

Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

NOTE: It is important that you read the accompanying *Explanatory Note and Guidelines* document before completing this form.

1. Date this sheet was completed/updated:

April 24, 2001

FOR OFFICE USE ONLY.

DD	MM	YY

Designation date

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Site Reference Number

2. Country:

PAKISTAN

3. Name of wetland: Nurri Lagoon

4. Geographical coordinates: 24°30' N, 68°70' E

5. Altitude: (average and/or max. & min.) c. 50 metres

6. Area: (in hectares) c. 2,540

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)

The site is characterised by a very shallow, brackish-water lagoon with barren mudflats on the northern side and is situated in the Golaichi subdivision of Badin District. Due to the intrusion of the sea in this area, the salinity and sedimentation have increased in the wetland. This wetland is very important wintering site for waterbirds being shallow in depth and extending over a large area.

8. Wetland Type (please circle the applicable codes for wetland types as listed in Annex I of the *Explanatory Note and Guidelines* document.)

marine-coastal: A · B · C · D · E · F · G · H · I · J · K

inland: L · M · N · O · P · Q · R · Sp · Ss · Tp · Ts
· U · Va · Vt · W · Xf · Xp · Y · Zg · Zk

man-made: 1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9

Please now rank these wetland types by listing them from the most to the least dominant:

Sp, Q, J

9. Ramsar Criteria: (please circle the applicable criteria; see point 12, next page.)

1 · 2 · 3 · 4 · 5 · 6 · 7 · 8

Please specify the most significant criterion applicable to the site: 5

10. Map of site included? Please tick yes -or- no

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

11. Name and address of the compiler of this form:

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Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):

12. Justification of the criteria selected under point 9, on previous page. (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

Criterion 1: The site is a good representative example of a natural wetland, featuring a combination of brackish coastal and inland lagoons and mudflats.

Criterion 5: The site has consistently recorded very large concentrations of migratory waterbirds on a seasonal basis. For instance, the highest ever documented numbers of waterfowl in one season has been 114, 700 (Ghalib *et al* 1997). Many of these include species such as Shelducks, black/white/painted storks, painted/ Jack snipe, and lesser/larger crested terns.

13. General location: (include the nearest large town and its administrative region)

The wetland is situated near Golarchi in Badin District of Sindh Province, 190 km South East of Karachi.

14. Physical features: (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

The *Phuleli Gunni* Outfall drain falls into this wetland. It is connected with Jubho, Pateji, and Chobri wetlands. All these wetlands are inter-connected and ultimately drain into the tidal link. The water is brackish. Now it is turning saline due to the influx of drain water and effect of seawater. Water level is increasing due to the tidal effect.

15. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc.)

Not known.

16. Ecological features: (main habitats and vegetation types)

The *Nurri Lagoon* site comprises of four inter-connected shallow wetlands with very sparse vegetation. The only prominent vegetation type can be seen along the mudflats, which is *oryza* grass, especially during the summers. The wetland offers a good feeding and resting ground for a large number of waterbirds (particularly coots & anatids).

17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

Overall, the growth and diversity of wetland flora has been hindered by invasive species, such as clumps of *Typha* and occasional *Tamarix*.

18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

This site is particularly significant because it has been known to support very large concentrations of waterbirds in the recent past. Surveys which have been conducted regularly between 1972 and 1990, reveal an average of 50,000 birds in any given year, however the highest recorded total for any one year has reached 114,700 (Ghalib *et al*).

1997). Many of these include species such as black/white/painted storks, painted/ Jack snipe, and lesser/larger crested terns, gulls and ducks.

19. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

The site is source of livelihood for surrounding villages, primarily through fisheries. It is also a sanctuary for migratory birds and a breeding point for local species.

20. Land tenure/ownership of:

Almost all of the land is privately owned, with the exception of 77 hectares falling under the jurisdiction of the Board of Revenue.

21. Current land use:

The land is used primarily for fishing purposes throughout the year, while illegal hunting also takes place during the winter season. The area is under the control of the Pakistan Rangers. About 3,000-4,000 people are living in the vicinity of the wetland.

22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:

The *Nurri* wetland is imperilled because of population pressure on the dwindling natural resource base. There has been a dramatic increase in fishing and illegal hunting activities over the past two decades. Agricultural and industrial pollution from adjoining areas has accelerated the eutrophication process, which has hastened the spread of aquatic vegetation/weeds, leading to the disappearance of the open *wadi* areas.

23. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented)

The site is neither explicitly protected under any environmental legislation, nor having a management plan prepared.

24. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

None, at present.

25. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

The Zoological Survey Department (ZSD) has been undertaking survey and research of the avifauna of the area. Also, the National Institute of Oceanography (NIO) has been pursuing some biological studies with regard to the site.

26. Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)

While there is no site-specific conservation education programme, IUCN's Coastal Ecosystem Unit routinely

carries out awareness and environmental sensitisation activities, largely through accompanying students, local, and foreign visitors to various coastal mangrove sites in the vicinity of Karachi. Public awareness of environment, and particularly of national wetlands has been steadily increasing in the national media through contacts with a number of interested and competent environmental journalists. WWF for example, had inaugurated a Wetland Visitor Centre in the same week as World Wetland Day (February 2, 1999), which is due to be operational by the end of June 1999. Provincial government agencies such as the Sindh Wildlife Department and the Sindh Environment Protection Agency also carry out selected awareness campaigns, related to turtles conservation or coastal pollution. Although, environmental awareness and conservation education activities occur throughout the year, it should be noted that such activities tend to be clustered around specific occasions, such as World Wetlands Day, World Water Day, or World Environment Day.

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

None at present.

28. Jurisdiction: (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept. of Environment etc.)

Water and Power Development Authority (WAPDA) and the Rangers are the controlling authorities in the area.

29. Management authority: (name and address of local body directly responsible for managing the wetland)

1. Water and Power Development Authority (WAPDA)
WAPDA House, Lahore, Punjab.
Tel.: (92-42) 9202532, Fax: (92-42) 9202631
 2. Sindh Forest and Wildlife Department,
Molana Din Mohd. Wafi Rd., Saddar, Karachi, Tel.: (92-21) 9204952.
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30. Bibliographical references: (scientific/technical only)

Ghalib, S.A., Hasnain, S.A., and Razzaq, A. (forthcoming) Survey of the Avifauna of the Tidal Link Area 1998.

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