Information Sheet on Ramsar Wetlands (RIS)

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

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DD MM YY

Designation date | Site Reference Number

With Inputs From:
Director of Fisheries
Govt. of Tripura, Agartala
Tel.No. (0381) 226294
Fax.No: (0381) 226294

2. Date this sheet was updated: January 2004

3. Country: INDIA

4. Name of the Ramsar site: RUDRASAGAR LAKE

5. **Map of site included**? Please tick **YES** --or-- **NO**
(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits.)

a) hard copy: Yes
b) digital copy : Yes

6. **Geographical coordinates**: $23^0 29^{'}$ N and $90^0 01^{'}$ E

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

The Rudrasagar Lake falls in the Melaghar Block under Soamura Sub-Division in the West Tripura District and at a distance of about 50 km from the state capital of Tripura.

8. **Elevation**: (average and/or maximum and minimum): Min. 7.0 m, Max. –16.0 m

9. Area: (in hectares): 240 Hectare

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

Hydromorphologically, Rudrasagar Lake is a natural sedimentation reservoir, which receives flow from three perennial streams namely, Oacherra, Durlavnaraya cherra and Kemtalicherra. After settling the sediment from the received flow, clear water discharges into the river Gomti through a connective channel namely Kachigang.

11. **Ramsar Criteria**: (please circle the applicable criteria; see point 12 below)

1 2 3 4 5 6 7 8

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 2:
The wetland supports IUCN Red listed endangered Three-striped Roof Turtle (*Kachuga dhongka).*

Aquatic plant species include rare *Lemna sps, Azolla sps, Salvania sps, Pistia sps, Otellia sps, Najas sps, Typha spp. and* endangered *Azolla sps, Nelumbo sps, Utricularia sps, Ipmea sps.*

Fish species include rare *Macrobrachium sps, Botia sps, Notopterus Chitala, Cylonia sps, Kachuga sps, Oxygstus spp. and e*ndangered Species: *Mystus aor, Mystus gulio, Ompak paba, Notopterus chitala, Labeo bata, Cirrhinus reba, Macrobrachium rude, Macrobrachium rosenbergii, Channa marulius.*

Criterion 3:
The site is important for supporting the biological diversity in the area which include the floral species: *Hydrilla verticillata, Vallisneria spiralis, Eichhornia crassipes, Trapa natans,Lemna minor, Salvania natans, Pistia stratiotes, Najas graminea, Typha angustifolia, Azolla pinnata, Nelumbo nucifera, Utricularia striatula, Ipomoea aquatica.*

Fish species: *Mystus cavasius, Ompok bimaculatus, Wallago attu, Heteropneustes fossilis, Puntius sophore, Esomus danrica, Chanda ranga, Nandus nandus, Anabus testudeneus, Colisa fasciatus, Notopterus notopterus, Cirrhinus reba, Labeo bata, Mastacembelus pancalus, Channa punctata, , Macrognathus siamensis, Gudusia chapra, Botia rostrata, Cylonia spp, Mystus aor, Mystus gulio, Ompak paba, Notopterus chitala, Channa marulius.*

Important crustaceans: Macrobrachium rosenbergii, Palemon serratus, Macrobrachium rude.

Criterion 8:
The lake has the perennial connection with one of the major rivers of the state facilitating the natural safe breeding ground of majority of the indigenous valuable species of fishes of the state. The progressive prominent species of fishes are *Mystus aor, Ompok pabda, Wallago attu, Heterophneutes fossilis,* including freshwater turtle and tortoise.

13. **Biogeography:**
a) biogeographic region: **9B North East-- North-East Hills**
b) biogeographic regionalisation scheme: Not available.

14. **Physical features of the site**: (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 bed has been formed by silt deposition on seabed. As such no rock formation is found with 50m is silt (Clay loam) and below formation is sandy. Surrounding hillocks are of soft sedimentary formation. The lake is naturally formed.

Annual rainfall is of the order of 2500 mm. Spread over the months of June to September with 4/5 flood peaks. Substantial base flow in streams rounds the year. The soil in lake area is silty clay loam to clay

loam. Lake water is fresh with insignificant pollution with a depth varies from 2 m to 9m. Fluctuation in water level varies from EL 9m to 16m.The downstream area of the lake is 750 ha with a temperature variation from 37^0C to 5^0C and rainfall during May 15 to October 15.

15. **Physical features of the catchment area:**

Geologically the area has been formed by silt deposition on seabed and soil in the catchment area is silty clay loam to clay loam.

16. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.)

(i) Ground water recharge: It serves as significant source of ground water recharge.
(ii) Flood control: Insignificant in controlling flood in down stream part of Gomti river. Inundation causes big losses to surrounding poor inhabitants by way of loss of agriculture, de-linking of communication and loss of fisheries.
(iii) Sediment trapping: Causes loss to the life of the lake.
(iv) Shore line stabilization: No effect / influence.

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

a) **presence:**

marine-coastal:	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**Zk(a)**
Inland:	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**Sp**	**Ss**	**Tp**	**Ts**	
	U	**Va**	**Vt**	**W**	**Xf**	**Xp**	**Y**	**Zg**	**Zk(b)**			
Human-made:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**Zk(c)**		

b) dominance: (Please now rank these wetland types by listing them from the most to the least dominant)
O,P,Ts

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

(i) Main habitats: Aquatic fish fauna, Turtle, Tortoise, Prawn, Aquatic insects, Freshwater mussels, Amphibians and freshwater micro fauna.
(ii) Vegetation types: Aquatic weeds comprising of marginal weeds, floating weeds, Emergent weed, Submerged weeds and micro flora.

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

Species / community are unique: *Hydrilla sps, Vallisneria sps, Eichhornia sps, Wolfia sps, Trapa sps, Makhana* etc.

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

The lake is an ideal habitat for some unique species of fish like *Amblypheryngodon spp, Esomus spp., Chanda spp, Ompok spp., Otopterus spp, Cirrhinus spp, Labeo spp, Mastacembetus spp, Palemon spp., Macrognathus sps, Gudusia spp.*

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

(i) Present fish production: 26.449 MT (1999-2000). This may be improved by arranging appropriate project for maintaining permanent water area.
(ii) Forestry: No forestry in the lake area. Forestry in upper catchment may be improved by afforestation project.
(iii) Archaeological site: There is one heritage building of earlier kings of Tripura naming "Nirmahal".

22. Land tenure/ownership of:

(a) with in the Ramsar site: Owned by Government of Tripura. Permanent water area has been leased to Rudrasagar Udbastu Fishermen Samabaya Samity Limited for enjoying fishing right.

(b) in the surrounding area: Private owners.

23. Current land use:

(a) within the Ramsar site: Fishery use, partly silted land used for seasonal paddy cultivation with uncertain fate due to flood.

(b) in the surroundings/catchment: Surrounding plains are used for paddy cultivation. Uplands in catchment are used for horticulture and agro-forestry and habitation.

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

(a) within the Ramsar site : Continuous siltation is causing loss of lake area.
(b) in the surrounding area: Increased use for habitation, deforestation, increased agricultural use of land has caused higher rate of siltation.

25. **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)

This is unprotected area. Nature is playing role for changes. In surrounding area, plains and uplands the Department of Agriculture, Soil Conservation and Horticulture are working for scientific cultivation, soil stabilization etc. Department of Forests is working with projects for afforestation of the catchment.

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

A project about the conservation aspects of the wetland has been prepared and submitted to Ministry of Environment and Forests, Government of India alongwith Management Action Plan (MAP) and awaiting funding for implementation.

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

Scientific research facilities are not well organized for the lake. Tripura University is working with some thesis work on this lake related issues.

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

This is not well organized. It may be improved after receive of fund for the proposed project.

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

This lake is used for recreation and tourism. Every year on "Nirmahal" festival is celebrated with participation from various states of India. Local people organise swimming competition, boat race, mela on the auspicious occasion of "Vijaya Dashami". Many people do sport fishing. Approximately 50,000 tourists from state and foreign state are visiting Rudrasagar every year. It has a rising trend.

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

Territorial: State of Tripura
Functional: Department of Fisheries, Department of Tourism, Department of Agri/Horti/Soil Conservation.

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

Department of Fisheries, Government of Tripura, Agartala
Tel. No. 0381 226294, Fax No. 0381 226294

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

Ministry of Environment and Forests (1990). Directory of Wetlands. Government of India.

W.W.F.- India's Handbook of Wetland Management, published by Avenash Datta for W.W.F.-India, New Delhi, August, 1995.

Mitch and Gosselink. " Wetlands" Second Edition, published by Van Nostrand Reinhold, New York, 1993.