



# Information Sheet on Ramsar Wetlands

As approved by Rec.C.4.7 of the Conference of the Contracting Parties, Montreux, Switzerland - July 1990

NOTE: Please read the accompanying guidelines before attempting to complete this form. An example of a completed data sheet is also included.

Completed sheets should be returned to: T.A. Jones, Ramsar Database, IWRB, Slimbridge, Gloucester GL2 7BX, England

1. Country: PAKISTAN 2. Date: 20-01-92 3. Ref: office use only ZPK008

4. Name and address of compiler:  
T.A. Jones, IWRB/Ramsar Liaison Officer  
IWRB, Slimbridge, Gloucester GL2 7BX UK.

5. Name of wetland: HALEJI LAKE

6. Date of Ramsar designation: 23 July 1976

7. Geographical coordinates: 24°47'N 67°46'E

8. General location: (e.g. administrative region and nearest large town)  
15km west north west of Thatta, 75km east of Karachi, Thatta District, Sindh Province

9. Area: (in hectares) 1,704 ha

10. Wetland type: (see attached classification, also approved by Montreux Rec.C.4.7)

①, ⑥, Q

11. Altitude: (average and/or maximum & minimum)  
60m a.s.l.

12. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics) A perennial freshwater lake with associated marshes and adjacent brackish seepage lagoons, set in a stony desert. Originally a seasonal saline lagoon, the lake was formed in the 1930s by converting the lagoon into a water storage reservoir serving Karachi. The area is of international importance for breeding, passage & wintering water birds.

13. 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 lake was formed by bunding a natural depression where a saline lagoon used to form after seasonal rainfall. The reservoir was drained of saline water and re-flooded with fresh water by the diversion of the Jam branch canal carrying water from Kinghar Lake. A second canal, in the south west corner of the lake, is its main outlet. Maximum depth is 5-6m and water level fluctuates by about 1.0-1.5m. Salinity is 0.1-0.2 ppt and pH varies from 6.5-8.0. The bunds enclosing the lake carry a road lined with trees & scrub. Beyond the bunds there is a series of brackish seepage lagoons - originally borrow-pits for the bunds. These are supplied by monsoon rains, and water discharges from the main lake by a by-pass regulator. Climate is dry, sub-tropical monsoonal, with very hot

14. Ecological features: (main habitats and vegetation types) Summers (49°C in June) and cool winters (av. min 2°C in January). Av. annual rainfall is 178mm.

The lake supports abundant aquatic vegetation including extensive beds of Phragmites, Karaka, Typha angustata, Ipomoea aquatica, Cyperus sp., Scirpus littoralis, & Polygonum barbatum. Submerged vegetation includes Potamogeton pectinatus, P. perfoliatus, P. luciens, Vallisneria spiralis, Hydrilla verticillata, Najas minor, Lemna minor, Ceratophyllum demersum & Myriophyllum spicatum. Juncus maritimus grows around the brackish seepage lagoons. Ornamental trees such as Acacia sp, Ficus sp. and Casuarina sp. have been planted on the bunds around the lake.

## 15. Land tenure /ownership of:

(a) site

Provincial Government of Sindh

(b) surrounding area

Provincial Government of Sindh

## 16. 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)

first protected in 1971 as a Game Sanctuary. Declared a Wildlife Sanctuary\* in 1977. There is a buffer zone of 4.8km around the lake. Cultivation, damage to vegetation, hunting, shooting and trapping are prohibited.

\* under Sindh Wildlife Protection Ordinance (1972).

A management plan was drawn up by P.J. Conder in 1976/7.

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

The May 1990 Monitoring Procedure Mission recommended that investigations should be carried out immediately to assess the proposals from Karachi Water Supply Board to re-develop the lake to supply up to 60 million gallons/day to Karachi city & steel works. The mission also concluded that pressure for fisheries development should be resisted.

## 18. Current land use: principal human activities in:

(a) site limited fishing  
nature conservation  
water supply.  
cultivation  
grazing of livestock

} associated with nomadic settlements close to the lake

(b) surroundings/catchment

cultivation & grazing of livestock

## 19. Disturbances/threats, including changes in land use and major development projects:

(factors which may have a negative impact on the ecological character of the wetland)

(a) at the site The May 1990 Monitoring Procedure Mission concluded that there had been no major changes in ecological character of Haleji lake since its designation as a Ramsar Site.

However, the area is threatened by proposals to transform the lake into a commercial fishery and to increase its capacity for supplying water to Karachi. The latter scheme could involve raising the bunds by 1m. The Monitoring Procedure report concluded that this would have a very serious impact on the ecology of Haleji.

The report also concluded that Haleji be retained on the Ramsar list in

(b) in the surroundings/catchment

view of its undoubted importance for breeding, staging and wintering waterbirds.

---

**20. Hydrological and physical values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc.)

water supply to Karachi  
flood control

---

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

important for recreational fishing, bird watching etc  
conservation education  
water supply.

---

**22. Noteworthy fauna:** (e.g. unique, rare, endangered, abundant or biogeographically important species; include count data etc.)

One of the most important important breeding, staging and wintering areas for waterfowl in Sindh Province, regularly holding between 50,000 & 100,000 birds. Especially important for Anatidae & Fulica atra (staging & passage) and as a breeding area for Ardeidae, Nettion coromandelianus, Anas pectoratorhynchos, Porphyrio porphyrio and Hydrophasianus chirurgus. Thousands of Nycticorax nycticorax roost in the marshes.

Maxima for wintering waterfowl are given in the Asian Wetlands Directory but include 102 Pelecanus crispus, 12,800 Anas penelope, and 76,600 Fulica atra.

The Sanctuary is also rich in raptors, fish and supports a small population of marsh crocodile Crocodylus palustris

---

**23. Noteworthy flora:** (e.g. unique, rare, endangered, or biogeographically important species/communities etc.)

No special values known

---

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

Mid-winter counts of waterfowl have been conducted since 1971.

Included in the IWRB AWC database

---

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

An information centre with restaurant & observation tower was inaugurated in 1982

The proximity of Haleji to Karachi affords excellent potential for conservation-based recreation/education.

---

**26. Current recreation and tourism:** (state if wetland used for recreation/tourism; indicate type & frequency/intensity)

see section 25, above.

---

**27. Management authority:** (name and address of body responsible for managing the wetland)

Sindh Wildlife Management Board, in agreement with Karachi Development Authority.

---

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

---

**29. Bibliographical references:** (scientific/technical only)

---

**30. Reasons for inclusion:** (state which Ramsar criteria - as adopted by Rec.C.4.15 of the Montreux Conference - are applicable)

1(a), 3(a), 3(b)

---

**31. Map of site** (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)

---

Please return to: T.A. Jones, Ramsar Database, IWRB, Slimbridge, Gloucester GL2 7BX, England

Telephone: 44 - (0)453 890634

Telefax: 44 - (0)453 890827

Telex: 43 71 45 WWF-G