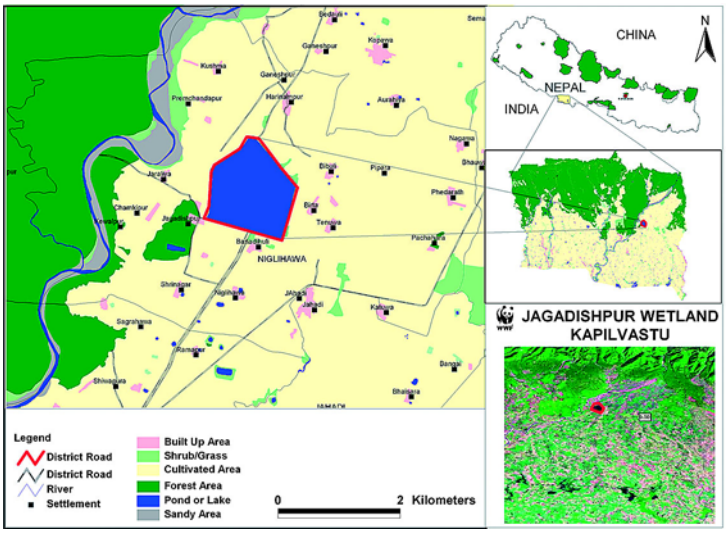
FACTSHEET

Jagadishpur Reservoir

Kapilvastu



Ramsar Designation Date: 13-08-2003
Coordinates: 27° 35' 00.0" N; 83° 05' 00.0" E
Area: 225 Hectares
Elevation: 197 m.

■ OVERVIEW:

Jagadishpur Reservoir was constructed for irrigation purpose and is harnessed by rock-fill dike. An earthen dike runs north to south from the centre of the reservoir. The eastern part has shallow water body whereas the western part of the reservoir is deeper and completely covered by water.

■ HYDROLOGICAL VALUE:

Its depth varies during the summer and winter crop plantation period (2 - 7 m). The Jagadishpur Reservoir was constructed in the early 1970s over the Jakhira lake and agricultural land for irrigation purposes. A dike was built in the early 1980s. The water is fed from the Banganga Lake and river in the Churia catchment. Silts and nutrients coming from the inlet are deposited in the reservoir's mouth which results in reed growth, thus providing habitat for water birds. Secchi disc and phosphorus content indicate the water as hypertrophic and the nitrogen concentration as eutrophic. Chlorophyll "A" content of the surface water is low (3-5 mg/l) indicating oligotrophy due to a rich macrophytes growth. The diversion of the water from the source of the Banganga River reduces flooding and irrigates the cultivated area. The waterbed recharges the groundwater of the surrounding cultivation.

Flora: The vegetation is mainly in a submerged succession stage with patches of floating species and reed swamp formations. Marsh meadows and extensive mudflat fringed by marsh lies in the northern part. The terrestrial vegetation is dominated by Sisoo *(Dalbergia sisoo)* and Khair *(Acacia catechu)* along the dike. The wetland vegetation consists of Morning Glory *(Ipomea carnea ssp. fistulosa)* and Cattail *(Typha angustifolia)*. The aquatic vegetation is represented by extensive coverage of floating leaf species mainly Lotus *(Nelumbo nucifera)* followed by Wild Rice *(Hygrorhiza aristata)* and Pondweed *(Potamogeton nodosus)*. The free floating species include Water Velvet *(Azolla imbricata)* and Duckweed *(Lemna spp.)*. The abundant submerged species include Water Nymph *(Naja minor)*, Hydrilla *(Hydrilla verticillata)* and Hornwort *(Ceratophyllum demersum)*.

RAMSAR SITES IN NEPAL

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Fauna: 25 fish species of 12 families and 7 orders including lowland Terai endemics (e.g. *Notopterus notopterus, Oxygaster bacaila*), threatened *(Puntius chola)* and common species being prey for waders and waterbirds are recorded. The reservoir is surrounded by smaller lakes (e.g. Sagarhawa and Niglihawa) serving as a buffer zone for bird movements of 42 recorded species. The site provides important resident, wintering and stopover habitats for waders, other water-birds, and small passerines. Noteworthy are the grebes, cormorants, herons and egrets (including the rare bittern *Ixobrychus cinensis*), storks, ducks and geese, terns and gulls, birds of prey, rails, coot and waterhens, Jacanas, as well as cranes and kingfishers. Due to its position being surrounded by cultivated land and its moderate size, it is not a suitable site for large mammal conservation. Though it could support small population of Smooth Coated Otter and other common species such as Jungle Cat, Golden Jackal, Indian Fox, etc.

■ SOCIOCULTURAL AND RELIGIOUS VALUES:

The site is owned by the state. The surroundings are privately owned. Current uses of the reservoir by the local population include fishing, grazing, fuel wood and fodder collection, domestic use (e.g. laundry), harvesting of wetland products, recreation (e.g. have a picnic, bathing) and supply of water for irrigation in 6,200 ha of surrounding cultivated land. The water body has a great potential for commercial stock fish production. Its surroundings are mainly used for farming.

■ THREATS:

- Invasion of exotic plant species including the extensive growth of aquatic macrophytes (particularly of lotus, water nymph and hornwort), water hyacinth
- Exploitation of wetland birds
- Water pollution from agricultural chemicals (fertilizers and pesticides)

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■ CONSERVATION MEASURES:

The authorities of the Department of Irrigation, Kapilvastu District Office are responsible for the management of the irrigation system. The outside forest area is managed by District Forest Office with the help of local community. Conservation measures include green belt plantations around the reservoir, maintenance of the water level by a dike and a sluice, as well as the construction of an irrigation canal. Resident stork species (*Anastomus oscitans* and *Ciconia episcopus*) are recommended for protection due to their susceptibility to become endangered through anthropogenic impacts. It has been proposed to designate the site as bird sanctuary. Further proposed conservation measures include leasing the reservoir to local people for fishing purposes, and to develop it as a tourist destination.

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