Information Sheet on Ramsar Wetlands (RIS)

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

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Note: It is important that you read the accompanying Explanatory Note and Guidelines document before completing this form.

1. **Date this sheet was updated**: 19th August 2002.

2. **Country**: India

3. **Name of wetland**: PONG DAM LAKE

4. **Geographical coordinates**: $31^0 81' - 32^0 7' 26''$ N, $75^0 80' - 76^0 25'$ E

5. **Elevation**: (average and/or maximum and minimum): 450 m

6. **Area**: (in hectares) : 15662 ha

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

Pong is a recently created water storage reservoir on the Beas River in the low foothills of the Himalaya on the northern edge of the Indo-Gangetic plain. The Dhauladhar mountain range forms a backdrop to the lake. The size of Pong Dam Lake and its situation in the extreme northwest of the northern plains make it a suitable habitat for migratory birds entering the plains of India from Central Asia. Over 220 bird species belonging to 54 families have been recorded.

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

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:
6

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

1 **2** **3** **4** **5** **6** **7** **8**

Please specify the most significant criterion applicable to this site:
5

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

11. **Name and address of the compiler(s) of this form**:

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12. **Justification of the criteria selected under point 9, on previous page**. (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

(i) Criterion 5:
At a time when wetlands in northern India are getting reduced due to extensive drainage and reclamation, the avian habitats formed due to creation of the Pong Dam assume a great significance. The location of this lake on the trans-Himalayan fly path of migratory birds facilitate the interception of the waterfowl (Gaston and Pandey 1987) which enhances the biodiversity values of the area during each migration season. The environs of the Pong Dam Lake support a good bird diversity. More than 220 bird species belonging to 54 bird families have been identified so far (Pandey 1989). The present waterfowl diversity of the bird sanctuary is rich. It supports 54 species of waterfowl (Pandey 1993) as compared to 39 reported before creation of the dam (Whistler 1926). The sanctuary is an important staging area for an annual migratory waterfowl population of more than 20,000 birds comprising mainly of barheaded geese *Anser indicus*, northern lapwing *Vanellus vanellus*, ruddy shelduck *Tadorna ferruginea*, pintail *Anas acuta*, common teal *Anas crecca*, mallard *Anas poecilorhyncha*, coot *Fulica atra*, etc. The redheaded grebe *Podiceps griseigena* was recorded from this reservoir for the first time in India (Gaston and Pandey 1987). This gives the area national as well as international significance (Scott and Poole, 1989) for the conservation of several waterfowls.

Waterbird counts at the Pong Dam Bird Sanctuary for past seven consecutive years:

Migration Season	Total no. of waterbirds	Lake area coverage
1988-89*	18,357	60-75%
1989-90*	23,442	75-90%
1990-91*	18,202	75-90%
1991-92*	24,248	75-90%
1992-93**	14,788	75-90%
1993-94**	17,221	60-75%
1994-95**	15,747	50-75%

* Pandey S. 1993
** Dates of bird counts: 29 January 1993; 16 February 1994; 14 January 1995

(ii) Criterion 8: 27 fish species depend on the wetland for food, spawning ground and nursery. List of fishes with status is given in Appendix 1.

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

About 50 kms from Pathankot and 170 kms from Chandigarh, Himachal Pradesh, India.

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)

Impounded across the river Beas, the Pong reservoir with a catchment area of 12,561 sq.kms and mean water spread of 15662 ha. came into existence during 1975. The dam was created on Beas river in District Kangra, Himachal Pradesh, for hydel and irrigation purposes. The location is on the junction of two great faunal realms; Palaearctic to the north and Oriental to the south (Mackinon *et al* 1986). The dam resulted in formation of a huge reservoir with a maximum waterspread of 314 sq.km. The Dhauladhar mountains form the backdrop of this reservoir which has started intercepting the wintering waterfowl on their trans-Himalayan migration to north and central India. The reservoir was declared a bird sanctuary in 1983. An area of 5 km from the periphery of the lake margins has been proposed to function as buffer zone for the management of the bird sanctuary.

Climatic Conditions

Summer: The climate of the Pong Dam Lake Bird Sanctuary is typical of the northern India. The monsoon affects the area prominently. Summers are hot and humid (maximum temp. 40^0 C.) and winters are quite cold and mostly dry.

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

The formation of Pong dam has prevented the inundation of surrounding upland areas by routine flooding during the monsoon season as most of excess waters are dispersed and stored within the reservoir.

The downstream area is prevented from flooding due to water regulation, storage and removal. Groundwater recharge is an additional advantage.

1. The artificial reservoir is generating hundreds of Mega watt energy through hydel project which is not only catering to this state but also neighboring states. Irrigation water is channeled to the fertile areas of Punjab and Rajasthan Deserts is being executed.
2. The emergent vegetation helps preventing soil erosion and large scale storm abatement. Silt trapping for various purposes is also accomplished.

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

There is some submerged aquatic vegetation in the reservoir. Because of the pronounced seasonal changes in water level, the shoreline does not support extensive areas of emergent vegetation. The surrounding hill sides have mixed deciduous and pine *Pinus roxbrghii* forest. This man made water body has created the following five main types of avian habitats in the reservoir area.

1. Mudflats and mudspits along the receding shore-line formed from October onwards:
2. Open deep water;
3. Dry sand banks with little or no vegetation;
4. Waterside vegetation and swamps below the out-fall from the dam;
5. Shallow water at the reservoir margin.

Organic matter, worms, insects, and molluscs on the mudflats, provide a favourable diet for many wintering waterfowl and plovers. The mudflats are also used by waterside birds such as wagtails, sand larks and pipits. Swamp habitat below the outfall of the dam is important for waders as well as ducks and coot. The shallow water on the margins of the reservoir are important feeding areas for a large number of dabbling ducks and some long-legged waders and the sandy banks strewn with small boulders near the reservoir margin are used by stone curlew and pratincoles. Bar headed geese and ruddy shelduck spend most of their time feeding in the draw down area, which is cultivated by local people during the winter. Waterside birds include warblers, babblers, munias, kingfishers and predators, which occur in swamps as well as in several of the other habitat types.

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

None recorded so far.

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

Birds and fishes are the main elements of fauna at the Pong Dam Lake.

Bird Diversity: The environs of the Pong Dam Lake support a good bird diversity. More than 220 bird species belonging to 54 bird families have been identified so far (Pandey 1989). The present waterfowl diversity of the bird sanctuary is rich. It supports 54 species of waterfowls (Pandey 1993) as compared to 39 reported before creation of the dam (Whistler 1926). The sanctuary is an important staging area for an annual migratory waterfowl population of more that 20,000 birds comprising mainly of barheaded geese *Anser indicus*, northern lapwing *Vanellus vanellus*, ruddy shelduck *Tadorna ferruginea*, pintail *Anas acuta*, common teal *Anas crecca*, mallard *Anas poecilorhyncha,* coot *Fulica atra*, etc. The rednecked grebe *Podiceps griseigena* was recorded from this reservoir for the first time in India (Gaston and Pandey 1987). This gives the area national as well as international significance (Scott and Poole, 1989) for the conservation of several waterfowls. The black headed gull, great black headed gull and herring gull, species which are fairly uncommon in India away from the coast, visit the reservoir each winter, which acts as an important staging area for migrants such as bar headed geese and northern lapwing while five species, namely ruddy shelduck, pintail, common teal, mallard and coot, winter at the reservoir in their thousands.

Table: Waterside birds at Pong Dam reservoir (Pandey, 1993)

Species name	**Status according to Whistler (1926)**	**After creation of the Dam**
Striated babbler *Turdoides earlei*	-	Common, local
Blue throat *Erithacus svecicus*	Common, winter visitor	Common, winter visitor
Stariated marsh warbler *Magalurus palustyris*	-	Common, local
Red munia *Estrilda amandava*	-	Common, local
Indian white wagtail *Motacilla alba*	Common, winter visitor	Common, winter visitor
Large pied wagtail *M. Maderaspatensis*	Common, local	Common, local
Grey wagtail *M. Cinerea*	Common, winter visitor	Common, winter visitor
Yellow wagtail *M. flava*	Occasional, straggler	Occasional, straggler
Tawny pipit *Anthus campestris*	-	Occasional, winter visitor

Indian sand lark *Calandrella raytal*	Common, local	Common, local
Crow pheasant *Centropus*	-	Common, local
Marsh harrier *Circus aeruginoss*	Occasional, migratory	Common, local
Osprey *Pandion haliaetus*	Occasional, summer visitor	Occasional, summer visitor
Pallas'fishing eagle *Haliaeetus leucoryphus*	Common, local	Common, local

Important observations during the waterbird counts at the Pong Dam Bird Sanctuary during past seven consecutive years:

Main Observations	**Year**	**Remarks**
Sightings of Red-necked grebe *Podiceps griseigena*	1988-89 (15); 1989-90 (17) 1990-91 (10); 1991-92 (21) 1992-93 (o); 1993-94 (2) 1994-95 (6).	First sighted on 2nd December 1985
Conglomerations of Great Cormorants *Phalacrocorax carbo*	1993-94 1994-95	2600 birds on one sandbar. In flight.
Sighting of Black storks *Ciconia nigra*	1988-89	Birds could not be sighted during subsequent surveys.
Sighting of Greylag goose *Anser anser*	1994-95	First recorded sighting of 10 birds in the area.
Observations on Black bellied terns *Sterna melanogaster*	1988-89 (5); 1989-90 (0) 1990-91 (0); 1991-92 (5) 1992-93 (5); 1993-94 (0) 1994-95 (0).	Observations vary over the years.
Observations on gulls and terns	All over the years	One of the few water bodies attracting gulls and terns in hundreds.

Fish Diversity: A total of 27 fish species (sub-species, varieties) belonging to six families have been encountered in the Pong reservoir. Pong reservoir may be categorized as a *Mystus* reservoir. *M. seenghala* is showing constant increase during the last 10 years. Mahseer is highly precious and sought-after fish of the Pong reservoir. It's probably the only reservoir in the country, which provide the opportunity of Mahseer angling.

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

Prior to the impoundment of the river Beas, a subsistence fishery of inconsequential nature existed in the river and adjoining streams and the average catch hardly exceeded 2-4 kg per fishermen per day, but with the formulation of the reservoir, a lucrative fishery started attracting large number of fishermen and the oustees who had no other viable means of livelihood. The commercial fishing in the reservoir was initiated soon after its emergence. The total catch during the first year of fishing operation was 98 tonnes and increased progressively attaining a peak of 779 tones (1987-88), fluctuating within a narrow range of 443-596 tonnes. The catches of mahseer in the reservoir has shown remarkably consistency during the past 10 years and landing have fluctuated between 50-81 tonnes. The highest catches of mahseer were recorded during 1997-98.The fisheries department initiated training courses for operating gears the deeper waters for fishermen. This, however, inspired large number of oustees of various communities to adopt

fishing as a profession. Besides direct employment to over 1789 fishermen, the fishing activities provide indirect job to over 1000 families engaged in helping fishermen, carrying/transportation packing of fish, weaving and mending of gears, marketing etc.

The fishermen in the area are well organized. Presently there are 14 fishermen cooperative societies functioning in the reservoir. There are about 1400 active fishermen recruited from 4000 oustees settled near the reservoir. This accounts for about 30.4% of the total population of reservoir fishermen.

20. **Land tenure/ownership of**: (a) site (b) surrounding area

(a) Site:
- The area of reservoir is under the control of Beas Bhakhra Mangement Board (BBMB)
- The wildlife wing of Himachal Pradesh Forest Department (HPFD) manages the Pong Dam Wild Life Sanctuary.

(b) Surrounding area:
- The catchment is owned by the state of Himachal Pradesh.

21. **Current land use**: (a) site (b) surroundings/catchment

(a) Site:
- Electricity generation, irrigation and fishing.

(b) Surrounding area:
- Agriculture, tree plantation.

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

(a) **Site:**
- Prior to the construction and completion of the reservoir, detailed study on ecology and fisheries of River Beas had never been done (Sehgal, 1988). However, Howel (1916) recorded *Oreinus sinnatus, S. richardsonii* and *Glyptosternum striatus* and three major fishes of river Beas recorded from Beas Kund to Largi- a stretch of approximately 150 km. Later Singh (1982) listed *T. Putitora, S richardsonii, L. dero* and *W. attu* from Beas river. The creation of the reservoir while at the one hand has created a perennial source of water body but on the other had certain migratory species started competing to retain their position in the ecosystem. Of these, three most important are the golden mahseer (*T. putitora)*, Snow trout (*S. richardsonii)* and *L. dero.* The mahseer which had its migratory run upto Sultanpur near Kullu has disappeared in this area. The other affected species are S. richardsonii and L. dero. While the former could not establish in the new environment, the latter is struggling to retain its progeny in the reservoir.

(b) Surrounding area:
- **Disturbance or Threats: Illicit Hunting:** The Himachal Pradesh state government imposed a moratorium on felling of timber in all the protected areas in 1984. Likewise, a ban on hunting was imposed in 1982 which is still continuing (Gaston and Garson 1993) and has shown favourable results for the wildlife of this bird sanctuary. However, the waterbird habitats come in direct conflict with the local people cultivating the drawdown area as waterline recedes. If there are habitual law-breakers and poachers in the protected area, they must be firmly dealt with in the initial phase of the ecodevelopment programme. Suggestions can be advanced in favour of anti-poaching squads consisting of ex-armymen, forest officials and local villagers. The Indian Wildlife (Protection) Act 1972 provides for awards to such people who help in detection and catching poachers.

The semi-structured interviews indicated the attitude of villagers towards the Pong Dam Bird Sanctuary. Most of them did not know the existence of a protected area in their vicinity. The fishermen and those who cultivate in the draw-down area, however, knew about the Pong Dam Bird Sanctuary because the wildlife guards told them not to harm the birds. The cultivation disturbs the mudflats and other waterbird habitats during the winter season. In past five years, there has been an increase in reports of the severity of crop damage by the waterfowls, mainly Bar-headed geese and Brahminy ducks. Secondly, fishing done by nets often cause obstruction to the diving ducks. The poaching is not a severe threat, though a few cases have been detected by the sanctuary protection staff.

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)

In 1986, the entire reservoir was declared as a Wildlife Sanctuary by the Himachal Pradesh government. A management plan (Chandra, 1992) for the Pong Dam Bird Sanctuary mainly addresses issues inside the PA boundaries such as, protection, habitat improvement, tourism, and regulation, roads and staff quarters, etc. The HPFD has undertaken plantation work in the peripheral area of the lake. This has been done for checking the silt as well as providing nesting and roosting places for the birds. The island of Ransar has been developed for nature conservation education. A Rest House has been built on this island and boat facility is provided for the school children to go upto the island for birding.

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

Three types of measures are proposed:

1. To manage the habitat
2. To co-exist with the local community
3. Ecotourism

1. Habitat Management:

Some of the suggested measures are:

(a) Creation of permanent shallow-water area where reed-beds and other perennial aquatic vegetation will develop and attract additional bird species.
(b) The establishment of trees on the main island to provide nesting sites for colonial nesting birds such as storks, herons and egret.
(c) Planting of variety of trees on the lake margins to attract more and more birds.
(d) One area, the mouth of the Baner Khad (on river Banganga) just below Haripur Guler, is recommended for development. This can be done by erecting an earthen dam with water regulatory mechanisms so that shallow area are developed for establishing heronaries. If this is successful, then one or two areas can be developed and managed for wildlife.

An attempt is being made to extend the sanctuary boundary to incorporate the pools and marshy area below the dam, thereby increasing habitat diversity within the protected area.

II. To co-exist with the local community:

Efforts to conserve forests and wildlife have gradually begun to shift away from law enforcement and use restrictions during the last two decades, and towards more participatory approaches

emphasizing equitable and sustainable use of natural resources by local people. This change in approach is particularly important in rural areas of the Pong Dam Bird Sanctuary where biodiversity is concentrated, and where poverty tends to be pervasive.

There is a need to have the present management plan reviewed and updated to address, interalia, the following issues:

- Preparation of the strategies and action programmes for community awareness and mobilization (CAM) and conservation education (CE) in the villages.
- Integration of Pong Dam Lake Bird Sanctuary concerns including consumptive and nonconsumptive benefits into the management plan and establish mechanisms to integrate these concerns into regional (district) development plans.

Community Awareness and Mobilization (CAM) and Conservation Education (CE):

Already, the National Literacy Mission is active in the Pong Dam bird sanctuary area which can become conservation-oriented through proper planning. The catalytic force to do such a job is involvement of local wisdom in nature conservation through formal and informal nature education programmes. The bird sanctuary management needs to evolve strategies to publicise the wetland values among the local people. Proper publicity of the biological, ethnic, and social aspects of the sanctuary can attract a number of educational institutions and donor agencies to contribute to the cause of conservation of such values. A well coordinated effort between the bird sanctuary managment and these agencies would help in spreading the massage of people and conservation friendly ecodevelopment project.

Planning and Integration of Pong Dam Bird Sanctuary Concerns in the Regional Planning:
The involvement of local people from the stage of visualising and designing a plan and then its implementation is to be emphasized. Establishing contact and rapport with various agencies (both govt. and non-govt.), setting up coordination mechanisms at village, and park managment levels, collecting information on govt. schemes, preparing comprehensive plans for various programmes under ecodevelopment are some of the issues that need to be addressed. The Pong Dam reservoir is a man-made structure, and all the biological resources thus created are incidental. From a legal point of view any type of activity which damages a natural ecosystem is prohibited under the Indian Wildlife Protection Act 1972. However, the consumptive benefits from fisheries are of significant nature to the local people. In this context, there may be a situation in which the existing policies regarding the conservation of man-made and natural ecosystems will need to be reviewed.

In order to incorporate the above concerns, the existing management plan needs to be appraised. The plan should emphasize the ways of integrating PA planning into the regional planning and of making the buffer zone management compatible with the managment of wetland.

Community Based Ecotourism at Pong Dam Lake:

The location of the Pong Dam Lake is highly suited for ecotourism. It is close to the towns of Pathankot in Punjab and religious places of Kangra, Chamunda in Himachal Pradesh. The natural grandeur of the Lake with its magnificent backdrop invites an ecotourist. Ecotourism at the Lake will aim at providing ecotourist with nature tourism opportunities and also generating economic returns to strengthen the Lake management and augment economic benefits for local people.

“Ecotourism” is not simply taking a holiday in a nature, watching wildlife, or engaging in an outdoor sport, it is distinguished from conventional tourism in that it employs measures to reduce negative impacts on the natural and cultural environment. “ Community – based ecotourism” (CBET) takes the

definition on step further. It ensures that the benefits, both social and economic, are realized by local communities. If local peole receive direct economic benefits from a protected area, they are less likely to resent its presence and more inclined to support management activities.

The Pong Dam Lake and the surrounding areas have excellent potential to be developed as a CBET destination. Discussions with local villagers indicate that community interest in tourism is very high but they lack the skills, knowledge and support to develop it. From a product perspective, the jagged peaks provide breathtaking mountain scenery, the waterfown viewing opportunities are good, recreational opportunities are diverse, and local cultures are alive and quite interesting. It is quiet, uncrowded, and unpolluted – in fact it is the only place left in the Kangra Valley that has not been overcome by the rapacious tourist development that has plagued the area as a whole, one of India's major Himalayan tourist desstinations. From a conservation perspective, CBET can engage a wide cross section of people, and given the other factors mentioned above, it is the most promising strategy to reduce fishing and poaching of waterfowl inside the Pong Dam Lake.

Community Based Ecotourism can be promoted/affected by:

- **On pilot basis** try at preferably in 7 to 10 JFM locations in the villages on the margins of the Lake to **link management of the Community based Ecotourism at the Lake to the Village Forest Development Societies (VFDSs)** and let the tourists also know about it.
- **Rules to incorporate** preventing use of loudspeakers, tape-recorders; closing approach paths/trails/treks to the waterfowl breeding sites during breeding season;
- Restriction on use of flash photography; no uncontrolled picnic
- **Eco-friendly Forest Rest Houses** with alternative energy sources e.g. indane cooking gas, solar lights, solar geysers, green houses (most of these are available from Himurja)
- Development of **brochures to market** the eco-friendly Community based Ecotourism at the Pong Dam Lake, 'Heritage FRH' and trekking routes around them
- **Display of interesting information** regarding birds, mammals, plants, local ecosystem, longterm landscape change, socio-economic variables of influence (population growth, tourist increase etc.) in form of charts/pictures/maps, etc. Also make available a list of local birds, animals, brochures, maps, etc. with the ecotourist guide or chowkidar on nominal rates.
- **A rout policy** (with do's and don'ts; arrangement of fuel *en route* for cooking by the tourist/HPFD; arrangement of porters) may be evolved and tried on pilot basis at the Pong Dam Lake.
- **Improved waste disposal** around Rest Houses and along the trekking routes
- **Assessment of carrying capacity** (such as a study done by Tej Vir Singh on Manali; studies done by Kullu branch of G.B. Pant Institute)
- **Expended research** such as recent study on ecotourism in Great Himalayan National Park
- **Appropriate training** for ecotourist guides, concerned Forest Guards/Dy. Rangers/Rangers through specially designed courses at the Forest Training School, Chail or Sundernagar
- Setting-up **mechanisms** so that the part of earnings from ecotourism including tourism zone entrance fee is ploughed back for maintenance of the Pong Lake and payment of wages of ecotourist guides, etc.
- **Enlisting cooperation and help** of relevant GOs, NGOs, institutions such as Wildlife Institute of India, Bombay Natural History Society and Worldwide Fund for Nature-India, etc.

Assumptions regarding Possible Impacts of Community based Ecotourism:

- Natural resource tourism may impact the resource base via the demand created upon fuelwood, environment pollution and conflicts with resource needs of the local people

In order to nullify the effect of above assumption, the following Actions need to be undertaken:

(i) **incentives for local people** through rewritten/upgraded working plans of territorial divisions and management plans of Pas
(ii) **Investment in infrastructure** e.g. timely repairs/maintenance of Rest Houses, trekking routes, bridle paths, etc.
(iii) **Clarification of responsibilities** of involved HPFD, Tourism Department staff/ecotourist guides/porters/local Panchayats/WSCGs, etc.
(iv) **Maximization of local technical ability** regarding positive and negative aspects of ecotourism
(v) **Beginning of regular programmes in conservation education** for the local schools and generally for the village communities. The HP Gyan Vigyan Samiti (of National Literacy Mission) may do a good job in association with the HPFD. A pilot project may be tried in the villages of Pong Dam Lake.
(vi) Introduction of **fuel sufficiency rule**
(vii) **Regular scouting trips** of the HPFD staff on different routes through the forest / PA and report back on trail conditions, wildlife, forest use, littering by trekking groups, etc.

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

Regular winter migratory bird surveys are being conducted since 1985 (Pandey 1993; Perrenou et al 1990). This has resulted in accumulation of annual data for waterfowl at the reservoir. Each visit followed by surveys for human-waterfowl conflict. Semi-structured interviews were conducted, mainly on the right bank of the Beas river where the concentration of waterbirds is maximum. The consistency of survey efforts provides useful information for biological as well as social monitoring of this PA. The villages of Jawali, Dhameta, Dada-Siba, Nagrota-Surian, Haripur, Guglara, Harsar, and Nandpur were intensively covered to study impact of local communities on the waterbird diversity. The emerging trends in conflict situations are providing a basis for planning an ecodevelopment programme.

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

The island of Ramsar has been developed for nature conservation education. A Rest House has been built on this island and boat facility is provided for the school children to go upto the island for birding.

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

Pong wetland provide aesthetic setting for cultural and recreational activities such as swimming fishing, canoeing, bird watching etc.

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

Territorial: Indian State of Himachal Pradesh
Functional: Area of Reservoir under control of Beas Bhakhra Management Board

29. **Management authority**: (name and address of local body directly responsible for managing the wetland)
Director, Great Himalayan National Park
Wildlife Wing, Himachal Pradesh Forest Department manages the Pong Dam Wildlife Sanctuary.

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

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Fish diversity in Pong Dam Lake: Appendix 1.

Name of Fish (family wise)	Remarks
Family Cyprinidae *Barilius bendelisis,* *B.vagra,,* *Cirrhinus mrigala,* *Crossocheiluls latius,* *Catla catla,* *Labeo dero,* *L bata,* *L. crohita,* *Cyprinus carpio,* *Schizothorax richardsonii,* *Tor putitora,* *Puntius ticto,* *P.sarana,* **Family Cobitidae** *Botia birdi,* *Naemacheilus Kangrae* **Family Bagaridae** *Mystus aor,* *M.Seenghala,* *Bagarius bagarius,* *Wallago atu* **Family Sisoridae** Glyptothorax pectinopterus, *G.garhwali* **Family Chanidae** *Channa marulius,* *C.striatus* *C.cephalus* **Family Mastacembelidae** *Mastacembelus ormatus*	Very little data on fish is available in Beas river prior to construction of the Pong Dam. A study done by Howel in 1916 indicates presence of *Oreinus sinnatus*, *S.riehardsonii* and *Glyptosternun striatus* as the three major fishes of river Beas. After creation of the Dam, it has been noted that golden masher *(T.putitora),* Snow trout *(S. richardsonii)* and *L.dero* have started declining in their earlier habitat. Similarly *S.richardosonii* is diminishing while *L.dero* is competing to retain its presence in the reservoir. In 1974-75 the stocking programme started in the Pong Dam Lake. Mainly seed of mirror carp and Indian major carps were introduced. *L.rohita, C.catla, C.mrigala* and *C.carpic* are four major species which have been stocked in the reservoir with a ratio of 2:2:1:1. The fish production in the lake has been recorded highest during the year when the water level was at its maximum.

Source: Reports of Department of Fisheries, Himachal Pradesh