

## 9.1 Anshupa Lake

**Name:** Anshupa Lake

**Location:** 85° 34' 41" - 85° 37' 56" E  
20° 26' 33" - 20° 28' 47" N

**Wetland type:** Inland lake

**Average annual rainfall:** 150 cm

**Area:** 230 ha

Located north of Mahanadi delta has association of two other lakes namely; Kantapanhara and Ostia. Morphometrically, it is about 3 km in length and width varying between 250m - 500 m. The average depth was supposed to be about 12 m, which due to siltation has reduced to about 3 m now. Water spread extent would gradually reduce by pre-monsoon and the vegetation would be pronouncedly observed on the imagery. The adjacent lakes nearly dry out during pre-monsoon. The combination of indices (MNDWI NDPI NDVI) aids in delineation of open water and vegetation specific to wetland.

**Flora:** Include 47 species. The fringes are occupied by *Polygonum glabrum*, *P. barbatum*, *Limnophila heterophylla*, *Cyperus plalystylis*, *Aeschynomene aspera*, *Hydrilla verticellata*, *Ceratophyllum demersum*, *Myriophyllum tetrandrus* are seen where shallow water is present. Free floating species like *Nymphoides*, *Trapa natans*, *Eichhornia crassipes* and rooted floating ones like *Euryale ferox*, *Nymphaea aquatica*, *Trapa natans Var. bisporosa* are seen at a depth of 2-3 m. The emergent species like *Sacciolepis interrupta*, *Eichhornia stagnina* are observed in the lake.

**Fauna:** *Pila globosa*, *Bellama bengalensis*, *Lymnaea accuminata* are seen abundantly. 20 species of avifauna are observed in the lake, of which the dominant ones are *Porphyrio porphyrio*, *Metopidius indicus*, *Halcyon smymensis*, *Egretta garretta* etc

**Fish:** 15 fishes are known to exist in the lake of which *Nandus nandus*, *Clarias baraches*, *Heteropneustes fossilis*, *Barbus chola* and *B. ticto* are dominant.

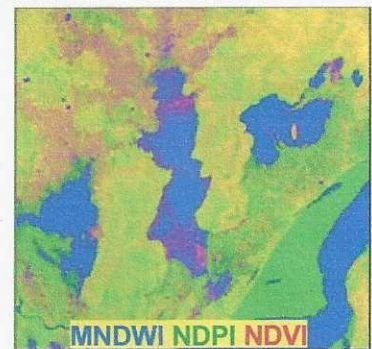
The lake is declared as an important wetland site and has tourists' attraction.

### Legend

- 1 Aquatic vegetation
- 2 Open water



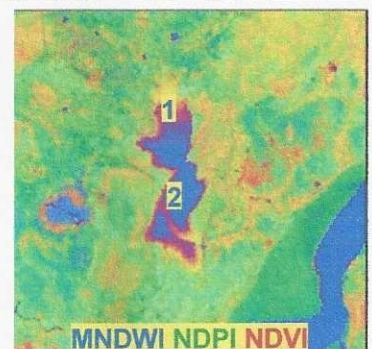
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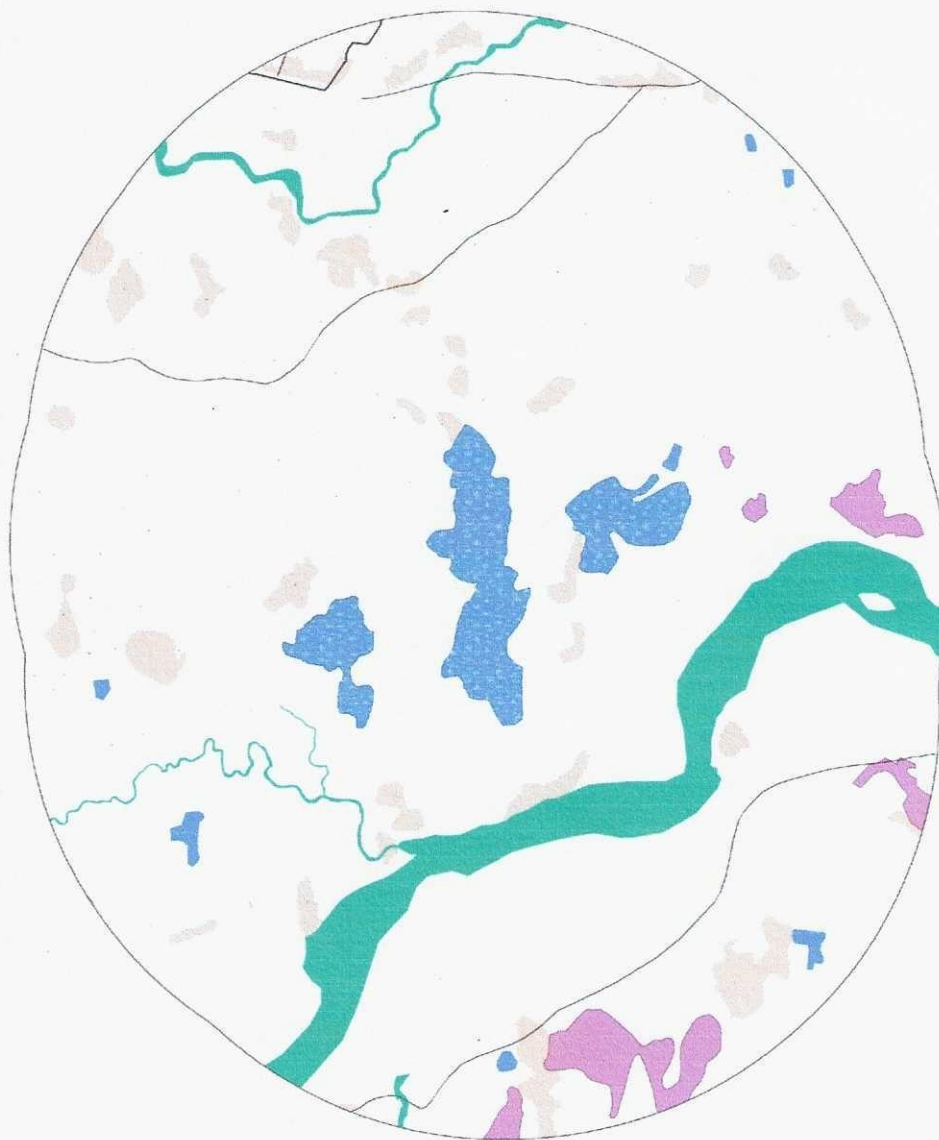
FCC OF INDICES (12/10/2006)



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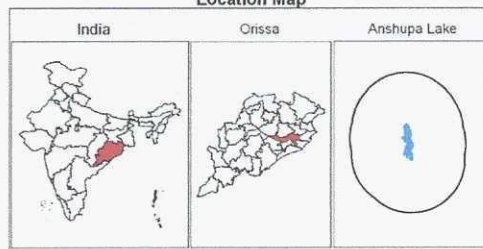


Symbol	Typecode	Level I	Level II	Level III
		Inland Wetlands		
			Natural	
■	1101			Lakes/Ponds
■	1102			Ox-bow lakes/ Cut-off meanders
■	1103			High altitude wetlands
■	1104			Riverine wetlands
■	1105			Waterlogged
■	1106			River/Stream
			Man-made	
■	1201			Reservoirs/Barrages
■	1202			Tanks/Ponds
■	1203			Waterlogged
■	1204			Salt pans
		Coastal Wetlands		
			Natural	
■	2101			Lagoons
■	2102			Creeks
■	2103			Sand/Beach
■	2104			Intertidal mud flats
■	2105			Salt marsh
■	2106			Mangroves
■	2107			Coral reefs
			Man-made	
■	2201			Salt pans
■	2202			Aquaculture ponds

Legend

- Wetlands (<2.25 ha)
- Settlements
- Canal
- Railway
- Drainage (line)
- Roads
- Town/Settlements
- District Boundary
- State Boundary
- International Boundary

Location Map



0 1 2 4 Kilometers

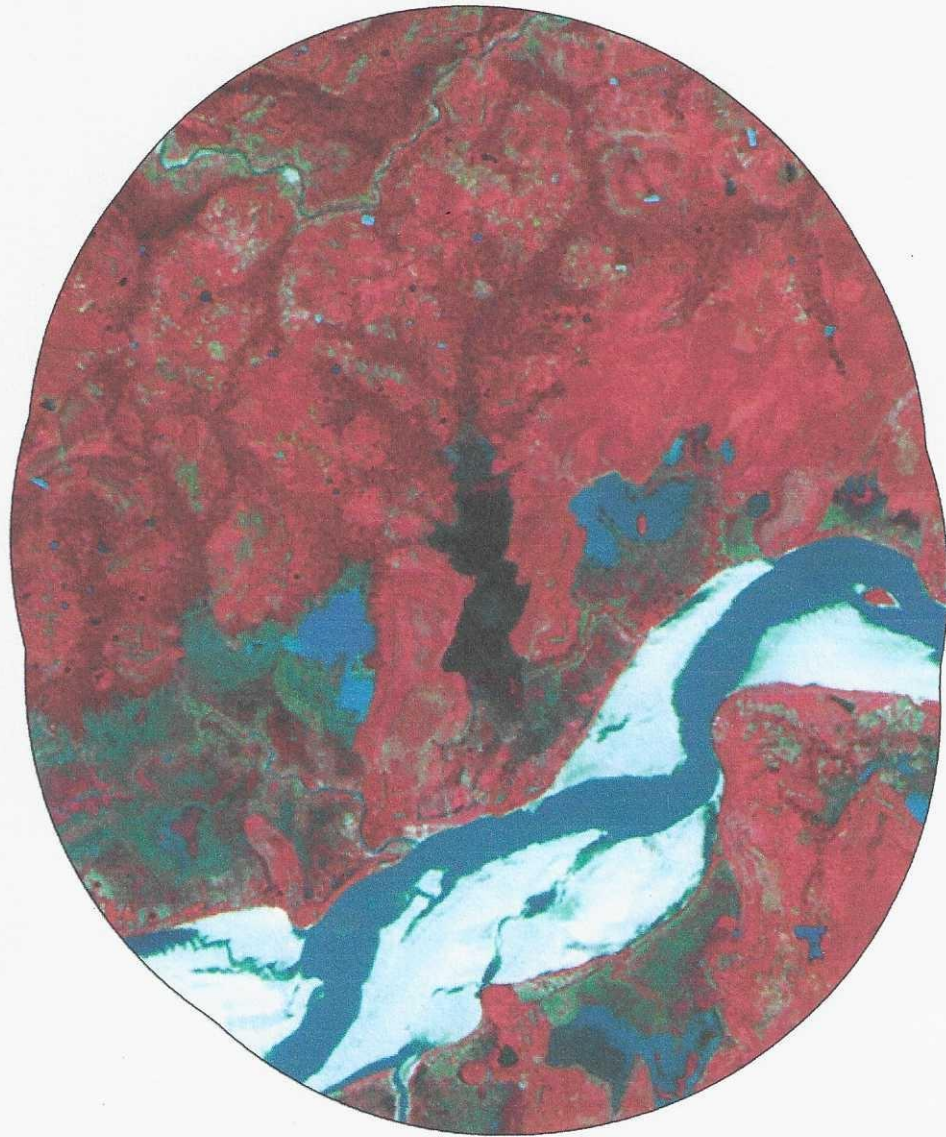
Data Source :  
 IRS P6 LISS III data (Pre-monsoon and Post-monsoon Season 2006-07)  
 Prepared By :  
 Space Applications Centre (ISRO), Ahmedabad  
 and  
 Orissa Space Applications Centre, Bhubaneswar  
 Sponsored By :  
 Ministry of Environment and Forests  
 Government of India

Plate 4: Wetland map - 5 km buffer area of Anshupa Lake



State : Orissa

Anshupa Lake



IRS P6 LISS III post-monsoon data (2006)

Plate 5: IRS P6 LISS-III image - 5 km buffer area of Anshupa Lake