Information Sheet on Ramsar Wetlands (RIS)

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

1. Date this sheet was completed/updated:
04/28/2001

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DD MM YY

Designation date | Site Reference Number

2. Country:
the People's Republic of China

3. Name of wetland:
Xi Dongting Lake (Mupinghu) Nature Reserve

4. Geographical coordinates: E 112□04′58″ N29□00′43″

5. Elevation: (average and/or max. & min.)
Average 39.5m; Max58.6m, Min20.5m

6. Area: 35,000ha

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)
This wetland is an important part of the whole Dong Ting Lake in Central China. It is the typical representative of inland wetland in subtropical zone. Since there are abundant biotic resources, it is valuable to protect it and research on it.

8. Wetland Type (please circle the applicable codes for wetland types; in the present document, the "Ramsar Classification System for Wetland Type" is found on page 9)

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)

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

0 Tp 3 M 4 Xf 1 2

9. Ramsar Criteria: (please circle the applicable Criteria; the *Criteria for Identifying Wetlands of International Importance* are reprinted beginning on page 11 of this document.)

[1] • [2] • [3] • [4] • [5] • 6 • 7 • 8

Please specify the most significant criterion applicable to the site: 2

10. Map of site included? Please tick *yes* √
(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 the *Criteria for Identifying Wetlands of International Importance* appended to this document)

Criterion 1: this site is an important part of the whole Dongting Lake. It is a fresh water lake while water rising and a large area of shallow mudflat while water declining. There are so much topographical features with read-swamp, sphagnum bog and beach and large area open water system. So Xi Dongting Lake is a advantageous site for wildlife habitats and breeding of creatures.
Criterion 2 : according to the investigations, the site is very important for rare fishes such as *Chinese sturgeon*, *Reeves* shad on the migration process, and some important birds like *Ciconia boyciana* (E)which are all vulnerable to China
Criterion 3: Xi Dongting Lake has a large water surface and many small lakes. The climate is moderate. There are abundant water grass and a lot of fishes, shrimps and mussels. It is a good place for inhabiting water birds. According to the statistics, there are 136 species of birds (83 species of waterfowls and 112 species of migrants) belonging to 15 orders and 35 families.
Criterion 4: It is an important station for migration of rare birds such as Cranes *Gruidae* and Storks *Ciconiidae* as well.
Criterion 5: there are 114 species of fishes, belonging to 12 orders and 23 families. Among them 103 fishes are endemic with 90% of all of fishes. Most of fishes are benthos. Some of them are semi-migrated, which grow in lake and lay eggs in Yangtze River and Sishiu River etc. This stabilizes the fish diversity in Dongting Lake.
From Hongsheng Dou etc. 2000. Dongting Lake. Beijing: Press of Chinese Science and Technology University.
Management Plan of Xi Dongting Lake Nature Reserve, 1997
National Wetland Conservation Action Plan, 2000

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13. General location: (include the nearest large town and its administrative region)
The Site locates in the west of Dongting Lake in Hanshou County, hunan Province. It is 26 km to the town and 60 km to the Chande City.

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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)

I. Geographic feature: it locates on the Southwestern hollow side of Dongting. The main layer is fourth land layer. The geographic feature can be divided into several types such as deposition, erosion deposition and hillock.
II. Origins: 53.5% of site is natural and 46.4% is artificial.
III. Hydrology: many rivers such as Yuanshui River, Lancangpiehong River, Longchi River and Yanbaoshan River mainly supply the lake with water resource. Due to the distinct change of rainfall in different seasons, the water level in the lake differs dramatically. Dongting Lake basin play an important role not habiting for wetland bio-diversity, but mitigating seasonal flood from up stream of Yangtze River.
IV. Soil type: the main soil-forming parent material is deposit from rivers. Because of topography, water, vegetation and soil-forming parent material the soil type varies in different regions. The relief of the regions along rivers and lake is high. The soil type is drained soil. In the lower position the soil is swampy meadow soil and swamp soil.
V. Water quality: a. physical qualities: because of lower lever of water the beneath of Northern Lake is bare and the water velocity is only 1.2 meter per second at the junction between mouth of Feng Shui River

and Sankou. The direction of water is accordance with the channel and inclined east. The vertical change of water temperature is stratosphere distribution. The difference between the high and low layer is little, only 1.0 centigrade. The average temperature of water is 17.35 centigrade. Water temperature is higher than air temperature except for June to August. The water is not freezing in winter because of strong moving through the wind. It has not happen for about 40 years. The transparency of water varies from 0.2 to 0.4. The degree of watercolor is 19~20. Chemical characters: the form of water is form 1 in heavy calcium carbonate group. The content of heavy metals is few. It hasn`t been polluted by volatile phenol and cyanide.

VI. Water depth: the highest level of water is in July and August, the average level is in September to November, the low level is in December. The average value is about 6.0 m. the maximum is 18.0m and minimum is 1.2 m.

VII. Water-covered area: It is about 23495 hm^3 including lakes, rivers, shoals and swamp wetlands. The other area is about 3466 hm^2 including pools, reservoirs, rice fields etc. The total amount is 26969 hm^2 together.

VIII. Downstream area: it is the harrow channel in the south of Chishan island in western Dongting connecting with the southern Dongting. It can regulate growing stock over 50 billions cube meter. It is benefit for downstream area.

Climate: it is mild because of location between the zones of central subtropical and northern subtropical. There are enough sunshine and rainfall. The average temperature is 16.6~16.8 centigrade. The average annual precipitation arrives up to 1200~1500 mm. 274 day per year is frost-free. The rainstorm is the main disaster weather in the site and occurs 3~4 times per year contracting in July to August.

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

It recharges groundwater about 4.7billions cube meter and regulates growing stock water flood about 52.5 billions cube meter. It benefits to stabilize the shoreline, trap sand, to mud from upstream and to filter the materials of water.

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

This site appears the typical form of fresh-water wetland at Dongting Lake. The main vegetations shows as follow:

I. Trees: including evergreen trees, such as *Pinaceae, Taxodiaceae*, and distributed in side area of wetland. Most of Forests are afforested.

II. Shrubs: including Glossy privet, Chinese *loropetalum, Hupeh* rosewood, Rose and cultured Oil *camellia loopier*, Tea and fruits trees.

III. Grassland: including motherwort.

IV. Water-plants: the main families are Grass, Sedge, Composite and Pondweed families. Swamp-plants: they are read and silver grass at most. There over 30 species of birds, 110 fishes, 9 shrimps , 48 shellfishes□90 zooplanktons and over 90 algae. All of these are composed of a good complete food chain**.**

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

The *phytocoenoses* consisted by hygrophilous vegetation and submerged vegetation mainly. The most important vegetations are described as following:

Knotweed Community: the main plant in this community is *Poligonum* sp. and Dockleaved Knotweed. They have high economic value.

Anur Silvergrass Community: there are mainly *Anur Silvergrass* companied with reed in part of field. They are symbiotic species and cover a large of area in Reserve.

Sedge Community: the population consists of *Shortcuspidate* Sedge, Curvedutricle Sedge etc. and occurs in the low position. They are good forage.

Reed Community: weed is good fiber plant for waving; papermaking etc. young plant is good forage.

Lotus Community: Lotus play important position in this community companied with 20 species other water plants such as reed, *Singharanut,* Common Duckweed and *Verticillate Hydrilla.*

Gordon Euryale Community: Gordon Euryale is economic plant used for medicine and vegetable in China.

Eelgrass Community: the main plant in this population is Eelgrass companied with Verticillate Hydrilla, foxtail alga, Bambooleaf Pondweed and Hornwort etc. The young Eelgrass is good forage.

Verticillate Hydrilla Community: Verticillate Hydrilla is dominant species in the Community and a good food for fishes. Verticillate Hydrilla is an important aquatic plant in the Reserve.
Bambooleaf Pondweed Community: the Population companied with 10 species such as Eelgrass, Verticillate Hydrilla and Hornwort. Most of plants in this Community are good food for phytophagical fish.
According to Hongsheng Dou etc. 2000. Dongting Lake. Beijing: Press of Chinese Science and Technology University.
Management Plan of Xi Dongting Lake Nature Reserve,1997
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18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)
The fishes and birds play a very important position in the animal system in Xi Dongting Lake. There are 114 species fishes including the national rank I protected animals such as Chinese sturgeon, paddlefish. The endemic fishes in Dongting Lake are whitebait,, reeves shad, mullet. The dominant species of fishes belong to cyprinoids and siluroids. Carp, golden carp, shoat fish, herring, grass carp, chub, bighead carp are general species of the important economic fishes. There are 136 species of birds. The waterfowls are dominant among them, belonging to *Anatidea* (23 species)Sedopacidae (14 species)and *Ardeidae* (9 species). Over 4000 mallard, 500 *cygnets*, 27 *aigrets* and white stork, stork have been found in 2000 year in Anle Lake. The national first protected birds, such as Great White Crane, Hooded Crane, black stork, Great Bustard and Chinese merganser, have been recorded.
Hongsheng Dou etc. 2000. Dongting Lake. Beijing: Press of Chinese Science and Technology University.
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19. Social and cultural values: (e.g., fisheries production, forestry, religious importance, archaeological site, etc.)
The region at Xi Dongting Lake is an important center for agriculture, fishery and forestry products in Hunan province.

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20. Land tenure/ownership of: (a) site (b) surrounding area
The nation is owner of land in the site. Most relative departments have the land's tenure: Hydrographic department, Administration of the lake etc. The ownership of surrounding areas belongs to nation. The land tenure is to collectivity.

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21. Current land use: (a) site (b) surroundings/catchment
The wetland provides over 80000 inhabitants with water using for living and producing. It provides factories and irrigation during the period of flood prevention and drought resistance as well. Parts of lake have been developed into ecological protection forests and fast growing and high-yield plantation. The water areas provide thousands of fishers with a location for fishing and fish breeding. The grassland is used for animal husbandry. It provides some people with chance of hunting at the same time. The artificial wetland of surrounding areas is mainly farmlands. It changes slowly in the process of extending traditional agriculture to modern one. In the water-covered areas, fishery production changes from traditional fishing to modern cultivating when developing water-cultivated.

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22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects: (a) at the site (b) around the site
At the site:
I. Mud and sand deposition: this site is one of the most serious deposited regions of the whole Dongting Lake. It causes bank erosion and flood catastrophe.
II. Reclamation: The Lake has been started reclaiming since Ming Dynasty.
III. Industrial pollution: it makes certain pollution because some factories nearby such as papermaking factory, nitrogenous fertilizer, factory and Chinese silk plant, which release polluted water into lake.
Around the site:
IV. Illegal fishing and hunting: Thousands and millions of fishers catch fishes in the lake very year. They even make use of some bad fishing ways such as battle array and electric puncture. That greatly destroys

the fish resource. In winter, some peasants hunt in the region making use of electric puncture and poisonous baits, which strongly damaged bird's resource.

V. Reed production: there are 5766 acres of reed field all together in the region. On the one hand, it makes mud and sand deposited and shoal extended. On the other hand, frequent of cutting reed influences the water birds staging.

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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)

I. The provincial natural reserve of Xi Dongting Lake in Hanshou is founded in January 1, 1998. It occupies the area up to 35000 hectares.
II. The Reserve has been planed with central zone, buffer zone and experiment zone.
III. Implemented the demonstration program of quitting cultivation and returning to forest, restoring wetlands with World Nature Fund. The closed management of Qingshan Lake is carried out.
IV. The activities of propagate and education are carried out, in order to protect the wetland.

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

I. Apply by local government for establishing and completing management system, form three-staged management net of department, station and point.
II. Proposed to the People's Congress of County to establish the law on wetland's protection and management according to law's procedure.
III. Reported to the local Government to ask for strengthening accordance of department and putting all kinds of relations in good order.
IV. Making activities of Propagate and education in the center of propaganda and education.
V. Established the mechanism of compensation in wetland

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

We are monitoring wetlands resource and planning ecological tourism of Xi Dongting Lake with the experts of Normal University Hunan, studying on the work of monitoring and governing mud-sand in lakes and the work of controlling and defending snail fever with local departments. We explore about restoring wetland, ecological balance and coordinated development between wetland protection and economic construction with local communities. WWF have equipped a boat for monitoring wetlands, a computer, a micro-camcorder and two binocular telescopes for the reserve.

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

As newly established Reserve there are many difficulties, for example, shorting administrative stuffs and equipments. The work of propaganda and education are in low level. Last year, WWF entrusted Environment Education Center of Hunan Normal University to pointed the third middle school as experimental unit of environment education. Many activities are carried out and a lot of good results have been accepted. 18 boards for propaganda were built in main ways and docks of the reserve, in order to propagate the policies, laws and regulations regarding the national reserve. TV program and newspaper are used as well in the propaganda activities. To develop wetland education is very potential. It shows: 1. the economy situation is increasing and the living standard is being improved continuously. 2. the several serious floods have made people aware of the vital importance of recovery of wetland function. 3. the decreasing of ecological resources admonish every people to protect Biodiversity. 4. the people look forward to open the ecological tourism to people.

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

Here is beautiful place with excellent water system, wide water surface, deeply green grass and dancing water birds. It is good condition to open ecological tourism. The plan of ecological tourism is being planned. The main activity of tourism is visiting birds. A road and visiting place are planning now.

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28. Jurisdiction: (territorial, e.g. state/region, and functional, e.g. Dept of Agriculture/Dept. of Environment, etc.)
The jurisdiction is in government of county. The Forestry Bureau administrates the Reserve. The Environment Protection Bureau is respondent for management of Environment in the Reserve.

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29. Management authority: (name and address of local body directly responsible for managing the wetland)
Name :Management Bureau of Provincial Natural Reserve Hanshou in Hunan.
Address: No.167 Yangjiang South road, Cheng Guang Town, Hanshou, Hunan
Tel□0736-2861262□ Fax□0736-2865478

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30. Bibliographical references: (scientific/technical only)
Hongsheng Dou etc. 2000. Dongting Lake. Beijing: Press of Chinese Science and Technology University.
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