

Promoting Ecotourism at Parvati Arga Bird Sanctuary : A lesser known Ramsar Site from Eastern Uttar Pradesh

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Abstract:

Wetlands are one of the most productive ecosystems of the world, which provide a variety of ecosystem services that sustain our lives. Each year, wetlands attract thousands of tourists due to their 'cultural' ecosystem services such as aesthetic, recreational and spiritual value. People are naturally attracted to wetlands due to its beautiful appearance, which according to Ramsar Convention, result in unsustainable tourism, adverse impact on the wetland ecosystem, inappropriate tourist behaviour and poorly conceived tourism strategies. Hence, there is an urgent need for promoting good ecotourism practices. Situated in Gonda district, Parvati Arga Bird Sanctuary with its natural endowment is a potential ecotourism hub as it possesses a rich biodiversity, more specifically, avifaunal richness which makes this wetland an attraction due to its bird congregation. Parvati Arga Bird Sanctuary is a Ramsar Site which offers a unique opportunity to amalgamate ecotourism with local livelihood. Ideas, scope and activities promoting ecotourism at Parvati Arga Wetland are discussed in this paper.

Keywords: Wetland, Ramsar Site, Parvati Arga Bird Sanctuary, Gonda, Biodiversity, Ecotourism.

Introduction

Parvati Arga Bird Sanctuary, situated in Gonda district of Uttar Pradesh, is one of the largest natural floodplain wetlands in the state. Formed in the Terai region of Gangetic plains and covering an area of approximately 722.8 hectares, the sanctuary harbours a rich diversity of flora and fauna. The wetland lies under Tarabganj tehsil of Gonda district and comprises two freshwater oxbow lakes, one is Parvati and the other is Arga, and so named because these are situated near an old Shiva-Parvati temple. The area has been declared as a bird sanctuary on 23rd May, 1990, as it harbours several rare and migratory avifauna. Also, the sanctuary provides wintering and breeding grounds to a number of migratory and local aquatic bird species. Parvati Arga Bird Sanctuary has been designated as a Ramsar Site on 2nd December, 2019. Parvati Arga

wetland experiences tropical climate with hot waves during summer season followed by rainy and winter season. During summers the temperature goes upto 45°C while in winters, it lowers upto 5°C. The wetland remains full of water throughout the year despite experiencing extreme hot (Khanna, 2015). According to RIS 2020 data, the average rainfall is around 1240 mm. Sandy loam soil is present. Parvati Arga wetland is a part of the Gangetic Plains whose soil consists of serially compacted layers of sand. The soil of the region is alluvium found in the flood plains of Ganga River. The depth of the alluvium is good and in certain locations it can be excavated to a depth of 100m without finding any evidence of bedrocks. Areas of sandy alluvium is surrounded by jheel (local name for shallow wetland) and the substrate of the jheel bed has high humus content. The wetland usually has a permanent presence of water, the predominant source of which is rainwater. This feeds the ground water and also keeps the water levels largely stable. pH of water is circumneutral (5.5-7.4). Water salinity is less than 0.5g/l thus constituting fresh water. Mesotrophic condition prevails in the water i.e. moderate amount of suspended nutrients are present in the water.

The sanctuary harbours a rich floral and faunal diversity and is home to several rare and migratory avifauna. The reason for which is attributed to the favourable physical components existing in the area. The floristic survey (Khanna, 2015) of the wetland indicates high number of species richness. A total of 153 species (angiosperms and pteridophytes) belonging to 106 genera and 47 families are found in Parvati Arga wetland. The detailed examination points out that 37 species are aquatic, 46 species are marshy, 9 species are both aquatic and marshy, 3 species are marshy and also present in moist places whereas 58 species occur in moist places. Assessment of the aquatic flora (Singh *et.al.*, 2016) shows that hydrophytes are commonly found in the 'tals', 'nalas' and other water reservoirs with low lying areas. Most of the tals hold water throughout the year but only a few smaller and less deeper ones may dry up during the summers. These lakes get filled with water during the rainy season as part of Saryu river flood area. As the flood water subsides, these waterbodies get roofed with a number of hydrophytes.

Parvati Arga Bird Sanctuary also harbours a rich faunal diversity. According to RIS (2020), the site comes under category A4iii of the Important Bird Area (IBA) criteria. Approximately 135 species belonging to 33 families of avifauna are found here. The wetland harbours many rare, threatened, common, native and migratory birds. The wetland is a wintering ground for the following bird species- Northern shoveler, Green-winged Teal, Eurasian Teal, Godwall, Common Pochard, Tufted Duck, Ferruginous Duck. Certain species such as Oriental Darter, Darter, Greater Spotted Eagle, Woolly-necked Stork, Black-necked Stork, White-rumped Vulture, Purple Gallinule and Black-headed Ibis, use wetland as habitat and contribute to its biodiversity. Whereas for certain species, the wetland provides habitat and hence these species contribute to the biodiversity of the site. These include Sarus Crane, Indian Vulture, Painted Stork, Egyptian Vulture, Indian Cormorant and River Tern. These floodplains play a major role in supporting and maintaining fish diversity and the wetland is a breeding and spawning ground for many riverine fish species. Also, a variety of reptiles, insects, butterflies and mammals are also sighted in the sanctuary. According to the recent data, around

136 species of plants *viz.* terrestrial plants, grasses, hydrophytes and pteridophytes and lower plant group such as algae, fungi and phytoplanktons are present here. The faunal diversity includes around 153 avifaunal species, 39, 7, 20 and 15 species of pisces, amphibia, reptile and mammal respectively (Saryu canal project). These floodplains play a crucial role in supporting and maintaining fish diversity and the wetland is a breeding and spawning ground for many riverine fish species. Also, a variety of reptiles, insects and mammals are also sighted in the sanctuary. Besides, many animal species which are native to the Indian subcontinent are found in the wetland (RIS, 2020).

However, over the recent years, land use dynamics pose a grave threat to the wetland. Wetland's eutrophication and shrinkage have been attributed to intensive agricultural practices, infrastructural development and use of fertilisers and insecticides in and around the wetland. According to CEPA (2025), the factors contributing to the wetland's degradation include the following- increase in siltation due to silt deposition, water run-off from adjacent villages, degraded bio fencing and lack of plantation, water pollution due to dumping of all sorts of waste around the wetland, open defecation and increased use of chemical inputs into farming; decrease in water level in Parvati Lake due to less rainfall, decline in ground water level and obstruction in water feeding streams. Other factors responsible for the wetland's degradation include community engagement in illegal activities such as restriction on the use of ecosystem services such as silt mining, aquaculture, irrigation, transportation, fishing and grazing, land dispute between farmers and forest department. Since Parvati Arga Wetland (Bird Sanctuary) is rich and heterogenous in biodiversity and is under threat due to various anthropogenic reasons, it is of utmost importance to conserve this Ramsar Site. Hence, conservation of this site is important because it not only serves as a crucial habitat for the innumerable species but also holds immense religious significance for the local communities. Therefore, conserving Parvati Arga Wetland would make it a potential hotspot for ecotourism, which needs to be promoted since it is a lesser known Ramsar Site.

According to The World Tourism Organisation, ecotourism is a form of tourism which possess the following characteristics: All nature based tourism in which the main motivation of the tourists is the observation and appreciation of nature and traditional culture of the place; ecotourism minimises negative impacts upon natural and socio-cultural environment and ecotourism supports the maintenance of natural areas which are used as ecotourism attractions by economically benefitting host and local communities and also providing them with employment and income. According to The Ramsar Convention on Wetlands, well- managed tourism in and around the wetlands may produce significant benefits, both environmental and economic, at site, regional and national levels. Local government and communities often benefit economically in terms of income and employment. The wetland in turn can benefit directly when the income from tourism (such as local products, entry fees, etc.) is directly used for conservation measures at the wetland site, thus integrating tourism with long term conservation. According to The International Ecotourism Society, Ecotourism is defined as "responsible travel to natural areas that potentially conserve the

environment, sustain the welfare of the local community and also involve interpretation as well as education, the latter being inclusive of both the staff and guests. Ecotourism is an amalgamation of conservation, communities along with sustainable travel. Ecotourism works on certain principles some of which include- minimising physical, social, behavioural and psychological impacts; building cultural as well as environmental awareness and respect; providing direct financial benefits for conservation; providing a positive platform to both the hosts and visitors; delivering indelible interpretative experiences to visitors that ultimately help in creating sensitivity towards the host country's environmental, political and social spheres; designing, constructing and operating low impact facilities and last but not the least, acknowledging the rights and spiritual beliefs of the Indigenous people in the community and working in partnership with them in creating empowerment.

Material and methods

Field visits to Parvati Arga Bird Sanctuary were undertaken in order to understand the natural environment of the wetland. Local communities residing near the bird sanctuary were consulted and information regarding change in the land use dynamics of the area along with the other information about the wetland was gathered. Also, Sohelwa Wildlife Division, Balrampur was consulted all sorts of primary as well as secondary data were collected. Data has also been collected through various online platforms, existing literature and local newspapers. Also, World Wetlands Day, 2025, which was held at Parvati Arga Bird Sanctuary was attended in order to understand, develop and promote ecotourism opportunities of this Ramsar Site.

Result and Discussions

Parvati Arga Bird Sanctuary has a strong potential for community-based, conservation-led ecotourism. With two connected lakes *viz.* Parvati and Arga, a huge congregation of resident and migratory birds and proximity to Ayodhya, Parvati Arga wetland has a potential of becoming an ecotourism hub (UP Ecotourism). A practical strategy for promoting ecotourism at Parvati Arga Bird Sanctuary are discussed below:

1. Developing bird watching as main attraction : Since Parvati Arga Wetland has a rich avifaunal diversity and is home to a large number of resident as well as migratory bird species, bird watching should be developed. For that purpose, observation points and birding trails should be made around suitable areas around the wetland. Bird hides and watch towers should be installed. Interpretation boards depicting specific characteristics of respective resident as well as migratory bird species should be set up throughout the wetland premises. Also. Youth from the nearby areas should be trained as nature and bird guides. Since the bird congregation occurs between November to mid-March, guided winter birding walks should be organised (UP Ecotourism).
2. Promoting homestays which are based on the concept of living with Nature : Homestays are a sustainable income source for the local communities and provide authentic cultural and environmental experience to the tourists. Locals providing homestays to the tourists will generate income which can ultimately be utilised in hosting visitors, providing them with locally famous

meals and also guiding them to the wetland's biodiversity and local attractions. Tourists will also get first hand experience regarding the wetland, its people, their traditions, knowledge, folklore, lifestyle and agricultural practices. Hence, homestays will provide sustainable development by encouraging eco friendly accommodations and reduce large scale infrastructure and ensure minimal disruption of the wetland environment (CEPA, 2025).

3. Conducting educational programmes on biodiversity and ecosystem services : In order to promote responsible ecotourism, awareness sessions regarding biodiversity and its conservation should be conducted for tourists. In order to emphasise on the importance of biodiversity and its conservation, guided tours, nature trail walks, interpretative signage and educational programmes should be organised for the tourists. Also, school and college going students should be invited to attend the education sessions in order to make them aware about the Parvati Arga wetland. This will ultimately develop a sense of conservation and ecological value and protection of the wetland (CEPA, 2025).
4. Develop Ayodhya-Parvati Arga Tourism corridor : Given the close proximity of Parvati Arga wetland with Ayodhya and Tikri Forest (the latter being highlighted for its potential to be developed as an ecotourism hub by the Government of India), a nature-culture tourism circuit between Ayodhya and Devi Patan should be developed which has already been discussed by the Government (Press Information Bureau).
5. Training local youth as "Wetland Mitras" or Wetland Guides : In order to encourage community participation in ecotourism and promote sustainable livelihood, local residents as wetland guides or mitras should be allotted. Since these locals possess knowledge about the region's biodiversity, culture and history, it will help provide authentic and informative experiences to the tourists. This initiative will encourage the local communities to take ownership of wetland's conservation effect and empower residents with new skills along with generating employment opportunities for them. These wetland guides or mitras ensure responsible tourism and also aware the tourists wetland's ecological importance. All this will ultimately benefit the environment as well as the local communities (CEPA, 2025).
6. Establishing a modest, high quality interpretation centre : Instead of starting with large, concrete tourism complex, establish a small Parvati Arga Interpretation Centre which could include a large map of the two lakes, bird photographs, information about Ramsar Sites, conservation strategies, threatened bird species and local history and temples. Since Parvati Arga Wetland supports a diverse group of animals and plant species, interpretation can go beyond bird watching.
7. Connecting nature tourism with cultural tourism : Since Ramsar identifies ancient temples found near the lakes as possessing religious significance (RIS, 2020), visitors should be taken to these temples also. This will provide knowledge to the tourists about the rich cultural heritage of the region along with the wetland.
8. Creating Parvati Arga Bird Festival : This annual signature event should include activities such as guided bird walks, photography, painting and bird identification and quiz competition for

children, local handicraft and authentic local cuisine stalls for the visitors along with showing folk performances by the local artists.

Given its rich biodiversity and other aspects, it is therefore important to promote Ecotourism of Parvati Arga Wetland and provide it the international recognition which this lesser known Ramsar Site truly deserves.

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