort was made to save it, and in the last two decades it has deteriorated quickly. Vidyanath Jha, retired Professor of Botany from L.N. Mithila University, Darbhanga, Bihar, who has extensively researched on wetlands and edible plants, says that the focus has shifted to cultivating priced commodities like makhana on a large scale in different wetlands spread in different districts and due to this wild edible plants like the char kantewala singhara (an indigenous *Trapa natans* var. *quadrispinosa*) and even karmi saag are on their way to extinction due to lack of conservation.

Arvind Mishra, an expert on wetlands who formed the Mandar Nature Club, says that officials have made repeated attempts to downsize wetlands in the Kanwar lake area and they have been encroached upon for agricultural purposes. The government's apathy towards saving the lake, which is in dire condition, needs a specific plan for its conservation. Even before the wetland was declared a Ramsar Site, local as well national-level environmentalists and experts demanded an action plan to conserve and protect Kanwar Lake.

The Bihar State Wetland Authority accepts that there is no official data on the status of the wetlands in the state despite the recognition that they are very important in view of increasing challenge of climate change and the water crisis in the state. S. Chandrasekhar, member secretary of Bihar State Wetland Authority, informed that the authority has information on only two plant-based foods, makhana and singhara.

The government, he says, is however trying to protect wetlands. Bihar already has three wetlands—Kanwar Jheel, Baraila and Kusheshwarsthan—that are listed as Ramsar Sites. These were identified by the state government as wetlands of national importance under the National Wetland Conservation Programme.

Chandrasekhar says, 'We have sent a proposal for three more wetlands, Gogabeel Lake in Katihar district, Gokul reservoir in Buxar district and Udaipur Lake in West Champaran district, for declaring them as Ramsar Sites.' He says that the funds are adequate as of now to work for conservation of wetlands but shortage



Lack of water has impacted livelihoods, with farming, handicrafts and tourism affected

of manpower is a major issue and the support of the district administration is required for land revenue records for conservation and management of wetland. 'Our main focus is to complete the notification of all existing wetlands in the state. If notification is implemented, it is enough for the conservation of wetlands. We have completed digital demarcation and ground truthing of several wetlands and a similar exercise for other wetlands is under process. We have not taken any step so far to protect and promote food biodiversity in wetlands yet but we will take this up once we stabilize after notification work of all wetlands is completed,' he says.

Global nonprofit Wetlands International South Asia was assigned the task of developing the management planning framework for Kanwar Lake. In 2016, they released a document for wetland conservation An Integrated Management Action Plan to ensure 'conservation and wise use'. To implement the action plan, around Rs 150 crore over a period of five years was needed. No work has, however, started on this, department officials say. The report documented 46 macrophytes and 75 terrestrial plants around the Kanwar wetland. But their food potential was not indicated in this report.

‘Kanwar wetland is going through a phase of shrinking inundation regimes due to reduced riverine connectivity, rainfall since 2001 and changing balance of surface groundwater use in the region. Peak inundation area has declined from 7,400 ha to 4,100 during 1980–2010. Besides, the area as well as intensity of permanent agriculture within Kanwar has increased,’ the report said.

Farmers used to cultivate special variety of paddy and maize, and fishing was common. Three crops were grown annually without chemical and irrigation, so the cost of production was almost zero as only seeds required. The stems of 15-foot-long paddy and maize were the best fodder for their animals.

‘But all this has gone. Nothing is left now,’ says Arvind Mishra, who had spent over three decades in the field in north Bihar and closely studied wetlands. ‘Productivity was very high in wetlands, without fertilizer, and people collected 2–4 quintals of small fishes in 1 hectare of wetland.’ Today productivity has reduced, and use of chemical fertilizers increased. This has resulted in toxic elements entering the water. The entire wetland has become toxic, Mishra adds.’ Former Divisional Forest Officer of Begusarai, Abhishek Kumar Singh who held the post till July 2025, confirms that the drying of the Kanwar Lake has adversely affected the livelihood of local communities which has forced many to migrate outside in search of other jobs.

Krishnanand Sada, a boatman who lives around Kanwar Lake, is in his mid-20s. He says there is no work and there is no food if there is no water in the lake. Water in the lake generates work for us as boatmen for tourists. Many people like me earn Rs 400–500 per day during season from both food and tourism, he says.

In folklore, wetlands are described as brothers of rivers as they keep rivers alive in the dry season. Now the closely interlinked relationship between rivers and wetlands has almost ended as many wetlands have dried up. ‘It is very difficult to revive the wetlands,’ Mishra said.

Reportage by Mohd. Imran Khan

Uttar Pradesh

Uttar Pradesh is the most populous state of the country, and approximately 4.11 per cent of the total geographical area of the state is covered with wetlands. The state has the country's major oxbow lakes/cut-off meander (~40.5 per cent) and riverine (~46.2 per cent) wetland areas. Dominant wetland classes are rivers and streams (53.73 per cent); tanks and ponds (16.15 per cent); and reservoirs and barrages (10.55 per cent). The state has a total of ten Ramsar Sites, viz. Nawabganj Bird Sanctuary, Parvati Agra Bird Sanctuary, Saman Bird Sanctuary, Samaspur Bird Sanctuary, Sandi Bird Sanctuary, Sarsai Nawar Jheel, Sur Sarovar, Upper Ganga River and Haiderpur wetland (see *Table 5: Category-wise wetland distribution in Uttar Pradesh*).

The area estimates show a noticeable difference between the 2010 and 2018 assessments by ISRO. In 2010, the total wetland area in Uttar Pradesh was estimated at 1242,530 ha, while in 2018 this figure dropped to 991,001 ha, a reduction of about 251,529 ha (around 20 per cent). This decline could be linked to a combination of factors, including seasonal variability, natural wetland loss, conversion to other land uses and differences in classification or mapping methodology between the two assessments.

The share of inland natural wetlands decreased slightly in percentage terms from about 74 per cent in 2010 to 71.6 per cent in 2018 while inland manmade wetlands increased proportionally from about 18 per cent to 28.3 per cent. This suggests that natural wetland areas may have been lost or degraded, with a relative rise in manmade waterbodies such as reservoirs, tanks and ponds. The small wetland category also changed significantly: in 2010, wetlands smaller than 2.25 hectares made up 7.8 per cent of the total area, while in 2018 only wetlands smaller than 0.1 hectare were counted, contributing just 0.1 per cent.

Table 5: Category-wise wetland distribution in Uttar Pradesh*

S. no.	Wetland type	Number of wetlands	Wetland area (ha)	Wetland area (per cent)	Wetlands per cent of total area of state
1	Inland—natural	15,835	709,819.50	71.63	2.95
2	Inland—manmade	291,943	280,225.80	28.28	1.16
3	Coastal—natural	–	–	–	–
4	Coastal—manmade	–	–	–	–
Subtotal	All wetlands (≥0.1 ha)	307,778	990,045.30	99.9	–
–	Wetlands (<0.1 ha)	19,121	956.1	0.1	–
Total	All wetlands	326,899	991,001.40	100	4.11

* According to the National Wetland Inventory and Assessment (NWIA) Atlas 2018

Source: https://vedas.sac.gov.in/static/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf



SHIMALI CHAUHAN / CSE

Water chestnut thriving in the Haiderpur wetland

We visited Haiderpur, a freshwater manmade floodplain wetland of the river Ganga near the Bijnor Barrage. This wetland came into existence after the construction of the Madhya Ganga Barrage in 1984. The wetland area covers about 69.08 km² within the Hastinapur Wildlife Sanctuary and is protected under the Wildlife Protection Act of 1972.

The backwater received from the Ganga flows and retains in deep upstream reservoirs, shallow-flooded land, stretches of river, perennial inundated patches. While areas between these patches are ecologically sensitive zones. In April 2021, this wetland was nominated as the 47th Ramsar Site in India and known to locals as the Barragewali Jheel.

The sanctuary supports diverse vegetation such as tropical dry deciduous, tropical secondary scrub and tropical grassland. Studies have reported numerous plants, including large trees, shrubs, herbs and several species of grasses, reeds and sedges, along the mighty river.

This wetland provides a significant abode, especially for migratory waterbirds, and offers sustenance and shelter to more than 25,000 water birds. It also functions as a breeding site for threatened species such as the black-bellied tern, bronze-winged jacana, Indian grassbird, Indian skimmer, lesser whistling duck, steppe eagle and sarus crane. In addition, the wetland supports more than 1 per cent of the greylag goose and bar-headed goose population.

Animals such as wild cats, wild boar, spotted deer, leopards, pythons, cobras and muggers are found in the fringes and the catchment areas of the wetland. This diverse habitat is crucial for the survival of niche-specific megaherbivores, swamp deer and 15 globally threatened species, including the golden mahseer, turtle, dolphin and fish-eating gharial.

This productive wetland is not only ecologically significant but also supports revenue for local communities residing near the wetland through fisheries and water-chestnut cultivation. Also, the water is essential for cultivating crops such as sugarcane, wheat and vegetables. Agro-potential species such as eggplant, lady's fingers, onion, potato, tomato, scarlet gourd, cucumber, watermelon and muskmelon are frequently cultivated here. Naturally grown grasses provide opportunities for localities to gain additional economic benefits through forage, thereby improving dairy production.

Perennial clumps with upright stems of broom grass (*Thysanolaena latifolia*) are used to make broomsticks that are commonly grown in semi-open areas, grasslands and riverbanks. Narkat grass (*Arundo donax*) grows up to 10 m tall in heavy clay soil, and brackish estuaries and it possess a high degree of salt tolerance and are utilized for thatching huts and making baskets. The vast potential of these grasses is also seen in terms of soil protection, phytoremediation, energetics and natural aesthetics. Furthermore, farmers grow populus and eucalyptus trees commercially, and the logged wood attracts veneers and plywood industries.

Archana Roy, 37, belongs to the Bengali community in Nawalpur village. Her household of four owns 7.5 bigha of land where rice and wheat are grown, but she also collects edible plants directly from the wetland to cook and supplements the family's diet. She learned about these plants, their uses and recipes from her mother, who gathered and cooked them for the family when Archana was a child. Today, she continues the same practice, wading into the wetland to collect the greens and preparing them in her kitchen. The most common species she gathers are helencha shak or paniwala saag (*Enhydra fluctuans*), also called water cress or marsh herb, malancha shak (*Alternanthera philoxeroides*), known as alligator



SHIMALI CHAUHAN / CSE

Archana Roy and Taramani Mandal show the wild edible plants that they collected from the wetland

weed and kolmi saag (*Ipomoea aquatica*), also known as water spinach and pani wala kandu. These are floating or semi-aquatic plants that grow throughout the year, reaching peak abundance during the rainy season.

Helencha shak has a slightly bitter taste and is valued locally for its medicinal property of controlling blood sugar. The leaves and stems are commonly cooked with potatoes and fish and eaten with rice. Sometimes they are dipped in a spiced gram-flour batter and fried into pakodi. The stems can also be cooked on their own and eaten with rice. The juice of the plant is sometimes extracted and drunk as a remedy for high sugar levels.

Kolmi saag grows in boggy or swampy areas. Its leaves are sliced and fried to make bhujia, while the stems are cooked as a soft vegetable curry. It is given to pregnant women as it is believed to improve milk flow after childbirth. Malancha shak grows like a small shrub, with roots remaining in place and new plants sprouting from the same root system. Its leaves and tender stems are also cooked as bhujia or curry. Pani ka kandu is prepared similarly either fried as bhujia or cooked as a curry. Its leaves and roots are both used, and it is believed to have blood-purifying qualities.

These plants are usually collected by women in families. They go into the wetland, wading in shallow water or in small boats, and cut plants from the water's surface. After collection, the plants are cleaned thoroughly at home to remove mud and insects before they are cooked. Salt, turmeric, onions, garlic and mustard oil are common ingredients in these recipes. The dishes are eaten with boiled rice, often as a side dish, along with dal or fish curry.

Apart from daily meals, these plants are used in community festivals. Archana's community prepares a special khichdi with chana (chickpeas) and coconut during an annual prayer for their Guruji. The greens are collected fresh for this occasion.

While these plants are still available in the wetland, Archana says they now have to travel farther to collect them as nearby wetlands have been overrun by water hyacinth or lost to garbage dumping, agricultural expansion and pollution from pesticides in farm runoff. Although the plants remain part of local diets, Archana notes a change in preference among the younger generation. 'They eat these dishes but they like Maggi and momos more,' she says. For now, the tradition continues, but its future depends on both the health of the wetlands and the willingness of the next generation to keep it alive.

In nearby Daranagarganj village, wetland plants are only an occasional dish. Mridula, 28, works as an anganwadi teacher and lives with her parents and three brothers. The family farms 30–35 bigha of land, growing rice and wheat, but frequent flooding reduces their harvest. To supplement their food and income, they collect arbi ka patta (taro leaves) from wetlands, and fry them with potatoes. They also gather kolmi saag water spinach, *Ipomoea aquatica* and sell it in local markets for ₹40–50 per kg. Another favourite is lalphulli saag, prepared as bhurji. 'These plants have always been there, but younger people do not like them much. Many in the village don't even know wetlands have edible plants,' Mridula says.

Kavita Devi, 43, also from Daranagarganj, recalls collecting bathua (*Chenopodium album*) from wetland banks. Unlike the seasonal field variety, this wetland bathua grows year-round.

For Leelo, 74, kana saag from the wetlands has been a family staple for generations. 'I fed my five sons with it, and now my three grandsons,' she adds.

The wetland also reported cultivation of *T. natans* in the Haiderpur wetland and areas around. Cultivation of *T. natans* covers approximately 9 km² area of waterscape and farmers as migrants from the state of West Bengal are involved in the cultivation as labourers.



SHIMALI CHAUHAN / CSE

Leelo, 74, showing an edible plant

The lozenge- or diamond-shaped water caltrop, starts blooming from August–October, and nuts are harvested in October–December. Aquatic weeds are managed at regular intervals to avoid crop–weed competition, and a yield of 4 tonnes/ha is achieved easily every year. The knobby edible nut is reddish black or pure green skins, with crispy white flesh (soft tissue).

The harvested nuts are transported to Bijnor and Muzaffarnagar markets through short commutes, buffalo carts, and e-rikshaws. This seasonal freshwater edible nut has high demand in city markets and is further marketed to other districts through various outlets. Villagers form different communities selling these nuts for their daily income sources.

The kernel has a sweet taste with a slight crunch and is eaten raw or boiled after the skin is separated. This seasonal nut is rich in water content, starch, protein and carbohydrates and is an excellent source of crude fibre, vitamins B, Ca, K, Fe and Zn.

From just 1 acre, farmers can earn nearly ₹1.5 lakh in a season. After harvest, the nuts are loaded onto buffalo carts or e-rickshaws and transported to nearby Muzaffarnagar and Bijnor markets from where they are distributed further into city markets and adjoining districts. The high seasonal demand ensures steady sales, making singhara an important source of livelihood for villagers from different communities, says Ashish Gujjar, 30, a biologist at Haiderpur wetland, from Kasampur Khola, Bijnor. For farmers, cultivation of singhara has become more than a seasonal activity; it is a dependable livelihood strategy that connects wetland farming practices to urban markets.

Ashish Loya, a former Wall Street professional, avid birder and one of the founding members of the Haiderpur Wetland Project, works with local communities through the Art of Living Foundation's social projects in western Uttar Pradesh to conserve the site. According to him, there is growing encroachment in the area, particularly from Van Gujjar community that brings thousands of cattle inside the wetland during March, when the water recedes. The grazing pressure is high, and large sections of grassland are often set on fire. In addition, the fishing community exerts continuous pressure, with nets deployed round the clock. The Bengali community in particular carries out unsustainable fishing practices, which not only threaten fish populations but also harm otters. On the role of authorities, however, he expressed concern. Loya noted that government agencies have not been effective in controlling pressures like encroachment, grazing or unsustainable fishing. Their involvement, he said, has largely been limited to managing tourist entry by setting up a chowki and charging a ₹50 entry fee. Beyond this, their engagement has not proven effective in addressing the wetland's ecological challenges.

Ashutosh K. Verma, Associate Professor and Head, Department of Botany, Siddharth Nagar State University, who previously served as a Scientist at the Botanical Survey of India (2015–23), says that the wetlands in Haiderpur are in comparatively good condition. Floods impact the wetland as high flows destroy marginal species and the inflow of live water often mixes species, leading to changes in species composition over decades, although old baseline data to compare with is missing. He also highlighted the use of wetland plants for food and medicine. In Haiderpur, *Trapa* (water chestnut), *Nelumbo* and species of *Sagittaria* genus such as *Sagittifolia*, *trifolia* and *Ipomoea* species are cultivated and used as vegetable resources. In Siddhartha Nagar wetlands, *Ludwigia* species like *octovalvis*, *adscendes* and *perennis* are traditionally used by local communities, its leaf paste is applied on cuts and wounds. *Nelumbo* and *Nymphaea* tubers, locally called kaseru, are consumed as edible products. In the same district, *Nymphaea nouchali* fruits are harvested, seeds extracted, roasted and eaten like corn, particularly

during fasting. Verma noted that in some areas, these aquatic plants are used even for making lapsi (a traditional dish prepared during rituals and fasting). There is no such specific attention given to edible plants by the authorities, he added. He stressed the importance of documenting traditional knowledge and local uses of edible and medicinal wetland plants, since the species has not only dietary but also cultural and ecological value.

Nivedita Mani, Project Manager at the Gorakhpur Environmental Action Group (GEAG), said that works of wetland rejuvenation and conservation across the state highlights how several indigenous resources are tied to these ecosystems. For instance, in Gonda district, tinni ka chawal, a traditional rice variety harvested from wetlands, is an important foodgrain especially consumed during fasting periods. Wetlands here also sustain edible plants such as *karmua saag*, which forms part of local diets. Similarly, the wetlands provide access to *kabismitti*, a unique-coloured clay found only in this region, which is traditionally used in pottery and mud colouring practices.

Arti Garg, Scientist at the Botanical Survey of India (BSI), who has been closely engaged with wetland and Ramsar Site studies in northern India noted that Uttar Pradesh has seen a significant rise in Ramsar Sites, from just two earlier to now ten, which indicates increasing recognition and protection of wetlands. She explained that Ramsar Sites are demarcated and protected, with little to no land-use change within their boundaries. In these sites, anthropogenic pressures are relatively controlled, though broader climate change impacts such as fluctuations in water flow and flooding remain serious concerns. On the Upper Ganga Ramsar Site (an 85-km stretch from Brijghat in Ghaziabad to Narora in Bulandshahr), Garg described it as a fragile riverine wetland ecosystem, highly susceptible to seasonal floods and droughts. She highlighted its remarkable biodiversity: the site shelters the critically endangered Gangetic river dolphin (*Platanista gangetica*), gharial, crocodile, six species of turtles, otters, 82 species of fish and more than a hundred species of birds. It also sustains a rich diversity of 419 angiosperm species, many of which are medicinal and economically important. Among the significant flora, she mentioned *Dalbergia sissoo*, *Saraca indica*, *Ficus benghalensis*, *Manilkara hexandra*, *Prosopis cineraria*, *Azadirachta indica*, *Tectona grandis* and *Dendrocalamus strictus*. The Upper Ganga site is especially notable for housing the world's tenth-largest archaic banyan tree (*Ficus benghalensis*), one of the oldest *Manilkara hexandra* (khirni) trees and a gigantic ancient *Prosopis cineraria* (shami tree). Sacred groves and religious sites within the Ramsar boundary add further ecological and cultural value, with priests and sadhus actively protecting small stretches as sacred zones.

Reportage by Shimali Chauhan

Ladakh

Leh, a district of the Union territory of Ladakh, located in the northern part of the Indian subcontinent in the vicinity of the Karakoram and western most Himalayan mountain ranges, is home to a huge number of wetlands. According to the Wildlife Department, Leh, there are 27 prominent wetlands, 24 of which are in the Changthang region, which includes the two Ramsar Sites Tsomoriri and Tsokar. Wetlands cover 3.09 per cent (~ 5.19 lakh ha) of the total geographical area of Ladakh.

Ladakh has a maximum area (~83.8 per cent) of high-altitude wetlands in the country. Dominant classes are river/streams (79.09 per cent) and high-altitude lakes (20.72 per cent). There are two Ramsar Sites, viz. Tso Kar Wetland Complex and Tsomoriri Lake in the Union territory (see *Table 6: Category-wise wetland distribution in Ladakh*).

Mapping done in Ladakh shows a total of 4,912 wetlands covering about 5.19 lakh hectares, which is 3.09 per cent of the Union territory's total area.

Almost all of Ladakh's wetland area (99.92 per cent) is made up of natural inland wetlands, such as high-altitude lakes, marshes and streams. Manmade wetlands, such as reservoirs or ponds, are very rare, making up only 0.06 per cent of the total wetland area. There are no coastal wetlands here due to Ladakh's landlocked geography.

The mapping also recorded 1,407 very small wetlands (less than 0.1 hectare each), but together they make up just 0.01 per cent of the total wetland area.

This data highlights the dominance of large, natural high-altitude wetlands in Ladakh's landscape. Given the region's cold desert climate, these wetlands are biodiversity hotspots and play a role in supporting migratory birds and local water needs. Their large share in Ladakh's natural environment makes them extremely valuable for conservation.

As you stroll down Leh's main market, you can find an avenue where local sellers sell a wide variety of traditional Ladakhi products. Among these products is a plant species commonly known as wild onion, traditionally used as a substitute for onions in various Ladakhi dishes and is locally known as *skotse*. Sonam Tundup, a 75-year-old man from Domkhar village has been selling such traditional products here for almost 30 years. He says, 'Once I set up a shop here, people from diverse regions like the wetlands of Nubra and Sham come here and sell wild onions to

Table 6: Category-wise wetland distribution in Ladakh

S. no.	Wetland type	Number of wetlands	Wetland area (ha)	Wetland area (per cent)	Wetlands per cent of total area of state
1	Inland—natural	3,494	518,828.30	99.92	3.08
2	Inland—manmade	11	336.8	0.06	0.01
3	Coastal—natural	—	—	—	—
4	Coastal—manmade	—	—	—	—
Subtotal	—	3,505	519,165.10	99.99	—
—	Wetlands (<0.1 ha)	1,407	70.4	0.01	—
Total	—	4,912	519,235.50	100	3.09

* According to the National Wetland Inventory and Assessment (NWIA) Atlas 2018

Source: https://vedas.sac.gov.in/static/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf



Tso Kar wetland, Ladakh

me. They grind the plant and make small flat cakes so that it is easier to store and use. Since it is sourced from the wild and not available here, these tend to sell out quickly as it has a better taste than onions.’



KARUNA CHHIMED

Local vendor Sonam Dolker selling wild onion (*Allium* species) at the Leh market

According to Konchok Dorjey, an assistant professor in the Department of Botany, Government Degree College, Nubra, University of Ladakh, a wide variety of allium species are found in Ladakh. ‘The most common among them are *Allium przewalskianum* and *Allium carolinianum*,’ he says.

‘Wetlands are a hub for medicinal plants because of the creation of a microclimate environment that is not found anywhere else. You can find both aquatic plants and land plants in wetlands,’ he says. He adds that traditionally wetlands had a significant cultural value in the local communities as different rituals were performed here but, this has all faded out in recent times.

These wetland areas are home to a wide variety of plants that were traditionally sourced and consumed. Thondup Gyatso, a wildlife ranger in the Wildlife Department, who belongs to the village of Korzok, located on the shores of the Tsomoriri Lake, recalls around 12 edible plants that he knows are consumed by the local communities. This practice of sourcing from the wild is, however, steadily decreasing (see *Table 7: Edible plants found in wetlands*).

Tashi Norbu was a shepherd for 26 years, and during this time he sourced different plants from the wetlands. He is now 50 years old and runs a homestay-cum-restaurant in Thukzhey village near the Tsokar Lake. He remembers his

childhood where he and his friends used to collect plants like Himalayan nettle and East Himalayan cinquefoil (*Potentilla peduncularis*, local name: toma) while shepherding around the Tsokar Lake.

He says, 'After I stopped being a shepherd I have not gone and collected these plants. These days the younger generations prefer to go to school than to collect these plants. I don't think anyone from our village goes deliberately now to collect these plants. *Potentilla peduncularis* (toma) has been a widely sourced wild plant among all the regions of Ladakh and the elders of the village often tell stories about how they used to go on these hunts to collect this plant.'

Ruth Denyith, aged 60, from Shey village, remembers how during the spring season when there was scarcity of vegetables, she used to search for toma along the streams in the village. She says, 'We used to call it the first vegetable as it is found during spring and used to be our go-to plant. You extract the plant from the soil and get a finger-long root, which is what we used to eat. Usually we ate it raw and if we found in large amounts we used it in thukpa.'

Another edible plant that was found along the water streams in villages is the local plant kumbuk (*Carum carvi*). Denyith adds, 'Kumbuk leaves were used during my childhood for making a vegetable dish. We used to venture out to find its leaves and try our best to find it in good quantities so that it would be enough for the family. It had quite a good taste and we enjoyed having it quite often.'

Rinchen Angdu, a 47-year-old shepherd from Angkung village, remembers the time when they used wild onions and goat's butter for cooking. He highlights, 'When I was young, there were no proper roads so we did not get vegetables here. We used wild onions (*Allium* species) instead of onions. During winter months, when the temperature falls below zero degrees, we usually make thukpa, a Ladakhi dish made from Himalayan nettle (*Urtica hyperborea*). To make thukpa, boil nettle in water and add chunks of dough, with mutton added for non-vegetarians. To make the dish tastier you add wild onion roasted in oil to the soup. The plant gives an extra taste to the dish and the soup gives the body the warmth it needs during the harsh winters.'

The community still eats nettle, especially during the winter months, when it is used to make thukpa. Nettle is one of the most frequently sourced wild plants among the community. According to Tsewang Rinchen, Research Officer, National Institute of Sowa Rigpa, 'Northern nettle is rich in iron, which helps in generating heat in the body which is a necessity during the minus-degree winter months in Ladakh.'



KARUNA CHHIMED

Rinchen Angdu, a shepherd from Angkung village, drying Himalayan nettle inside his tent. Dried nettle is used during winters in the traditional Ladakhi dish thukpa.

Additionally, he also talked about a wild plant found in the wetlands of Puga, locally known as gey-gey (Scientific name: *Lloydia serotina*). ‘This plant is sourced from Puga by many and is considered quite beneficial for the body. I have also eaten it raw.’ When asked about how it is beneficial, he said, ‘When you eat it there is an emotional joy that you feel.’ While Puga is famous for its vast green grass wetlands, the local communities and villagers from the adjacent area source gey-gey during the autumn season.

According to Tsering Yangdol, a 60-year-old woman from the Puga village, this wild plant is roasted with sand on firewood and consumed avidly among the community. Speaking about this plant with Konchok Dorje, he too has seen it in the Sham Valley.

While conversing with Rinchen Angdu and Tsering Yangdol, the name of another plant locally called naba or nigu (*Chenopodium album*), came up. Found around the fields in Sumdo village, 53 km from the Ramsar Site of Tsomoriri Lake. This village is associated to Nuro Sumdo wetland, which is a significant part of the larger Tsomoriri ecosystem. Residents Tsering Dolma, aged 63, and Tsering Angmo, aged 61, showed how this plant was growing abundantly in the village. ‘In my younger days we used to source this plant in large amounts as it makes a delicious dish when boiled and roasted with wild onions and paired with *ti-mok* (Tibetan bread), says Tsering Dolma.

According to Tsering Angmo, the *Chenopodium* plant has been passed down through generations, with the elders deeming it quite beneficial to the body. She says, 'Earlier we consumed this plant quite often but hardly at all these days.'

While on one hand, the practice of collecting and harvesting these plants from wetlands has fallen drastically, on the other hand the wetlands themselves are facing threat from all around.

According to Rigzin Dawa, Senior Programme Officer, WWF, Western Himalayas Conservation Programme, the state of wetlands in Ladakh is abysmal. He says, 'Wetlands have been dug for rampant infrastructure development such as the pipelines of Jal Jeevan Mission, the construction of mobile towers and the laying of internet cables. Further, loss of traditional ecological knowledge has caused wetlands to reach this state. For instance, the decline in pastoralism is causing a decrease in vegetation in the wetlands. There is a lack of policy advocacy and awareness among the communities about the importance of wetlands. However, all hope is not lost. If I have to talk about community-led conservation, recently in Chumathang village, the Biodiversity Management Committee (BMC) repealed an order by the administration that wanted to convert its hot spring sites into tourist spots. The village BMC strictly opposed this order and in the end the order was revoked. This is a clear example of how communities can take the steps in protecting their surroundings and in turn protecting the environment.'

WWF in Ladakh did extensive work on the wetland sites of Tsomoriri and Tsokar from 2004–14 and currently their work has shifted to rangelands.

The concern for the state of Wetlands was also shared by Arif Ahmad who is working as a Programme Associate—Himalayas for Wetlands International South Asia. He says, 'The Hanle marshes is a prime example of how the wetlands are being affected. Since the inauguration of Umling La, currently the world's highest motorable road, and the formation of the Hanle Dark Sky Reserve, there has been a dramatic increase in tourism. The residents are making homestays left and right and destroying the wetland area.' Additionally, he says, 'Education and awareness among the local people can bring a change in conserving and involving the local youth. Through awareness campaigns in schools, with local stakeholders and youth and even the tourists, we can tell about the value of wetlands. Since the organization has just started out in Ladakh, their work is mainly doing research work with the Wildlife Department. They conducted an awareness programme with homestay owners in Hanle recently. They also conducted a training programme on wetlands conservation and management in August in collaboration with the

Table 7: Edible plants found in wetlands

Scientific name	Local name
1. <i>Potentilla peduncularis</i>	Toma
2. <i>Rhodiola himalensis</i>	Storla
3. <i>Dactylorhiza hatagirea</i>	Angbolak-pa
4. <i>Allium wallichii</i>	Skotse
5. <i>Carum carvi</i>	Kosnot/kumbuk
6. <i>Allium carolinianum</i>	Skotse
7. <i>Nepeta floccosa</i>	Shalmagok
8. <i>Nepeta longibracteata</i>	Tangku
9. <i>Rheum spiciforme</i>	Lachu
10. <i>Urtica hyperborea</i>	Zatsot
11. <i>Chenopodium album</i>	Naba (nigu)
12. <i>Lloydia serotina</i>	Gye-gye

Source: Personal communication, Thondup Gyatso, a wildlife ranger in the Wildlife Department

Wildlife Department for the field staff of the Wildlife and Forest Department). Many of them are unaware about this subject. So it is necessary to educate and make them aware about it.'

The state is also in the process of taking various necessary steps for protecting the wetlands of Ladakh. These include regulating the activities in the wetlands. According to Wildlife Warden, Leh, Mandeep Mittal, the process of ground truthing of wetlands of Leh district has already begun. 'We have started the ground truthing for wetlands that can be accessed for physical inspection and are almost half way,' he affirms. 'We aim to complete it as soon as possible so that all the wetlands can be notified and once that is done, the State Wetland Authority can take appropriate actions for each of the wetlands. Once this process is done, we also plan to conduct a detailed flora and fauna study for the wetlands as there is a lack of research in this area.'

There are other economically important plants found in the wetlands of the area. These include Palu (*Leontopodium nanum*) which is widely used in Buddhist practices as an incense along with Juniper leaves. It is said to cleanse and purify the house.

Thondup Gyatso helped us identify some edible plants from the area (see *Table 7: Edible plants found in wetlands*).

Reportage by Karuna Chhimed

Odisha

Odisha is one of the eastern coastal states of India and has around 8.35 lakh ha of land under wetlands, accounting for 5.37 per cent of total geographical area of the state. It has the country's largest lagoon area (around 41.4 per cent). Six wetlands in the state have been notified under the Ramsar Convention (see *Table 8: Category-wise wetland distribution in Odisha*).

During 2010–18, Odisha's wetland profile changed significantly, as shown by data from the National Wetland Inventory and Assessment (NWIA). In 2010, the state had about 78,440 wetlands covering 6.91 lakh ha, while in 2018 the number had increased sharply to 4.21 lakh wetlands covering 8.36 lakh ha. This indicates both an increase in the count and a substantial rise of about 1.45 lakh ha the total wetland area. This is due to better technology used to monitor and inclusion of small-sized wetlands.

Chilika Lake, India's first Ramsar Site, is one of the most prominent wetlands in Odisha. Asia's largest brackish water lagoon, it is a highly productive ecosystem. The lagoon supports a unique assemblage of marine, brackish water and freshwater biodiversity. It hosts four types of crocodiles, 24 types of mammals, 37 types of reptiles, 726 types of flowering plants, five types of grasses and mangroves.²⁸ In this vast waterbody, three types of eco-zones are present, i.e. freshwater in the northern sector, brackish water in central and southern sector and marine water in the outer channel sector.²⁹

The Odisha government is currently in the process of demarcating 13,667 wetlands spread over 2.25 ha or more for conservation on the directions of the

Table 8: Category-wise wetland distribution in Odisha*

S. no.	Wetland type	Number of wetlands	Wetland area (ha)	Wetland area (per cent)	Wetlands per cent of total area of state
1	Inland—natural	8,912	305,305.20	36.53	1.96
2	Inland—manmade	268,545	341,607.20	40.87	2.24
3	Coastal—natural	1,759	146,104.20	17.48	0.94
4	Coastal—manmade	7,879	36,165.70	4.33	0.23
Subtotal	—	287,095	829,182.30	99.2	—
—	Wetlands (<0.1 ha) #	133,614	6,680.70	0.8	—
Total	—	420,709	835,863.00	100	5.37

* National Wetland Inventory and Assessment (NWIA) Atlas 2018
Source: https://vedas.sac.gov.in/static/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf



HUMAN & ENVIRONMENT ALLIANCE LEAGUE

Drone shots of Chilika Lake

Supreme Court. In March 2025, the court directed the State and Union Territory (UT) Wetland Authorities (SWAs/UTWAs) to complete the ground truthing and demarcation exercise of the boundaries of each of the wetlands identified by the Space Application Centre, Atlas 2021 and set a three-month timeline for this. Following the Supreme Court judgement, the High Court of Orissa also initiated a suo motu PIL in January to monitor the conservation of wetlands in the state.³⁰

The wetland has a variety of plants that grow in the water and also along the edge of the waterbody. The 'Assessment of Tree Species Diversity in Chilika Lake Ecosystem of Odisha, India' published in the *International Research Journal of Environmental Sciences* in November 2016 identified a total of 69 tree species representing 57 genera and 33 families in the three ecological sectors of Chilika. Many of these trees such as coconut, jamun and date provide fruit. A study published in the *International Journal of Advanced Science and Technology* in 2020 identified 25 macrophytes that are used for food and livelihood by the local communities around Chilika. The study found that 11 of these were used as food of which most are used as leafy vegetables such as *Alternanthera philoxeroides* (madaranga), *Nymphoides indica* (kumudini), *Alternanthera sessilis* (kolamsago), *Commelina benghalensis* (Ransiri) and *Sphaeranthus indicus* (murisa). Additionally, the bulbils of *Aponogeton natans* (jhechu) are eaten raw or are roasted and consumed

as vegetable and starchy seeds. Even the flowering spike and young shoots are used as a vegetable. Other plants had medicinal properties, were used as fodder or provided raw material for mats, roofs and brooms.

According to Tiasa Adhya, founder of the Fishing Cat Project, the wetland parts of Chilika are shrinking drastically due to proliferation of aquaculture farms harvesting freshwater carps and prawns. ‘We have lost nearly 50 per cent of the seasonally inundated areas of the wetlands due to this,’ she says. The group, along with the Kolkata-based non-profit Human & Environment Alliance League (HEAL) is promoting the Chilika red rice (bankia or bankei) in an effort to create awareness about the health benefits of consuming this rice and how it would indirectly protect the habitat of the fishing cat which was declared the lake's ambassador in 2020. This indigenous rice variety is flood-tolerant and provides seasonal habitat to the cats. The rice is organically cultivated and traditionally harvested and sustains livelihoods of the lagoon's marginalized local farmers. The rice is rich in fibre and essential minerals and has anti-inflammatory properties. Its low glycemic index makes it suitable for consumption even for diabetics.³¹

Naturally farmed in Chilika's floodplain, bankia grows up to a height of 6 feet and provides habitat to native catfishes and snakeheads and native birds like moorhens. No pesticide or fertilizer is used for its cultivation as they would get washed away



A farmer manually cuts an indigenous red rice variety, bankia, grown around Chilika Lake and valued for its nutritional benefits and rich flavour



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Hema Lata Behera with a madaranga plant

with monsoon floods, when the paddy is grown. Because of this feature, they are also climate-resilient as they have the ability to withstand unseasonal heavy rainfall close to the harvest time when most high-yield varieties would rot. This particular variety is rich in iron and folic acid apart from the anthocyanins that come with red rice varieties. ‘Unfortunately, such a socioecological practice is dying as more and more farmers lease off their lands to businessmen who convert the wetlands for intensive carp culture,’ says Adhya. These fish farms release pollutants into Chilika. Sometimes invasive species like nylon Tika and hybrid catfish are released into Chilika during floods, which is highly detrimental for native fishes. ‘To reverse the tide, we want to market the red rice in urban centres of the country in the hope to make red rice farming lucrative and to encourage this age-old wise-use practice. This will benefit the farmers, the wetland biodiversity and the ecosystem,’ she says.

Red rice is cultivated on land situated along the water channels that connect the villages on the banks of Chilika to the open lake. ‘For farmers like Haramohan Samantari and Bheema Swain of Mangalajodi village, who grow the rice on 2 acres and 3 acres of land they own respectively, yield depends on the weather conditions. For example, the yield on 2 acres is around 13 quintals and Samantari earns

around ₹8,000–10,000 from selling around 2–3 quintals. The rest of the harvest is used at home. Swain harvests around 24 quintals and earns ₹20,000 from the 8–10 quintals he sells. Like Samantari, he too uses the remaining at home. The rice is also used in religious ceremonies. Swain and Samantari are two of the four farmers who grow this rice in the village,' informs Arya Narayan Swain, who works as a project officer with HEAL.

Rice is not the only crop that they harvest from the area around Chilika. They forage for green leafy vegetables like kalama (*Ipomoea aquatica*), kacharanga (pumpkin) and madaranga (*Alternanthera sessilis*) from the saturated land.

Though the lake has some seaweeds that are edible and are consumed in other parts of the world, communities living around Chilika do not eat them. They do, however, earn from seaweed cultivation. The algae, *Gracilaria verrucosa*, yields agar, which has industrial application. Cultivation and collection of this algae not only provides income but also helps restore the lake's carbon absorption capacity. Another application was revealed recently in a study that found that red algae from this area can help prevent skin cancer and skin damage from UV radiation. The process for developing seaweed extract has been provided a patent under the Patents Act, 1970 for a period of 20 years beginning July 15, 2021.

Reportage by Vibha Varshney

Karnataka

Karnataka has an area of 7.6 lakh ha of area under wetlands, which accounts for 4.4 per cent of total geographical area of state. Most of the wetlands in the state are manmade and tanks or ponds and reservoirs or barrages constitute 40.17 per cent and 31.85 per cent of the area respectively. Natural wetlands such as rivers and streams cover an area of around 23.61 per cent of total wetland area of state (see *Table 9: Category-wise wetland distribution in Karnataka*).

Between 2010 and 2018–19, the total wetland area in Karnataka increased slightly from 6.44 lakh ha (2010) to 7.67 lakh ha (2018–19). The distribution pattern shows a major shift: inland manmade wetlands (tanks, reservoirs, barrages) expanded substantially, rising from 62 per cent (in 2010) to over 72 per cent (in 2018–19) of the wetland area, reflecting heavy reliance on artificial waterbodies for irrigation and water storage. Conversely, inland natural wetlands reduced in share from 28 per cent (2010) to 24 per cent (2018–19), indicating pressures on rivers, lakes and waterlogged areas. Coastal wetlands remained marginal (<2 per cent), with only minor changes.

A walk along an unnamed wetland (longitude 75.142860, latitude 15.082130) along Tadas Road in Adavisomapur village of Haveri district revealed more than 20 edible and medicinal plants that people in the area source from around the waterbody. These are not typical wetland plants as the elevated road has created dry embankments. Most of the plants we found are weeds that can adapt to both dry and wet conditions.

We would not have given them a second look if we had not requested three women, Neelamma Kemmannavar, Prerna Lokunde and Gangavva Washannavarm from Timmapur village in the Dharwad district to accompany us and help us identify these wild edible plants that they use sometimes in their kitchens.

Table 9: Category-wise wetland distribution in Karnataka

S. no.	Wetland type	Number of wetlands	Wetland area (ha)	Wetland area (per cent)	Wetlands per cent of total area of state
1	Inland—natural	6,204	187,413.60	24.45	0.98
2	Inland—manmade	107,458	553,715.50	72.23	2.94
3	Coastal—natural	1,345	11,206.30	1.46	0.06
4	Coastal—manmade	267	3,455.80	0.45	0.02
Subtotal		115,274	755,791.20	98.6	-
Wetlands (<0.1 ha)*		215,374	10,768.70	1.4	-
Grand total		330,648	766,559.90	100	4

*According to the National Wetland Inventory and Assessment (NWIA) Atlas 2018

Source: https://vedas.sac.gov.in/static/downloads/atlas/Wetlands/wetland_L4_atlas_12March2024.pdf



VIBHA VARSHNEY / CSE

Women with greens foraged from the wetland in Haveri district, Karnataka

The level of excitement was high as these elderly women elucidated in impassioned Kannada about their myriad uses of the plucked bunches of leaves from the trees and shrubs that lined Tadas Road. The plants that the women picked included the following that we could identify based on the local names they shared and the images of the plants foraged. We used the People's Biodiversity Register of Dharwad district and also requested Ashok Bhosale of Sahaja Samruddha and RP Harisha of ATREE, Bengaluru, to help us with the identification.

Overall, we were able to identify 16 of the plants they foraged. Others such as *Clitoria ternatea* and *Mimosa pudica* were available in the area, but the women did not use them. Some of these have only medicinal value. Only one plant, *Alternanthera sessilis* (honagone soppu) is a true wetland plant. The others can adapt to both dry and wet conditions.

We identified the following plants:

1. *Stachytarpheta indica* (kari uttarani)
2. *Achyranthes aspera* (uttarani soppu)
3. *Alternanthera sessilis* (honagone soppu)

4. *Cassia tora* (taratagi soppu)
5. *Tamarindus indica* (hunase hannina gida)
6. *Senna alexandrina* (nelavarike/alluri soppu)
7. *Cocculus hirsutus* (dagadi soppu)
8. *Acacia pennata* (seege soppu)
9. *Teramnus labialis* (adavi uddu)
10. *Carissa carandas* (kavale hannu)
11. *Ziziphus oenopolia* (barige)
12. *Crotalaria pallida* (gijigiji gida)
13. *Tephrosea purpurea* (empali)
14. *Prosopis juliflora* (jali soppu)
15. *Sesamum indicum* (advi ellu)
16. *Ocimum americanum* (naayi tulsi)

Most of these plants are used to prepare curries, sambar or podi chutneys. Some had distinct medicinal properties such as being good for the eyes or for joint pains or treating headaches. We could not identify six plants. Making the best of the field trip, the women collected large bunches of alluri soppu and tamarind to take back home. The bounty of food available in the area included a wild duck and a crab in the running-water stream. The women pointed out other plants that could be consumed too but we could not reach the area to identify the plant or even pluck a twig.

The following day, alluri soppu was on our plate. Neelamma had prepared it with lobiya beans and it tasted good. There are research studies that indicate that the leaves of alluri soppu are good for the liver. Researchers in Bangladesh reported in *PloS One* in April 2021 that its leaf powder can reduce oxidative stress, inflammation and fat build-up in liver cells in high-fat diet-fed obese rats. ‘Despite its rich wetland heritage and significant ecological and economic value, Karnataka faces mounting challenges from urban pressures and weak governance to shrinking protective zones,’ says R.P. Harisha, a conservation biologist at the Ashoka Trust for Research in Ecology and the Environment (ATREE). Across Karnataka largely rural wetlands and particularly urban lakes suffer from encroachment, pollution, invasive species, siltation and poorly maintained buffer zones, compromising their ecological integrity.

Wetlands in Karnataka are rich in seasonal food baskets and provide nutritional security in rural households even today, says Harisha. These foods are rich in iron, calcium and folate, and also act as climate-resilient foods during crop failure or lean seasons. Communities such as Soliga, Halakki Vokkalu, Kuruba, and even those in agrarian villagers have traditionally harvested a variety of wild edible plants,



Neelamma Kemmannavar with leaves of alluri soppu (*Senna alexandrina*), which is highly valued in traditional medicine



Prerna Lokunde with a twig of a tamarind tree that grew around the wetland

tubers, fruits and aquatic foods. Some aquatic fauna such as small indigenous fish, freshwater crabs, snails and clams are also consumed by communities living near coastal wetlands.

He provided us with a list of wetland flora in Karnataka. These are:

- Lotus (*Nelumbo nucifera*)—seeds, rhizomes and young stalks eaten boiled or roasted
- Water lily (*Nymphaea nouchali*)—rhizomes and seeds used in local dishes.
- Water spinach (*Ipomoea aquatica*)—consumed as a green leafy vegetable.
- Colocasia (*Colocasia esculenta*, kesavina gedde)—corms and leaves (after proper cooking to remove oxalates).
- Water chestnut (*Trapa natans*/singada)—fruit consumed raw or boiled (in north Karnataka wetlands)
- *Hydrolea zeylanica* (neeru basale)—a wild green used in soppu saaru and chutneys
- *Marsilea minuta* (sarsapa soppu)—tiny clover-like leaves used as leafy vegetable
- *Alternanthera sessilis* (honagone soppu)—popular in rural cuisine, rich in iron
- *Centella asiatica* (ondelaga/brahmi)—eaten raw in chutneys for memory and cooling
- *Eclipta alba* (bhringraj/garagada soppu)—leafy curry, also valued medicinally
- *Amaranthus spinosus* (kere harive)—grows near ponds and tanks

Reportage by Vibha Varshney

Experts' opinions

Wetland wonders: Unlocking the potential of India's edible plant legacy

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One of the planet's most productive ecosystems, wetlands provide vital ecological functions and serve as essential sources of support for millions of people. In India, people in the Northeast, Eastern Gangetic plains, coastal regions and tribal areas, rely heavily on wetlands for their daily needs. Wetlands provide many essential resources, but of these, edible plants are important for local economies, traditional medicine, cultural identity and food security. People consume a wide variety of edible plants that grow in and around brackish and freshwater environments. Cultivated, semi-wild or fully wild harvested, these plants are frequently found on a gradient between naturally occurring and domesticated species.

Some of the most popular edible wetland plants are *Colocasia esculenta* (taro or arbi), which grows along wetland margins and whose leaves and tubers are staples in many regional dishes; *Ipomoea aquatica* (water spinach or kalmi saag), a nutritious leafy green that is widely consumed in Assamese, Bengali, and Tamil cuisines; and *Nelumbo nucifera* (lotus), whose seeds and rhizomes are eaten while its petals and stamens have medicinal and ceremonial significance. The aquatic crop *Euryale ferox*, often known as makhana or fox nut, is highly valuable both economically and nutritionally, particularly in Bihar. The edible rhizomes and seeds of *Nymphaea* species (water lilies) are frequently eaten during times of fasting. Helencha, or *Enhydra fluctuans*, another common wetland green in eastern India, is similarly well-known for its therapeutic properties. In shallow marshes, *Marsilea minuta*, also known as water clover or sunsuniya saag, grows and is eaten as a vegetable.

Growing *Euryale ferox*, makhana, a nutrient-dense aquatic plant, in the Mithilanchal region of north Bihar offers an interesting example of eco-friendly harvesting of edible marsh plants and community-led conservation. Oxbow lakes and seasonal wetlands have long been used by local farmers and fisherman to cultivate makhana. The creation of Makhana Cooperative Societies, supported by state and non-governmental organizations, has transformed traditional practices into organized

and sustainable lifestyles. Controlled harvesting cycles have been established to prevent over-extraction, local value-addition units for popping and packaging have been put in place, and women's roles have been reinforced through self-help groups that manage the final product's processing and sales. By using the Geographic Indication tag to brand it, Mithila Makhana has become well-known and valuable in the marketplace. This well-coordinated approach has increased household incomes and inspired community members to take steps to maintain the health of their wetlands, such as assessing the water quality and protecting native vegetation.

More than just a source of food, wetland plants are essential to the eating customs, traditional healing practices, and cultural identities of indigenous and rural populations. In terms of nutrition, these plants are abundant in vital micronutrients and are especially important in diets during monsoon seasons and periods of agricultural scarcity. *Enhydra fluctuans*, *Ipomoea aquatica* and *Colocasia esculenta* are used to make vegetables that are not only mainstays in places like Assam, Bengal and Odisha, but are also prized for their digestive and therapeutic properties. Numerous plants found in wetlands have uses in traditional medicine systems. For example, *Enhydra fluctuans* (helencha) is commonly used to treat skin and liver conditions, and *Nelumbo nucifera* (water lily) seeds are prized for their cooling effects on the digestive system and are frequently eaten in the summer. Additionally, these plants have a strong spiritual and ceremonial significance. The lotus is revered as a symbol of purity and divine beauty in Hindu and Buddhist ceremonies and is offered during prayers. Likewise, during Navratras and other Hindu festivals, *Euryale ferox* is a staple in fasting diets. Wetland plants also support traditional livelihoods and plants like *Typha* and *Scirpus* are also used to make roofing materials, carpets and baskets, illustrating how biodiversity and rural artistry can coexist harmoniously. These examples show how edible wetland plants blend health, sustenance, spirituality, and livelihood to promote a holistic way of life.

A variety of environmental and human-induced stresses are putting wetlands in danger, which has a negative effect on the edible plant species they sustain. These stresses jeopardize not only biodiversity but also the cultural and nutritional foundations of communities. One of the biggest dangers is land-use change, which is caused by the growth of infrastructure, urban sprawl, and agriculture. This causes wetland ecosystems to become degraded, fragmented and drained, as the native habitats of *Euryale ferox* (water lily) are being drastically diminished in Bihar due to the conversion of traditional floodplain wetlands into agricultural land, while the industrial waste, sewage, fertilizers and pesticides are additional sources of contamination. They contaminate water sources and accumulate in the tissues of edible plants such as *Enhydra fluctuans* and *Ipomoea aquatica*, rendering them unfit for human consumption.

The phenology and productivity of important wetland species, including *Nymphaea* spp. (water lily) and *Nelumbo nucifera*, are disrupted by climate change, which also causes additional stress by changing rainfall patterns, reducing water sources and upsetting flood cycles. The aggressive growth of invasive species, such as the water hyacinth (*Eichhornia crassipes*), which covers water surfaces, limits sunlight, depletes oxygen and competes with native edible plants, greatly diminishes biodiversity. In addition to endangering local populations' food security, income and cultural customs, these challenges also underscore the pressing need for comprehensive conservation measures. Protecting water and animals is only one aspect of effective wetland conservation; other aspects include community stewardship, pollution control, invasive species management, climate resilience and acknowledging and maintaining the historic use of food plants. For the ecological, nutritional and cultural sustainability of India's wetland landscapes as well as biodiversity, it is imperative that edible wetland plants continue to exist.

A comprehensive and inclusive strategy that recognizes the ecological, nutritional and cultural relevance of edible wetland plants is required to preserve India's wetland food legacy. To preserve indigenous knowledge about plant uses, seasonal cycles and sustainable harvesting practices, it is essential to first document and investigate traditional knowledge through participatory ethnobotanical investigations. Edible plants and community rights should be integrated into wetland management plans and local biodiversity inventories in order to successfully incorporate this information into conservation policy. To ensure that plant populations remain healthy and productive for future generations, sustainable harvesting laws that are tailored to specific species and based on ecological constraints must be developed. Through the creation of cooperatives and women-led self-help groups (SHGs), local markets also play a critical role in promoting fair trade opportunities, especially for products made from wild and semi-wild plants. Local women and youth must be empowered through the education and awareness-raising activities to strengthen their skills in cultural preservation, sustainable harvesting and nutrition. In order to ensure that traditional users are acknowledged as the stewards of wetland ecosystems, legal frameworks must change to recognize and protect customary use rights within national biodiversity and environmental legislation. Finally, steps to protect edible and culturally significant plant species should be specifically included in wetland conservation and climate resilience planning strategies, recognizing their critical role in ecological sustainability and food security. This multi-pronged approach will help India preserve its diversity of wetland plants and ensure that these thriving ecosystems will continue to support nature and people for years to come.

Wetland plants—Food security and livelihood warriors

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Aquatic plants or macrophytes or hydrophytes differ greatly from terrestrial plants. They are less influenced by climatic and seasonal variations due to the unique habitat in which they thrive. These plants show a great degree of structural and behavioural adaptability such as spongy stems, filiform roots, pneumatophores, dispersed leaves and air pouches allowing them to thrive in their aquatic environment.

As people figured out how to live off the land and fish, civilizations sprung up along wetlands. Wetlands are vital ecosystems because they allow many people to make a living and keep themselves fed. People gather aquatic plants for a variety of purposes, including food, medicine, animal feed and household goods. Due to a lack of emphasis on the intrinsic worth of aquatic plant species, conservation efforts have been inadequate, despite the fact that aquatic plants are an essential bio-resource. There is a lack of information regarding the local and commercial uses of aquatic plants in databases worldwide, including India. Several plants native to marshes have medicinal uses that have been documented in ethnobotanical surveys, pharmacopoeia and Indian Ayurvedic literature, but this information is very scattered.

In the book *Aquatic Plants of Eastern India*, which I co-authored with Ajay Mahapatra, we mentioned that 61 wetland plants in northeastern India are utilized for food, medicine and livelihood.

Wild edible aquatic plants play an important role in improving nutrition security and food diversity by providing a readily available source of nutrients, particularly in areas with food scarcity or restricted access to cultivated foods. These plants contribute to dietary diversity by providing a wider range of vitamins, minerals and other vital substances. They can be especially important during times of seasonal food shortages or calamities. Furthermore, their potential economic and environmental benefits highlight the urgency of implementing more resilient and sustainable food systems.

The rice plant (*Oryza sativa*) is the most important wetland species, providing sustenance to millions of people. Wild rice types such as *Oryza rufipogon* and *Porteresia coarctata* are salt tolerant, which contributes to food security in rural

households. Leafy vegetables and tubers are the most often exploited aquatic species, with many of them being sold in rural markets. *Bacopa monnieri* (Brahmii), *Boerhavia chinensis*, and *Centella asiatica* (thalkudi) are examples of leafy vegetable plants, and their leaves are cooked as leafy vegetables. Young shoots *Alternanthera sessilis* (madaranga saag) and *Commelina benghalensis* (kanishre saag), gathered from the edges of ponds, marshes are extensively utilized as supplementary vegetables in eastern India. *Hygrophila auriculata*, *Ipomoea aquatica* (kalama saag) and *Hydrolea zeylanica* (langulia) are also wetland green vegetables. *Marselia quadrifolia* (sunsunia sag) leaves are marketed in cities and urban markets throughout eastern and northeastern India.

People from eastern India eat raw or cooked *Aponogeton undulatus* and *Aponogeton natans* starchy bulbils (called kesrukanda in the local language) in winter. The most popular aquatic tuberous plant is *Colocasia esculenta* (bansaru). It is a popular substitute for potatoes in both urban and rural areas. Many people eat the starch-rich fruits and seeds of *Trapa natans* (pani singhada), *Euryale ferox* (Makhana), and *Ottelia alismoides* (pani kunduri). The rhizomes of the *Nymphaea nouchali* (blue water lily) plant are boiled and named madhi. The carbs and starch found in the petiole and peduncle of *Nymphaea pubescens* (pink water lily) make them another edible part of the plant. In addition to being a commercially successful aquatic crop, the fruits of the *Trapa natans* plant are delicious and healthy treats that are appreciated all over Asia. The nuts of *Trapa natans* are often ground into flour for breakfast and used periods of food shortage and Hindu religious fasting. *Ceratophyllum thalictroides* (water fern), an aquatic fern, is also eaten by indigenous people in Southeast Asia.

The Indian aquatic flora also has a rich storehouse of herbal medications, many of which have long been utilized in Ayurvedic medicine. Several of these wild food plants include phytochemicals that have health advantages and can help avoid illnesses and physiological abnormalities in humans. For example, *Alternanthera sessilis*, a green vegetable, has been shown to improve bile flow in the intestine, stimulate milk, nourish mothers and aid in the treatment of leucorrhoea. *Bacopa monnieri*, another green vegetable, is known for its ability to treat memory loss, epilepsy, dizziness, asthma and constipation. *Centella asiatica*, a common herb, can help alleviate headaches, mental illnesses, colds and coughs while also improving memory. *Commelina benghalensis*, in addition to being a vegetable, is used to treat constipation and rheumatic pain. *Ipomoea aquatica* is high in protein, a good source of minerals and vitamins, including carotene, and is said to be a blood purifier and gonorrhoea cure. *Nymphaea nouchali* rhizomes are high in starch and are said to be beneficial in the treatment of diabetes, diarrhoea,



leucorrhea, piles and dyspepsia. Other important medicinal plants include *Acorus calamus*, *Ammania baccifera*, *Cyperus aromaticus*, *Eclipta prostrata*, *Grangea maderasapatana*, *Ludwigia adscendens* and *Limnophila indica*, among others. Despite the investigation of different ethnomedicinal taxa, the scientific evaluation of many aquatic plants is mainly unknown and need further research. Herbal medicinal plant cures have advantages over contemporary medicine, particularly since they are more accessible and economical to rural areas.

Home decorations, mats and baskets too are made from a variety of aquatic plants. Perfumes are made from the blossoms of *Pandanus tectorius* (screw pine), while mats, bags, caps and baskets are woven from the leaves. In many coastal Indian states, aquatic reeds including *Vetiveria zizanioides*, *Arundo donax*, *Saccharum spontaneum* (kaans), and *Phragmites karka* are the favoured material for basketry. Making mats out of the swamp grass *Cyperus alopecuroides*—a product locally known as santarapati—has become a popular side hustle in many parts of eastern India. *Typha angustata* is a popular choice for thatching sheds, huts and packaging materials. *Vetiveria zizanioides* (khas-khas) is a plant whose aromatic roots are used in perfumes and also woven into mats that are mostly used as fan curtains, window screens and air coolers to keep cool in the summer.

A wide variety of crafts rely on the raw materials derived from aquatic plants. Sola pith is the delicate, translucent white stems of the *Aeschynomene aspera* and *Aeschynomene indica* plant to make sunhats, models, toys and artificial flowers. When the Kartik Purnima celebration rolls around in Odisha, the sales of these sola pith toy boats skyrocket. Hindu weddings often feature pith crowns crafted from sola pith. Large pieces of sola pith are fastened to fishing nets by fishermen to use as flotation aids. Furthermore, tribal in Odisha and Chhattisgarh traditionally use the seeds of the *Coix aquatica* plant to make jewellery.

Nitrogen, phosphorus, potassium and other minerals are abundant in many aquatic species, including *Azolla pinnata*, *Spirodela polyrhiza*, *Wolffia globosa* and *Sesbania javanica*. Due to the positive effects on crop yields, many species have been used extensively in farming. Many aquatic plants also absorb contaminants, acting as a natural water filters.

Women typically play a significant role in the commerce of wild edible aquatic plants and are essential to the livelihoods of rural communities. Changes in land use, pollution, and the effects of climate change pose serious risks to wetland plants. In wetland ecosystems, these stresses can cause changes in plant composition and quality, decreased production and the loss of habitat. Impacts of climate

change, such as changes in water chemistry have the potential to significantly impact wetland ecosystems. Nutrient cycles can be disrupted and edible plants contaminated by pollution, especially from wastewater and agricultural runoff. Further, land-use changes can alter water flow, which in turn can impact plant growth and survival. In order to protect these precious resources and guarantee food security, it is crucial to understand these implications and need appropriate conservation and management plans.

Wetland conservation and management efforts must be holistic and integrated if they are to take into account the importance of aquatic plants to local economies and food supplies. This involves creating community-based, long-term management plans and encouraging the domestication of certain aquatic species. Sustainable use of wetland species is one possible outcome of the Amrit Dharohar Scheme, an initiative to improve wetland usage that launched in 2023–24. But the specifics of how we'll do this are still up in the air. Although the Wetland (Conservation and Management) Rules 2017 lay forth the groundwork for protecting wetlands, their main emphasis is on environmental and ecological considerations and the regulation of activities that take place within wetlands. Neither aquatic plants nor their function in people's livelihoods are specifically mentioned.

There aren't many legislative initiatives that aim to preserve and responsibly utilize the aquatic plants, despite their importance. Policymakers and stakeholders aren't fully aware of their potential. Wetland edible plants are not heavily incorporated into wetland management and conservation plans in India, despite widespread recognition of their nutritional and cultural benefits and their incorporation into traditional practices. Sustainable usage and livelihood resilience are two areas where this integration is being acknowledged more and more, but policies to address it are still not being adequately implemented.

The integration of wetlands into urban design, raising community knowledge and engagement, improving research and monitoring, and guaranteeing cooperation between and within departments are all necessary. Strengthening policies and regulations, promoting sustainable practices, developing comprehensive wetland inventories and monitoring systems, providing support via traditional wetland-based livelihoods, integrating wetlands into both urban and rural planning, and fostering community participation are all necessary steps to protect the aquatic plant diversity and wild aquatic food heritage of India's wetlands.

Wetland plants in India: An overview

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Wetlands in India, spanning 16.89 million hectares, are the country's critical natural assets, sustaining rich biological diversity and human well-being through their wide-ranging ecosystem services. Wetland plants are an essential component of these ecosystems, rendering much of their physical structure and underpinning diverse ecosystem services and their connection to overall well-being.

Wetland plants, also called hydrophytes, are plants adapted to survive in wetland environments. Believed to have evolved from terrestrial plants, wetland plants are commonly defined as 'plants growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content'. Christopher Cook, in his seminal work *Aquatic and Wetland Plants of India* listed 589 hydrophytes, which have been further expanded to 596 species in a recent work.

Wetland plants adopt a range of strategies to survive in the dynamic environment of wetlands, which can involve extremes in fluctuations in water levels and inundation regimes, temperatures, availability of oxygen, salt concentrations and many others. A range of adaptation can thus be seen in these plants such as developing air spaces in roots and stems to survive waterlogged, low-oxygen conditions (such as those seen in water lily), forming adventitious and prop roots and pneumatophores (as seen in mangroves), and undergoing rapid stem elongation (seen in boro rice cultivated in several wetlands of northeast India).

Wetland plants play a multitude of roles in the ecosystem, from being a marker of ecosystem extent to rendering insights into the unique evolutionary strategies for coping in a saturated environment. Being at the base of the food chain, wetland plants function as a conduit of energy flow, linking the living and non-living environments through photosynthesis. By providing habitats for other taxonomic groups such as bacteria, fish and birds, wetland plants also influence the overall diversity in these groups. For example, Indian Sarus crane (*Grus antigone*) can be frequently seen inhabiting marshes, shallow wetlands and reed beds.

Wetland plants also influence the movement of water, sediment and nutrients, underpinning the ecosystem functions such as regulation of hydrological regimes, sediment and shoreline stabilization and in certain conditions, carbon storage. The phumdi of Loktak (Manipur), which are aggregates of over 70 plant species, provide a natural habitat for the globally endangered Manipur brow-antlered deer *Rucervus eldii*. The ability of mangroves to buffer the coast against tropical storms and cyclones is well-documented and has been one of the reasons for a significant policy push in recent times for their conservation.

Wetland plants have a number of growth types, growing as emergent, submerged, floating-leaved, or floating. Emergent plants have leaves and sometimes stems above water, but roots are in the substrate. *Cattail Typha spp.* and shore bulrush *Scirpus spp.* are some common emergent plants found in wetlands in India. In contrast, submerged plants, such as Tape grass (*Vallisneria spp.*), typically spend their entire lifecycle beneath the surface of the water.

The floating-leaved plants tend to float on the water surface but have their roots anchored to the substrate. The floating plants, as the name suggests, float on the wetland surface, along with their roots, and usually move with water currents and wind. The Indian duckweed (*Wolffia microscopica*) and common duckweed (*Lemna spp.*) are examples of floating wetland plants found in the country. The Indian lotus (*Nelumbo nucifera*) is a floating-leaved plant, which is widely used in traditional cuisine, as well as revered culturally in different faiths.

Supporting economies and livelihoods

The most ubiquitous contribution of wetland plants to food security and livelihoods is in the form of rice grown in these ecosystems (rice paddies). Rice paddies are a common sight across the Gangetic and Brahmaputra floodplains. In the Kole lands of Vembanad-Kol Wetlands, Kerala, an integrated system of rice and fish farming has been practised since the 18th century, sustaining livelihoods of over 50,000 farmers in a landscape which also acts as a flood buffer and a habitat for diverse species, including over 160 species of birds.

Gorgon nut or *makhana (Euryale ferox)* is recognized as a superfood. India dominates the global supply, with over 90 per cent of it taking place in the wetlands of north Bihar. Herein, these wetlands produce over ten thousand tonnes of popped seeds annually, supporting the livelihoods of nearly five lakh farmers and generating an economy of 3,000 crore.

The lotus flower is widely considered a sacred emblem and artistic motif in Hinduism, Buddhism and Jainism. The sacred swamps of Western Ghats are revered, and communities adhere to a range of norms such as regulated entry to the core area, restricting polluting activities and hunting, gathering and others.

The wetlands of Manipur are a source of over 50 plants used as food and medicines. In north Bihar, over 60 plants are harvested from the region's wetlands for use as food, fibre and medicine. In Bilaspur district of Himachal Pradesh, 168 wetland plants were recorded to be used for treating a range of ailments. In Wular, the harvest of water chestnut and Indian lotus sustain the livelihoods of nearly 10,000 households living around the Ramsar Site. In Chilika, the fishers harvest nearly 14,000 MT (metric tonnes) of aquatic vegetation for use as thatch, packing material for fish, making mats and other purposes, generating an annual economy worth ₹3.5 crore.

Wetland plants have also inspired technology. The 'lotus effect' refers to the self-cleaning and water-repelling properties of lotus leaves, which have inspired the development of self-cleaning and water-resistant paints, fabric and other materials. Constructed wetlands utilize natural processes involving plants, soil and microorganisms to treat wastewater. Several enterprises have recently emerged that utilize water hyacinth and Typha to produce handicrafts, paper, and fabric. Lotus fibre is one of the finest natural fibres used for a variety of textiles, including luxury items such as scarves and shawls.

Conservation status

A recent assessment of 272 wetland plants found in India indicated that eight species were classed as critically endangered, vulnerable and near threatened. Of these, *Eriocaulon santapau*, a plant endemic to the Western Ghats, is critically endangered. With 46 true mangrove species, India is the third-richest country in mangrove diversity, next only to Indonesia and Australia. The species include nine species of global conservation significance (*Heritiera fomes*, *Sonneratia griffithii*, *Aglaiia cucullata*, *Aegialitis rotundifolia*, *Excoecaria indica*, *Brownlowia tersa*, *Ceriops decandra*, *Phoenix paludosa*, and *Sonneratia ovata*). *Rhizophora annamalayana* is listed as endemic to the Pichavaram mangroves, as this hybrid species is rare, with a known population of only 170 individual trees. The Indian coastline has 16 of the 72 known seagrass species, a functional group of coastal and marine flowering plants which play a critical role in supporting food webs and providing habitats to several species.

Wetland plants and climate change

Wetland plants play an important role in greenhouse gas emissions and removals from wetland ecosystems. The long-term storage of organic and inorganic carbon in coastal wetlands (such as tidal marshes, mangroves and seagrasses) is termed blue carbon, while teal carbon refers to carbon in inland wetlands. Through primary production, wetland plants take carbon dioxide from the atmosphere and convert it into organic carbon. Decomposition, or the microbial breakdown of organic matter, leads to the release of greenhouse gases. It is estimated that blue carbon ecosystems in India could have a collective carbon stock of 67.35 teragrams of carbon. In order to ensure that the organic carbon burial rates of wetlands are sustained over time, it is pertinent that wetlands and their native vegetation are preserved, natural hydrology maintained, and pressures such as eutrophication curtailed.

Invasives

Non-indigenous and invasive species, including those of wetland plants, are a major threat to wetlands. These species have wide-ranging impacts, including the extirpation of native species, choked water surfaces leading to altered and impeded movement of water and sediments, water quality degradation, decline in fish and other resources and reduced aesthetics. Some of the common invasive wetland plants found in Indian wetlands are water hyacinth *Eichhornia crassipes*, alligator weed *Alternanthera philoxeroides*, pink morning glory *Ipomoea carnea*, minute duckweed *Lemnaperpusilla*, butterfly fern *Salvinia auriculata* and others. Over 130 invasive hydrophytes have been documented from freshwater systems alone. Locally, the number of invasive plants can be considerably higher. For example, an assessment of the biodiversity of the East Kolkata Wetlands led to the recording of as many as 61 species of invasive plants.

Addressing the threat of invasives, including those of wetland plants, needs a range of strategies, the most cost-effective being prevention and preparedness (when the risk of invasion exists), early detection and eradication (when the species has initially established), and containment and control (when the species is still not widespread). Records of attempts to address the proliferation of aquatic invasives, especially water hyacinth *Eichhornia crassipes*, have been available since the turn of the twentieth century, albeit with varying degrees of success. In Bharatpur, India's Ramsar Site famed for harbouring diverse migratory water birds, the spread of invasive *Prosopis juliflora*, which was rapidly transforming the wetland, was controlled through manual removal involving local communities. When Chilika, a coastal lagoon in Odisha, was infested with freshwater invasive water hyacinth in the nineties, its spread was addressed through a hydrological intervention to

restore the salinity gradient which also led to rejuvenation of fisheries and overall ecosystem health. However, proliferation of invasive aquatic plants continues to plague several wetlands, due to a range of factors, including incidental release, discharge of wastewaters and others.

Conserving wetland plants

Integrated wetlands management includes conservation and wise use of wetland plants as a means of preserving ecological character. Measures such as maintaining the required hydrological regime, nutrient levels and connectivity between different habitats are some of the tools available to wetland managers for conserving wetland plants. Threats of invasives need to be responded to with an integrated and comprehensive approach based on careful monitoring and application of risk-reduction measures. Changes in wetland plants abundance and richness are a marker of ecosystem change and can act as bioindicators for these ecosystems and thereby need to be integrated in wetland monitoring programmes. It also must be ensured that the use of wetland plants is sustainable and within their regenerative capacity, recognizing traditional knowledge and ensuring adequate value addition as appropriate.



Community involvement in wetland conservation

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Gorakhpur Environmental Action Group (GEAG) is closely engaged with communities in wetland rejuvenation and conservation across the state. Our projects have ranged from scientific restoration of waterbodies in rapidly urbanizing districts to preparing community-based conservation strategies in rural Ramsar Sites.

There has been a dramatic shift in India's approach to wetlands over the last 12–15 years. From a time when there was little discussion, today there are numerous schemes and guidelines in place: the Amrit Dharohar and Amrit Sarovar schemes, the NPCA guidelines, and the Mission Sahbhagita, Save Wetlands Campaign launched by the Ministry of Environment, Forest and Climate Change (MoEFCC) in 2023. The number of Ramsar Sites has risen from just two to ten, which is very encouraging. Wetlands across the state have now been mapped and geotagged, and schemes like Amrit Sarovar and NREGA have supported large-scale restoration.

The real bottleneck, however, lies in implementation and capacity building at the district level. While governance structures exist on paper, with State Wetland Authorities, district-level wetland committees, and even village-level 'wetland mitras' to promote wise use, many of these remain weak or non-functional. Forest officials, who are designated custodians of wetlands, often lack training and capacity to address their ecological complexities. Strong policies are in place at the national and state levels, but unless capacities are built at the unit level, governance will not be effective.

There is the disconnect between communities and Ramsar Sites as the strict regulatory framework under Ramsar notifications often prohibits fishing, fodder collection or even water access for cattle. This has alienated local communities, who once used and cared for wetlands but now feel little ownership. There are examples from Uttar Pradesh that suggest that communities can make a change. For example, rice farmers near Bakhira Bird Sanctuary in Sant Kabir Nagar district have consciously reduced the use of chemicals in their fields to avoid harming the wetland ecosystem. This demonstrates how sensitization and community awareness can work in practice.

In Noida, supported by the HCL Foundation and in collaboration with the district administration and the Noida and Greater Noida Industrial Development, we have been working since 2019 to rejuvenate wetlands in a region where the water table has been depleting rapidly due to extensive construction and concretization. Over the last few years, we have restored 10–12 waterbodies in Gautam Budhh Nagar district. For us, rejuvenation is not merely about digging a depression and filling it with water. We use scientific approaches to enhance the water-holding capacity of wetlands to enhance oxygenation processes, remove invasive weeds such as water hyacinth, clear debris, construct bunds and undertake plantations that enhance biodiversity. These measures have helped create habitats for migratory and resident birds, butterflies and other species, turning waterbodies into thriving biodiversity zones rather than stagnant ponds.

The Gorakhpur Environmental Action Group (GEAG) has worked on similar wetland conservation projects in Gorakhpur, Gonda and Shravasti districts. In Gorakhpur, for instance, we partnered with the Rockefeller Foundation under its multi-country Urban Climate Change Resilience project, which included Surat, Indore and Gorakhpur in India. A key achievement under this project was mobilizing a people's movement to conserve Ramgarh Lake, a prominent urban wetland in the heart of Gorakhpur. The District Magistrate, commissioner and other authorities also joined hands, making it a collective effort.

In peri-urban and urban parts of Gorakhpur, recognizing the provisioning ecosystem services wetlands provide, we focused on conserving waterbodies that farmers depend upon for irrigation and livelihoods. With support from GIZ, we also selected four wetlands in Uttar Pradesh, three Ramsar Sites and one non-Ramsar Site, spread across different agro-climatic zones and catchments, where livelihood patterns varied. For these, we prepared Community Education, Participation and Awareness (CEPA) strategies tailored to each site and submitted them to the State Wetland Authority, in line with the Ramsar Convention's principle of community-centric conservation.

To us, communities include not only local villagers but all stakeholders dependent on wetlands. In Gonda district, wetlands are deeply intertwined with community livelihoods and local biodiversity. While preparing a Detailed Project Report, we found several indigenous resources tied to these ecosystems. Tinni ka chawal, a traditional rice variety harvested from wetlands, is an important foodgrain, especially consumed during fasting periods. Wetlands here also provide kabis mitti, a unique coloured clay found only in this region, traditionally used in pottery

and mud-colouring practices. They also sustain edible plants such as karmua saag (*Ipomoea aquatica*), which forms a part of local diets.

Communities around Parvati Arga, a Ramsar Site in Gonda, cultivate tobacco which is highly chemical-intensive. To address the issue of runoff into wetland ecosystems, we worked on preparing a CEPA strategy that encourages more sustainable and non-chemical farming methods so that livelihoods can continue without harming the wetland. Alongside tobacco, wetlands in this region also support vegetable farming and floriculture, particularly marigolds, which have established market demand and provide steady income for local farmers.

There are, however, distinct governance and management challenges that persist. Fisheries cooperatives, often powerful lobbies selected by Subdivisional Magistrates at the district level, treat wetlands primarily as fish-harvest sites. Their practices, such as adding large quantities of cow dung to feed fish, gradually silt up wetlands, reducing water-holding capacity and damaging ecosystems. Over time, such wetlands die and become dumping grounds. The need is to strike a balance between livelihoods and ecological health.

We find that the main threats to wetlands include illegal encroachment, climate change, chemical-intensive agriculture and aquaculture, over-extraction of resources, and falling water tables due to construction and long, dry spells. Building community awareness, changing behaviours, and strengthening local-level governance are as important as technical restoration measures.

Wetlands are not just waterbodies, they are biodiversity zones, climate buffers and sources of livelihood. We need to strengthen district-level governance and build genuine community ownership. Only then can conservation succeed in balancing ecological health with human wellbeing.

Iconic species in wetlands

ARBI (*Colocasia esculenta*)

Leaves and rhizomes cooked as vegetables



BRAHMI-BUTI (*Centella asiatica*)

Whole plant used in salads, beverages, and as a leafy vegetable



CHHUCH (*Nasturtium officinale*)

Leaves, stems, and flowers add zest to salads, sandwiches, and soups



KAMAL (*Nelumbo nucifera*)

Seeds eaten as snacks; rhizomes cooked as vegetables



SUSHNI SAAG (*Marsilea minuta*)

Leaves and tender stems used as seasonal greens, especially in tribal areas



ANTARGANGA (*Pistia stratiotes*)

Once a famine food; consumed raw, stir-fried, steamed, or boiled



KALMI SAAG (*Ipomoea aquatica*)

Tender stems and leaves prepared as leafy vegetable (saag)



HELENCHA SAAG (*Enhydra fluctuans*)

Leaves and stems eaten raw in salads or cooked in dishes



JANGLI DHAAN (*Oryza rufipogon*)

Grains boiled as rice substitute or made into porridge; chewy texture



SAMKRU (*Coix lacryma-jobi*)

Grains used as millet; boiled or ground into flour



Source: India Wetland Portal and the Ministry of Statistics and Programme Implementation; <https://indianwetlands.in/wetlands->

Screw pine (kewra, *Pandanus fascicularis*)

Screw pine, known as *keora* or *kewra* in India, is a tropical plant widely found in southern India and recognized for its aromatic male inflorescences which are used in perfumes and food flavoring. It thrives in coastal and wetland ecosystems. The *Pandanus* genus contains about 600 species globally, with an estimated 30–40 species reported in India, though many remain poorly defined or taxonomically unresolved.³²

Ganjam district of Odisha accounts for over 95 per cent of the country's commercial production of kewra. Towns like Berhampur, Chhatrapur, and Rangeilunda are hubs for Kewra distillation, with around 200 registered units operating in the region. The steam-distilled Ganjam kewda received the GI tag under the Geographical Indications of Goods (Registration and Protection) Act, 1999 in 2009.

On average, one plant can produce 15–40 inflorescences per year. While 1,000 flowers yield around 18 kg of kewra water, nearly 100,000 are needed to distil just 1 kg of essential oil, illustrating both the value and labour intensity of this fragrant resource. An estimated 35 million male inflorescences are harvested annually from approximately 5,000 hectares of plantation.³³ The demand has increased since the 1980s due to the popularity of scented tobacco products.

Kewda oil is not produced on a commercial scale as it is a byproduct of the kewra attar. The characteristic aroma of kewda oil is due to 2-phenylethyl methyl ether, which is the major constituent (66–85 per cent). Another major constituent is terpinen-4-ol (9–21 per cent).

The oil is considered to have stimulant and antispasmodic properties. Root extracts of *Pandanus odoratissimus* have shown anti-oxidative activity. Pericarp flesh of *Pandanus tectorius* contains per 100 g edible portion: water 80 g, protein 0.4 g, fat 0.3 g, carbohydrates 19 g.³⁴

The nutritional and medicinal significance of screw pine extends beyond its aroma. Its fruit pulp contains 321 kcal per 100 g, along with iron (5.7 mg), calcium (134 mg), phosphorus (108 mg) and beta-carotene (up to 19,000 µg). It is also rich in flavonoids, glycosides, phenolics, and essential oils with antioxidant, anti-inflammatory, and antimicrobial properties. They contain substantial amounts of vitamin C, vitamin E and B-complex vitamins, which play crucial roles in maintaining metabolic functions and protecting against oxidative stress. The seeds are also abundant in dietary fibre, promoting healthy digestion and helping to prevent gastrointestinal disorders.³⁵



Despite its many uses, screw pine cultivation remains largely unorganized. Most plantations are community-managed or informal, with little access to scientific inputs or disease control measures. Leaf blight caused by fungal pathogens like *Alternaria* and *Botryodiplodia* has been reported, reducing yield and quality. Predation by large insects may lead to early leaf fall. Leaf miners also do some damage, and occasionally, large beetle larvae that consume the seed may be encountered in the endocarp chamber.

The flower is harvested from around 5,000 hectares in the district and its oil is produced in Ganjam, Chatrapur, Chikiti and Rangeilunda blocks of the district. For around 200,000 people living in 220 villages of the district, it is the main source of income. The farmers and collectors receive an advance from Ganjam's oil makers who buy the flowers from them during June–September, the harvesting season.

Kewda oil makers sell to Kannauj, Agra, Kanpur, New Delhi, Mumbai and other places at around ₹5 lakh a litre and every year, kewda farmers, flower sellers and oil makers earn around ₹50–60 crore. To protect farmers from making distress sales, flower producer groups have been formed and the price of a flower has been fixed at Rs 10–12. FFDC is also training oil makers and helping them purchase modern equipment to start distilling units through the government-managed District Industry Centre.³⁶

At present, there are around 160 distilling units in the district and the District Industry Centre provides loans of ₹25–30 lakh to locals to set up a distilling unit.

Makhana (*Euryale ferox*)

Once a lesser-known aquatic crop, makhana (*Euryale ferox*) has now become a cornerstone of livelihood for thousands of farmers in Bihar. This hydrophytic plant, traditionally valued for both its nutritional and medicinal properties, is experiencing renewed attention, not just as a superfood, but as an economic driver rooted in India's wetland ecosystems.

Bihar contributes nearly 85 per cent of the country's total makhana production, with over 13,000 hectares under cultivation. Key districts like Darbhanga, Madhubani, Purnia and Katihar dominate the production landscape, with Darbhanga and Madhubani alone accounting for nearly 80 per cent of processed makhana output. According to ICAR's National Research Centre for Makhana, India produces about 1.2 lakh metric tonnes of seeds, resulting in 40,000 metric tonnes of popped makhana, valued at nearly ₹550 crores at the trader level.³⁷

The demand for makhana in India is growing fast as more people are choosing healthy, low-calorie snacks. The market size of ₹89.3 billion in 2022 is expected to nearly double by 2028. This growth is driven by rising health awareness, new flavours like masala and cheese, and better packaging that makes makhana easy to carry and store. Many well-known brands are now selling makhana in stylish, ready-to-eat packs. North India leads in consumption.³⁸

Despite its growing popularity and economic potential, many makhana farmers still lack proper knowledge and access to modern farming techniques. A recent study carried out in eight villages across four districts found that farmers had a low average knowledge score of 24.10 and an even lower technology adoption score of 19.33. The biggest challenges they faced were in areas like controlling pests and diseases (with a gap of 61.88 per cent), as well as proper pond preparation and fertilizer use. These gaps show that while makhana farming has promise, there is a strong need for better training and support for farmers. Experts emphasize the need for targeted training, modern extension services, and ICT-based dissemination to bridge these gaps. It is a product approved under the Union government's One District One Product scheme, under which subsidies are provided to food processors for branding, marketing, and developing infrastructure.

To boost Bihar's makhana sector, the government has proposed a Makhana Development Board under 'Agriculture as the first engine'. It will support farmers through training, improved seeds, better processing infrastructure, and market linkages. With ₹100 crore allocated in the 2025–26 budget, the board aims to increase farmer income, enhance exports, and streamline the value chain, especially in districts like Darbhanga and Madhubani.

Several other initiatives have also been undertaken to promote makhana cultivation in Bihar. The National Research Centre for Makhana, established in 2001 under the Indian Council of Agricultural Research (ICAR) in Darbhanga, plays a key role in advancing research and technology related to makhana farming. The National Institute of Food Technology also supports the sector by promoting innovation in processing techniques and value addition. Under the One District One Product (ODOP) scheme, makhana has been recognized as the signature product of Darbhanga and Muzaffarpur, helping boost local economies and brand value. A major milestone was achieved in 2022 when Mithila Makhana received the Geographical Indication (GI) tag, enhancing its national and international market appeal while protecting its identity linked to the Mithila region.³⁹

The plant grows in stagnant perennial waterbodies like ponds, swamps, oxbow lakes and ditches. Suited to tropical and subtropical climates, it is native to South-East Asia and China but is now found globally. The crop thrives in temperatures of 20–35°C, 50–90 per cent humidity and annual rainfall of 100–250 cm, and needs smooth loamy soil for optimal growth.⁴⁰

Makhana is a nutritious, low-fat snack ideal for modern diets. Per 100 g, it contains about 9.7 g protein, 0.1 g fat, 77 g carbs (including 14 g fibre) and approximately 350 kcal. It also supplies essential minerals—calcium (~60 mg), iron (1.4–2.6 mg), potassium (350–500 mg), magnesium (~67 mg) and phosphorus (~200 mg). With its high antioxidant content, low glycemic index and cholesterol-free qualities, makhana supports digestion, heart health and bone strength, and makes a diabetes-friendly snack.⁴¹

Wild rice (*Oryza rufipogon*)

Wild rice (*Oryza rufipogon*) is the ancestor of cultivated rice (*Oryza sativa*) and it grows naturally in shallow wetlands, marshes and rain-fed lowlands across South and Southeast Asia. In India, it thrives in ecologically sensitive regions of Chhattisgarh, Odisha, Assam and parts of Uttar Pradesh and West Bengal. This rice grows in warm, wet places where the average temperatures are in the 21–28°C range.

Many tribal communities in central India harvest wild rice for food, tradition and survival. For example, the Bhar tribe in eastern Uttar Pradesh, India, conserves and utilizes a wild rice variety called ‘tinni’. This rice, also known as red rice or brown-beard rice, plays a vital role in their subsistence livelihoods. Unlike high-yielding rice varieties, *O. rufipogon* is not cultivated but gathered from the wild. It matures between October and December in seasonal wetlands, and its grain, though smaller and covered in husk, is prized for its earthy taste and high resilience.⁴²

The global wild rice market is growing fast. It is worth thousands of crores today and expected to nearly double in a decade. The industry is projected to increase from US \$530.2 million in 2025 to US \$961.4 million by 2035. While tribal families in India do collect and sell wild rice, there’s no data that tells us exactly how much they earn from it. This shows a serious gap.⁴³

Apart from providing livelihoods, wild rice plays a crucial role in rice breeding and food security. It carries genes for flood tolerance, pest resistance, drought endurance, and low soil fertility, traits essential for developing climate-resilient rice. According to the Indian Council of Agricultural Research (ICAR), several

high-yielding hybrids have benefited from *O. rufipogon*-derived genes, helping stabilize rice production under climate stress.

India harbours over 600 wild rice accessions, primarily *Oryza rufipogon*, across 13 states and 64 districts, as recorded in the Indian Wild Rice Database. These accessions, collected from remote tribal villages, show vast morphological and genetic diversity, making them a goldmine for breeding climate-resilient varieties. The National Gene Bank (NBPGR) conserves 307 samples, while IRRI holds 838 Indian-origin wild rice accessions.⁴⁴

Nutritionally, wild rice surpasses polished white rice in many aspects. Per 100 g, it offers ~14 g of protein, 2 g fibre, and is rich in essential micronutrients like zinc, iron (3.2–4.5 mg), magnesium (~110 mg) and antioxidants such as flavonoids and anthocyanins. Its low glycemic index makes it particularly suitable for diabetic and health-conscious consumers.

Despite its high value, the species is under threat due to wetland degradation, encroaching agriculture and unregulated harvesting. Recognizing its dual importance, as a livelihood crop and genetic reservoir, the Government of India has encouraged participatory conservation through programmes under the National Biodiversity Action Plan (NBAP) and the Mission LiFE (Lifestyle for Environment). Efforts are underway to promote sustainable harvesting, train tribal women in post-harvest techniques, and integrate wild rice into eco-tourism and forest-based enterprise models. Additionally, schemes like the Van Dhan Yojana promote forest-based livelihoods and help tribal groups process and market non-timber forest products like wild rice in value-added forms.

Water chestnut (singhara, *Trapa natans*)

Water chestnut, locally known as singhara, is an important aquatic crop grown in stagnant freshwater bodies such as ponds, wetlands and shallow lakes. It thrives in moist loam to sandy loam soil with good aeration, soil pH level of 6.5–7.2 and water temperature of 12–15°C, which is necessary for the fruit to germinate, and 20°C for the development of flowers.⁴⁵

India is among the top producers of water chestnut, with Bihar leading at 41.4 per cent of national production, followed by Madhya Pradesh (35.5 per cent) and West Bengal (11.8 per cent).

The crop is planted around June–July and harvested between November and January. Traditional varieties yield 3.5–4 tonnes/ha of fresh fruit, while improved varieties like green spineless singhara have shown yields up to 12 tonnes/ha.⁴⁶

Water chestnut is valued both as a fresh fruit and in its processed form, especially flour, which is gluten-free and popular during fasting seasons. Per 100 g, the fresh fruit provides 97 kcal, 1.4g protein and 0.1g fat, and is rich in potassium (~325 mg) and phosphorus (~45 mg).

Water chestnut farming can be highly profitable for rural farmers who can earn around ₹1.87 lakh per hectare every year, with a modest investment of about ₹60,000. If they grow improved varieties like green spineless, they can harvest over 2 tonnes of dry nuts per hectare, which can fetch up to ₹4 lakh annually. With better post-harvest practices, value-added products, and stronger market links, water chestnut cultivation can offer a reliable and sustainable source of income—especially in regions with abundant wetlands.

The global water chestnut flour market was valued at US \$100 million in 2024 and is projected to reach US \$150 million by 2033, reflecting its growing demand in the health and wellness sectors.⁴⁷

Integrating water chestnut cultivation with aquaculture has proven highly beneficial in waterlogged rural areas. In Balasore, Odisha, trials showed that combining water chestnut with fish farming (mainly catfish) yielded about 1.99 tonnes per hectare of nuts and 0.78 tonnes per hectare of fish, resulting in 50–60 per cent higher income compared to monocropping. Similarly, integrated models in Bihar, where water chestnut is grown alongside makhana and fish, have doubled net returns while making better use of seasonal waterbodies. This approach not only enhances income but also builds resilience in wetland-based farming systems.

Despite its nutritional and economic importance, singhara cultivation in Bihar faces challenges such as post-harvest losses (15–20 per cent), limited processing facilities and lack of cold storage infrastructure. Efforts are underway through government schemes and FPOs to promote improved cultivation practices, value addition and better market access. Dry singhara has fetched high prices of up to ₹120/kg in UP and Bihar, adding to its viability.

In Madhya Pradesh, the state government has extended grants and subsidies to farmers cultivating water chestnut. These are distributed via Direct Benefit Transfer (DBT) under schemes like polyhouse and shade-net cultivation, which include improved planting material and infrastructure support.

Collated by Gargi Gaur

4

RESULTS AND DISCUSSION

Our findings can be divided on the basis of primary research and secondary research.

Primary research indicates that the wetlands are in a poor state. Though older members of the community are aware of many edible plants found in wetlands, most no longer consume the edible plants found locally. The younger generation is oblivious about such plants. Our case studies indicate that people knew of less than 50 species found in wetlands, indicating severe loss of knowledge about edible plants in the community. Access to cultivated vegetables makes it easier to purchase food instead of going out to forage. Though wetlands are used to cultivate vegetables in many places, food biodiversity is being lost and traditional knowledge eroded as the species grown are not native.

Secondary research on Google Scholar shows that edible plants in wetlands is not a very popular subject. A search based on the criteria mentioned in the methodology provided 2,610 results. Of these, we identified studies that are specifically on edible plant species in Indian wetlands; papers monitoring traditional, medicinal and nutritional uses; ethnobotanical surveys; floristic checklists and local food studies. Studies from outside India, studies only on wetland fauna or water quality, purely taxonomic studies without ethnobotanical or food context, and duplicates or inaccessible papers were excluded. Using these criteria along with the title and abstract cleaning, we found that only 31 papers directly reported edible plants in wetland ecosystems of India, their parts used, local names and health applications. We used these studies to create a database of edible wetland plants in India (see *Annexure 3: List of edible wetland plants in India*). The database has the names of

Category	Count of category
Medicinal	120
Food	91
Utility	69
Food/medicinal	62
Medicinal/utility	33
Food/medicinal/utility	25
Food/utility	22
Food/cultural	6
Food/medicinal/cultural	3
Food/medicinal/utility/cultural	2
Food/utility/cultural	2
Medicinal/cultural	1
Utility/cultural	1

more than 400 plants that grow in wetlands and are used as food, medicines or for livelihoods. Of these, 211 are edible. Data is available for 12 states in the country.

Through our primary and secondary research, we find that there is simply no recognition of wild edible plants available in wetland areas. National policies have not specifically identified wild edible plants as a resource available in wetlands despite the fact that many of these plants provide lucrative business opportunities. Makhana and kewra are just two plants that indicate the livelihood potential of wetland plants as our assessment of iconic species suggests.

Wetland plants fail to be mentioned extensively in the Ramsar Information Sheets. For example, the information sheet for Haiderpur says that there is no data available on the plant species found in the wetland. For the Tsokar complex of wetlands, the sheet mentions that the area is rich in flora and has 232 vascular plants. But the sheet mentions only five plants of which three have medicinal value.⁴⁸ The sheet for Chilika Lake mentions weeds, algae and phytoplanktons but their uses are not mentioned.⁴⁹ The sheet on Kabartal mentions that inundation patterns have changed and this has affected the flora of the area.⁵⁰ None of the sheets mention edible uses of the flora present in the wetlands.

Our visits to the wetlands provide a snapshot of plant species that people either use as food or at least remember previously using as food. In Bihar, communities and experts mentioned 23 species; in Uttar Pradesh, they talked about 17; in Ladakh, 14 were discussed; in Odisha 3 were mentioned; and in Karnataka, women identified 27 species of edible plants. Secondary data reported 10 edible plants in Bihar, 86 in Odisha and 3 in Karnataka state. Research papers on edible plants is absent in Ladakh and Uttar Pradesh.

Unlike extensive bird surveys available in the country, there is not one document that provides comprehensive information on the wild edible plants that are consumed by local communities.

Through this report, we advocate for greater recognition of wetland food plants in policy, research and conservation planning before their value is lost to environmental degradation and neglect. Many of the plants that we found in the wetlands have immense commercial value and could provide communities with livelihood options. The example of makhana in Bihar, however, indicates how instead of protecting makhana in the wetlands and indirectly protecting the wetlands, field cultivation of makhana has significantly expanded. This raises important questions about the conservation of the natural wetland habitats.

At the 15th Conference of Parties to the Ramsar Convention held at Victoria Falls, Zimbabwe, India introduced a Resolution on ‘Promoting Sustainable Lifestyles for the Wise Use of Wetlands’, which was adopted. India’s document on wise use, *Wetland Wise Use: An Implementation Framework*, published in 2024, indicates food production as a form of wise use but only in the context of providing ecosystem services.

The Supreme Court order under which the process of ground truthing of wetlands is underway also provides a good opportunity to document wild edibles in this ecosystem. In many cases, People’s Biodiversity Registers have managed to capture these plants as we saw in the case of Karnataka. Biodiversity Management Committees across the country should be trained to document these plants too.

This ecosystem and the food available here would help both to adapt to climate change and mitigate its adverse impact. These ecosystems are natural sponges of the earth and help during extreme weather events such as heavy rainfall and flooding.

Revitalizing the wetland system is not going to be easy. Not only is the water flow in this ecosystem impacted, when water is available, it is often polluted. This has to be rectified. It is only then that edible plants growing in these wetlands can be consumed safely. This might look like a big ask but it is important to work towards this goal to survive in the future.

We believe that popularizing wild edibles available in wetlands would support protection of these unique ecosystems and stem their current rampant destruction. In our case studies, we find that development and infrastructure projects impact natural water flow to and from these wetlands.

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ANNEXURES

Annexure 1: Notified wetlands in India

S. no.	State	Name of wetland	Date of notification	State total
1	Uttar Pradesh	Ramgarh Taal	Dec. 7, 2020	1
2	Chandigarh	Sukhna Lake	Jun. 16, 2020	1
3	Goa	Cottambi Lake	Sep. 30, 2021	25
4		Dashi Lake	Sep. 30, 2021	
5		Nanda Lake	Sep. 30, 2021	
6		Pilerne Lake	Dec. 9, 2021	
7		Sarzora Lake	Sep. 30, 2021	
8		Toyyar Lake	Sep. 30, 2021	
9		Bondvol Lake	Oct. 20, 2022	
10		Xeldem Lake	Sep. 30, 2021	
11		Tarvalem Lake	Mar. 31, 2023	
12		Durga Lake	Mar. 31, 2023	
13		Pali Lake	Mar. 31, 2023	
14		Batim Lake	Mar. 31, 2023	
15		Sulabhat Lake	Mar. 31, 2023	
16		Coneix (Colem) Lake	Mar. 31, 2023	
17		Carambolim Lake	Mar. 31, 2023	
18		Perra Lake	Jan. 12, 2025	
19		Panchami Lake	Jan. 12, 2025	
20		Karmale Lake	Jan. 12, 2025	
21		Betal Lake	Jan. 12, 2025	
22		Kolamwada Lake	Jan. 12, 2025	
23		Kodal Lake	Jan. 12, 2025	
24		Macasana Lake	Jan. 12, 2025	
25		Sapu Lake	Jan. 12, 2025	
26		Bandolem Lake	Jan. 12, 2025	
27		Talaulim Lake	Jan. 12, 2025	
28	Rajasthan	Abhayapura Dam	Feb. 28, 2024	75
29		Bada Talab	Jul. 19, 2023	
30		Badbela	Jul. 19, 2023	
31		Badwai	Jul. 19, 2023	
32		Bainthali	Jul. 19, 2023	
33		Barapal Khajuri	Feb. 28, 2024	
34		Bardha Dam	Feb. 28, 2024	
35		Basdiya	Feb. 28, 2024	
36		Bhanda	Feb. 28, 2024	
37		Bhanwar Pipla	Feb. 29, 2024	
38		Bisalpur	Jul. 19, 2023	
39		Budh Sagar	Jul. 19, 2023	

S. no.	State	Name of wetland	Date of notification	State total
40		Chandalai	Jul. 19, 2023	
41		Charwas	Feb. 29, 2024	
42		Chawandiya	Jul. 19, 2023	
43		Chawand	Feb. 28, 2024	
44		Dehlanpur Talab	Feb. 28, 2024	
45		Devi Kund Sagar	Jul. 19, 2023	
46		Didwana	Jul. 19, 2023	
47		Dingri	Feb. 28, 2024	
48		Dorai Dam	Feb. 29, 2024	
49		Eklara Sagar	Jul. 19, 2023	
50		Galwaniya	Jul. 19, 2023	
51		Gambhiri	Jul. 19, 2023	
52		Garda	Jul. 19, 2023	
53		Hanutiya	Jul. 19, 2023	
54		Hinglot	Jul. 19, 2023	
55		Jaitsagar Lake	Feb. 28, 2024	
56		Jhadol	Feb. 28, 2024	
57		Kadella Talab	Feb. 29, 2024	
58		Kalisil Dam	Feb. 28, 2024	
59		Kanwas Pakshi Vihar	Jul. 19, 2023	
60		Kaylana	Jul. 19, 2023	
61		Kesariyawad	Jul. 19, 2023	
62		Kishan Kareri	Jul. 19, 2023	
63		Kishore Sagar	Jul. 19, 2023	
64		Kit Baori	Feb. 28, 2024	
65		Kotrapar	Jul. 19, 2023	
66		Kunda	Feb. 29, 2024	
67		Lakherav	Jul. 19, 2023	
68		Lakholai	Feb. 29, 2024	
69		Lakhotiya	Jul. 19, 2023	
70		Lhasi	Jul. 19, 2023	
71		Loonkaransar	Feb. 29, 2024	
72		Lordiya	Jul. 19, 2023	
73		Madri Dam	Feb. 29, 2024	
74		Mamachari Dam	Feb. 28, 2024	
75		Mangalwad	Jul. 19, 2023	
76		Menar wetland complex	Jul. 19, 2023	
77		Moti Sagar	Jul. 19, 2023	
78		Mundliya Kheri Talab	Feb. 29, 2024	
79		Naagmala	Feb. 29, 2024	
80		Nagariya	Feb. 28, 2024	

S. no.	State	Name of wetland	Date of notification	State total
81		Nahargarh	Jul. 19, 2023	
82		Nawal Sagar	Jul. 19, 2023	
83		Niyana	Jul. 19, 2023	
84		Orai Dam	Feb. 29, 2024	
85		Parsoli Dam	Feb. 29, 2024	
86		Pushkar	Jul. 19, 2023	
87		Raghav Sagar	Jul. 19, 2023	
88		Rajgarh Talab	Feb. 29, 2024	
89		Rajyawas	Jul. 19, 2023	
90		Ramsagar Dam	Feb. 28, 2024	
91		Rankhar	Jul. 19, 2023	
92		Ratansagar Dam	Feb. 28, 2024	
93		Rewasa	Jul. 19, 2023	
94		Sabella	Jul. 19, 2023	
95		Samai Kheda	Feb. 29, 2024	
96		Sehrol	Jul. 19, 2023	
97		Soor Sagar	Jul. 19, 2023	
98		Surpura	Jul. 19, 2023	
99		Teja Ji Ki Talai	Jul. 19, 2023	
100		Temran	Feb. 29, 2024	
101		Tordi Sagar	Jul. 19, 2023	
102		Utawali	Jul. 19, 2023	

Source: https://indianwetlands.in/wpcontent/uploads/2025/02/List_of_Notified_Wetlands.pdf

Annexure 2: Wetlands under Ramsar Convention

No.	Name	Location	Designated	Area (in ha)
1	Kolleru Lake	Andhra Pradesh	Aug. 19, 2002	90,100
2	Deepor Beel	Assam	Aug. 19, 2002	4,000
3	Kanwar Taal or Kabar Taal Lake	Bihar	July 21, 2020	2,620
4	Nanda Lake	Goa	June 8, 2022	42
5	Thol Lake	Gujarat	April 5, 2021	699
6	Wadhvana Wetland	Gujarat	April 5, 2021	630
7	Khijadiya Bird Sanctuary	Gujarat	April 13, 2021	512
8	Nalsarovar Bird Sanctuary	Gujarat	Sept 24, 2012	12,000
9	Sultanpur National Park	Haryana	May 25, 2021	143
10	Bhindawas Wildlife Sanctuary	Haryana	May 25, 2021	411
11	Pong Dam Lake	Himachal Pradesh	Aug. 19, 2002	15,662
12	Chandra Taal	Himachal Pradesh	Nov. 8, 2005	49

No.	Name	Location	Designated	Area (in ha)
13	Renuka Lake	Himachal Pradesh	Nov. 8, 2005	20
14	Ashtamudi Wetland	Kerala	Aug. 18, 2002	6,140
15	Loktak Lake	Manipur	Mar. 23, 1990	26,600
16	East Kolkata Wetlands	West Bengal	Aug. 19, 2002	12,500
17	Nandur Madhameshwar	Maharashtra	June 21, 2019	1,400
18	Nangal Wildlife Sanctuary	Punjab	Sept. 26, 2019	116
19	Nawabganj Bird Sanctuary	Uttar Pradesh	Sept. 19, 2019	225
20	Parvati Arga Bird Sanctuary	Uttar Pradesh	Dec. 2, 2019	722
21	Point Calimere Wildlife and Bird Sanctuary	Tamil Nadu	Aug. 19, 2002	38,500
22	Keshopur-Miani Community Reserve	Punjab	Sept. 2019	344
23	Keoladeo National Park	Rajasthan	Oct. 1, 1981	2873
24	Ropar Wetland	Punjab	Jan. 22, 2002	1,365
25	Rudrasagar Lake	Tripura	Nov. 8, 2005	240
26	Saman Bird Sanctuary	Uttar Pradesh	Dec. 2, 2019	526
27	Samaspur Bird Sanctuary	Uttar Pradesh	Oct. 3, 2019	800
28	Sambhar Lake	Rajasthan	Mar. 23, 1990	24,000
29	Sandi Bird Sanctuary	Uttar Pradesh	Sept. 26, 2019	300
30	Sarsai Nawar Jheel	Uttar Pradesh	Sept. 19, 2019	161
31	Sasthamkotta Lake	Kerala	Aug. 19, 2002	373
32	Haiderpur Wetland	Uttar Pradesh	April 13, 2021	6,908
33	Sundarban Wetland	West Bengal	Jan. 30, 2019	423,000
34	Surinsar-Mansar Lakes	Jammu and Kashmir	Nov. 8, 2005	350
35	Tsomoriri	Ladakh	Aug. 19, 2002	12,000
36	Upper Ganga River (Brijghat-Narora)	Uttar Pradesh	Nov. 8, 2005	26,590
37	Vembanad-Kol Wetland	Kerala	Aug. 19, 2002	151,250
38	Wular Lake	Jammu and Kashmir	Mar. 23, 1990	18,900
39	Asan Barrage	Uttarakhand	July 21, 2020	444
40	Bhitarkanika mangroves	Odisha	Aug. 19, 2002	65,000
41	Sur Sarovar	Uttar Pradesh	Aug. 21, 2020	431
42	Lonar Lake	Maharashtra	July 22, 2020	427
43	Tso Kar	Ladakh	Nov. 17, 2020	9,577
44	Hokera Wetland	Jammu and Kashmir	Nov. 8, 2005	1,375
45	Kanjli Wetland	Punjab	Jan. 22, 2002	183
46	Chilika Lake	Odisha	Oct. 1, 1981	116,500
47	Beas Conservation Reserve	Punjab	Sept. 26, 2019	6,400
48	Bakhira Sanctuary	Uttar Pradesh	June 29, 2021	2,894
49	Harike wetland	Punjab	Mar. 23, 1990	4,100
50	Karikili Bird Sanctuary	Tamil Nadu	April 8, 2022	58
51	Pallikaranai Marsh Reserve Forest	Tamil Nadu	April 8, 2022	1,248
52	Pichavaram Mangrove Forest	Tamil Nadu	April 8, 2022	1,479

No.	Name	Location	Designated	Area (in ha)
53	Pala Wetland	Mizoram	Aug. 21, 2021	1,850
54	Sakhya Sagar	Madhya Pradesh	Jan. 7, 2022	248
55	Satkosia Gorge	Odisha	Oct. 12, 2021	98,200
56	Bhoj wetland	Madhya Pradesh	Aug. 19, 2002	3,200
57	Gulf of Mannar Marine Reserve	Tamil Nadu	April 8, 2022	52,700
58	Ranganathittu Bird Sanctuary	Karnataka	Feb. 15, 2022	518
59	Vembannur Wetland Complex	Tamil Nadu	April 8, 2022	20
60	Vellode Bird Sanctuary	Tamil Nadu	April 8, 2022	77
61	Udhayamarthandapuram Sanctuary	Tamil Nadu	April 8, 2022	44
62	Vedanthangal Bird Sanctuary	Tamil Nadu	April 8, 2022	40
63	Sirpur Lake	Madhya Pradesh	Jan. 7, 2022	161
64	Koonthankulam Bird Sanctuary	Tamil Nadu	Nov. 8, 2021	72
65	Tampara Lake	Odisha	Oct. 12, 2021	300
66	Hirakud Reservoir	Odisha	Oct. 12, 2021	74,300
67	Ansupa Lake	Odisha	Oct. 12, 2021	231
68	Yashwant Sagar	Madhya Pradesh	Jan. 7, 2022	822.9
69	Chitrangudi Bird Sanctuary	Tamil Nadu	Nov. 8, 2021	260.47
70	SuchindramTheroor Wetland Complex	Tamil Nadu	April 8, 2022	94.23
71	Vaduvur Bird Sanctuary	Tamil Nadu	April 8, 2022	112.64
72	Kanjirankulam Bird Sanctuary	Tamil Nadu	April 8, 2022	96.89
73	Thane Creek	Maharashtra	April 13, 2022	6,521.08
74	Hygam Wetland Conservation Reserve	Jammu and Kashmir	June 8, 2022	801.82
75	Shallabugh Wetland Conservation Reserve	Jammu and Kashmir	June 8, 2022	1675
76	Ankasamudra Bird Conservation Reserve	Karnataka	Mar. 10, 2023	98.76
77	Aghanashini Estuary	Karnataka	Feb. 14, 2023	4,801
78	Magadi Kere Conservation Reserve	Karnataka	Feb. 14, 2023	54.38
79	Karaivetti Bird Sanctuary	Tamil Nadu	May 24, 2023	453.72
80	Longwood Shola Reserve Forest	Tamil Nadu	May 24, 2023	116.007
81	Nagi Bird Sanctuary	Bihar	Oct. 11, 2023	Not available
82	Nakti Bird Sanctuary	Bihar	Oct. 11, 2023	Not available
83	Tawa Reservoir	Madhya Pradesh	Jan. 8, 2024	Not available
84	Nanjarayan Bird Sanctuary	Tamil Nadu	Jan. 16, 2024	Not available
85	Kazhuveli Bird Sanctuary	Tamil Nadu	Jan. 16, 2024	Not available
86	Sakkarakottai Bird Sanctuary	Tamil Nadu	Feb. 2, 2025	Not available
87	Therthangal Bird Sanctuary	Tamil Nadu	Feb. 2, 2025	Not available
88	Khecheopalri Lake	Sikkim	Feb. 2, 2025	1200
89	Udhwa Lake	Jharkhand	Feb. 2, 2025	Not available
90	Khichan	Rajasthan	June 4, 2025	Not available
91	Menar	Rajasthan	June 4, 2025	Not available

Source: https://wiienvis.nic.in/Database/ramsar_wetland_sites_8224.aspx visited on September 1, 2025

Annexure 3: List of edible wetland plants in India

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
1	<i>Acalypha indica</i>	Indian camphorweed, Indian fleabane, Indian pluchea, Vaichikato, dadaro, Indian acalypha			Barpeta district	Assam	Medicinal	Click Here
2	<i>Acanthus ilicifolius</i>	Holly-leaved Acanthus, sea holly (harkatch/hargoja)	Leaves	Leaves used for rheumatism and asthma	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Acanthus ilicifolius</i>	NA	Leaves	Leaves for rheumatism, asthma paste	Eastern Wetlands	Odisha	Medicinal	Click Here
3	<i>Acanthus volubilis</i>	Climbing acanthus (lata harkatch)			Sunderbans	West Bengal		Click Here
4	<i>Achyranthes aspera</i>	Prickly chaff flower, devil's horsewhip		Decoction used as emmenagogue, for piles and skin eruptions	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Achyranthes aspera</i>	Obhot kata	Leaves	Leaves eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Achyranthes aspera</i>	Chaff flower			Barpeta district	Assam		Click Here
5	<i>Acmella calva</i>	Akkalgaro	Leaves	Tender leaves used for cough and cold	Aravali district	Gujarat	Medicinal	Click Here
	<i>Acmella calva</i>	Suhoni-bon	Whole plant	Whole plant-used in mouth ulcer	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
6	<i>Acmella paniculata</i>	Suhoni-bon	Whole plant	Whole plant-used in toothache and on wounds and boils	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Acmella paniculata</i>	Akkalgaro	Leaves	Tender leaves used for cough and cold	Aravali district	Gujarat	Medicinal	Click Here
	<i>Acmella paniculata</i>	Maratiteega	Leaves		Hassan district	Karnataka		Click Here
	<i>Acmella paniculata</i>	Toothache plant, marhata tige	Leaves, flowers	Flowers, leaves; flowers chewed for toothache relief; leaves treat skin infections	Tripura	Tripura	Medicinal	Click Here
7	<i>Acorus calamus</i>	Sweet flag	Rhizome	Rhizome juice used for cough and asthma treatment	Barbila Beel of Nalbari district	Assam	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Acorus calamus</i>	Boch	Rhizome	Rhizome juice is drunk	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Medicinal	Click Here
	<i>Acorus calamus</i>	Boch	Whole plant	Whole plant used to treat fever and cough	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Acorus calamus</i>	Bacha	Leaves, rhizome	Dried leaves used as insecticide for pulses; rhizome powder used to clear water and flavor liquor (mohuli)	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Acorus calamus</i>	Bach	Tuber	Cough and cold (underground part)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Acorus calamus</i>	Boch	Rhizome	Rhizome powder for dysentery, appetite loss; dried rhizome worn for whooping cough (children)	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Acorus calamus</i>	Sweet flag	Leaves, rhizome	Rhizomes and young leaves; rhizomes used fresh or dried, and leaves also edible	Ansupa Lake	Odisha	Food	Click Here
	<i>Acorus calamus</i>	Sweet Flag	Tuber	Tuber in snakebite, eye treatment	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Acorus calamus</i>	Sweet flag /bach		Used for fever, asthma, digestive issues, epilepsy, antimicrobial, insecticidal, aromatic oil source	Darbhanga district	Bihar	Medicinal	Click Here
8	<i>Actinoscirpus grossus</i>	Kacharkanda	Tuber	Tubers are starchy and can be boiled, roasted, or used like potatoes.	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Actinoscirpus grossus</i>	Kesari/kesar	Tuber	Underground tubers eaten raw (tubers are sweet)	Khunti district	Jharkhand	Food	Click Here
9	<i>Adhatoda vasica</i>	Malabar nut, vasaka, justicia	Leaves	Leaves used in traditional remedies	Sunderbans	West Bengal	Medicinal	Click Here
10	<i>Aegialitis rotundifolia</i>		Wood	Wood used as timber	Eastern Wetlands	Odisha	Utility	Click Here
11	<i>Aegiceras corniculatum</i>		Wood	Wood used for construction	Eastern Wetlands	Odisha	Utility	Click Here
12	<i>Aeschynomene aspera</i>	Sola pith plant, pith plant			Barpeta district	Assam		Click Here
	<i>Aeschynomene aspera</i>	Sola pith plant, pith plant		Used for making toys, floats, artificial flowers, religious items; fodder; enriches soil with nitrogen	Wetlands of South Odisha	Odisha	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Aeschynomene aspera</i>				Cooch Behar District	West Bengal		Click Here
	<i>Aeschynomene aspera</i>	Kerebendu	Shoots		Hassan district	Karnataka		Click Here
	<i>Aeschynomene aspera</i>	Sola pith plant, Indian jointvetch	Seed	Seeds fatty oil	North-eastern part of Bihar	Bihar	Food	Click Here
	<i>Aeschynomene aspera</i>	Bor-kunhila	Stem	Stem used for making hats and as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Aeschynomene aspera</i>	Korhila		Carving items, floating boat	Darbhanga district	Bihar	Utility	Click Here
13	<i>Aeschynomene virginica</i>	Kunhila		Stem used for making hat; as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
14	<i>Ageratum conyzoides</i>	Billygoat weed, chick weed, goat weed		Infusion used for diarrhoea, dysentery and colic	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Ageratum conyzoides</i>	Billygoat weed, chick weed, goatweed, whiteweed			Barpeta diistrict	Assam		Click Here
15	<i>Aglaia cucullata</i>		Wood	Hardwood used for construction	Eastern Wetlands	Odisha	Utility	Click Here
16	<i>Alisma plantago</i>	Water plantain	Rhizome	Rhizome used as food and vegetable	BarbilaBeel of Nalbari District	Assam	Food	Click Here
17	<i>Alocasia acuminata</i>	Kochu	Leaves, tuber	Tender leaves, petiole, tubers cooked in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
18	<i>Alocasia cucullata</i>	Boga kochu	Tuber	Tubers eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Alocasia cucullata</i>	Singju-paan	Corm	Corm cooked with fermented soybean or made into singju (salad with fermented fish, chilli, and other plants).	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
19	<i>Alocasia fallax</i>	Kala-kachu	Leaves, rhizome, petiole	Young leaves, petioles, rhizome fried leaves, boiled/fried petioles, rhizome curry (sometimes with fish), leaves and petioles fried with black cumin; rhizomes cooked as curry	Terai and Dooars	West Bengal	Food	Click Here
20	<i>Alocasia formicata</i>	Bees kochu	Tuber, petiole	Petioles, tubers cooked in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Alocasia formicata</i>	Kochu	Leaves	Leaves used to treat cuts	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Alocasia formicata</i>	Marasani	Corm		Hassan district	Karnataka		Click Here
21	<i>Alocasia indica</i>	Giant taro	Petiole	Petiole juice for ear, toothache; rhizome cooked for tonsillitis, stomachache	Barbila Beel of Nalbari district	Assam	Medicinal	Click Here
	<i>Alocasia indica</i>	Giant taro			Barpeta district	Assam		Click Here
	<i>Alocasia indica</i>	Mankochu	Leaves, stem	Stem, leaf paste used to stop bleeding; stem used as blood purifying vegetable	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Alocasia indica</i>	Mankachu, giant taro	Leaves, rhizome, stem	Stem, leaves, rhizome Edible after cooking; stem eaten, leaves in soups/ dishes; used in diarrhea, earaches, splenomegaly	Tripura	Tripura	Food/ Medicinal	Click Here
22	<i>Alocasia macrorrhiza</i>	Man kochu	Leaves, petiole	Leaves, petioles cooked as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Alocasia macrorrhiza</i>	Sankhasaru	Tuber, petiole	Petiole with stalk is cut into pieces, boiled and consumed in curry. Tubers are boiled and eaten in curry or mashed.	Bhadrak district	Odisha	Food	Click Here
23	<i>Aloe vera</i>	Aloe vera, true aloe	Leaves	Leaves used for skin and digestive ailments	Sunderbans	West Bengal	Medicinal	Click Here
24	<i>Alpinia allughas</i>	Bamboo leaved Galanga			Barpeta district	Assam		Click Here
25	<i>Alpinia galanga</i>	Greater galangal	Rhizome	Rhizome powder used for sciatica, bronchitis, epilepsy	Barbila Beel of Nalbari district	Assam	Food	Click Here

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	<i>Alpinia galanga</i>	Kanghoo	Rhizome	Rhizome decoction smashed with fermented fish and chilli, eaten during meals	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
26	<i>Alpinia nigra</i>	Tora	Leaves	Leaves steamed with rice for aroma	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Alpinia nigra</i>	Bogi-tora	Shoots	Shoots used as appetizer; shoot juice to treat worms	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food/ Medicinal	Click Here
	<i>Alpinia nigra</i>	Pullei		Boiled with potato and fermented fish to make eronba chutney (used in religious ceremonies)	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Cultural	Click Here
	<i>Alpinia nigra</i>	Black galangal	Rhizome, stem	Rhizome and soft stem	Loktak Lake	Manipur	Food	Click Here
27	<i>Alpinia officinarum</i>	Lesser galangal	Rhizome	Tender rhizome	Loktak Lake	Manipur	Food	Click Here
28	<i>Alternanthera multiflora</i>	Many-flowered joyweed (less common; may not have a distinct common name)	Leaves	Paste of the leaf is applied externally on ringworm and parasitic skin infections.	Pardi Wetland, Valsad district	Gujarat	Medicinal	Click Here
29	<i>Alternanthera paronychioides</i>	Teta-helonchi	Shoots	Tender shoots, leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Alternanthera paronychioides</i>	Vucuhra katha	Shoots	Tender shoots fried alone or with other leafy vegetables	Terai and Dooars	West Bengal	Food	Click Here
30	<i>Alternanthera philoxeroides</i>	Alligator weed	Shoots	Tender shoots used as vegetable; medicine for abdominal pain	Barbila Beel of Nalbari district	Assam	Food/ medicinal	Click Here
	<i>Alternanthera philoxeroides</i>	Neuthoni-sak	Shoots	Tender shoots, leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Alternanthera philoxeroides</i>	Alligatorweed			Barpeta district	Assam		Click Here

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	<i>Alternanthera philoxeroides</i>	Kabo-napi	Shoots	Tender shoot cooked with other vegetables using soda (ootti)	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Alternanthera philoxeroides</i>	Ghodamadarana		Used as green manure and pig feed	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Alternanthera philoxeroides</i>	Bilmasag	Twigs	Vegetable (twigs)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Alternanthera philoxeroides</i>	Panikhutura	Leaves, Twigs	Twig, shoot and leaf juice for stomach pain	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Alternanthera philoxeroides</i>	Panimatikaduri	Whole plant	Young twigs, leaves, whole plant (except root) fried or cooked as curry, fried and eaten as a vegetable or curry with other vegetables	Terai and Dooars	West Bengal	Food	Click Here
	<i>Alternanthera philoxeroides</i>	Doddahonagone	Leaves		Hassan district	Karnataka		Click Here
	<i>Alternanthera philoxeroides</i>	Gara ara, nadi saag	Leaves, Shoots	Leaves, shoots steamed/ cooked relieves constipation	Khunti district	Jharkhand	Medicinal	Click Here
	<i>Alternanthera philoxeroides</i>	Jal daraga / panimatikaduri	Leaves, Shoots	Leaves, young shoots steamed, cooked as vegetable; used as haemostat on wounds	Tripura	Tripura	Medicinal	Click Here
	<i>Alternanthera philoxeroides</i>	Alligator weed	Whole plant	Whole plant allelopathic	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Alternanthera philoxeroides</i>	Panbhaji	Shoots	The leaves are edible after cooking and were traditionally consumed in Gadchiroli regions	Gadhchiroli district	Maharashtra	Food	Click Here
31	<i>Alternanthera polygonoides</i>				Cooch Behar district	West Bengal		Click Here
32	<i>Alternanthera sessilis</i>	Dwarf copperleaf, sessile joyweed		Used for indigestion, diarrhoea, fever; also edible	Sunderbans	West Bengal	Food/ medicinal	Click Here
	<i>Alternanthera sessilis</i>	Mati kanduri	Leaves, shoots	Leaves, shoots eaten as vegetables or in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Alternanthera sessilis</i>	Matikaduri	Shoots	Tender shoots, leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here

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	<i>Alternanthera sessilis</i>	Sessile joyweed, tangle mat			Barpeta district	Assam		Click Here
	<i>Alternanthera sessilis</i>	-		Boiled or roasted and given in dysentery; used as stomachic and digestive	Aravali district	Gujarat	Medicinal	Click Here
	<i>Alternanthera sessilis</i>	Sessile joyweed/ matsyagandha	Leaves, roots	Leaf and root extracts are given orally thrice a day for asthma indigestion	Pardi Wetland, Valsad district	Gujarat	Medicinal	Click Here
	<i>Alternanthera sessilis</i>	Madaranga	Leaves, shoots	Tender shoots with leaves are used as vegetables	Bhadrak district	Odisha	Food	Click Here
	<i>Alternanthera sessilis</i>	Madarangasaga	Leaves	Edible leafy vegetable and fodder.	Wetlands of South Odisha	Odisha	Food/ utility	Click Here
	<i>Alternanthera sessilis</i>	-	Leaves, stem	Stem and leaves as poultice for snakebite	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Alternanthera sessilis</i>	Natoon	Leaves	Cut wounds (plant); vegetable (leaf)	Cooch Behar district	West Bengal	Food/ medicinal	Click Here
	<i>Alternanthera sessilis</i>	Matikanduri	Twigs	Twig fever remedy	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Alternanthera sessilis</i>	Khenchi shak, Nuniashak	Whole plant	Young twigs, leaves, whole plant (except root) Fried or cooked with other vegetables	Terai and Dooars	West Bengal	Food	Click Here
	<i>Alternanthera sessilis</i>	Honagannesoppu	Whole plant		Hassan district	Karnataka		Click Here
	<i>Alternanthera sessilis</i>	Chanchi	Shoots	Young shoots nutritious, galactagogue, cholagogue, febrifuge, abortifacient, cures indigestion	Nadia district	West Bengal	Medicinal	Click Here
	<i>Alternanthera sessilis</i>	Sessile joyweed	Leaves	Leaves used in soap	North eastern part of Bihar	Bihar	Utility	Click Here
	<i>Alternanthera sessilis</i>	Sarahanchi		Fodder, fish shelter belt	Darbhanga district	Bihar	Utility	Click Here
33	<i>Amaranthus blitum</i>	Khuria	Leaves, twigs	Young twigs, leaves, inflorescence fried, often mixed with rinjal and other vegetables	Terai and Dooars	West Bengal	Food	Click Here
34	<i>Amaranthus spinosus</i>	Hati khutura	Leaves, shoots	Leaves, shoots eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Amaranthus spinosus</i>	Spiny amaranth			Barpeta district	Assam		Click Here
	<i>Amaranthus spinosus</i>	Kanta-notey	Leaves, twigs	Young twigs, leaves, inflorescence fried, mixed with brinjal or other vegetables	Terai and Dooars	West Bengal	Food	Click Here

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35	<i>Amaranthus viridis</i>	Khutura sak	Leaves, shoots	Leaves, shoots eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Amaranthus viridis</i>	Slender amaranth or green amaranth			Barpeta district	Assam		Click Here
	<i>Amaranthus viridis</i>	Slender amaranth	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
	<i>Amaranthus viridis</i>	Ban-note	Leaves, twigs	Young twigs, leaves, inflorescence fried, often with brinjal or other vegetables	Terai and Dooars	West Bengal	Food	Click Here
36	<i>Ambroma augusta</i>	Devil's cotton	Flowers, seeds	Flowers and seeds used in traditional medicine	Sunderbans	West Bengal	Medicinal	Click Here
37	<i>Ammannia baccifera</i>				Cooch Behar district	West Bengal		Click Here
	<i>Ammannia baccifera</i>	Kallurive	Whole plant		Hassan district	Karnataka		Click Here
38	<i>Amomum aromaticum</i>	Namra		Used in the preparation of eronba	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
39	<i>Amorphophallus campanulatus</i>	Elephant foot yam, jimikand, corpse plant	Corm		Sunderbans	West Bengal		Click Here
40	<i>Amorphophallus paeoniifolius</i>	Olua	Rhizome	Rhizome is stir-fried or boiled to remove bitterness, then cooked or eaten with food	Bhadrak district	Odisha	Food	Click Here
41	<i>Anacardium occidentale</i>	Cashew	Leaves, bark	Bark and leaves for toothache; kernels are nutritious	Sunderbans	West Bengal	Food/ medicinal	Click Here
42	<i>Andrographis paniculata</i>	King of bitters, green chiretta	Leaves	Leaves used in various ailments	Sunderbans	West Bengal	Medicinal	Click Here
43	<i>Aponogeton crispus</i>	Keregedde	Tuber		Hassan district	Karnataka		Click Here
44	<i>Apluda mutica</i>	Karihanchihullu			Hassan district	Karnataka		Click Here
45	<i>Aponogeton natans</i>			Supports aquatic biodiversity	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
	<i>Aponogeton natans</i>	Jhechu	Bulbil	Bulbils are eaten raw and as vegetable	Bhadrak district	Odisha	Food	Click Here
	<i>Aponogeton natans</i>		Bulbil	Edible starchy bulbs, eaten raw or cooked	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Aponogeton natans</i>	Nava dumpa	Leaves	Leaves edible after cooking; traditionally consumed in Gadchiroli	Gadhchiroli district	Maharashtra	Food	Click Here

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	<i>Aponogeton natans</i>		Tuber	Tuberous rootstocks edible	Nadia district	West Bengal	Food	Click Here
46	<i>Aponogeton undulatus</i>	Ghachelu	Bulbil	Bulbils edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Aponogeton undulatus</i>	Kesarkanda	Bulbil	Bulbils are eaten raw or cooked	Bhadrak district	Odisha	Food	Click Here
	<i>Aponogeton undulatus</i>	Kesurakanda, Chireigudi	Bulbil	Edible starchy bulbs, eaten raw or cooked	Wetlands of South Odisha	Odisha	Food	Click Here
47	<i>Argemone mexicana</i>	Mexican Poppy, Prickly Poppy, Yellow Thistle	Leaves, roots	Leaves for cough and skin diseases; roots for guinea worm	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Argemone mexicana</i>	Seyal-kanta	Shoots	Young shoot cooked with various vegetables and spices	Terai and Dooars	West Bengal	Food	Click Here
48	<i>Arundo donax</i>	Bakheda		Habitat cover; stabilizes banks	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
	<i>Arundo donax</i>	Nol	Culm	Culms used for making fish traps	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Arundo donax</i>			Used for roof cleaning tools, fish rods, walking sticks, flutes, floats	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Arundo donax</i>	Khadya bamboo	Shoots	Young shoots can be eaten after cooking (like bamboo shoots)	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Arundo donax</i>	Giant reed	Rhizome	Rhizome diuretic, menstrual stimulant, raises BP	North eastern part of Bihar	Bihar	Medicinal	Click Here
49	<i>Asclepias curassavica</i>	Khakatundi	Whole plant		Hassan district	Karnataka		Click Here
50	<i>Astercantha longifolia</i>	Tal makhana	Leaves	Leafy green, source of drug	Darbhanga district	Bihar	Utility	Click Here
51	<i>Averrhoa carambola</i>	Star fruit, carambola	Fruits	Fruits	Sunderbans	West Bengal	Food	Click Here
52	<i>Avicennia alba</i> Blume			Fodder and fuelwood	Eastern Wetlands	Odisha	Utility	Click Here
53	<i>Avicennia marina</i>			Fodder and fuelwood	Eastern wetlands	Odisha	Utility	Click Here
54	<i>Avicennia officinalis</i>		Stem	Fodder, fuelwood; stem used in construction	Eastern wetlands	Odisha	Utility	Click Here
55	<i>Azadirachta indica</i>	Neem tree	Whole plant	Multiple parts used for skin care, infections, mosquito repellent	Sunderbans	West Bengal	Medicinal	Click Here

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56	<i>Axonopus compressus</i>	Blanket grass			Barpeta district	Assam		Click Here
57	<i>Azolla pinnata</i>	Mosquito fern		Used as biofertilizer	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
	<i>Azolla pinnata.</i>	Xoru-puni	Whole plant	Whole plant used as biofertilizer in rice fields	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Azolla pinnata</i>	Mosquitofern, feathered mosquitofern, water velvet			Barpeta district	Assam		Click Here
	<i>Azolla pinnata.</i>	Mosquito fern		Important source of biofertilizer; also used to feed chickens in poultry	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Azolla pinnata.</i>	Azola		Used as bio-fertilizer in rice fields.	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Azolla pinnata</i>			Biofertilizer	Eastern Wetlands	Odisha	Food/ Medicinal	Click Here
	<i>Azolla pinnata</i>		Whole plant		Hassan district	Karnataka		Click Here
	<i>Azolla pinnata</i>		Whole plant	Whole plant biofertilizer, rich in protein, chlorophyll; green forage for cattle and poultry feed	Nadia district	West Bengal	Utility	Click Here
	<i>Azolla pinnata</i>	Azolla		Bio-fertilizer, nitrogen fixation, water purifier, livestock and fish feed, protein-rich food source	Darbhanga district	Bihar	Utility	Click Here
58	<i>Bacopa monnieri</i>	Thyme leaved gratiola			Barpeta district	Assam		Click Here
	<i>Bacopa monnieri</i>	Jalnaveri		Paste of boiled plant applied to cure belly enlargement	Aravali district	Gujarat	Medicinal	Click Here
	<i>Bacopa monnieri</i>	Brahmi	Shoots	Shoots are fried in oil or used as vegetable.	Bhadrak district	Odisha	Food	Click Here
	<i>Bacopa monnieri</i>	Brahmi	Leaves	Eaten as supplementary leafy vegetable	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Bacopa monnieri</i>	Ghor, nir bramhi	Leaves	Leaves eaten raw or used in herbal preparations.	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Bacopa monnieri</i>	Brahmisag		Vegetable, memory tonic	Cooch Behar district	West Bengal	Food/ Medicinal	Click Here
	<i>Bacopa monnieri</i>	Brahmi shak	Leaves, shoots	Young leaves, tender shoots fried with brinjal and potatoes	Terai and Dooars	West Bengal	Food	Click Here

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	<i>Bacopa monnieri</i>	Neerubhrami	Whole plant		Hassan district	Karnataka		Click Here
	<i>Bacopa monnieri</i>	Water hyssop	Whole plant	Whole plant skin diseases, asthma, leprosy, fever	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Bacopa monnieri</i>	Brahmi		Brain tonic, anxiety relief, skin and digestive disorders, nootropic, used in epilepsy and fever	Darbhanga district	Bihar	Medicinal	Click Here
59	<i>Barringtonia acutangula</i>	Freshwater mangrove, Indian oak	Leaves	Fruit is astringent; leaf juice for diarrhoea	Sunderbans	West Bengal	Medicinal	Click Here
60	<i>Boerhavia chinensis</i>		Leaves	Eaten as leafy vegetable.	Wetlands of south Odisha	Odisha	Food	Click Here
61	<i>Blyxa octandra</i>			Used as ornamental plant in aquariums	Eastern Wetlands	Odisha	Utility	Click Here
62	<i>Bergia ammannioides</i>	Nandikallusoppu	Leaves		Hassan district	Karnataka		Click Here
63	<i>Berchemia floribunda</i>		Leaves, roots	Roots, leaves pain relief, tea substitute	North eastern part of Bihar	Bihar	Medicinal	Click Here
64	<i>Boerhavia diffusa</i>	Punarnava, red spiderling, spreading hogweed, tarvine	Leaves, shoots	Young leafy shoot fried or curry with vegetables	Barpeta district	Assam	Food	Click Here
	<i>Boerhavia diffusa</i>	Punarnava	Leaves, shoots	Young leafy shoot fried or curry with vegetables	Terai and Dooars	West Bengal	Food	Click Here
65	<i>Borassus flabellifer</i>	Palmyra palm, Asian palmyra (palmyra)	Roots	Roots diuretic; fruits for dyspepsia and colic	Sunderbans	West Bengal	Medicinal	Click Here
66	<i>Bryophyllum calycinum</i>	Life plant, air plant, cathedral bells	Leaves	Leaves used in traditional remedies	Sunderbans	West Bengal	Medicinal	Click Here
67	<i>Brassica juncea</i>	Mustard	Seeds	Seeds grown near beel; used for oil and culinary purposes	Maguri-Motapung Beel wetland, district of Tinsukia	Assam	Food	Click Here
68	<i>Butomopsis latifolia</i>	Lundi ara, karchhul saag	Leaves	Leaves boiled, water squeezed, cooked as potherb for stomach comfort, relieves constipation	Khunti district	Jharkhand	Medicinal	Click Here
69	<i>Canavalia maritima</i>	Beach bean, bay bean, sea bean	Young pods and seeds		Sunderbans	West Bengal		Click Here
70	<i>Caesalpinia bonduc</i>	Gray nicker, bonduc nut	Leaves	Leaf paste for swollen testicles; jaundice and rheumatism	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
71	<i>Calophyllum inophyllum</i>	Alexandrian laurel, beauty leaf, ball tree	Seeds, bark, wood	Seed oil for rheumatism, scabies; bark is astringent; wood used for making wooden showpieces and other wooden equipment	Sunderbans	West Bengal	Medicinal/ utility	Click Here
72	<i>Calotropis gigantea</i>	Crown flower, giant milkweed, swallow wort	Roots, bark	Root bark used for diarrhoea, dysentery	Sunderbans	West Bengal	Medicinal	Click Here
73	<i>Canna indica</i>	Parijat	Whole plant	Whole plant used as ornamental plant	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Canna indica</i>	Indian shot, African arrowroot, edible canna, purple arrowroot			Barpeta district	Assam		Click Here
	<i>Canna indica</i>	Kyanagida	Rhizome		Hassan district	Karnataka		Click Here
74	<i>Cannabis sativa</i>	Hemp	Leaves	Leaf paste used in skin disease treatment	Barbila Beel of Nalbari district	Assam	Medicinal	Click Here
	<i>Cannabis sativa</i>	Marijuana			Barpeta District	Assam		Click Here
75	<i>Cassia occidentalis</i>	Coffee senna, septicweed, stinking weed	Whole plant	Whole plant is purgative and febrifuge	Sunderbans	West Bengal	Medicinal	Click Here
76	<i>Cardamine hirsuta</i>	Chantrukmaan	Shoots	Shoot cooked and eaten occasionally	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
77	<i>Cassia tora</i>	Soru medulua	shoots	Shoots eaten boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Cassia tora</i>	Sickle senna or sickle wild sensitive-plant			Barpeta diistrict	Assam		Click Here
78	<i>Casuarina equisetifolia</i>	Australian pine, beefwood, ironwood	Wood, bark	Bark used for diarrhoea and dysentery; wood used for house posts, rafters, and masts of country crafts; also used for fencing	Sunderbans	West Bengal	Medicinal/ Utility	Click Here
79	<i>Catharanthus roseus</i>	Madagascar periwinkle, rosy periwinkle, vinca		Used in cancer and fever treatment	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
80	<i>Centaurea diffusa</i>	Kona simolu	Stem	Stem juice stops bleeding from wounds	Wetlands of western Assam	Assam	Medicinal	Click Here
81	<i>Centella asiatica</i>	Indian pennywort, gotu kola, Asiatic pennywort	Whole plant	Used dry	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Centella asiatica</i>	Indian pennywort (gotu kola)	Leaves	Leaves used for indigestion, nervousness, and dysentery	BarbilaBeel of Nalbari district	Assam	Medicinal	Click Here
	<i>Centella asiatica</i>	Manimuni	Whole plant	Whole plant eaten boiled or fried	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Centella asiatica</i>	Bormanimuni		Used as vegetable, for skin disease and dysentery	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food/ Medicinal	Click Here
	<i>Centella asiatica</i>	Indian pennywort, Asiatic pennywort, gotukola, or thankuni			Barpeta district	Assam		Click Here
	<i>Centella asiatica</i>	Peruk	Whole plant	Boiled whole plant, mashed with potato and fermented fish	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Centella asiatica</i>	Brahmi		One teaspoon of juice given twice daily for a month to treat madness	Aravali district	Gujarat	Medicinal	Click Here
	<i>Centella asiatica</i>	Indian pennywort/ gotu kola		Leaves and corm used as vegetables; petiole juice applied to cuts and wounds	Pardi Wetland, Valsad district	Gujarat	Food/ Medicinal	Click Here
	<i>Centella asiatica</i>	Thalkudi	Leaves, petiole	Young leaves and petioles are eaten fresh as vegetables	Bhadrak district	Odisha	Food	Click Here
	<i>Centella asiatica</i>	Thalkudi, brahmi	Leaves	Cooked as leafy vegetable	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Centella asiatica</i>	Bramhi or mandukparni	Leaves	Leaves used in salads and medicinal preparations	Gadhchiroli district	Maharashtra	Food/ Medicinal	Click Here
	<i>Centella asiatica</i>	Indian pennywort	Whole plant		Loktak Lake	Manipur		Click Here
	<i>Centella asiatica</i>	Thankuni, khudimuni	Leaves	Diarrhoea and dysentery (leaf)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Centella asiatica</i>	Bor manimuni	Leaves, stem	Stem, leaf memory tonic; skin disease treatment	Wetlands of Western Assam	Assam	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Centella asiatica</i>	Thankuni shak		Pounded with black cumin and chilies, added to curry	Terai and Dooars	West Bengal	Food	Click Here
	<i>Centella asiatica</i>	Ondelaga	Whole plant		Hassan district	Karnataka		Click Here
	<i>Centella asiatica</i>	Thankuni/brahmi	Whole plant	Whole plant eaten as vegetable and used medicinally for liver disorders, memory support (healthline, pmc)	Tripura	Tripura	Food/ medicinal	Click Here
	<i>Centella asiatica</i>	Thankuni	Leaves	Leaves tonic, diuretic, decoction for leprosy, heart and nerve disorders, fried leaves eaten as vegetable	Nadia district	West Bengal	Food/ medicinal	Click Here
	<i>Centella asiatica</i>		Whole plant	Whole plant brain tonic, leprosy, TB, sedative, spasmolytic, amoebic	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Centella asiatica</i>	Mandukaparni		Memory enhancer, nervine tonic, used in insomnia, epilepsy, skin and uterus disorders	Darbhanga district	Bihar	Medicinal	Click Here
82	<i>Centipeda minima</i>	Mechitta			Cooch Behar district	West Bengal		Click Here
	<i>Centipeda minima</i>	Chikani	Whole plant		Hassan district	Karnataka		Click Here
83	<i>Ceratophyllum demersum</i>	Sirolia	Leaves	Leaves used as cooling agent in boils	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Ceratophyllum demersum</i>	Hornwort, rigid hornwort, coontail, coon's tail			Barpeta district	Assam		Click Here
	<i>Ceratophyllum demersum</i>	Hornwort		Used as substrate or decoration in aquariums.	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Ceratophyllum demersum</i>			Used as biofertilizer	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Ceratophyllum demersum</i>				Cooch Behar district	West Bengal		Click Here
	<i>Ceratophyllum demersum</i>	Honnal vittate	Whole plant		Hassan district	Karnataka		Click Here
	<i>Ceratophyllum demersum</i>	Jhanji, sheoyala	Whole plant	Whole plant antipyretic, cooling, used in scorpion sting and biliousness; hyperaccumulator of heavy metals	Nadia district	West Bengal	Medicinal/ Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Ceratophyllum demersum</i>	Rigid hornwort	Whole plant	Whole plant cooling, laxative, antipyretic, biliousness, ulcers	North eastern part of Bihar	Bihar	Medicinal	Click Here
84	<i>Ceratopteris thalictroides</i>	Water sprite, Indian fern, water fern, Oriental waterfern, water hornfern			Barpeta district	Assam		Click Here
	<i>Ceratopteris thalictroides</i>		Apical parts	Young apical parts eaten as vegetable.	Eastern Wetlands	Odisha	Food	Click Here
	<i>Ceratopteris thalictroides</i>		Whole plant		Hassan district	Karnataka		Click Here
85	<i>Chara spp.</i>			Oxygenates water; supports aquatic food web	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
86	<i>Chara nuda.</i>		Whole plant	Whole plant insecticidal	North eastern part of Bihar	Bihar	Medicinal	Click Here
87	<i>Chenopodium album</i>	Lamb's quarters, white goosefoot, pigweed		Green vegetable	Sunderbans	West Bengal	Food	Click Here
	<i>Chenopodium album</i>	White goosefoot	Leaves, stem		Loktak Lake	Manipur		Click Here
	<i>Chenopodium album</i>	Bathua, betho, bothua-shak		Fried with brinjal and chilies or cooked as curry	Terai and Dooars	West Bengal	Food	Click Here
88	<i>Cissus quadrangularis</i>	Veldt grape, devil's backbone, square stalked vine	Stem, roots	Stem, root paste for bone fractures	Sunderbans	West Bengal	Medicinal	Click Here
89	<i>Citrullus colocynthis</i>	Colocynth, bitter apple, desert gourd	Roots	Fruit/root for kidney infection and jaundice	Sunderbans	West Bengal	Medicinal	Click Here
90	<i>Chrysopogon zizanioides</i>	Birina			Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
91	<i>Cleome gynandra</i>	Bhutmola	Leaves	Leaf paste used to cure boils	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
92	<i>Cleome rutidosperma</i>	Hurhuria	Leaves	Leaf extract used to soothe skin irritation	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
93	<i>Cleome viscosa</i>	Hulchul	Seeds	Seeds dried, ground, used as vegetable	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here

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94	<i>Clerodendrum inerme</i>	Wild jasmine, seaside clerodendrum	Leaves, Roots	Leaves for fever; roots in oil for rheumatism	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Clerodendrum inerme</i>		Wood	Fuelwood	Eastern Wetlands	Odisha	Utility	Click Here
95	<i>Cocos nucifera</i>	Coconut palm	Roots	Roots astringent; juice and fruit for various disorders	Sunderbans	West Bengal	Medicinal	Click Here
96	<i>Clerodendrum viscosum</i>	Hill glory bower			Barpeta district	Assam		Click Here
97	<i>Coix aquatica</i>		Seeds	Seeds used to make chains by Kondha tribe	Wetlands of south Odisha	Odisha	Utility	Click Here
98	<i>Coix lacryma-jobi</i>	Halumani	Roots		Hassan district	Karnataka		Click Here
	<i>Coix lacryma-jobi</i>	Tear grass	Roots	Roots for menstrual disorders	North eastern part of Bihar	Bihar	Medicinal	Click Here
99	<i>Coldenia procumbens</i>	-	Leaves	Leaves applied on rheumatic swelling	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Coldenia procumbens</i>				Cooch Behar district	West Bengal		Click Here
	<i>Coldenia procumbens</i>	Hamsapadi	Whole plant		Hassan district	Karnataka		Click Here
100	<i>Colocasia esculenta</i>	Taro, elephant ear, dasheen	Corm		Sunderbans	West Bengal		Click Here
	<i>Colocasia esculenta</i>	Taro		Used as vegetable; treats iron deficiency	Barbilla Beel of Nalbari district	Assam	Medicinal	Click Here
	<i>Colocasia esculenta</i>	Kola kochu	Leaves, petioles, rhizomes	Leaves, petioles, rhizomes eaten as curry with fish	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Colocasia esculenta</i>	Kosu /nol kosu (arum)	Edible roots and tubers	Edible roots and tubers sold in local markets; source of daily income	Maguri- Motapung Beel wetland, district of Tinsukia	Assam	Food	Click Here
	<i>Colocasia esculenta</i>	Kochu	Whole plant	Whole plant used as vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Colocasia esculenta</i>	Coco yam, wild taro			Barpeta district	Assam		Click Here

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	<i>Colocasia esculenta</i>	Paan	Leaves, corm	Corm and leaf cooked as ootti	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Colocasia esculenta</i>	Alavi		Cooked and consumed as vegetables	Aravali district	Gujarat	Food	Click Here
	<i>Colocasia esculenta</i>	Taro / arbi	Leaves, shoots	Young shoots and leaves used as vegetables	Pardi Wetland, Valsad District	Gujarat	Food	Click Here
	<i>Colocasia esculenta</i>	Saru	Leaves, tuber	Leaves with stalk are cooked with vegetables. Tubers are eaten in curry or mashed, mostly in the month of kartik	Bhadrak district	Odisha	Food	Click Here
	<i>Colocasia esculenta</i>	Banasaru	Tuber	Tuber eaten as vegetable	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Colocasia esculenta</i>	Kochai	Leaves, tuber	Tubers cooked like potatoes; leaves used in curries and steamed dishes	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Colocasia esculenta</i>	Sola kachu	Leaves, petioles, rhizomes	Leaves fried with cumin; petioles and rhizomes boiled and used in curry	Terai and Dooars	West Bengal	Food	Click Here
	<i>Colocasia esculenta</i>	Kesavu	Leaves, corm		Hassan district	Karnataka		Click Here
	<i>Colocasia esculenta</i>	Kachu, taro	Leaves, petioles, rhizomes	Rhizome, leaves, petiole edible: rhizomes and leaves after cooking; leaves in curries, soups	Tripura	Tripura	Food	Click Here
	<i>Colocasia esculenta</i>	Wild taro	Tuber	Tuber decoction for heart weakness	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Colocasia esculenta</i>	Taro, elephant ear	Leaves, roots	Edible roots and leaves, curry preparation, treatment for anemia, anti-diabetic, cash crop	Darbhanga district	Bihar	Food/ medicinal	Click Here
	<i>Colocasia esculenta</i>	Taro	Tuber	Tubers commonly used like potatoes; safe after cooking	Ansupa Lake	Odisha	Food	Click Here
101	<i>Commelina benghalensis</i>	Benghal dayflower	Leaves	Leaf juice used to stop bleeding	Barbila Beel of Nalbari District	Assam	Medicinal	Click Here
	<i>Commelina benghalensis</i>	Kona simulu	Leaves, shoots	Leaves, shoots eaten fried	Bordoï Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here

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	<i>Commelina benghalensis</i>	Kona-simolu		Used to treat skin inflammations; as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal/ utility	Click Here
	<i>Commelina benghalensis</i>	Benghal dayflower, tropical spiderwort, wandering Jew			Barpeta district	Assam		Click Here
	<i>Commelina benghalensis</i>	Wangdenkhoibi	Shoots	Shoot cooked occasionally; also used as fodder	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Utility	Click Here
	<i>Commelina benghalensis</i>	Shishmuliyu		Cooked as vegetable; paste used for bone fractures	Aravali district	Gujarat	Food/ medicinal	Click Here
	<i>Commelina benghalensis</i>	Bengal dayflower/ kana	Leaves	Crushed fresh leaves applied on joint/muscle swellings twice a day	Pardi Wetland, Valsad district	Gujarat	Medicinal	Click Here
	<i>Commelina benghalensis</i>	Kansiri	Leaves, shoots	Leaves and shoots are eaten as vegetables.	Bhadrak district	Odisha		Click Here
	<i>Commelina benghalensis</i>	Kanissera	Leaves, shoots	Young leaves and shoots eaten as vegetable	Wetlands of south Odisha	Odisha		Click Here
	<i>Commelina benghalensis</i>	Kanchira	Whole plant	Fodder	Cooch Behar district	West Bengal		Click Here
	<i>Commelina benghalensis</i>	Kona simolu	Leaves, shoots, roots	Young leaf, shoot roots for skin disease and snakebite	Wetlands of Western Assam	Assam		Click Here
	<i>Commelina benghalensis</i>	Kannesoppu	Leaves, shoots		Hassan district	Karnataka		Click Here
	<i>Commelina benghalensis</i>		Whole plant	Whole plant wild vegetable; whole plant eaten	Tripura	Tripura		Click Here
	<i>Commelina benghalensis</i>	Kanchira	Whole plant	Whole plant used in leprosy, emollient, demulcent, refrigerant, laxative	Nadia district	West Bengal		Click Here
	<i>Commelina benghalensis</i>	Day flower	Leaves	Leaves demulcent, emollient, laxative, refrigerant	North eastern part of Bihar	Bihar	Utility	Click Here
102	<i>Commelina diffusa</i>	Shishmuliyu		Cooked as vegetable; paste used for bone fractures	Aravali district	Gujarat	Food/ Medicinal	Click Here
	<i>Commelina diffusa</i>	Khandalu	Leaves, shoots	Leaves, shoot	Hassan district	Karnataka	Food	Click Here
103	<i>Commelina paludosa</i>		Shoots	Young shoots edible vegetable (shoots)	Tripura	Tripura	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Commelina paludosa</i>	Jata kanchira	Shoots	Young shoots eaten as vegetable	Nadia district	West Bengal	Food	Click Here
104	<i>Crotalaria retusa</i>	Wedge-leaf rattlepod	Leaves, roots	Root powder for colic; leaves in fever; yields fibre used in cordage and canvas	Sunderbans	West Bengal	Medicinal	Click Here
105	<i>Croton bonplandianum</i>	Ban tulsī, wild croton	Leaves	Leaves used in skin diseases	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Croton bonplandianum</i>	Nelabedisoppu	Leaves		Hassan district	Karnataka		Click Here
106	<i>Corchorus capsularis</i>	Nalita	Leaves	Young leaves eaten fresh as vegetables	Bhadrak district	Odisha	Food	Click Here
107	<i>Crinum asiaticum</i>	Arsa	Bulb	Bulb is eaten as vegetable	Bhadrak district	Odisha	Food	Click Here
108	<i>Crinum viviparum</i>	Vishamunguli	Leaves		Hassan district	Karnataka		Click Here
109	<i>Corchorus aestuans</i>	Chunchu	Whole plant		Hassan district	Karnataka		Click Here
110	<i>Cryptocoryne retorspiralis</i>	Pakan bhed or sheval		Edible after cooking; traditionally consumed in gadchiroli	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Cryptocoryne retorspiralis</i>	Neerinapipi	Tuber		Hassan district	Karnataka		Click Here
111	<i>Cyanotis axillaris</i>	Kena bhaji		Edible after cooking; traditionally consumed in gadchiroli.	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Cyanotis axillaris</i>	Yemmegida	Leaves		Hassan district	Karnataka		Click Here
112	<i>Cynodon dactylon</i>	Bermuda grass, bahama grass, doob grass		Decoction is diuretic; treats dropsy and swelling	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Cynodon dactylon</i>	Bermuda grass	Whole plant	Whole plant used for piles treatment and as antiseptic	BarbillaBeel of Nalbari District	Assam	Medicinal	Click Here
	<i>Cynodon dactylon</i>	Dubari bon (as)	Leaves, stem	Leaves, stem eaten in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Cynodon dactylon</i>	Bermuda grass			Barpeta district	Assam		Click Here
	<i>Cynodon dactylon</i>	Darbh		Used in rituals; juice treats piles, cuts, and wounds	Aravali district	Gujarat	Medicinal	Click Here
	<i>Cynodon dactylon</i>	Garikehullu			Hassan district	Karnataka		Click Here
	<i>Cynodon dactylon</i>		Above ground parts	Aboveground parts used as fodder	Tripura	Tripura	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Cynodon dactylon</i>	Durba	Roots	Roots, juice diuretic, haemostatic, treats hysteria, epilepsy, chronic diarrhoea, dysentery, catarrh	Nadia district	West Bengal	Medicinal	Click Here
113	<i>Cyperus alopecuroides</i>	Santara			Wetlands of south Odisha	Odisha		Click Here
114	<i>Cyperus articulatus</i>		Tuber, stem	Stems, tubers mats from stems; tubers used as tonic and stimulant, perfumery	Nadia district	West Bengal	Utility	Click Here
	<i>Cyperus articulatus</i>	Jointed flatsedge	Tuber	Tuber tonic and stimulant	North eastern part of Bihar	Bihar	Utility	Click Here
115	<i>Cyperus brevifolius</i>				Barpeta district	Assam		Click Here
116	<i>Cyperus bulbosus</i>			Used as food; supports wetland air circulation	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
	<i>Cyperus bulbosus</i>	Wild onion			Barpeta district	Assam		Click Here
117	<i>Cyperus compressus</i>	Muthi-bon			Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
118	<i>Cyperus corymbosus</i>	Jointed flatsedge, pripioca, piripiri			Barpeta district	Assam		Click Here
	<i>Cyperus corymbosus</i>	Sitala		Thatching of houses and cattle sheds	Wetlands of South Odisha	Odisha	Utility	Click Here
119	<i>Cyperus imbricatus</i>			Mats for household use; weaving similar to cyperus alopecuroides (santara)	Wetlands of south Odisha	Odisha	Utility	Click Here
120	<i>Cyperus difformis</i>	Karisannahullu	Roots		Hassan district	Karnataka		Click Here
	<i>Cyperus difformis</i>	Smallflower umbrella sedge	Leaves, tuber	Leaves, tuber for diarrhoea	North eastern part of Bihar	Bihar	Medicinal	Click Here
121	<i>Cyperus exaltatus</i>		Stem	Stems mats from stems	Nadia district	West Bengal	Utility	Click Here
122	<i>Cyperus iria</i>	Rice flat sedge	Stem	Stems used for making mats	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Cyperus iria</i>		Roots		Hassan district	Karnataka		Click Here
	<i>Cyperus iria</i>		Culm	Culms used for making mats	Tripura	Tripura	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Cyperus iria</i>	Bara chucha	Whole plant	Stems, whole plant mat making, tonic, stimulant, stomachic, astringent	Nadia district	West Bengal	Utility	Click Here
123	<i>Cyperus pangorei</i>			Used to make mats, bags, baskets, decorative materials; mat locally called khata	Wetlands of south Odisha	Odisha	Utility	Click Here
124	<i>Cyperus platystylis</i>			Collected for selling: the market rate of Rs 10 per kilogram; also used for mat weaving	Maguri-Motapung Beel wetland, district of Tinsukia	Assam	Utility	Click Here
125	<i>Cyperus rotundus</i>	Nut grass, purple nut sedge, coco grass	Roots	Root oil used for conjunctivitis	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Cyperus rotundus</i>	Chiyo/dilo	Tuber	Edible tuber; supports gas exchange in wetlands	Nalsarovar Bird Sanctuary	Gujarat	Food/ Utility	Click Here
	<i>Cyperus rotundus</i>	Keya bon	Rhizome	Rhizomes eaten boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Cyperus rotundus</i>	Keya-bon	Tuber	Tuber juice used to treat skin disease	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Cyperus rotundus</i>	Nut grass			Barpeta district	Assam		Click Here
	<i>Cyperus rotundus</i>	Nagarmotha	Tuber	Tubers can be eaten raw, roasted, or ground into flour	Gadhchiroli district	Maharashtra		Click Here
	<i>Cyperus rotundus</i>	Mutha	Underground part	Dysentery (underground part)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Cyperus rotundus</i>	Mutha ghash	Rhizomes	Rhizomes roasted with brinjal (not sold in market)	Terai and Dooars	West Bengal		Click Here
	<i>Cyperus rotundus</i>	Konnarigedde	Rhizomes		Hassan district	Karnataka		Click Here
	<i>Cyperus rotundus</i>		Tuber	Tuberous roots used in perfumery and religious rituals	Tripura	Tripura	Cultural/ utility	Click Here
	<i>Cyperus rotundus</i>	Mutha	Rhizomes	Rhizomes, tubers essential oil for perfumery, insect repellents; tubers diuretic, aphrodisiac, stimulant	Nadia district	West Bengal	Utility	Click Here
	<i>Cyperus rotundus</i>	Nut grass	Tuber	Tuber for scorpion sting, febrile, dyspeptic	North eastern part of Bihar	Bihar	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Cyperus rotundus</i>	Motha	Culm	Culms used for making shitalpaati	Darbhanga district	Bihar	Food	Click Here
126	<i>Datura metel</i>	Devil's trumpet			Barpeta district	Assam		Click Here
127	<i>Dactyloctenium aegyptium</i>	Kaaduragihullu			Hassan district	Karnataka		Click Here
128	<i>Dentella repens</i>	Creeping lickstoop			Barpeta district	Assam		Click Here
	<i>Dentella repens</i>	Kadubhaji		Edible after cooking; traditionally consumed in gadchiroli	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Dentella repens</i>				Cooch Behar district	West Bengal		Click Here
	<i>Dentella repens</i>	Jatagida	Leaves		Hassan district	Karnataka		Click Here
	<i>Dentella repens</i>		Whole plant	Whole plant used to treat cough and cold	Tripura	Tripura	Medicinal	Click Here
	<i>Dentella repens</i>		Leaves	Leaves for poulticing sores	North eastern part of Bihar	Bihar	Medicinal	Click Here
129	<i>Dillenia indica</i>	Elephant apple, indian rose chestnut, chalta	Fruits		Sunderbans	West Bengal		Click Here
130	<i>Dioscorea alata</i>	Purple yam, water yam, winged yam	Tuber		Sunderbans	West Bengal		Click Here
131	<i>Desmodium triflorum</i>	Three-flower beggarweed, three-flower tick-trefoil			Barpeta district	Assam		Click Here
	<i>Desmodium triflorum</i>	Kaadumenthe	Whole plant		Hassan district	Karnataka		Click Here
132	<i>Desmodium gangeticum</i>	Salpani	Roots, seeds	Roots, seeds febrifuge, anticatarrhal, snake bite, scorpion sting, expectorant, diuretic	Nadia district	West Bengal	Medicinal	Click Here
133	<i>Diplazium esculentum</i>	Vegetable fern	Leaves	Fronds (leaves)	Sunderbans	West Bengal	Food	Click Here
	<i>Diplazium esculentum</i>	Dhekiya	Leaves	Fronds eaten fried or in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Diplazium esculentum</i>	Vegetable fern			Barpeta district	Assam		Click Here
	<i>Diplazium esculentum</i>	Dheki shak		Fried with cumin and chilies, also cooked with garlic powder and vegetables.	Terai and Dooars	West Bengal	Food	Click Here
	<i>Diplazium esculentum</i>		Leaves	Leaves leaf decoction taken during fever	Tripura	Tripura	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
134	<i>Drymaria cordata</i>	Lai jabori	Leaves, shoots	Leaves, shoots eaten boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Drymaria cordata</i>	Laijabori	Leaves	Leaf paste used to treat insect bite	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Drymaria cordata</i>		Leaves		Hassan district	Karnataka		Click Here
135	<i>Dryopteris marginata</i>	Wood ferns			Barpeta district	Assam		Click Here
	<i>Dryopteris marginata</i>	Laichangkhrang	Shoots	Tender shoot fried and eaten	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
136	<i>Dysphania ambrosioides</i>	Kaaduoma	Leaves		Hassan district	Karnataka		Click Here
137	<i>Echinochloa colona</i>	Hootakaddi			Hassan district	Karnataka		Click Here
	<i>Echinochloa colona</i>	Shama	Grain	Grains edible, quick- growing fodder grass	Nadia district	West Bengal	Food/ Utility	Click Here
138	<i>Echinochloa crusgalli</i>	Dhera	Grain	Grains consumed by rural poor during food scarcity.	Bhadrak district	Odisha	Food	Click Here
	<i>Echinochloa crusgalli</i>	Dhera	Grain	Grains eaten by poor people; used as fodder	Wetlands of south Odisha	Odisha	Food/ Utility	Click Here
	<i>Echinochloa crusgalli</i>		Grain	Edible (grain)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Echinochloa crusgalli</i>	Dabbehullu			Hassan district	Karnataka		Click Here
	<i>Echinochloa crusgalli</i>	Bara shama	Whole plant	Grains, whole plant grains edible; treats spleen disorders, haemorrhage	Nadia district	West Bengal	Food/ medicinal	Click Here
139	<i>Echinochloa stagnina</i>	Jhipa	Grain	Grains consumed during scarcity	Bhadrak district	Odisha	Food	Click Here
	<i>Echinochloa stagnina</i>		Grain	Grains and plant used as fodder	Wetlands of south Odisha	Odisha	Utility	Click Here
140	<i>Eclipta alba</i>	Uchisumban	Shoots	Shoot cooked and eaten occasionally	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Eclipta alba</i>	Bhrungaraj	Shoots	Shoots are cooked and consumed occasionally	Bhadrak district	Odisha	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Eclipta alba</i>	Kehraj	Leaves, flower	Leaf, flower used in jaundice, ulcers, skin diseases (cattle)	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Eclipta alba</i>	Kesuti	Shoots, roots	Juice, roots, shoots hair vitalizer, jaundice, ulcers, skin diseases, tonic	Nadia district	West Bengal	Medicinal	Click Here
	<i>Eclipta alba</i>	Bhringraj		Used for hair growth, memory enhancement, liver/spleen disorders, jaundice, skin diseases	Darbhanga district	Bihar	Medicinal	Click Here
141	<i>Eclipta prostrata</i>	False daisy (bhringraj)		Tonic; used in hepatic and spleen enlargements; for skin troubles	BarbilaBeel of Nalbari district	Assam	Medicinal	Click Here
	<i>Eclipta prostrata</i>	Kehraj	Leaves, shoots	Leaves, shoots eaten fried with other vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Eclipta prostrata</i>	Kenhraj		Used in cuts and wounds; plant juice used as hair growth tonic	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Eclipta prostrata</i>	False daisy, bhringraj			Barpeta district	Assam		Click Here
	<i>Eclipta prostrata</i>	Bhangaro		Juice with mustard oil given in diarrhea	Aravali district	Gujarat	Medicinal	Click Here
	<i>Eclipta prostrata</i>	Kesut	Leaves	Vegetable (leaves), itching, hair tonic (plant)	Cooch Behar district	West Bengal	Food/ Medicinal	Click Here
	<i>Eclipta prostrata</i>	Keshvardhana	Shoots		Hassan district	Karnataka		Click Here
	<i>Eclipta prostrata</i>		Leaves, flower	Leaves, flower promotes sneezing, nasal congestion, swelling	North eastern part of Bihar	Bihar	Medicinal	Click Here
142	<i>Eichhornia crassipes</i>	Water hyacinth		Cooked and eaten as a carotene-rich vegetable; also used as fodder, manure, source of methane and alcohol	Talod Taluka, Sabarkantha district	Gujarat	Food/ Medicinal/ Utility	Click Here
	<i>Eichhornia crassipes</i>	Water hyacinth		Commonly used as natural fertilizer, sometimes as fodder	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
	<i>Eichhornia crassipes</i>	Meteka	Flower	Flowers used to prepare snacks	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Eichhornia crassipes</i>	Common water hyacinth			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Eichhornia crassipes</i>	Water hyacinth		Used in vermicomposting and organic compost production	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Eichhornia crassipes</i>	Bilatidala		Used as pig fodder; composted as green manure	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Eichhornia crassipes</i>			Green manure (plant)	Koch Bihar District	West Bengal	Utility	Click Here
	<i>Eichhornia crassipes</i>	Panimeteka	Whole plant	Whole plant used to prepare local alkali 'khar'	Wetlands of western Assam	Assam	Utility	Click Here
	<i>Eichhornia crassipes</i>	Antaragange	Whole plant		Hassan district	Karnataka		Click Here
	<i>Eichhornia crassipes</i>	Kachuripana/ kachurifena	Seeds	Seeds used to prepare curries	Tripura	Tripura	Food	Click Here
	<i>Eichhornia crassipes</i>	Kachuripana	Whole plant	Whole plant pollution scavenger (heavy metals), fish feed, compost, biogas	Nadia district	West Bengal	Utility	Click Here
	<i>Eichhornia crassipes</i>	Water hyacinth	Flower	Flower skin disease (for horses), stomachic, toothache, goitre	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Eichhornia crassipes</i>	Jalkumbhi		Energy fuel, fishing shelter belt, fodder	Darbhanga district	Bihar	Utility	Click Here
143	<i>Eleocharis acutangula</i>	Mitmiti-bon	Tuber	Tubers edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Eleocharis acutangula</i>	Spikerush	Stem	Stem cooling, stomachic, useful in scabies	North eastern part of Bihar	Bihar	Medicinal	Click Here
144	<i>Eleocharis dulcis</i>	Mitmiti-bon	Tuber	Tubers edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Eleocharis dulcis</i>	Kokthum	Roots	Root cooked with molasses and eaten as snack	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Eleocharis dulcis</i>	Chinese water chestnut	Corm	Used to make mats; corms are edible and can be stored.	Pardi Wetland, Valsad district	Gujarat	Food/ Utility	Click Here
	<i>Eleocharis dulcis</i>	Kanaka	Tuber	Tuber used as food for pigs	Wetlands of south Odisha	Odisha	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Eleocharis dulcis</i>	Gad		Edible after cooking; traditionally consumed in some regions.	Gadhchiroli district	Maharashtra	Food/ Cultural	Click Here
	<i>Eleocharis dulcis</i>	Chinese water chestnut	Root		Loktak Lake	Manipur		Click Here
	<i>Eleocharis dulcis</i>	Neerchelli	Tuber		Hassan district	Karnataka		Click Here
	<i>Eleocharis dulcis</i>	Water chestnut	Seeds, corm	Seeds and corms; corms are often eaten boiled or roasted; seeds occasionally consumed	Ansupa Lake	Odisha	Food	Click Here
145	<i>Emblica officinalis</i>	Indian gooseberry, amla	Fruits	Fruits used in traditional remedies	Sunderbans	West Bengal	Medicinal	Click Here
146	<i>Enhydra fluctuans</i>	Water cress, marsh herb	Twigs	Twigs used medicinally	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Enhydra fluctuans</i>	Helonchi sak	Leaves	Leaves eaten fried as vegetable	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Enhydra fluctuans</i>	Helachi	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Enhydra fluctuans</i>	Marsh herb, watercress			Barpeta district	Assam		Click Here
	<i>Enhydra fluctuans</i>	Komprektujombi	Shoots	Shoot eaten raw or cooked in singju	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Enhydra fluctuans</i>	Hidimcha	Leaves, shoots	Tender leaves and shoots are eaten raw or cooked with vegetables	Bhadrak district	Odisha	Food	Click Here
	<i>Enhydra fluctuans</i>	-	Leaves	Leaves used as vegetable	Eastern wetlands	Odisha	Food	Click Here
	<i>Enhydra fluctuans</i>	Hinchya	Whole plant	Vegetable (plant)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Enhydra fluctuans</i>	Helochi	Leaves, shoots	Leaf, shoot liver, neuralgia, nervous diseases	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Enhydra fluctuans</i>	Helencha shak		Fried with cumin and chilies or cooked with garlic powder and vegetables.	Terai and Dooars	West Bengal	Food	Click Here
	<i>Enhydra fluctuans</i>	Helencha	Leaves		Hassan district	Karnataka		Click Here

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	<i>Enhydra fluctuans</i>	Muchri ara, hirmicha saag	Leaves, shoots	Leaves, shoots steamed, cooked combined with andrographis and neem to improve appetite and digestion	Khunti district	Jharkhand	Food/ medicinal	Click Here
	<i>Enhydra fluctuans</i>	Helencha	Shoots	Tender shoots used as vegetable and medicine for dysentery	Tripura	Tripura	Food/ medicinal	Click Here
	<i>Enhydra fluctuans</i>	Hingcha	Leaves	Leaves vegetable, liver tonic, laxative, demulcent, skin & nerve ailments	Nadia district	West Bengal	Food/ medicinal	Click Here
147	<i>Eragrostis viscosa</i>	Sticky love grass		Used as livestock fodder	Sunderbans	West Bengal	Utility	Click Here
148	<i>Euphorbia antiquorum</i>	Square-stemmed euphorbia, triangular spurge	Roots		Sunderbans	West Bengal		Click Here
149	<i>Epaltes divaricata</i>		Roots		Hassan district	Karnataka		Click Here
150	<i>Eriocaulon cinereum</i>	Kadegi	Roots		Hassan district	Karnataka		Click Here
151	<i>Eriocaulon quinquangulare</i>	Goombi	Roots		Hassan district	Karnataka		Click Here
152	<i>Eriocaulon cinereum</i>	-	Leaves	Leaves leaf paste applied to cut wounds	Tripura	Tripura	Medicinal	Click Here
153	<i>Euphorbia hirta</i>	Gakhiroti bon	Leaves, shoots	Leaves, shoots eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Euphorbia hirta</i>	Asthma herb			Barpeta District	Assam		Click Here
154	<i>Euphorbia nerifolia</i>	Indian spurge tree, oleander spurge	Leaves		Sunderbans	West Bengal		Click Here
155	<i>Euphorbia prostrata</i>	Prostrate spurge	Whole plant	Whole plant treats dysentery, bleeding piles	North eastern part of Bihar	Bihar	Medicinal	Click Here
156	<i>Euryale ferox</i>	Fox nut, makhana		Nutritious food; seeds eaten raw or roasted	BarbilaBeel of Nalbari District	Assam	Food	Click Here
	<i>Euryale ferox</i>	Nikori	Seeds	Seeds edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Euryale ferox</i>	Thangjing	Fruits	Fruit eaten raw or cooked; petiole used as salad	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Euryale ferox</i>	Kanta padma	Fruits	Fruits are edible; seeds are roasted and eaten	Bhadrak district	Odisha	Food	Click Here
	<i>Euryale ferox</i>	Fox nut/makhana	Rhizome, fruits	Rhizomes and fruits edible. Seeds used as tonic.	Eastern Wetlands	Odisha	Food	Click Here
	<i>Euryale ferox</i>	Nikori	Seeds	Seed seed powder for urinary issues	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Euryale ferox</i>	Makhna		Fried with chilies and cumin; also used in curry	Terai and Dooars	West Bengal	Food	Click Here
	<i>Euryale ferox</i>	Makhana / gorgon nut	Seeds	Edible seeds (raw or popped), medicinal use (as aphrodisiac, in diarrhoea, for kidney issues), ritual use	Darbhanga district	Bihar	Food/ medicinal	Click Here
157	<i>Evolvulus alsinoides</i>	Dwarf morning glory, blue daze		Used for jaundice, fever, bronchitis, antiseptic	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Evolvulus alsinoides</i>	Vishnukranti	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
158	<i>Fagopyrum esculentum</i>	Wakhayendem	Leaves, shoots	Leaf and shoot cooked as vegetables; also fodder for goats	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Utility	Click Here
159	<i>Finlaysonia obovata</i>	-	Leaves	Leaves used for asthma treatment	Eastern Wetlands	Odisha	Medicinal	Click Here
160	<i>Fimbristylis dichotoma</i>	Sabbasigehullu	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
161	<i>Fumaria parviflora</i>	Fumitory	Whole plant	Whole plant diuretic, blood purifier, treats skin diseases	North eastern part of Bihar	Bihar	Medicinal	Click Here
162	<i>Gisekia phernaceoides</i>	Small carpet weed	Leaves, roots	Leaves, roots for skin and stomach issues	Sunderbans	West Bengal	Medicinal	Click Here
163	<i>Glinus oppositifolius</i>	Pitasaga	Leaves, shoots	Leaves with tender shoots consumed as vegetables.	Bhadrak district	Odisha	Food	Click Here
	<i>Glinus oppositifolius</i>	Pita sago	Leaves	Leafy vegetable	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Glinus oppositifolius</i>	Kadubhaji		Edible after cooking; traditionally consumed in gadchiroli	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Glinus oppositifolius</i>	Geema shak		Fried with brinjal and potatoes, used in mixed vegetables	Terai and Dooars	West Bengal	Food	Click Here
	<i>Glinus oppositifolius</i>	Chidarasigida	Leaves		Hassan district	Karnataka		Click Here
164	<i>Gloriosa superba</i>	Glory lily, flame lily, climbing lily	Whole plant	All parts used medicinally	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
165	<i>Gnaphalium indicum</i>	Cudweed	Leaves, stem	Young stem and leaves	Loktak lake	Manipur	Food	Click Here
166	<i>Gomphrena celosioides</i>	Javaladamalle	Whole plant		Hassan district	Karnataka		Click Here
167	<i>Grangea maderaspatana</i>	Namuti			Cooch Behar district	West Bengal		Click Here
	<i>Grangea maderaspatana</i>	Maasipatre	Whole plant		Hassan district	Karnataka		Click Here
168	<i>Gynura cusimbua</i>	Tera-paibi	Shoots	Shoot cooked occasionally	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Gynura cusimbua</i>	Hill gynura	Leaves, stem	Young stem and leaves	Loktak lake	Manipur	Food	Click Here
169	<i>Heritiera littoralis</i>		Wood	Timber; preferred for boat building and house construction	Eastern Wetlands	Odisha	Utility	Click Here
170	<i>Hedychium coronarium</i>	Dulon champa	Flower	Flowers used for bathing	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Hedychium coronarium</i>	Lok-lei	Rhizome	Rhizome cooked and used in eronba	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Hedychium coronarium</i>	Garland flower	Rhizome, stem	Rhizome and soft stem	Loktak lake	Manipur	Food	Click Here
171	<i>Hedyotis auricularia</i>	Langbankoukha	Shoots	Tender shoot cooked as ootti	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
172	<i>Hedychium flavum</i>	White ginger lily	Rhizome, stem	Rhizome and soft stem	Loktak Lake	Manipur	Food	Click Here
173	<i>Hedychium marginatum</i>	Red ginger lily	Rhizome, stem	Rhizome and soft stem	Loktak Lake	Manipur	Food	Click Here
174	<i>Hedyotis corymbosa</i>		Whole plant	Diarrhoea	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Hedyotis corymbosa</i>	Khet papra	Leaves	Leaves leaf decoction used for urinary infections	Tripura	Tripura	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
175	<i>Hedyotis diffusa</i>	Bonjaluk	Leaves, shoots	Leaves, shoots cooked as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
176	<i>Heliotropium curassavicum</i>				Cooch Behar district	West Bengal		Click Here
	<i>Heliotropium curassavicum</i>				Cooch Behar district	West Bengal		Click Here
177	<i>Heliotropium indicum</i>	Hati-suria		Used as antiseptic in minor cuts and wounds	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Heliotropium indicum</i>	Indian heliotrope			Barpeta district	Assam		Click Here
	<i>Heliotropium indicum</i>	Hatisur			Cooch Behar district	West Bengal		Click Here
	<i>Heliotropium indicum</i>	Chelukondigida	Whole plant		Hassan district	Karnataka		Click Here
178	<i>Hemidesmus indicus</i>	Indian sarsaparilla, country sarsaparilla	Roots	Root paste used for stomach pain	Sunderbans	West Bengal	Medicinal	Click Here
179	<i>Homalomena aromaticum</i>	Aromatic homalomena		Used in cosmetics and as vegetable	BarbilaBeel of Nalbari district	Assam	Food/ Utility	Click Here
180	<i>Hibiscus tiliaceus</i>	(Sea hibiscus)	Wood	Timber used as firewood; fibre extracted from bark	Eastern Wetlands	Odisha	Utility	Click Here
181	<i>Heritiera fomes</i>	(Sundari tree)	Wood	Timber used for boat building	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Heritiera littoralis</i>		Wood	Wood used as timber. Preferred for boat building and house construction	Eastern Wetlands	Odisha	Utility	Click Here
182	<i>Hibiscus tiliaceus</i>		Wood	Timber (firewood); fibre extracted from bark	Eastern Wetlands	Odisha	Utility	Click Here
183	<i>Hemiadelphis polysperma</i>				Cooch Behar district	West Bengal		Click Here
184	<i>Heliotropium ovalifolium</i>				Cooch Behar district	West Bengal		Click Here
185	<i>Hydrilla spp.</i>			Aquatic oxygenator	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
186	<i>Hydrilla verticillata</i>	Hydrilla		Used in aquaria; good oxygenator; eaten by some fishes	BarbilaBeel of Nalbari district	Assam	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Hydrilla verticillata</i>			Used as biofertilizer	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Hydrilla verticillata</i>	Waterhyme			Barpeta district	Assam		Click Here
	<i>Hydrilla verticillata</i>		Leaves, rhizome	Tender leaves and rhizome cooked as vegetables	Aravali district	Gujarat	Food	Click Here
	<i>Hydrilla verticillata</i>	Hydrilla	Shoots	Shoots used in worship during sasthi puja; also used as fish food.	Pardi Wetland, Valsad district	Gujarat	Cultural/ Utility	Click Here
	<i>Hydrilla verticillata</i>	Chinguidadala		Fish fodder, live crab packaging, organic manure	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Hydrilla verticillata</i>			Biofertilizer and ornamental species	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Hydrilla verticillata</i>	Paachigida	Whole plant		Hassan district	Karnataka		Click Here
	<i>Hydrilla verticillata</i>	Kaschra, jhanji	Whole plant	Whole plant oxygenator in waterbodies, fish food	Nadia district	West Bengal	Utility	Click Here
187	<i>Hydrolea zeylanica</i>	Lehti bon	Shoots	Shoots eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Hydrolea zeylanica</i>	Indraneel-bon	Leaves	Leaf used as antiseptic	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Hydrolea zeylanica</i>	Langulia	Whole plant	Whole plant used as food by poor people	Bhadrak district	Odisha	Food	Click Here
	<i>Hydrolea zeylanica</i>	Langulia		Supplementary food for poor	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Hydrolea zeylanica</i>				Cooch Behar district	West Bengal		Click Here
	<i>Hydrolea zeylanica</i>			Fried with brinjal and potatoes, mixed with cumin and chilies	Terai and Dooars	West Bengal	Food	Click Here
	<i>Hydrolea zeylanica</i>	Laangulika	Leaves		Hassan district	Karnataka		Click Here
	<i>Hydrolea zeylanica</i>		Whole plant	Whole plant considered medicinal by local residents	Tripura	Tripura	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
188	<i>Hydrilla Vallisneria</i>			Covers lakebed; major oxygen source	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
189	<i>Hydrocotyle sibthorpioides</i>	Horu manimoni	Leaves, shoots	Leaves, shoots eaten in fish curry, chutney	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Hydrocotyle sibthorpioides</i>	Water pennywort, lawn marshpennywort			Barpeta district	Assam		Click Here
	<i>Hydrocotyle sibthorpioides</i>				Cooch Behar district	West Bengal		Click Here
	<i>Hydrocotyle sibthorpioides</i>	Sarumanimuni	Leaves, stem	Leaf, stem liver and skin diseases	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Hydrocotyle sibthorpioides</i>	Kaadubrami	Leaves		Hassan district	Karnataka		Click Here
190	<i>Hygrophila auriculata</i>	Marsh barbel, kokilaksha	Leaves	Leaf extract used orally to increase hemoglobin levels	Pardi Wetland, Valsad district	Gujarat	Medicinal	Click Here
	<i>Hygrophila auriculata</i>	Koelikha	Leaves	Tender leaves are eaten as vegetables	Bhadrak district	Odisha	Food	Click Here
	<i>Hygrophila auriculata</i>	Koelekha	Leaves	Leafy vegetable	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Hygrophila auriculata</i>	Kate korasa or korati	Leaves	Used in traditional medicine and as leafy vegetable.	Gadhchiroli district	Maharashtra	Food/ medicinal	Click Here
	<i>Hygrophila auriculata</i>		Leaves	Leaves used for jaundice; seeds have diuretic properties	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Hygrophila auriculata</i>	Kule khara	Leaves	Fried singly or with vegetables and potatoes; cooked in curry with garlic powder	Terai and Dooars	West Bengal	Food	Click Here
	<i>Hygrophila auriculata</i>	Koolavalike	Leaves		Hassan district	Karnataka		Click Here
	<i>Hygrophila auriculata</i>	Koila khari, kulekhara	Leaves	Leaves steamed, cooked used in anemia, for blood disorders, hepatoprotective, antioxidant	Khunti district	Jharkhand	Food/ medicinal	Click Here
	<i>Hygrophila auriculata</i>	Kulekhara	Leaves	Leaves used as vegetable and increases blood haemoglobin	Tripura	Tripura	Food/ medicinal	Click Here
191	<i>Hygrophila difformis</i>				Cooch Behar district	West Bengal		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
192	<i>Hygrophila ringens</i>	Ikhyugondhi			Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
	<i>Hygrophila ringens</i>	Koolavalike	Leaves		Hassan district	Karnataka		Click Here
193	<i>Hygrophila polysperma</i>	Indian hygrophila			Barpeta district	Assam		Click Here
194	<i>Hygrophila salicifolia</i>				Cooch Behar district	West Bengal		Click Here
195	<i>Hygrophila schulli</i>	Kulekhara	Leaves	Vegetable (leaves), jaundice (leaves)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Hygrophila schulli</i>	Kanta kalia, kulekhara	Leaves, seeds, roots	Leaves, seeds, roots diuretic, jaundice, rheumatism, urinary tract infections, anaemia	Nadia district	West Bengal	Medicinal	Click Here
196	<i>Hygorhyza aristata</i>			Used as cattle fodder	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
	<i>Hygorhyza aristata</i>	Paachihullu			Hassan district	Karnataka		Click Here
197	<i>Ichnocarpus frutescens</i>	Black creeper	Roots		Sunderbans	West Bengal		Click Here
198	<i>Imperata cylindrica</i>	Cogon grass, jagggrass			Barpeta district	Assam		Click Here
	<i>Imperata cylindrica</i>	Najehullu			Hassan district	Karnataka		Click Here
199	<i>Ipomoea aquatica</i>	Water spinach, kangkung, swamp cabbage	Leaves, twigs		Sunderbans	West Bengal		Click Here
	<i>Ipomoea aquatica</i>	Water spinach	Leaves, twigs	Young leaves and twigs eaten as vegetable	BarbilaBeel of Nalbari district	Assam	Food	Click Here
	<i>Ipomoea aquatica</i>	Kolmou	Leaves, shoots	Leaves, shoots eaten in fish curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Ipomoea aquatica</i>	Kolmou	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Ipomoea aquatica</i>	Water spinach, river spinach, water morning glory, water convolvulus			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Ipomoea aquatica</i>	Kolamni	Shoots	Shoot cooked and eaten	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Ipomoea aquatica</i>	Nanibhaji		Fried or cooked; extract taken to control bleeding during childbirth	Aravali district	Gujarat	Food/ medicinal	Click Here
	<i>Ipomoea aquatica</i>	Water spinach / kalmi saag		Used as a vegetable; curry made from it is recommended during gastritis	Pardi Wetland, Valsad district	Gujarat	Food/ medicinal	Click Here
	<i>Ipomoea aquatica</i>	Kalamasaga	Shoots	Leafy shoots are fried or cooked	Bhadrak district	Odisha	Food	Click Here
	<i>Ipomoea aquatica</i>	Kalama sago	Leaves	Leafy vegetable, fuelwood, rope for nets, fencing, livestock shelters	Wetlands of south Odisha	Odisha		Click Here
	<i>Ipomoea aquatica</i>	Jari bhaji, bhonga bhaji		Used in stir-fried dishes and soups.	Gadhchiroli district	Maharashtra	utility	Click Here
	<i>Ipomoea aquatica</i>		Leaves, shoots	Green shoot and young leaves used as vegetable	Eastern Wetlands	Odisha	Food	Click Here
	<i>Ipomoea aquatica</i>	Water spinach	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
	<i>Ipomoea aquatica</i>		Twigs	Vegetable (twig)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Ipomoea aquatica</i>	Kolmou	Leaves, stem	Leaf, stem blood purification; nervous disorders	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Ipomoea aquatica</i>	Kalmi shak, jal kalmi		Fried with cumin and chilies, used as curry or salad.	Terai and Dooars	West Bengal	Food	Click Here
	<i>Ipomoea aquatica</i>	Ballesoppu	Leaves, shoots		Hassan district	Karnataka		Click Here
	<i>Ipomoea aquatica</i>	Water spinach	Leaves, roots, stem	Roots, leaves, stems used in stir fries and soups	Ansupa Lake	Odisha	Utility	Click Here
	<i>Ipomoea aquatica</i>	Kalmi ara / kalmi saag	Leaves, shoots	Leaves, shoots steamed or cooked potherb good for stomach, relieves constipation	Khunti district	Jharkhand	Food/ medicinal	Click Here
	<i>Ipomoea aquatica</i>	Jal kalmi	Leaves, twigs	Leaves and young twigs eaten as vegetable	Tripura	Tripura	Food	Click Here
	<i>Ipomoea aquatica</i>	Kalmi-lata	Shoots	Young shoots eaten as vegetable; juice is emetic, purgative, antidote to opium and arsenic poisoning	Nadia district	West Bengal	Food/ medicinal	Click Here
	<i>Ipomoea aquatica</i>	Water spinach	Leaves	Leaves laxative, cooling, used in piles and jaundice	North eastern part of Bihar	Bihar	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Ipomoea aquatica</i>	Water spinach		Rich in vitamins, used for jaundice, nervous disorders, eye diseases, antioxidant, constipation relief	Darbhanga district	Bihar	Medicinal	Click Here
200	<i>Ipomoea batatas</i>	Sweet potato	Roots	Tuberous roots	Sunderbans	West Bengal	Food	Click Here
201	<i>Ipomoea carnea</i>	Bush morning glory	Leaves	Leaves used as vegetable	BarbillaBeel of Nalbari district	Assam	Food	Click Here
	<i>Ipomoea carnea</i>	Goch-kolmou		Milky latex used in skin disease	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Ipomoea carnea</i>	Amari	Wood	Fuelwood, water-resistant stems for fishing nets, fencing for home and livestock	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Ipomoea carnea</i>	Kolibeeja	Leaves, roots		Hassan district	Karnataka		Click Here
	<i>Ipomoea carnea</i>	Dhol kalmi	Leaves	Leaves leaf juice has insecticidal properties	Nadia district	West Bengal	Medicinal	Click Here
202	<i>Ipomoea fistulosa</i>	Bush morning glory, pink morning glory		Invasive species, but used locally to demarcate house boundaries	Sunderbans	West Bengal	Utility	Click Here
	<i>Ipomoea fistulosa</i>	Bush morning glory		Used in biofencing and firewood	Barbilla Beel of Nalbari district	Assam	Utility	Click Here
	<i>Ipomoea fistulosa</i>	Naffat		Used in biofencing and firewood	Aravali district	Gujarat	Utility	Click Here
	<i>Ipomoea fistulosa</i>	Bush morning glory, besharam	Stem	Stem used in fencing; dry plant used as fuel	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Ipomoea fistulosa</i>		Stem	Spongy stems used in folk art	Cooch Behar district	West Bengal	Cultural	Click Here
203	<i>Ipomoea pes-caprae</i>	Beach morning glory, railroad vine, goat's foot convolvulus		For gonorrhoea, skin infection, rheumatism	Sunderbans	West Bengal	Medicinal	Click Here
204	<i>Ischaemum rugosum</i>	Kaducanehullu			Hassan district	Karnataka		Click Here
205	<i>Isachne globosa</i>			Green manure	Wetlands of South Odisha	Odisha	Utility	Click Here
206	<i>Juncus prismatocarpus</i>		Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
207	<i>Jatropha gossypifolia</i>	Bellyache bush, cotton-leaf physic nut	Roots, twigs	Twigs, roots for leprosy, stomach, blood purification	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
208	<i>Jussiaea repens</i>	Kesori ghah	Leaves	Leaves eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Jussiaea repens</i>	Ishing-kundo	Shoots	Shoot cooked as ootti	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Jussiaea repens</i>	Water primrose	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
	<i>Jussiaea repens</i>	Creeping primrose	Leaves	Leaf extract with milk used to cure jaundice	BarbilaBeel of Nalbari district	Assam	Medicinal	Click Here
209	<i>Jussiaea suffruticosa</i>	Tebo	Shoots	Shoot cooked as ootti	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
210	<i>Justicia quiqueatigida</i>		Leaves	Vegetable (leaf); jaundice (leaf)	Cooch Behar district	West Bengal	Food/ medicinal	Click Here
211	<i>Justicia adhatoda</i>	Malabar nut	Leaves	Leaves antitussive, bronchodilator, used in asthma	North eastern part of Bihar	Bihar	Medicinal	Click Here
212	<i>Kyllinga brevifolia</i>	Biskala			Cooch Behar district	West Bengal		Click Here
	<i>Kyllinga brevifolia</i>	Anantakondehullu	Roots		Hassan district	Karnataka		Click Here
213	<i>Kyllinga triceps</i>	Three-headed sedge	Leaves	Leaf juice used on skin injuries	Sunderbans	West Bengal	Medicinal	Click Here
214	<i>Kyllinga monocephala</i>	Mutha			Barpeta district	Assam		Click Here
215	<i>Lagenandra ovata</i>	Koomanagedde	Tuber		Hassan district	Karnataka		Click Here
216	<i>Launaea sarmentosa</i>	Beach lettuce		Juice used for rheumatism	Sunderbans	West Bengal	Medicinal	Click Here
217	<i>Lasia spinosa</i>	Kantakachu	Leaves	Vegetable (leaves)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Lasia spinosa</i>		Leaves	Tender leaves eaten as vegetable by local tribes	Tripura	Tripura	Food/ cultural	Click Here
218	<i>Lemna gibba</i>	Duckweed	Leaves	Leaves used raw or cooked as salad or vegetable	Talod Taluka, Sabarkantha district	Gujarat	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
219	<i>Lemanea australis</i>	Nung-sam		Dried, roasted filaments used as chutney with fishy aroma; fish substitute	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Cultural	Click Here
220	<i>Leersia hexandra</i>			Fodder.	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Leersia hexandra</i>	Marsh grass		Used as fodder	Barbila Beel of Nalbari district	Assam	Utility	Click Here
221	<i>Lemna minor</i>	Xoru-puni		Used as fish and duck food	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Lemna minor</i>	Common duckweed or lesser duckweed			Barpeta district	Assam		Click Here
	<i>Lemna minor</i>	Common duckweed		Used as animal feed (chickens, ducks, goats, cows, etc.) And fish feed; also used as green manure	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
222	<i>Lemna purpusila</i>	Duckweed		Fed on by water birds and fishes; destroys algae; promotes zooplankton	Barbila Beel of Nalbari district	Assam	Utility	Click Here
	<i>Lemna purpusila</i>	Duckweed plantae			Barpeta district	Assam		Click Here
223	<i>Lemna trisulca</i>	Ivy-leaved duckweed		Used as animal and fish feed	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
224	<i>Leucas aspera</i>	Thumbai, wild basil		Leaf juice for skin eruptions and swelling	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Leucas aspera</i>	Thumbai			Barpeta district	Assam		Click Here
	<i>Leucas aspera</i>	Garden leucas	Whole plant	Whole plant antiseptic, treats cold, cough, fever	North eastern part of Bihar	Bihar	Medicinal	Click Here
225	<i>Leucas plukenetii</i>	Durun	Leaves, flowers	Leaves, flowers eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
226	<i>Leucas longifolia</i>	Long-leaf leucas			Barpeta district	Assam		Click Here

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227	<i>Limnophila adscendens</i>	Limnophila	Leaves, shoots	Young shoots used as vegetables; decoction of leaves with black pepper used for stomach pain and intestinal worms; taken orally for weakness during pregnancy.	Pardi Wetland, Valsad district	Gujarat	Food/ Medicinal	Click Here
228	<i>Limnophila aromatica</i>	Loson ara, kuttra kapur	Leaves, shoots	Leaves, shoots steamed or cooked; used in chutney	Khunti district	Jharkhand	Food	Click Here
229	<i>Limnophila heterophylla</i>			Used as biofertilizer in winter crops	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Limnophila heterophylla</i>	Yellatti	Whole plant		Hassan district	Karnataka		Click Here
	<i>Limnophila heterophylla</i>		Leaves	Leaves leaf paste applied on wounds for quick healing	Tripura	Tripura	Medicinal	Click Here
230	<i>Limnophila indica</i>	Keralata	Leaves	Tender leaves are fried or cooked.	Bhadrak district	Odisha	Food	Click Here
	<i>Limnophila indica</i>	Keralata	Leaves	Leafy vegetable	Wetlands of sSouth Odisha	Odisha	Food	Click Here
	<i>Limnophila indica</i>			Antiseptic and carminative properties	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Limnophila indica</i>	Amaraghandi	Whole plant		Hassan district	Karnataka		Click Here
	<i>Limnophila indica</i>	Karpur	Leaves	Leaves edible; antiseptic; used in elephantiasis; leaf juice used externally in fever and internally in dysentery	Nadia district	West Bengal	Food/ Medicinal	Click Here
	<i>Limnophila indica</i>	Indian marshweed	Whole plant	Whole plant cough, asthma, antiseptic for wounds	North eastern part of Bihar	Bihar	Medicinal	Click Here
231	<i>Limnophila repens</i>	Aam-gondhi			Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
	<i>Limnophila repens</i>	Uli ara kapur	Leaves, shoots	Leaves, shoots added to chutney for mango-like flavour	Khunti district	Jharkhand	Food	Click Here
232	<i>Lindernia anagallis</i>	Neerogonisoppu	Whole plant		Hassan district	Karnataka		Click Here
233	<i>Lindernia ciliata</i>	Kaakaphala	Whole plant		Hassan district	Karnataka		Click Here
234	<i>Limnophila rugosa</i>	Loson ara kala kapur	Leaves, shoots	Leaves, shoots steamed or cooked; made into chutney	Khunti district	Jharkhand	Food	Click Here
235	<i>Lindernia crustacea</i>			Used to cure skin diseases	Aravali district	Gujarat	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Lindernia crustacea</i>	Phule		In constipation (children), diarrhoea (cattle)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Lindernia crustacea</i>	Bakapushpa	Whole plant		Hassan district	Karnataka		Click Here
	<i>Lindernia crustacea</i>	Indian lindernia			Barpeta district	Assam		Click Here
236	<i>Lindernia rotundifolia</i>		Fruits	Edible (fruit)	Koch Bihar District	West Bengal	Food	Click Here
237	<i>Lobelia alsinoides</i>				Koch Bihar District	West Bengal		Click Here
	<i>Lobelia alsinoides</i>	Bari ara / painmali	Leaves, shoots	Leaves, shoots steamed or cooked relieves constipation	Khunti district	Jharkhand	Medicinal	Click Here
238	<i>Lobelia zeylanica</i>		Leaves	Leaves wound healing	Tripura	Tripura	Medicinal	Click Here
239	<i>Ludwigia ascendens</i>	Pani khutura	Leaves, shoots	Leaves, shoots eaten fried	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Ludwigia ascendens</i>	Pani-khutura	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Ludwigia ascendens</i>	Jagal	Leaves, shoots	Tender leafy shoots are eaten fried or cooked with other vegetables	Bhadrak district	Odisha	Food	Click Here
	<i>Ludwigia ascendens</i>				Koch Bihar District	West Bengal		Click Here
	<i>Ludwigia ascendens</i>	Panikhutura	Leaves	Leaf jaundice and skin diseases	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Ludwigia ascendens</i>	Kerebendu	Whole plant		Hassan district	Karnataka		Click Here
	<i>Ludwigia ascendens</i>	Gaura sak	Whole plant	Whole plant used as vegetable by local tribe	Tripura	Tripura	Food	Click Here
	<i>Ludwigia ascendens</i>	Water primrose	Leaves	Leaves used in poultice for ulcers and other skin diseases	North eastern part of Bihar	Bihar	Medicinal	Click Here
240	<i>Ludwigia perennis</i>		Leaves	Skin disease (leaf)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Ludwigia perennis</i>		Leaves	Tender leaves boiled in oil and applied to reduce fever	Tripura	Tripura	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
241	<i>Ludwigia prostrata</i>		Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Ludwigia prostrata</i>	Jalajali	Leaves, shoots	Tender leafy shoots are eaten fried or cooked with other vegetables.	Bhadrak district	Odisha	Food	Click Here
	<i>Ludwigia prostrata</i>			Fish stupefier (plant)	Cooch Behar district	West Bengal	Utility	Click Here
242	<i>Lupinus perennis</i>	Pani long	Whole plant	Whole plant boiled in coconut oil for fever	Wetlands of Western Assam	Assam	Medicinal	Click Here
243	<i>Lysimachia ovovata</i>	Manipur loosestrife	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
244	<i>Marsilea minuta</i>	Pani tengeshi	Leaves, petiole	Leaves, petioles eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Marsilea minuta</i>	Pani-tengechi	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Marsilea minuta</i>	Ishingyensang		Aerial parts cooked as ootti	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Marsilea minuta</i>	Sumsumia	Leaves, petiole	Leaf and petiole are cooked in mustard oil	Bhadrak district	Odisha	Food	Click Here
	<i>Marsilea minuta</i>	Chichoda bhaji		Used in salads and as a souring agent in soups	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Marsilea minuta</i>		Leaves	Leaves used as vegetable	Eastern Wetlands	Odisha	Food	Click Here
	<i>Marsilea minuta</i>	Sunshni shak		Fried with brinjal and cumin	Terai and Dooars	West Bengal	Food	Click Here
	<i>Marsilea minuta</i>	Nerhurali	Whole plant		Hassan district	Karnataka		Click Here
	<i>Marsilea minuta</i>	Sushni	Leaves	Leaves used in salads or cooked as leafy greens	Ansupa Lake	Odisha	Food	Click Here
	<i>Marsilea minuta</i>	Chatom ara / sunsunia saag	Leaves	Leaves steamed or cooked. Also used for sleeplessness	Khunti district	Jharkhand	Food/ Medicinal	Click Here
	<i>Marsilea minuta</i>	Sushni sak	Leaves	Leaves eaten as vegetable; sedative; hypotensive	Nadia district	West Bengal	Food/ Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Marsilea minuta</i>	Dwarf water clover	Leaves	Leaves leaf decoction with ginger for cough and cold; given to lactating mothers	North eastern part of Bihar	Bihar	Medicinal	Click Here
245	<i>Marsilea quadrifolia</i>	Four-leaf clover fern, water clover	Leaves, twigs	Leaves with twigs	Sunderbans	West Bengal	Food	Click Here
	<i>Marsilea quadrifolia</i>	Water clover	Whole plant	Whole plant used in dysentery and urinary troubles	BarbillaBeel of Nalbari district	Assam	Medicinal	Click Here
	<i>Marsilea quadrifolia</i>	Water clover, european waterclover			Barpeta district	Assam		Click Here
	<i>Marsilea quadrifolia</i>	Water clover		Used as a vegetable.	Pardi Wetland, Valsad district	Gujarat	Food	Click Here
	<i>Marsilea quadrifolia</i>	Sunsunia	Leaves	Leafy vegetable	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Marsilea quadrifolia</i>	Panitengesi	Shoots	Tender shoot used as vegetable	Wetlands of Western Assam	Assam	Food	Click Here
	<i>Marsilea quadrifolia</i>	Water clover	Leaves	Leaves cooling, febrifuge, treats insomnia	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Marsilea quadrifolia</i>	Water shamrock	Leaves	Leaves used in psychopathy, ophthalmia, strangury, diarrhea, cough, bronchitis, leprosy	North eastern part of Bihar	Bihar	Medicinal	Click Here
246	<i>Melastoma malabathricum</i>	Phutkola	Leaves	Leaves eaten in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
247	<i>Mikania micrantha</i>	Bitter vine, mile- a-minute weed, climbing hemp weed			Barpeta District	Assam		Click Here
248	<i>Merremia tridentata</i>	Ilikivisoppu	Whole plant	Whole plants	Hassan district	Karnataka	Medicinal	Click Here
249	<i>Martynia annua</i>	Huliyuguru	Whole plant	Whole plants	Hassan district	Karnataka	Medicinal	Click Here
250	<i>Merremia emarginata</i>		Whole plant	Whole plant used as diuretic; in treatment of rheumatism and neuralgia	Nadia district	West Bengal	Medicinal	Click Here
251	<i>Mentha arvensis</i>	Wild mint	Leaves	Leaves digestive, carminative, treats nausea and headaches	North eastern part of Bihar	Bihar	Medicinal	Click Here
252	<i>Mimosa pudica</i>	Sensitive plant, touch-me-not, shame plant	Leaves, roots	Root for snakebite; leaf for swellings	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Mimosa pudica</i>	Sensitive plant, humble plant, shameplant, touch- me-not			Barpeta district	Assam		Click Here
	<i>Mimosa pudica</i>	Mutrumuni	Roots		Hassan district	Karnataka		Click Here
253	<i>Mollugo pentaphylla</i>	Kedarasi	Whole plant		Hassan district	Karnataka		Click Here
254	<i>Monochoria hastata</i>	Bhat meteka	Flower	Flowers eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Monochoria hastata</i>	Bor-meteka	Flower	Flowers are eaten as vegetables	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Monochoria hastata</i>	Demdem	Flower	The young inflorescences are cooked as vegetable.	Bhadrak district	Odisha	Food	Click Here
	<i>Monochoria hastata</i>	Kaupana		Cooked as vegetable	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Monochoria hastata</i>	Kar meteka	Leaves, flowers	Leaf, flower used as vegetable	Wetlands of Western Assam	Assam	Food	Click Here
	<i>Monochoria hastata</i>	Nukha	Shoots	Shoots cooked with vegetables or with fishes.	Terai and Dooars	West Bengal	Food	Click Here
	<i>Monochoria hastata</i>	Nilotpal	Leaves	Leaves, juice leaves edible; juice used in boils; tonic; alterative; used in insanity	Nadia district	West Bengal	Food/ Medicinal	Click Here
	<i>Monochoria hastata</i>	Monochoria	Roots	Root used in skin diseases, ulcers	North eastern part of Bihar	Bihar	Medicinal	Click Here
255	<i>Monochoria vaginalis</i>	Monochoria	Leaves, roots	Leaves are laxative; paste given to cattle with diarrhoea. Also used as vegetable and ornamental. Root used in toothache	Talod Taluka, Sabarkantha district	Gujarat	Food/ Medicinal/ Utility	Click Here
	<i>Monochoria vaginalis</i>	Bhat meteka	Flower	Flowers eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Monochoria vaginalis</i>	Nukha	Whole plant	Entire plant cooked in curries or with fishes	Terai and Dooars	West Bengal	Food	Click Here
	<i>Monochoria vaginalis</i>	Tamaara	Leaves		Hassan district	Karnataka		Click Here
	<i>Monochoria vaginalis</i>	Sadom lochkor ara, nanka	Leaves	Leaves steamed, cooked	Khunti district	Jharkhand	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Monochoria vaginalis</i>	Nanka	Leaves, roots	Root, leaves root chewed for toothache, asthma, stomach and liver complaints; leaves used in cough	Nadia district	West Bengal	Medicinal	Click Here
	<i>Monochoria vaginalis</i>	Pickerel weed	Leaves	Leaves tonic; leaf juice used for boils	North eastern part of Bihar	Bihar	Medicinal	Click Here
256	<i>Moringa oleifera</i>	Drumstick tree, horseradish tree, miracle tree	Leaves, flowers, fruits	Leaves, flowers, fruits (drumsticks)	Sunderbans	West Bengal	Food	Click Here
257	<i>Musa paradisiaca</i>	Plantain, cooking banana		Plantation	Sunderbans	West Bengal	Food	Click Here
	<i>Musa paradisiaca</i>	Banana	Whole plant	Whole plant (tree, fruit) wild and cultivated; banana trees sold during diwali, fruits for sale and domestic use	Maguri-Motapung Beel wetland, District of Tinsukia	Assam	Food/ Cultural	Click Here
258	<i>Murraya koenigii</i>	Curry leaf tree			Barpeta district	Assam		Click Here
259	<i>Murdannia nudiflora</i>		Whole plant		Hassan district	Karnataka		Click Here
260	<i>Najas indica</i>			Used as organic fertilizer	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
261	<i>N. nouchali</i> Burma	Tharoangangba	Petiole	Flower/petiole eaten as salad or singju (also religious use)	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
262	<i>Myriostachya wightiana</i>			Fodder	Eastern Wetlands	Odisha	Utility	Click Here
263	<i>Myriophyllum tetrandrum</i>				Cooch Bihar district	West Bengal		Click Here
264	<i>Najas graminea</i>		Whole plant		Hassan district	Karnataka		Click Here
	<i>Najas graminea</i>	Naiad	Leaves	Leaf paste applied to goiter and boils	North eastern part of Bihar	Bihar	Medicinal	Click Here
265	<i>Najas minor</i>			Staple food for herbivorous ducks and coots	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
	<i>Najas minor</i>	Brittle naiad or brittle waternymph			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
266	<i>Nannodiplax rubra</i>	Ronga-bhet	Flower, fruit	Fruit, flower fruits eaten raw; flowers for worship	Wetlands of Western Assam	Assam	Food/ Cultural	Click Here
267	<i>Native wild grasses</i>	Fodder grass		Grass-cut and sold; used as animal fodder, supports poultry farming	Maguri-Motapung Beel wetland, District of Tinsukia	Assam	Utility	Click Here
268	<i>Narenga porphyrocoma</i>	Singhutkambong		Infected inflorescence roasted, smashed with molasses and rice, eaten.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
269	<i>Nasturtium indicum</i>	Uchihangam		Cooked and eaten as vegetable	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
270	<i>Nelumbium speciosum</i>	Salkub sanga kamal	Tuber, stem, petiole	Petiole, stem, tubers boiled, cooked with tamarind	Khunti district	Jharkhand	Food	Click Here
271	<i>Nelumbo nucifera</i>	Lotus	Leaves, seeds	Seeds eaten; leaf paste used for treating burns	BarbilaBeel of Nalbari district	Assam	Food/ Medicinal	Click Here
	<i>Nelumbo nucifera</i>	Podum	Seeds, petiole	Petioles, seeds Seeds eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Nelumbo nucifera</i>	Lotus	Leaves, seeds, flower	Flowers, seeds, leaves-used in religious functions (e.g. Saraswati, bishwakarma, durga puja); sold for income	Maguri-Motapung Beel wetland, District of Tinsukia	Assam	Food/ cultural	Click Here
	<i>Nelumbo nucifera</i>	Podum	Rhizome, carpel, torus	Rhizome, carpel and torus eaten as vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Nelumbo nucifera</i>	Indian lotus, sacred lotus, bean of India			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Nelumbo nucifera</i>	Lotus	Whole plant	Carpels are eaten and considered superior to cereals, while rhizomes, seeds, petiole, and peduncle are consumed as vegetables, starch, or fried as vattal. Medicinally, the plant is used for skin diseases, ringworm, diarrhea, headache, piles, fever, and liver problems, with preparations made from its rhizome, leaves, flowers, seeds, and roots. It is also valued for its cooling, demulcent, cardiac, anti-inflammatory, antidiabetic, and cardiovascular properties	Diff. region of Rajasthan	Rajasthan	Food/ Medicinal	Click Here
	<i>Nelumbo nucifera</i>	Thambal	Whole plant	All parts used raw in salad; root cooked with molasses and eaten as snack	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Nelumbo nucifera</i>	Kamal	Flower, seeds	Seeds consumed raw; flowers/leaves used in rituals	Aravali district	Gujarat	Food/ Cultural	Click Here
	<i>Nelumbo nucifera</i>	Sacred lotus / kamal	Flower, roots, seeds	Flowers offered in temples; roots and seeds used in devotional practices; entire plant parts edible; root paste with lemon used for piles; dry petiole powder increases hemoglobin	Pardi Wetland, Valsad district	Gujarat	Food/ Medicinal/ Cultural	Click Here
	<i>Nelumbo nucifera</i>	Padma	Rhizome, seeds	Seeds are used as raw. Rhizomes are eaten as vegetable.	Bhadrak district	Odisha	Food	Click Here
	<i>Nelumbo nucifera</i>	Padma, kamala	Leaves, rhizome	Rhizomes (mrnuala) used as vegetable and for trade; circular leaves used for packaging	Wetlands of south Odisha	Odisha	Food/ Utility	Click Here
	<i>Nelumbo nucifera</i>	Kamal	Tuber, seeds	Seeds eaten raw, roasted, or ground into flour; tubers used in curries	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Nelumbo nucifera</i>	Sacred lotus	Leaves, rhizome, seeds, roots, petiole	Edible tender rootstock, petioles, leaves and seeds are edible. Rhizome used in diarrhoea, dysentery, and dyspepsia	Eastern Wetlands	Odisha	Food/ Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Nelumbo nucifera</i>	Indian lotus	Roots		Loktak Lake	Manipur		Click Here
	<i>Nelumbo nucifera</i>	Eph.	Petiole	Vegetable (underground part, petiole, peduncle)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Nelumbo nucifera</i>	Podum	Leaves, rhizome	Rhizome, leaf petiole, fruit used as vegetable, for sacred use and to treat dysentery	Wetlands of western Assam	Assam		Click Here
	<i>Nelumbo nucifera</i>	Paddma	Stem, petioles	Stems and petioles cut and cooked as curries with vegetables	Terai and Dooars	West Bengal	Food	Click Here
	<i>Nelumbo nucifera</i>	Tavare	Seeds, roots		Hassan district	Karnataka		Click Here
	<i>Nelumbo nucifera</i>	Lotus	Tuber, seeds	Edible tubers and seeds; young leaves also consumed	Ansupa Lake	Odisha	Food	Click Here
	<i>Nelumbo nucifera</i>	Lal/sada padma		Fresh fruits used as vegetable	Tripura	Tripura	Food	Click Here
	<i>Nelumbo nucifera</i>	Padma	Leaves, seeds, flowers	Seeds, leaves, flowers seeds edible; leaves used as food plates; flowers used in worship	Nadia district	West Bengal	Food/ Cultural	Click Here
	<i>Nelumbo nucifera</i>	Lotus	Seeds, rhizome	Seeds, rhizome seeds for skin diseases; rhizomes for piles, ringworm	North eastern part of Bihar	Bihar	Medicinal	Click Here
	<i>Nelumbo nucifera</i>	Purain (kamal)	Seeds, flower	Subsidiary food, flower and seeds as ritual item	Darbhanga district	Bihar	Food/ Cultural	Click Here
	<i>Nelumbo nucifera</i>	Indian lotus	Leaves, rhizome, seeds	Edible rhizomes, leaves, seeds; anti-diabetic, anti-inflammatory; used in traditional medicine and rituals	Darbhanga district	Bihar	Food/ Medicinal/ Cultural	Click Here
272	<i>Nephalium indicum</i>	Phunil	Shoots	Shoot used in eronba	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
273	<i>Neptunia natans</i>	Water mimosa	Seeds	Seeds consumed, often roasted or in traditional recipes	Ansupa Lake	Odisha	Food/ Cultural	Click Here
274	<i>Neptunia oleracea</i>	Ikathepi	Leaves, shoots	Leaves, shoots eaten in curry of chitala fish	Bordoï Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Neptunia oleracea</i>	Ikaithabi	Shoots	Shoot cooked as eronba or eaten raw as singju.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Neptunia oleracea</i>	Panilajkuli	Leaves	Tender leaves are eaten as vegetable	Bhadrak district	Odisha	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Neptunia oleracea</i>	Panilajakuli	Leaves	Tender leaves are used as leafy vegetables	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Neptunia oleracea</i>	Nidraganti	Leaves		Hassan district	Karnataka		Click Here
275	<i>Neptunia prostrata</i>	Panilajuk, kharai saak	Whole plant	Whole plant used as vegetable by Manipuri community	Tripura	Tripura	Food	Click Here
276	<i>Nitella minuta</i> Allen		Leaves	Leaf used as mosquito repellent	North eastern part of Bihar	Bihar	Utility	Click Here
277	<i>Nymphaea alba</i>	Boga bhet	Petiole, fruits, seeds	Fruits, petioles, seeds eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Nymphaea alba</i>	White water lily, European white water lily			Barpeta district	Assam		Click Here
	<i>Nymphaea alba</i>	Tharoangouba	Petiole, flower	Flower, petiole eaten as salad or singju (also has religious use)	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Nymphaea alba</i>	Boga vet	Stem, petioles	Stem vegetable; cures dysentery	Wetlands of western Assam	Assam	Food/ Medicinal	Click Here
	<i>Nymphaea alba</i>	Bhent		Subsidiary food	Darbhanga district	Bihar	Food	Click Here
278	<i>Nymphaea indica</i>	Banana plant, robust marshwort, water snowflake			Barpeta district	Assam		Click Here
279	<i>Nymphaea lotus</i>	Salkub sanga kumudini	Tuber, petiole, stem	Petiole, stem, tubers boiled, cooked with tamarind	Khunti district	Jharkhand	Food	Click Here
280	<i>Nymphaea nouchali</i>	Blue lotus	Rhizome, seeds	Rhizomes powdered for piles; cures dental decay; seeds edible	Barbila Beel of Nalbari district	Assam	Medicinal	Click Here
	<i>Nymphaea nouchali</i>	Bhet	Fruits	Fruit edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Nymphaea nouchali</i>	Indian blue water lily/Indian water lily			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Nymphaea nouchali</i>	Indian water lily	Whole plant	Edible use: all parts eaten during food scarcity. Medicinal uses: seeds as cooling medicine for skin diseases; rhizomes used as demulcent, for dysentery and dyspepsia; flowers astringent and cardiogenic; rhizome + lawsonia inermis root (in rice water) for diabetes; flowers soaked overnight, water used for cardiac ailments; seed decoction applied to skin infections; raw rhizome a remedy for dysentery	Diff. region of Rajasthan	Rajasthan	Food/ medicinal	Click Here
	<i>Nymphaea nouchali</i>	Nilakain	Fruits	Ripen fruits are eaten raw	Bhadrak district	Odisha	Food	Click Here
	<i>Nymphaea nouchali</i>	Nilakanth	Rhizome, flower	Rhizomes (madhi) eaten after boiling Flowers used for ornamental and sacred purposes	Wetlands of South Odisha	Odisha	Food/ Cultural	Click Here
	<i>Nymphaea nouchali</i>	Futikand	Tuber, seeds	Seeds roasted and eaten Tubers used in traditional diets.	Gadhchiroli district	Maharashtra	Food/ cultural	Click Here
	<i>Nymphaea nouchali</i>	Blue lotus	Rhizome, seeds, roots	Rootstocks and seeds used as food Powdered rhizome used for piles and dyspepsia	Eastern wetlands	Odisha	Food/ Medicinal	Click Here
	<i>Nymphaea nouchali</i>				Cooch Behar district	West Bengal		Click Here
	<i>Nymphaea nouchali</i>	Bhet	Rhizome, petiole	Petiole, rhizome supplementary vegetable Used in urinary tract ailments	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Nymphaea nouchali</i>	White shapla	Petiole, stem	Young stems, petioles cut into small pieces and cooked as curries with vegetables	Terai and Doars	West Bengal	Food	Click Here
	<i>Nymphaea nouchali</i>	Naidele	Petiole, fruits		Hassan district	Karnataka		Click Here
	<i>Nymphaea nouchali</i>	Neel sapla	Petiole	Tender petiole used to increase haemoglobin	Tripura	Tripura	Medicinal	Click Here
	<i>Nymphaea nouchali</i>	Rakto kamal	Rhizome, seeds, flower	Rhizomes, seeds rhizomes and seeds edible; flowers used in worship	Nadia district	West Bengal	Food/ cultural	Click Here
	<i>Nymphaea nouchali</i>	Blue lotus	Rhizome	Rhizome powdered rhizome used for urinary issues, dyspepsia, diarrhoea, piles	North eastern part of Bihar	Bihar	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
281	<i>Nymphaea pubescens</i>	Mokua	Petiole	Petiole used as vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Nymphaea pubescens</i>	Tharoashangba			Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur		Click Here
	<i>Nymphaea pubescens</i>	Rangakain	Rhizome, petiole, seeds	Rhizome, petioles and seeds are eaten	Bhadrak district	Odisha	Food	Click Here
	<i>Nymphaea pubescens</i>	Rangakain	Rhizome, petiole, peduncles, seeds, flower	Rhizome, petioles and peduncles are consumed as food Roasted seeds (leuda) are eaten Flowers used for sacred and ornamental purposes	Wetlands of South Odisha	Odisha	Food/ cultural	Click Here
	<i>Nymphaea pubescens</i>	Water lily	Rhizome, seeds, roots	Edible rootstocks and seeds as food Powdered rhizome used for piles and dyspepsia	Eastern Wetlands	Odisha	Food/ medicinal	Click Here
	<i>Nymphaea pubescens</i>				Cooch Behar district	West Bengal		Click Here
	<i>Nymphaea pubescens</i>	Vat	Rhizome, petioles	Rhizomes, petioles cut into small pieces and cooked as curries with vegetables	Terai and Dooars	West Bengal	Food	Click Here
	<i>Nymphaea pubescens</i>	Kenaidele	Leaves, roots		Hassan district	Karnataka		Click Here
	<i>Nymphaea pubescens</i>	Sada sapla	Pedicle	Tender pedicel used as vegetable	Tripura	Tripura	Food	Click Here
	<i>Nymphaea pubescens</i>	Saluk	Rhizome, stem, stalk, flower	Rhizome, stem, stalks, flowers all parts edible as vegetables	Nadia district	West Bengal	Food	Click Here
282	<i>Nymphaea rubra</i>	Red water lily	Roots, stem, seeds	Roots for dysentery Stems and seeds used as vegetable	BarbilaBeel of Nalbari district	Assam	Food	Click Here
	<i>Nymphaea rubra</i>	Ronga bhet	Fruits, petioles	Fruits, petioles – seeds eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Nymphaea rubra</i>	Ronga bhet	Fruits	Fruit edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Nymphaea rubra</i>				Koch Bihar District	West Bengal		Click Here
	<i>Nymphaea rubra</i>	Lal shapla	Stem, petioles	Young stems, petioles cut into small pieces and cooked as curries with vegetables	Terai and Dooars	West Bengal		Click Here
283	<i>Nymphaea stellata</i>	Water lilies		Aesthetic and ecological value	Nalsarovar Bird Sanctuary	Gujarat	Cultural	Click Here
	<i>Nymphaea stellata</i>	Star lotus	Stem, seeds	Stem and seeds used as vegetable	BarbilaBeel of Nalbari district	Assam	Food	Click Here
	<i>Nymphaea stellata</i>	Thariktha		Eaten as salad or singju	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Nymphaea stellata</i>	Blue egyptian lotus	Whole plant	Whole plant used as cardio tonic	North eastern part of Bihar	Bihar	Medicinal	Click Here
284	<i>Nymphoides cristata</i>	Crested floating heart	Fruits	Fruits are eaten	BarbilaBeel of Nalbari district	Assam	Food	Click Here
	<i>Nymphoides cristata</i>	Pani-seuli	Tuber	Tubers edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Nymphoides cristata</i>	Antartavre	Whole plant		Hassan district	Karnataka		Click Here
	<i>Nymphoides cristata</i>		Leaves	Leaf decoction used to treat anaemia	Tripura	Tripura	Medicinal	Click Here
285	<i>Nymphoides hydrophyllum</i>	Panikola	Seeds	Seeds eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Nymphoides hydrophyllum</i>	Kamal	Rhizome, stem	Rhizomes, stems edible when cooked	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Nymphoides hydrophyllum</i>				Cooch Behar district	West Bengal		Click Here
	<i>Nymphoides hydrophyllum</i>	Pan chuli	Leaves	Leaf leaf juice for jaundice and skin infection	Wetlands of Western Assam	Assam		Click Here
286	<i>Nymphoides indica</i>	Pani-seuli	Petiole	Petiole and stolons edible as vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Nymphoides indica</i>	Tharikthamacha	Petiole	Petiole eaten as singju or eronba.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Nymphoides indica</i>	Panchuli	Fruits	Ripen fruits are taken raw especially by children	Bhadrak district	Odisha	Food	Click Here
	<i>Nymphoides indica</i>				Cooch Behar district	West Bengal		Click Here
	<i>Nymphoides indica</i>	Buta bhet	Rhizome, petiole	Petiole, rhizome reduces fever	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Nymphoides indica</i>	Nertavre	Roots		Hassan district	Karnataka		Click Here
	<i>Nymphoides indica</i>	Penchuli	Whole plant	Whole plant used to treat insomnia	Tripura	Tripura	Medicinal	Click Here
	<i>Nymphoides indica</i>	Panchuli, chandmalla	Whole plant	Whole plant substitute for chiretta; febrifuge; used in jaundice	Nadia district	West Bengal	Medicinal	Click Here
	<i>Nymphoides indica</i>	Water snowflake	Whole plant	Whole plant substitute for swertia chirayita; used in fever and jaundice	North eastern part of Bihar	Bihar	Medicinal	Click Here
287	<i>Ocimum sanctum</i>	Holy basil, tulsi	Leaves	Leaves for immunity and infections	Sunderbans	West Bengal	Medicinal	Click Here
288	<i>Oenanthe javanica</i>	Pan tarori	Leaves, shoots	Leaves, shoots eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Oenanthe javanica</i>	Pani-dhania	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Oenanthe javanica</i>	Komprek	Leaves, shoots	Highly preferred shoot, leaf in singju	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Oenanthe javanica</i>	Java water dropwort	Whole plant		Loktak Lake	Manipur		Click Here
289	<i>Oldenlandia corymbosa</i>	Flat-top mille grains			Barpeta district	Assam		Click Here
	<i>Oldenlandia corymbosa</i>	Parpatahullu	Leaves		Hassan district	Karnataka		Click Here
290	<i>Oldenlandia stricta</i>	White mussaenda		Used traditionally	Sunderbans	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
291	<i>Opuntia stricta</i>	Prickly pear, erect prickly pear	Fruits	Baked fruit for whooping cough	Sunderbans	West Bengal	Medicinal	Click Here
292	<i>Oplismenus compositus</i>	Running mountaingrass			Barpeta district	Assam		Click Here
293	<i>Oplismenus burmanni</i>	Bidiruhullu			Hassan district	Karnataka		Click Here
294	<i>Oryza rufipogon</i>	Balunga	Grains	The grains are eaten in times of scarcity	Bhadrak district	Odisha	Food	Click Here
	<i>Oryza rufipogon</i>	Balunga	Grains	Grains eaten by local poor; plants used as fodder	Wetlands of South Odisha	Odisha	Food/ Utility	Click Here
	<i>Oryza rufipogon</i>	Devdhan	Seeds	Seeds harvested and cooked like rice	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Oryza rufipogon</i>		Grains	Edible grain	Eastern Wetlands	Odisha	Food	Click Here
	<i>Oryza rufipogon</i>	Kaadubatta			Hassan district	Karnataka		Click Here
295	<i>Oryza sativa</i>	Dhana	Grains	Grains used widely; residual plant materials used as fodder.	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Oryza sativa</i>	Dhan	Grains	Edible (grain)	Cooch Behar district	West Bengal	Food	Click Here
296	<i>Ottelia alismoides</i>	Panikola	Fruits	Fruits eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Ottelia alismoides</i>	Pani-kol	Fruits	Fruit edible	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Ottelia alismoides</i>	Panikundri	Shoots, flower buds	Tender shoots and flower buds are used as vegetables.	Bhadrak district	Odisha	Food	Click Here
	<i>Ottelia alismoides</i>	Panikunduri	Calyx	Lower part of the flower is eaten raw or cooked	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Ottelia alismoides</i>	Panikola	Leaves	Leaf poultice for fever	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Ottelia alismoides</i>	Koottagenasu	Leaves, seeds		Hassan district	Karnataka		Click Here
	<i>Ottelia alismoides</i>	Pani kala	Peduncle, flower buds	Tender peduncle, flower buds used as vegetable by rural people	Tripura	Tripura	Food	Click Here
	<i>Ottelia alismoides</i>	Parmikalla	Leaves, petiole, fruits	Leaves, petioles, fruit eaten as vegetable; fruit edible; plant used as rubefacient	Nadia district	West Bengal	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Ottelia alismoides</i>		Whole plant	Whole plant used in bone fractures	North eastern part of Bihar	Bihar	Medicinal	Click Here
297	<i>Oxalis corniculata</i>	Tengeshi	Leaves, shoots	Leaves, shoots – eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Oxalis corniculata</i>	Xoru-tengechi	Whole plant	Plant juice used in dysentery	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Oxalis corniculata</i>	Creeping woodsorrel, procumbent yellow sorrel			Barpeta District	Assam		Click Here
	<i>Oxalis corniculata</i>	Yensil		Cooked with pea seeds and eaten during meals	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Oxalis corniculata</i>	Ambiliti saga	Leaves	Leaves are cooked as vegetable	Bhadrak district	Odisha	Food	Click Here
	<i>Oxalis corniculata</i>	Ambushi	Leaves	Leaves used in salads and as a souring agent	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Oxalis corniculata</i>	Aamrul shak	Shoots	Tender shoots fried with cumin and chilies; sometimes made into chutney	Terai and Dooars	West Bengal		Click Here
	<i>Oxalis corniculata</i>	Hulisoppu	Whole plant		Hassan district	Karnataka		Click Here
298	<i>Oxalis debilis</i>	Tengeshi	Leaves	Leaves eaten fried or boiled	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Oxalis debilis</i>	Bor-tengechi	Leaves	Leaf paste used to treat cuts & skin infections	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
299	<i>Paederia scandens</i>	Skunk vine, stink vine	Whole plant	Whole plant (locally called gadal/gandhi)	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Paederia scandens</i>	Skunkvine, stinkvine, Chinese fever vine			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
300	<i>Pandanus fascicularis</i>	Screw pine, umbrella tree	Leaves, flowers	Flowers in perfumes; leaves for crafts; leaves used for making mats and baskets; flowers used in perfumes	Sunderbans	West Bengal	Utility	Click Here
	<i>Pandanus fascicularis</i>	Screw pine	Whole plant	The plant's fruits, shoots, and seeds are eaten in dishes and are rich in Vitamin A. Roots and leaves treat ailments like skin issues, diabetes, fever, and heart problems, while flowers act as a stimulant. Leaves are woven into mats and baskets, roots used as brushes, and male flowers distilled into kewda attar, oil, and water for perfumes, flavorings, and ceremonies.	Sompeta Wetland, Srikakulam district	Andhra Pradesh	Food/ Medicinal/ Utility	Click Here
301	<i>Pandanus odorifer</i>	Kedige	Leaves, fruits		Hassan district	Karnataka		Click Here
302	<i>Panicum repens</i>	Torpedograss, creeping panic, panic rampant, couch panicum, wainaku grass, quack grass, dog- tooth grass, bullet grass			Barpeta district	Assam		Click Here
	<i>Panicum repens</i>		Grains	Edible grain	Eastern Wetlands	Odisha	Food	Click Here
	<i>Panicum repens</i>		Whole plant	Whole plant used as forage	Tripura	Tripura	Food	Click Here
303	<i>Pedaliu murex</i>	Large caltrops, gokhru		Infusion for urinary diseases	Sunderbans	West Bengal	Medicinal	Click Here
304	<i>Parthenium hysterophorus</i>	Feverfew			Barpeta district	Assam		Click Here
305	<i>Paspalum distichum</i>			Fodder	Eastern Wetlands	Odisha	Utility	Click Here
306	<i>Pennisetum hohenackeri</i>	Noosehullu			Hassan district	Karnataka		Click Here
307	<i>Paspalum scrobiculatum</i>		Leaves	Leaves leaf paste used against ringworm	Tripura	Tripura	Medicinal	Click Here
308	<i>Persicaria barbata</i>				Cooch Behar district	West Bengal		Click Here
	<i>Persicaria barbata</i>	Koondemalle	Leaves, seeds		Hassan district	Karnataka		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
309	<i>Persicaria chinensis</i>	Behlu	Leaves, shoots	Leaves, shoots eaten in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Persicaria chinensis</i>	Belesoppu	Leaves, fruits		Hassan district	Karnataka		Click Here
310	<i>Persicaria glabra</i>	Bonriya ghehu	Leaves, shoots	Leaves, shoots eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Persicaria glabra</i>				Cooch Behar district	West Bengal		Click Here
	<i>Persicaria glabra</i>	Sannesoppu	Whole plant		Hassan district	Karnataka		Click Here
311	<i>Persicaria hydropiper</i>	Bihlongoni	Whole plant	Dried plant parts used to control mosquito	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Persicaria hydropiper</i>		Flowers	Fish stupefier (flowers)	Cooch Behar district	West Bengal	Utility	Click Here
	<i>Persicaria hydropiper</i>	Sannesoppu	Shoots	Leafy shoots	Hassan district	Karnataka	Food	Click Here
312	<i>Persicaria orientalis</i>	Taktir oing	Leaves, shoots	Leaves, shoots eaten as vegetables	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
313	<i>Persicaria posumba</i>	Kengoi		Cooked with dry fish and eaten	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
314	<i>Phoenix paludosa</i>	Mangrove date palm, swamp date	Leaves, fruits	Edible fruits; leaves for fencing/thatching	Sunderbans	West Bengal	Utility	Click Here
	<i>Phoenix paludosa</i>	Hental	Fruits	Fruits are used as vegetable.	Bhadrak district	Odisha	Food	Click Here
315	<i>Phoenix sylvestris</i>	Wild date palm, silver date palm	Leaves, fruits	Fruits edible; dried leaves for fencing/brooms	Sunderbans	West Bengal	Food/ Utility	Click Here
316	<i>Phragmites karka</i>	Wild reed, elephant grass	Leaves	Leaves used for mats, fish baskets, and thatching materials	Sunderbans	West Bengal	Utility	Click Here
	<i>Phragmites karka</i>	Gondro		Roosting cover for waterfowl	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here
	<i>Phragmites karka</i>	Reed grass		Used in making household materials and fishing nets	BarbilaBeel of Nalbari District	Assam	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Phragmites karka</i>	Khagori		Used in hut roofing; as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Phragmites karka</i>	Noto		Canes used for making musical instruments Mats and baskets are prepared from it.	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Phragmites karka</i>			Fibre; mat making.	Eastern Wetlands	Odisha	Utility	Click Here
	<i>Phragmites karka</i>	Hulugilu	Whole plant		Hassan district	Karnataka		Click Here
	<i>Phragmites karka</i>		Culms	Culms used to make mats, baskets, paper	Tripura	Tripura	Utility	Click Here
	<i>Phragmites karka</i>		Rhizome, roots	Rhizome, roots used in treatment of diabetes; diaphoretic	North eastern part of Bihar	Bihar	Medicinal	Click Here
317	<i>Phyla nodiflora</i>	Turkey tangle, creeping lippia, frog fruit		Paste used for boils and ulcers	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Phyla nodiflora</i>	Turkey tangle fogfruit			Barpeta district	Assam		Click Here
	<i>Phyla nodiflora</i>	Fukti		Suppuration of boils (infusion)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Phyla nodiflora</i>	Kerehippali	Whole plant		Hassan district	Karnataka		Click Here
318	<i>Phyllostachys edulis</i>	Bamboo shoots		Collection for household use and selling in the market	Maguri-Motapung Beel wetland, District of Tinsukia	Assam	Utility	Click Here
319	<i>Physalis minima</i>	Pokmou	Seeds	Seeds eaten raw	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
320	<i>Pistia stratiotes</i>	Water lettuce	Leaves	Food for fishes; leaf juice used for chronic diseases	BarbilaBeel of Nalbari district	Assam	Medicinal/ Utility	Click Here
	<i>Pistia stratiotes</i>	Bor-puni		Used as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Pistia stratiotes</i>	Water cabbage, water lettuce, nile cabbage, shellflower			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Pistia stratiotes</i>	Kang-jao	Leaves	Leaf cooked as ootti or eronba; also fodder/ poultry feed	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Utility	Click Here
	<i>Pistia stratiotes</i>	Water lettuce		Used as manure and as ornamental plant in ponds and aquariums.	Pardi Wetland, Valsad District	Gujarat		Click Here
	<i>Pistia stratiotes</i>	Borajhanji		Used as duck and pig food	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Pistia stratiotes</i>	Tokapana			Koch Bihar District	West Bengal		Click Here
	<i>Pistia stratiotes</i>	Borpuni	Whole plant	Whole plant skin disease, ulcer, piles	Wetlands of Western Assam	Assam	Medicinal	Click Here
	<i>Pistia stratiotes</i>	Anataragange	Whole plant		Hassan district	Karnataka		Click Here
	<i>Pistia stratiotes</i>	Khudipana	Whole plant	Whole plant, juice, leaves, ashes used as manure; juice for earache; ashes for ringworm; leaves in eczema, leprosy, ulcers	Nadia district	West Bengal	Medicinal	Click Here
	<i>Pistia stratiotes</i>	Chhota kumbhi	Whole plant	Whole plant antiseptic, antidiarrhetic, insecticide, used for asthma; also fodder and ornamental use	North eastern part of Bihar	Bihar	Medicinal	Click Here
321	<i>Plantago major</i>	Broadleaf plantain		Oxygenator and used as vegetable	Barbilla Beel of Nalbari District	Assam	Food/ Utility	Click Here
	<i>Plantago major</i>	Broadleaf plantain	Whole plant		Loktak lake	Manipur		Click Here
322	<i>Plantago erosa</i>	Yempat	Leaves	Leaf cooked and eaten occasionally.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
323	<i>Plumbago zeylanica</i>	White leadwort, ceylon leadwort	Roots		Sunderbans	West Bengal		Click Here
324	<i>Pogostemon crassicaulis</i>				Cooch Behar district	West Bengal		Click Here
325	<i>Pogostemon pumilus</i>				Cooch Behar district	West Bengal		Click Here
326	<i>Pogostemon stellatus</i>				Koch Bihar District	West Bengal		Click Here
327	<i>Polycarpon prostratum</i>	Paadamullu	Leaves		Hassan district	Karnataka		Click Here
328	<i>Polygala arvensis</i>	Bilichini	Whole plant		Hassan district	Karnataka		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
329	<i>Polygonum barbatum</i>	Joint weed			Barpeta District	Assam		Click Here
	<i>Polygonum barbatum</i>	Yelang	Shoots	Shoot eaten raw or cooked as singju	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Polygonum barbatum</i>	Nara	Leaves	Leaves are eaten as vegetable	Bhadrak district	Odisha	Food	Click Here
	<i>Polygonum barbatum</i>		Leaves	Leaves are eaten as leafy vegetables	Wetlands of south Odisha	Odisha	Food	Click Here
	<i>Polygonum barbatum</i>		Roots	Root has astringent and cooling properties	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Polygonum barbatum</i>	Knot grass	Leaves, stem	Tender stem and leaves	Loktak Lake	Manipur	Food	Click Here
	<i>Polygonum barbatum</i>	Bekh-unjubaz	Whole plant	Seeds, roots, root-stock, whole herb seeds relieve colic pain; roots are astringent; herb gives blue dye; used in piles, jaundice, debility	Nadia district	West Bengal	Medicinal	Click Here
	<i>Polygonum barbatum</i>		Leaves, seeds	Leaves, seeds seeds relieve colic and fever	North eastern part of Bihar	Bihar	Medicinal	Click Here
330	<i>Polygonum chinense</i>	Modhuxuleng	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Polygonum chinense</i>	Angomyensil	Shoots	Shoot cooked with peas	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
331	<i>Polygonum glabrum</i>	Bihongi	Shoots	Tender leafy shoots are cooked as vegetable	Bhadrak district	Odisha	Food	Click Here
	<i>Polygonum glabrum</i>		Leaves	Tender leaves eaten as leafy vegetables	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Polygonum glabrum</i>		Leaves	Infusion of leaves used for colic pain	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Polygonum glabrum</i>		Leaves, stem	Leaves, stem treats jaundice, strangury, cystitis; used to unlock bone	North eastern part of Bihar	Bihar	Medicinal	Click Here
332	<i>Polygonum hydropiper</i>	Water pepper or marshpepper knotweed			Barpeta district	Assam		Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Polygonum hydropiper</i>		Whole plant	Plant juice used in diuretic cases	Eastern Wetlands	Odisha	Medicinal	Click Here
	<i>Polygonum hydropiper</i>	Bihlongoni	Leaves	Leaf leaf juice for skin and uterine issues	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Polygonum hydropiper</i>	Water pepper	Seeds	Seeds used as a pungent spice or medicinal seed	Ansupa Lake	Odisha	Medicinal	Click Here
	<i>Polygonum hydropiper</i>	Pakurmul, panimaricha	Whole plant	Whole herb decoction as oral contraceptive; infusion in uterine disorders; gives yellow dye; fish poison	Nadia district	West Bengal	Medicinal	Click Here
333	<i>Polygonum molle</i>	Leibungtharam	Leaves, shoots	Leaf/shoot cooked and eaten (also fodder)	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ utility	Click Here
334	<i>Polygonum japonicum</i>	Siranigesoppu	Whole plant		Hassan district	Karnataka		Click Here
335	<i>Polygonum orientale</i>	Bara panimirich	Whole plant	Whole plant used as tonic and vulnerary	Nadia district	West Bengal	Medicinal	Click Here
	<i>Polygonum orientale</i>	Ladyfingers	Whole plant	Whole plant, seeds same as above jaundice, strangury, bone unlocking, cystitis	North eastern part of Bihar	Bihar	Medicinal	Click Here
336	<i>Polygonum perfoliatum</i>	Asiatic tearthumb	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
337	<i>Polygonum plebejum</i>	Small water pepper	Twigs	Twigs (used as 'chikuni')	Sunderbans	West Bengal	Food	Click Here
	<i>Polygonum plebejum</i>	Okthum	Shoots	Shoot cooked and eaten occasionally.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Polygonum plebejum</i>		Leaves	Boils (leaf)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Polygonum plebejum</i>	Chemti sag, dubia sag	Whole plant	Whole plant used in bowel disorders and pneumonia	Nadia district	West Bengal	Medicinal	Click Here
338	<i>Pongamia pinnata</i>	Indian beech, pongam, karanja	Seeds, flower	Seed oil for scabies; flowers for diabetes	Sunderbans	West Bengal	Medicinal	Click Here
339	<i>Pontederia crassipes</i>	Pani-meteka		Used for making bags; as biofertilizer	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
340	<i>Polygonum sagittatum</i>	Arrowleaf tearthumb	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
341	<i>Pontederia cordata</i>	Pickerel rush	Leaves, seeds	Seeds and young leaves	Ansupa Lake	Odisha	Food	Click Here
342	<i>Pontederia hastata</i>	Vansha kachu	Leaves	Leaves (decoction) used to heal boils by Tripuri tribe	Tripura	Tripura	Medicinal	Click Here
343	<i>Porteresia coarctata</i>		Grains	Foodgrain	Eastern wetlands	Odisha	Food	Click Here
344	<i>Portulaca oleracea</i>	Malbhog-sak	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Portulaca oleracea</i>	Common purslane	Leaves, stem		Loktak Lake	Manipur		Click Here
	<i>Portulaca oleracea</i>	Gonisoppu	Leaves		Hassan district	Karnataka		Click Here
345	<i>Potamogeton natans</i>	Floating pondweed		Food for cattle	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
346	<i>Potamogeton crispus</i>				Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
	<i>Potamogeton crispus</i>			Provides shade for fishes and food for ducks and waterfowls	Nadia district	West Bengal	Utility	Click Here
347	<i>Pouzolzia zeylanica</i>	Graceful pouzolziabush			Barpeta district	Assam		Click Here
348	<i>Pseudoraphis spinescens</i>			Fodder.	Eastern Wetlands	Odisha	Utility	Click Here
349	<i>Pteridium aquilinum</i>		Whole plant		Hassan district	Karnataka		Click Here
350	<i>Potamogeton nodosus</i>	Kotigedde	Whole plant		Hassan district	Karnataka		Click Here
351	<i>Ranunculus sceleratus</i>	Bon-dhonia		Used in burns and swellings	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Ranunculus sceleratus</i>			Vegetable (plant)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Ranunculus sceleratus</i>		Seeds	Juice, seeds juice used in rheumatism, dysuria, asthma, pneumonia; seeds in kidney trouble	Nadia district	West Bengal	Medicinal	Click Here
	<i>Ranunculus sceleratus</i>		Leaves, seeds	Leaves, seeds contains protoanemonin; toxic to livestock	North eastern part of Bihar	Bihar	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
352	<i>Ricinus communis</i>	Castor bean, castor oil plant	Seed	Seed oil used for dermatitis	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Ricinus communis</i>	Aeranda	Leaves	Warmed leaves bandaged over abdomen to relieve pain	Aravali district	Gujarat	Medicinal	Click Here
353	<i>Rotala densiflora</i>	Densely flowered rotala			Barpeta district	Assam		Click Here
	<i>Rotala densiflora</i>				Cooch Behar District	West Bengal		Click Here
354	<i>Rorippa indica</i>	Kaadusasive	Leaves		Hassan district	Karnataka		Click Here
355	<i>Rotala fimbriata</i>	Kolijuttu	Leaves, stem		Hassan district	Karnataka		Click Here
356	<i>Rotala indica</i>				Cooch Behar district	West Bengal		Click Here
357	<i>Rotala rosea</i>				Cooch Behar district	West Bengal		Click Here
358	<i>Rotala rotundifolia</i>	Pani-leheti	Shoots	Shoot juice used to treat cold, cough and fever	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Rotala rotundifolia</i>		Flowers	Worship (flowers)	Cooch Behar district	West Bengal	Cultural	Click Here
	<i>Rotala rotundifolia</i>		Whole plant	Whole plant ornamental, used for flower display in shallow water	Tripura	Tripura		Click Here
359	<i>Rumex crispus</i>	Curly dock	Leaves, roots	Leaves are eaten in salads, soups, or as potherbs with a lemony flavor; roasted seeds serve as a coffee substitute. Roots act as a laxative, tonic, and aid digestion and skin health. Due to oxalic acid, excess use may cause mineral loss, kidney stones, gout, or acidity.	Different regions of Rajasthan	Rajasthan		Click Here
360	<i>Rumex dentatus</i>	Toothed dock, aegean dock			Barpeta District	Assam		Click Here
	<i>Rumex dentatus</i>	Kukur jibwa	Shoots	Tender shoots cooked as curries with vegetables or fish	Terai and Dooars	West Bengal	Food	Click Here
361	<i>Rumex nepalensis Spreng</i>	Torongkhongchak	Leaves, shoots	Leaf and shoot cooked (also poultry and animal fodder).	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Utility	Click Here
	<i>Rumex nepalensis Spreng</i>	Nepal dock	Leaves	Young leaves	Loktak Lake	Manipur	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Rumex nepalensis Spreng</i>	Bon paleng	Leaves	Leaf juice applied on burns	Wetlands of western Assam	Assam	Medicinal	Click Here
362	<i>Rungia repens</i>	Koodagasale	Whole plant		Hassan district	Karnataka		Click Here
363	<i>Rungia quinqueangularis</i>	Kauwa saag	Leaves, shoots	Leaves, shoots steamed Cooked potherb good for stomach comfort, relieves constipation	Khunti district	Jharkhand	Food/ Medicinal	Click Here
364	<i>Saccharum officinarum</i>	Sugarcane	Stalk	Stalk cultivated near wetlands for commercial purposes	Maguri-Motapung Beel wetland, District of Tinsukia	Assam	Utility	Click Here
365	<i>S. indica</i>			Fodder.	Eastern Wetlands	Odisha	Utility	Click Here
366	<i>Saccharum spontaneum</i>	Wild sugarcane, kans grass		Used as fodder, thatching, and rope	Sunderbans	West Bengal	Utility	Click Here
	<i>Saccharum spontaneum</i>	Wild sugarcane	Grass	Grass used along waterbodies	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
	<i>Saccharum spontaneum</i>	Kanhua		Used for making ropes, broom; as fodder	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Saccharum spontaneum</i>	Tandi/payal	Whole plant	Young shoots used as fodder Whole plant used for thatching Flowering culms used for making ropes	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Saccharum spontaneum</i>	Kash		Broom making (inflorescence)	Cooch Behar district	West Bengal	Utility	Click Here
	<i>Saccharum spontaneum</i>	Kaadukabbu	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
367	<i>Saccolipsis interrupta</i>			Fodder.	Eastern Wetlands	Odisha	Utility	Click Here
368	<i>Sagittaria latifolia</i>	Arrowhead	Tuber	Tubers starchy, boiled or roasted similar to potatoes	Ansupa Lake	Odisha	Food	Click Here
369	<i>Sagittaria guyanensis</i>	Bogin	Rhizome, roots	Rhizome rhizomes eaten as vegetable	Nadia district	West Bengal	Food	Click Here
370	<i>Sagittaria sagittifolia</i>	Arrowhead		Good oxygenator; useful in fish-breeding wetlands	BarbilaBeel of Nalbari district	Assam	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Sagittaria sagittifolia</i>	Jathipotia	Leaves	Leaf paste used to treat insect bite	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Sagittaria sagittifolia</i>	Koukha	Roots	Root cooked with molasses; also used in eronba and traditional pokada (fried).	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Sagittaria sagittifolia</i>	Muya	Roots	Cooked roots are eaten.	Bhadrak district	Odisha	Food	Click Here
	<i>Sagittaria sagittifolia</i>	Sasyache kan/pan kasu	Tuber	Starchy tubers boiled, roasted, or used like potatoes.	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Sagittaria sagittifolia</i>	Arrowhead	Tuber		Loktak Lake	Manipur		Click Here
	<i>Sagittaria sagittifolia</i>	Pani-kochu	Leaves	Leaf antiseptic; used in snake/insect bites	Wetlands of western Assam	Assam	Medicinal	Click Here
	<i>Sagittaria sagittifolia</i>	Banadagida	Tuber		Hassan district	Karnataka		Click Here
	<i>Sagittaria sagittifolia</i>	Lochkor, chotokut	Leaves	Leaves boiled, water squeezed, cooked as potherb relieves constipation	Khunti district	Jharkhand	Medicinal	Click Here
	<i>Sagittaria sagittifolia</i>	Tir-mukhi	Tuber	Tubers consumed as vegetable by local tribes	Tripura	Tripura	Food	Click Here
	<i>Sagittaria sagittifolia</i>	Muyamuya, chotokut	Leaves, rhizome	Rhizome, leaves rhizomes eaten as vegetable; leaves used in skin diseases	Nadia district	West Bengal	Food/ Medicinal	Click Here
	<i>Sagittaria sagittifolia</i>		Roots	Roots used as purgative and for cough	North eastern part of Bihar	Bihar	Medicinal	Click Here
371	<i>Salicornia brachiata</i>	Glasswort, samphire, pickleweed	Leaves, shoots	Leaves and young shoots	Sunderbans	West Bengal	Food	Click Here
372	<i>Salvadora persica</i>	Toothbrush tree, miswak, salt bush	Whole plant	Plant parts used in salads and fried snacks	Sunderbans	West Bengal	Food	Click Here
373	<i>Salvinia cucullata</i>			Fodder and manure	Eastern Wetlands	Odisha	Utility	Click Here
374	<i>Salvinia adnata</i>		Whole plant		Hassan district	Karnataka		Click Here
375	<i>Salvinia molesta</i>	Giant salvinia		Used as biofertilizer	BarbilaBeel of Nalbari district	Assam	Utility	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Salvinia molesta</i>	Bor-puni		Used as biofertilizer in rice fields	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
376	<i>Schoenoplectus lacustris</i>	Kouna	Shoots	Tender shoot eaten raw by children; also used in handicrafts and mats for religious/household use.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food/ Utility	Click Here
377	<i>Scirpus articulatus</i>	Khubahi		Subsidiary food	Darbhanga district	Bihar	food	Click Here
378	<i>Scirpus grossus</i>	Santara / beduan	Leaves, stalk	Inflorescence stalks and leaves used for mats (poor man's cushion).	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Scirpus grossus</i>		Tuber	Tuber purgative and cough remedy	North eastern part of Bihar	Bihar	Medicinal	Click Here
379	<i>Scoparia dulcis</i>	Modhu mehari	Leaves, shoots	Leaves, shoots eaten fried	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	food	Click Here
	<i>Scoparia dulcis</i>	Meetha pat		Used to treat cough	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Scoparia dulcis</i>	Manitumbe	Whole plant		Hassan district	Karnataka		Click Here
	<i>Scoparia dulcis</i>		Whole plant	Whole plant used for stomach ache, kidney problems, stones	Tripura	Tripura	Medicinal	Click Here
380	<i>Smilax ovalifolia</i>	Red-berried bamboo brier	Roots		Sunderbans	West Bengal		Click Here
381	<i>Sesbania javanica</i>	Kathosola		Used as green manure due to high nitrogen content.	Wetlands of south Odisha	Odisha	Utility	Click Here
	<i>Sesbania javanica</i>	Kereagase	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
382	<i>Sesbania bispinosa</i>				Cooch Behar district	West Bengal		Click Here
383	<i>Sesbania rostrata</i>	Manager			Darbhanga district	Bihar		Click Here
384	<i>Setaria punctata</i>		Seeds	Seeds used to prepare special curry	Tripura	Tripura	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
385	<i>Solanum indicum</i>	Bhekuri	Fruits	Fruits eaten raw	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
386	<i>Solanum nigrum</i>	Black nightshade or blackberry nightshade			Barpeta district	Assam		Click Here
	<i>Solanum nigrum</i>	Black nightshade	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
387	<i>Solanum torvum</i>	Hati bhekuri	Fruits	Fruits eaten raw	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
388	<i>Sonneratia apetala</i>	Keruan	Fruits	Fruits are eaten raw	Bhadrak district	Odisha	Food	Click Here
389	<i>Sonneratia caseolaris</i>	Orua	Fruits	Fruits are used as vegetable and also consumed as raw	Bhadrak district	Odisha	Food	Click Here
390	<i>Sphaeranthus indicus</i>	Borousmi		Mouth sore (infusion)	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Sphaeranthus indicus</i>	Moodugattinagida	Whole plant		Hassan district	Karnataka		Click Here
391	<i>Sphaerostephanos unitus</i>	Tuberous sword fern, tuber ladder fern, erect sword fern, narrow sword fern, ladder fern, herringbone fern			Barpeta district	Assam		Click Here
392	<i>Sphagneticola calendulacea</i>	Gargari	Whole plant		Hassan district	Karnataka		Click Here
393	<i>Spilanthes acmella</i>	Chin-lengbi	Shoots	Shoot cooked and eaten.	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Spilanthes acmella</i>	Hoommugalli	Leaves		Hassan district	Karnataka		Click Here
394	<i>Spilanthes paniculata</i>	Marshang (m)	Leaves, shoots, flower	Flowers, leaves, shoots eaten in chicken curry with spice pepper	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Spilanthes paniculata</i>	Kusu	Leaves	Catarrhal fever (leaf), inflammation of eyes	Cooch Behar district	West Bengal	Medicinal	Click Here
	<i>Spilanthes paniculata</i>	Suhani	Flowers	Flower chewed for tonsillitis, toothache	Wetlands of Western Assam	Assam	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
395	<i>Spinacia oleracea</i>	Spinach	Leaves		Loktak Lake	Manipur		Click Here
396	<i>Spirodela polyrhiza</i>	Puni		Used as fish and duck food	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Spirodela polyrhiza</i>	Giant duckweed		Used as manure	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Spirodela polyrhiza</i>	Kolikale	Whole plant		Hassan district	Karnataka		Click Here
	<i>Spirodela polyrhiza</i>		Whole plant	Whole plant good source of compost; primary producer in aquatic ecosystem	Nadia district	West Bengal	Utility	Click Here
397	<i>Spondias pinnata</i>	Wild mango, hog plum, ambarella	Fruits		Sunderbans	West Bengal		Click Here
398	<i>Sporobolus diandrus</i>	Naribaladahullu	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
399	<i>Stellaria media</i>	Morolia	Leaves, shoots	Leaves, shoots eaten in curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Stellaria media</i>	Morolia	Leaves	Used as leafy vegetable	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Food	Click Here
	<i>Stellaria media</i>	Yerumkeirum	Shoots	Shoot cooked and eaten as vegetable.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Stellaria media</i>	Chickweed	Leaves, stem	Young stem and leaves	Loktak Lake	Manipur	Food	Click Here
400	<i>Stephania japonica</i>	Tape vine, japanese stephania	Leaves	Leaves used	Sunderbans	West Bengal	Food	Click Here
401	<i>Suaeda maritima</i>			Fodder	Eastern Wetlands	Odisha	Utility	Click Here
402	<i>Suaeda monoica</i>			Fodder	Eastern Wetlands	Odisha	Utility	Click Here
403	<i>Suaeda nudiflora</i>			Fodder	Eastern Wetlands	Odisha	Utility	Click Here
404	<i>Swietenia macrophylla</i>	Honduras mahogany, big-leaf mahogany	Seeds, fruits	Seed/fruit used	Sunderbans	West Bengal	Food	Click Here

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405	<i>Swietenia mahagony</i>	West indian mahogany, cuban mahogany		Used medicinally	Sunderbans	West Bengal	Medicinal	Click Here
406	<i>Tamarix troupii</i>	Tamarix, salt cedar		Remedy for ulcers	Sunderbans	West Bengal	Medicinal	Click Here
407	<i>Tamarindus indica</i>	Tamarind	Twigs, fruits	Twigs, green raw fruits	Sunderbans	West Bengal	Food	Click Here
408	<i>Tephrosia purpurea</i>	Purple tephrosia, wild indigo		Paste with turmeric for eczema	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Tephrosia purpurea</i>	Adavinili	Leaves		Hassan district	Karnataka		Click Here
409	<i>Tephrosia villosa</i>	Hairy tephrosia	Roots	Root paste for scrotal pain; tooth brushing	Sunderbans	West Bengal	Medicinal	Click Here
410	<i>Thespesia populnea</i>	Portia tree, indian tulip tree, pacific rosewood	Roots	Roots used for cholera and dysentery	Sunderbans	West Bengal	Medicinal	Click Here
	<i>Thespesia populnea</i>	Portia tree	Roots	Root used for medicine for skin diseases	Eastern Wetlands	Odisha	Medicinal	Click Here
411	<i>Torenia crustacea</i>	Kaachidoria		Used to treat boils	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
412	<i>Trapa bispinosa</i>	Singhara	Stem, fruits	Stems used as vegetable; fruits are nutritious	BarbilaBeel of Nalbari district	Assam	Food	Click Here
	<i>Trapa bispinosa</i>	Paniphal	Fruits	Fruits, kernels fruits edible; kernels ground and used like cereal flour	Nadia district	West Bengal	Food	Click Here
	<i>Trapa bispinosa</i>	Singhara		Subsidiary food	Darbhanga district	Bihar	Food	Click Here
413	<i>Trapa natans</i>	Water chestnut	Fruits	Used as vegetable; fruits are delicious and nutritious	BarbilaBeel of Nalbari District	Assam	Food	Click Here
	<i>Trapa natans</i>	Singori	Fruits		Kakalbhagi and Borakota wetland, Sonitpur district	Assam		Click Here
	<i>Trapa natans</i>	Water chestnut			Barpeta district	Assam		Click Here
	<i>Trapa natans</i>	Water chestnut / singhara	Fruits	Edible: fruits eaten raw or cooked; flour made from fruits (especially in China); staple food in Asia cultivated in ponds and lakes.	Different regions of Rajasthan	Rajasthan	Food	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Trapa natans</i>	Heikak	Petiole, fruits	Fruits eaten raw or cooked; petiole used in eronba and singju.	Imphal-East, Imphal-West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
	<i>Trapa natans</i>	Shingoda	Seeds, fruits	Seeds eaten raw; fruits used to treat diarrhoea	Aravali district	Gujarat	Food/ Medicinal	Click Here
	<i>Trapa natans</i>	Pani singada	Fruits	Fruits are consumed as raw and also used as vegetable.	Bhadrak district	Odisha	Food	Click Here
	<i>Trapa natans</i>	Pani singada	Fruits	Fruits eaten raw or cooked; flour prepared from nuts during scarcity.	Wetlands of South Odisha	Odisha	Food	Click Here
	<i>Trapa natans</i>	Shingala	Seeds	Seeds boiled, dried, or ground into flour.	Gadhchiroli district	Maharashtra	Food	Click Here
	<i>Trapa natans</i>	Water caltrop	Stem, petiole	Stem and petiole	Loktak Lake	Manipur	Food	Click Here
	<i>Trapa natans</i>	Water caltrop	Fruits	Fruit benefits spleen, helps cure diarrhoea; seeds edible	Ansupa Lake	Odisha	Medicinal	Click Here
	<i>Trapa natans</i>	Makino (water chestnut)	Seeds	Seeds cooling and stomachic	North eastern part of Bihar	Bihar	Medicinal/ utility	Click Here
	<i>Trapa natans</i>	Shingori	Seeds	Seeds eaten roasted or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Trapa natans</i>	Paniphal	Fruits	Edible (fruit)	Cooch Behar district	West Bengal	Food	Click Here
	<i>Trapa natans</i>	Singori	Fruits	Fruit raw fruit for urinary problems	Wetlands of Western Assam	Assam	Food/ medicinal	Click Here
	<i>Trapa natans</i>	Mullukombu	Fruits, seeds	Fruits, seeds	Hassan district	Karnataka	Food	Click Here
	<i>Trapa natans</i>	Daa jo, pani-phal	Fruits	Fruits eaten raw (sweet fruits) benefits spleen, cures diarrhoea (ijisr. Net, researchgate.Net, agronomyjournals.Com)	Khunti district	Jharkhand	Food/ medicinal	Click Here
	<i>Trapa natans</i>	Water chestnut, singhara	Fruits	Edible fruit (raw or cooked), used in festival food, anti-inflammatory, anti-diarrheal, urinary tonic	Darbhanga district	Bihar	Food/ medicinal	Click Here
414	<i>Tylophora tenuis</i>	Slender tylophora	Roots		Sunderbans	West Bengal		Click Here
415	<i>Typha angustata / angustifolia</i>	Gha-bajariyu		Habitat for birds; filters water	Nalsarovar Bird Sanctuary	Gujarat	Utility	Click Here

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	<i>Typha angustata / angustifolia</i>	Hati ghanh	Rhizome, shoots	Shoots, rhizome eaten raw or cooked	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Typha angustata / angustifolia</i>	Narrowleaf cattail, patera	Sprouts, stalk cores, spikes, pollen, roots	Edible parts include sprouts, stalk cores, bloom spikes, ripe pollen, and roots; also used for roofing thatch.	Pardi Wetland, Valsad district	Gujarat	Food/ utility	Click Here
	<i>Typha angustata / angustifolia</i>	Hangala, paulula	Whole plant	Whole plant used as thatching material for sheds and huts.	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Typha angustata / angustifolia</i>	Pan kanis, pater, buyali	Shoots, roots, pollen	Shoots eaten raw or cooked; roots ground into flour; pollen used as thickener.	Gadhchiroli district	Maharashtra	Food/ utility	Click Here
	<i>Typha angustata / angustifolia</i>	Anejundu	Rhizome		Hassan district	Karnataka		Click Here
	<i>Typha angustata / angustifolia</i>		Rhizome	Rhizome astringent and diuretic	North eastern part of Bihar	Bihar	Medicinal	Click Here
416	<i>Typha domingensis</i>	Southern cattail	Rhizome, leaves, seeds	Rhizomes edible (starchy and nutritious), used as food for muskrats, to build dens/platforms. Seed hairs for nest lining. Leaves used for thatching, chairs	Talod Taluka, Sabarkantha district	Gujarat	Food/ Utility	Click Here
	<i>Typha domingensis</i>	Gha bajariyu	Flowers	Powdered inflorescence used on cuts to stop bleeding and aid healing	Aravali district	Gujarat	Medicinal	Click Here
	<i>Typha domingensis</i>	Anejundu	Flowers	Inflorescence	Hassan district	Karnataka	Utility	Click Here
	<i>Typha domingensis</i>	Hogla	Leaves, roots	Rootstock, leaves rootstock used as diuretic and astringent; leaves used for thatching and fencing	Nadia district	West Bengal	Medicinal/ Utility	Click Here
417	<i>Typha elephantina</i>	Elephant grass		Used for medicinal purposes	BarbilaBeel of Nalbari district	Assam	Medicinal	Click Here
	<i>Typha elephantina</i>	Hogla	Leaves	Thatching roof, mat and basket making (leaves)	Cooch Behar district	West Bengal	Utility	Click Here
418	<i>Typha spp.</i>	Cattail	Whole plant	Almost all parts edible—rhizomes, young leaves, seed heads, pollen	Ansupa Lake	Odisha	Food	Click Here
419	<i>Typhonium trilobatum</i>	Bengal arum, indian arum	Leaves, petiole		Sunderbans	West Bengal		Click Here
	<i>Typhonium trilobatum</i>	Kharkon	Leaves, petiole	Young leaves, petioles pounded with garlic, dried chili, black cumin; used in mixed vegetables	Terai and Dooars	West Bengal	Food	Click Here

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420	<i>Urena lobata</i>	Caesarweed or congo jute			Barpeta district	Assam		Click Here
421	<i>Utricularia aurea</i>				Cooch Behar district	West Bengal		Click Here
	<i>Utricularia aurea</i>		Whole plant	Whole plant used as nutritional supplement	Tripura	Tripura	Medicinal	Click Here
422	<i>Utricularia bifida</i>		Whole plant		Hassan district	Karnataka		Click Here
423	<i>Urochloa panicoides</i>	Kaaduragihullu	Aboveground biomass	Aboveground biomass	Hassan district	Karnataka	Utility	Click Here
424	<i>Utricularia aurea</i>				Cooch Behar district	West Bengal		Click Here
425	<i>Vallisneria spiralis</i>	Tape grass, eelgrass		Aquatic oxygenator; food source	Nalsarovar Bird Sanctuary	Gujarat	Food/ Utility	Click Here
	<i>Vallisneria spiralis</i>	Tape grass, eelgrass	Leaves	Leaves eaten by humans and used as fodder.	Talod taluka, Sabarkantha district	Gujarat	Food/ Utility	Click Here
	<i>Vallisneria spiralis</i>	Tape grass	Leaves	Used as fertilizer; young leaves eaten in salads	BarbilaBeel of Nalbari district	Assam	Food/ Utility	Click Here
	<i>Vallisneria spiralis</i>	Feta kutali		Used as biofertilizer	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Utility	Click Here
	<i>Vallisneria spiralis</i>	Tape grass, eel grass			Barpeta district	Assam		Click Here
	<i>Vallisneria spiralis</i>	Eelgrass/tape grass	Leaves	Leaves used as poultry feed for chickens.	Pardi Wetland, Valsad district	Gujarat	Utility	Click Here
	<i>Vallisneria spiralis</i>	Hasururbongida	Leaves		Hassan district	Karnataka		Click Here
	<i>Vallisneria spiralis</i>	Tapegrass	Leaves	Leaves stomachic, refrigerant, demulcent	North eastern part of Bihar	Bihar	Medicinal	Click Here
426	<i>Vernonia cinerea</i>	Tridax daisy			Barpeta district	Assam		Click Here
427	<i>Vetiveria zizanioides</i>	Vetiver, khus		Used in household materials	BarbilaBeel of Nalbari district	Assam	Utility	Click Here
	<i>Vetiveria zizanioides</i>	Bena	Roots, flowers	Thatching material, inflorescence used in mats and wall hangings, roots used as screens (khas khas), emits sweet fragrance when wet	Wetlands of South Odisha	Odisha	Utility	Click Here
	<i>Vetiveria zizanioides</i>	Binnaghas	Underground part	Fever (underground part)	Cooch Behar district	West Bengal	Medicinal	Click Here

S. no.	Latin name	Common name/ local name	Parts used	Uses	Region	State	Uses category	Link/ Source
	<i>Vetiveria zizanioides</i>	Kataraghas		Flood fighter, sikki handicraft	Darbhanga district	Bihar	Utility	Click Here
428	<i>Vitex negundo</i>	Five-leaved chaste tree, horseshoe vitex, Chinese chaste tree	Leaves	Leaves used medicinally	Sunderbans	West Bengal	Medicinal	Click Here
429	<i>Wedelia calandulacea</i>	Creeping ox-eye, Singapore daisy		Rich in medicinal properties	Sunderbans	West Bengal	Medicinal	Click Here
430	<i>Viola pilosa Blume</i>	Huikhong	Shoots	Shoot cooked with dried fish and eaten	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 districts	Manipur	Food	Click Here
431	<i>Wolffia globosa</i>	Panidala	Leaves	Leaves are cooked as vegetable	Bhadrak district	Odisha	Food	Click Here
432	<i>Vicia angustifolia</i>	Common vetch	Leaves, stem	Tender stem and leaves	Loktak Lake	Manipur	Food	Click Here
433	<i>Wedelia chinensis</i>	(Osbeck) merrill	Whole plant	Whole plant used in elephantiasis, otalgia, wounds, ulcers, dyspepsia, anaemia	North eastern part of Bihar	Bihar	Medicinal	Click Here
434	<i>Xanthium mekongensis</i>		Bark	Bark provides tannin; used for furniture making.	Eastern Wetlands	Odisha	Utility	Click Here
435	<i>Xanthium moluccensis</i>				Eastern Wetlands	Odisha		Click Here
436	<i>Xanthium indicum</i>	Aagra, okra	Shoots	Young shoots cooked with vegetables or fish as curry	Terai and Dooars	West Bengal	Food	Click Here
437	<i>Xanthium strumarium</i>	Ogara	Leaves, shoots	Leaves, shoots eaten in fish curry	Bordoi Bam Bird Sanctuary, Lakhimpur district	Assam	Food	Click Here
	<i>Xanthium strumarium</i>	Agora	Leaves	Leaf paste used in fungal infection	Kakalbhagi and Borakota wetland, Sonitpur district	Assam	Medicinal	Click Here
	<i>Xanthium strumarium</i>	Burweed			Barpeta district	Assam		Click Here
	<i>Xanthium strumarium</i>	Agora	Seeds, fruits	Seeds, fruit used for chronic malaria, urinary issues, smallpox	Wetlands of western Assam	Assam	Medicinal	Click Here
438	<i>Xylocarpus granatum</i>		Wood	Wood used as timber.	Eastern Wetlands	Odisha	Utility	Click Here
439	<i>Zizania latifolia</i>	Ishingkambong	Shoots, inflorescence	Infected inflorescence roasted and eaten with molasses and rice (shoot is best fodder for cervus eldi eldi, the brow- antlered deer).	Imphal-East, Imphal- West, Thoubal, and Bishnupur-4 disctricts	Manipur	Food/ Utility	Click Here

Wetlands are celebrated for their role in supporting birds and wildlife, but their importance as a source of food is largely forgotten. Communities have depended on wetland plants—from makhana in Bihar to leafy greens in Uttar Pradesh—for centuries for nutrition, livelihoods and culture. Today, these foods are fast disappearing from our plates, pushed out by neglect, pollution, climate change and a lack of recognition in policy.

This CSE report maps and document India's wetland plants, recording more than 400 species and the communities that continue to use and protect them. It shows how these plants can contribute to food security, health and climate resilience, if only their value is acknowledged.

By bringing these hidden foods back into focus, this report calls for wetlands to be restored not just as ecosystems, but also as living food systems that sustain both people and nature.



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