#### **Ramsar Information Sheet**

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**1. Date this sheet was completed:** December 1997

**2. Country:** Republic of Korea

3. Name of wetland: Woopo Wetland

**4. Geographical co-ordinates:** 35°33'N 128°25'E

At Changnyong-kun (County), 35 km SSW of Teahu, Kyongsangnam-do (Province).

**5. Altitude:** 10 m.

**6. Area:** 854 ha

#### 7. Overview

It is located at the eastern part of the Nakdong river and is represented by a large oxbow lake, small ponds, and marshes. Surface water is persistent even in the dry season, while extensive flooding occurs in surrounding areas during the rainy season.

8. Wetland type: O Tp

**9. Ramsar Criteria:** 1b,2b, 3b, 4b

10. Map of site included: Yes

# 11. Name and address of compiler:

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# 12. Justification of criteria selected under point 9:

1b: It is not only the largest native undisturbed wetland in the country, but also the nation's indigenous biological features are cherished at the site.

2b: The biodiversity is maintained at the site, especially in terms of the biological and genetic aspects, and rare species as well.

3b: It provides a leisure space for the summer visitors and winter visitors as well as residents.

4b: It offers an important source of foods and spawning grounds for the fishes.

# 13. General location:

The area is shared by many local districts in terms of administrative boundaries: Daehap-myon, Ebangmyon and Your-myon respectively in the Changnyong-kun, Kyungsangnam-do; Nearest town: Changwon.

### 14. Physical features:

The Woopo wetland consists of Woopo, Mokpo, Sajipo and Jokibul, it is naturally created by geological land subsidence. The area is 854 ha including 230 ha of water area.

#### 15. Hydrological values:

Various aquatic floras such as *Salix glandulosa* seem and *Eichhornia crassipes* (Solms.-Laub.) and micro-organics function as a filter for suspended solids and heavy metals, which contribute to improving the water quality of the site. Such filtering process also has functions to control flood.

#### 16. Ecological features:

It is surrounded by low level elevated mountains and the levee has been built to protect the agricultural areas. The Zizania latifolia (Turcz.) community is recorded as dominant species, and Salivia natans (All.), Spirodela polyrhiza (Schleid.), Hydrocharis dubio (Backer), and Nymphoides peltata (O. Kuntze) are living together at crook and waterside. At the levee, Salix giligiana (Seem.), Populus euramericana (Guinier), Ulmus parvifolia (Jacq.) and Pinus densiflora (S. et Z.) are distributed. Scirpus trigueter (L.) is growing at the centre of the Woopo, and Miscanthus sacchariflorus (Benth.), Salix glandulose (Seem.), Typha orientalis (Presl.) and Acorus calamus (L.) var. angustatus (Bess) are also observed.

#### 17. Noteworthy flora:

The following rare and endangered floral elements have been identified: *Eurgale ferox* (Salisbury), *Hydrocharis dubia* (Backer) and *Utricularia japonica* (Makino).

#### 18. Noteworthy fauna:

The peculiar freshwater ecosystem has been created in the Woopo wetland. Various floras are being used as feeding ground for insects and birds. 55 aquatic insects have been identified and the following species are dominant: *Epitheca marginata* (Selys), *Anax parthenope julius* (Brauer), *Trigomphus citimus citimus* (Needham), *Ilycoris excoris exclamationis* (Scott), *Chironomus* sp. Meanwhile, 11,210 species of birds including 21 residents, 16 summer visitors, and 25 winter visitors are recorded to be inhabited at the site.

Fulica atra (Linnaeus) and Corvus frugilegus pastinator (Gould) are dominant. Also, Egretta alba alba (Linnaeus), Cygnus cygnus cygnus (Linnaeus), Cygnus bewickii jankowskii (Alpheraky), Circus aeruginosus spilonotus (Kaup), Falco tinunculus interstinctus (Horsfield), Anser fabalis serrirostris (Swinhoe), Anas platyrhynchos platyrhynchos (Linnaeus), Aythya ferina ferina (Linnaeus), Anas crecca crecca (Linnaeus) and Suthora webbiana fulvicauda (Campbell) have been observed. Fishes such as Pseudorasbora parva (Temminck et Schlegel), Carassius auratus (Linnaeus), Oryzias latipes latipes (Temminck et Schlegel) and Acheilognathus intermedia (Temminck et Schlegel) can easily be observed.

#### 19. Social and cultural values:

The Woopo wetland with biodiversity and extremely beautiful scenery is recognised as one of the prominent ecotouring and field visiting places. The residents make a living by capturing Chinese mistery snail *Cipangopaludina chinensis malleata* (Reeve) and shellfish *Unio douglasiae* (Griffith and Pidgeon), and by reclaiming the dry marsh area for farming before the rainy season.

#### 20. Land tenure/ownership of:

Most of the area is state-owned, but some parts of it are privately owned.

### 21. Current land use/principal human activities:

This area is now mainly used for agriculture. The researchers and students are frequently visiting the site to appreciate the ecosystem.

# 22. Factors adversely affecting the site's ecological character, including changes in land use and development projects:

Rana catesbeiana (Shaw), the introduced species, is distributed over the site, which might destroy the native ecosystem.

# 23. Conservation measures taken:

Designated as Nature Conservation Area on July 26, 1997.

#### 24. Conservation measures proposed but not yet implemented:

N/A

#### 25. Current scientific and research facilities:

The Ministry of Environment and the Changnyong County have carried out scientific research on the Woopo wetland. "Survey on the ecosystem of Woopo marsh and Joonam reservoir" (1987) and "A study for ecosystem conservation of Woopo-Mokpo wetland" (1997) have been published.

# 26. Current conservation education:

The Changnyong County and the local NGO's are presently carrying out campaigns and activities to preserve the Woopo wetland.

# 27. Current recreation and tourism:

The general public and students visit to observe the ecosystem.

#### 28. Jurisdiction:

Changnyong-kun (county)

# 29. Management authority:

Ministry of Environment, Ecosystem Conservation Division, Ministry of Environment, Joongangdong, Kwacheon, Kyunggi-do, 427-760, Republic of Korea

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# 30. Bibliographical references:

Survey of the ecosystem of Woopo marsh and Joonan reservoir. (Ministry of Environment, 1987). A Directory of Asian Wetlands (IUCN, 1989).

A study for ecosystem conservation of Woopo-Mokpo wetland. (Changnyong-kun, 1997).