Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

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2. Date this sheet was completed:

18 April 2006

3. Country:
Nepal

4. Name of the Ramsar site:
The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.
Gosaikunda and Associated Lakes

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only)**:**
a) Designation of a new Ramsar site √; or
b) Updated information on an existing Ramsar site ❑

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged: ❑
or
If the site boundary has changed:
i) the boundary has been delineated more accurately ❑; or
ii) the boundary has been extended ❑; or
iii) the boundary has been restricted** ❑
and/or
If the site area has changed:
i) the area has been measured more accurately ❑; or
ii) the area has been extended ❑; or
iii) the area has been reduced** ❑

** **Important note**: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i**) a hard copy** (required for inclusion of site in the Ramsar List): √;

ii**) an electronic format** (e.g. a JPEG or ArcView image) √;

iii)**a GIS file providing geo-referenced site boundary vectors and attribute tables** √.

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

Mainly follows the catchment boundary

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8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

28°5.00' latitude and 85°24.96' Longitude

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9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

It lies in the central development region in Bagamti Zone, Central Nepal. The Administrative district is Rasuwa. The district headquarter and the park headquarter Dhunche is the nearest town from where it takes one and half days normal walk to reach Gosaikunda. Other small town, Syafrubenshi takes similar time whereas Thulo Syafru takes four hour less compared to Dhunche. Chandanbari is a place on the way to Gosaikunda, almost half way where lodge and food is available.
The site falls within the Dhunche and Syafru Village Development Committees of Rasuwa District.

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10. Elevation: (in metres: average and/or maximum & minimum)

Gosaikunda: 4,381 m (Saraswoti Kunda 4,054-Surya Kunda 4,620m)

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11. Area: (in hectares)

1,030 hectare as the catchment of Gosaikund and associated lakes with 54 ha as water bodies covered by 16 lakes.

Table. Main Lakes around Gosaikunda in Langtang National Park, Nepal.

Name	Area (Ha.)	Altitude (m)	Latitude	Longitude	Location District/VDC
BhairabKunda	16.75	4261	28°4'51"	85°24'36"	Rasuwa, Syafru/Yarsa
Gosaikunda	13.80	4381	28°5.00'	85°24'57"	Rasuwa, Syafru
AmaKund	5.22	4560	28°4'02'	85°25'22"	Rasuwa, Dhunche
SuryaKunda	4.54	4609	28°4'15"	85°25'51"	Sindhupalchowk, Ghyangphedi
SarswotiKunda	3.80	4054	28°4'49"	85°24'8"	Rasuwa,Urleni
RagatKund	2.67	4520	28°4'6"	85°25'18"	Rasuwa, Dhunche
ChandraKund	2.59	4545	28°4'9"	85°25'27"	Rasuwa, Dhunche
KyumuehhoKund	2.34	4329	28°4'15"	85°24'15"	Rasuwa, Dhunche
DudhKund	1.80	4420	28°4'35"	85°25'10"	Rasuwa, Dhunche/Syafru
GaneshKund	1.41	4620	28°4'29"	85°25'22"	Rasuwa, Syafru
BatasKund	1.02	4500	28°4'51"	85°24'46"	Rasuwa, Dhunche

(Sources: Field study DNPWC/WWF Nepal July 2005; Mool et al. 2002).

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Freshwater lake of significant sizes and number situated in distinct central Himalayan geographical location that shows the history of development of non-Glacial water sources. There are at least 15 associated lakes and ponds.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

(1) •	(2)•	3 •	4 •	5 •	6 •	7	8 •	9
√❑	√❑	√❑	❑	❑	❑	❑	❑	❑

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criteria 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.

Gosainkund lake system/series is a unique and representative wetland type in the high Himalayan Paleoartic biogeographical region. It is one of the world's highest fresh water lake system, between 4,054-4,620 m altitude, lies in the Langtang National Park, after the name of great Langtang Himalayas. These lakes are important sources of water for the famous Trisuli river of Nepal.. Trishuli River forms a major tributary of Narayani River, one of the 4 major River system of Nepal.

Criteria 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

Gosaikund wetland (alpine meadows, bogs, lakes/ponds, streams, wet steep slopes) is a unique or critical habitat for a number of , rare and vulnerable species of plants and animals.

List of endangered and vulnerable fauna species

S.No	Scientific name	Vernacular name	IUCN Red List	Government of Nepal	CITES	CMS
1	*Uncia uncia*	Snow leopard	EN	Protected	I	
2	*Muschus chrysogaster,*	Musk deer	LR\nt	Protected		
3	*Ailurus fulgens*	Red Panda	EN	Protected		
4	*Anas crecca*	Common teal	LC			II
5	*Aythya fuligula*	Tufted Duck	LC			II
6	*Mergus merganser*	Common Merganser	LC			II
7	*Anas acuta*	Northern Pintail	LC			II

List of threatened flora species:

SN	Species	Vernacular name	IUCN Red list category	GoN	CITES
1.	*Aconitum spicatum*	Bikh	VU		
2.	*Heracleum lallii*	Bhutkesh	EN (global)		
3.	*Jurinea dolomiaea*		NT		
4.	*Meconopsis dhwojii*	Himalayan Poppy	NT (global)		
5.	*Nardostachys grandiflora*	Bhulte	VU	√**	II
6.	*Neopicrorhiza scrophulariifolia*	Kutki	VU		
7.	*Rheum australe*	Padamchal	VU		
8.	*Rheum moorcroftianum*	Padamchal	NT		
9.	*Swertia multicaulis*	Sharmaguru	DD		

** Banned for export except processed with permission of department of forests.

Criteria 3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.

The wetland is the center of endemism in the central Himalayan region studied well compared to the other region with about eight endemic plant species in the catchment.
At least 6 endemic species of plants are occurred in and around the wetland. These include Himalayan Poppy (*Meconopsis dhowjii*), Golden Primerose (*Primula aureate*), Bhutkesh (*Heracleum lalii*), *Pedicularis pseudoregeliana*, Suryamukhi (*Cremanthodium nepalense*), and *Rhododendron cowanianum*.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

a) biogeographic region:
Eastern Himalayan Alpine Meadows (112)
WWF Global 200 Ecoregions
b) biogeographic regionalisation scheme (include reference citation):
Himalyan Paleoarctic
Miklos D.F. Udvardy, A Classification of the Biogeographical Provinces of the World. Prepared as a contribution to UNESCO's Man and the Biosphere Programme Project No. 8. IUCN Occasional Paper No. 18. IUCN, Morges, Switzerland, 1975.

16. Physical features of the site:
Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The rock are predominantly of Gneiss followed by mica schist, calc-silicate gneiss, migmatite, marble and quartzite (RECHAM,HAF & EMRC JV 2005).
The wetlands area has rugged terrain. The small valley from three directions ultimately joins to the main valley. Thus the water from these streams and lakes ultimately collects into Gosaikunda and reaches to SaraswotiKunda via BhairabKunda. Another series of wetlands joins with Saraswoti Kunda via kyumuehhokunda.The wetlands are originated naturally.Clay mixed with humus at some points where the area has grazing land around.
The chemical parameters of the water are within the permissible limits for drinking as per the WHO value (Annex 1).
Gosaikunda is 25.5 m and Bhairabkund is 58.1 m. in depth (RECHAM,HAF & EMRC JV 2005) whereas other lakes are shallow in depth compared to these two.
The level of water increases during the rainy season (June-September) by approx. 40 cm and decreases during the winter. The melting of ice after winter may increases the volume of water.
The wetland is source of fresh water for down stream.The down stream area is basically inside the Langtang National Park and its buffer zone and is mainly limited to domestic use for grazing animals including two local Ghattas (water mill used for grinding local crop products such as corn, buckwheat and millet) operated at the Ghatte Khola area near Dhunche. The general climate is pronounced winter with about minus 0 to 20°C. The lakes are frozen for about 2-3 months in winter and melts slowly by the end of Feb and early March. The summer is mild with pronounced

rain from June to September. The rest of the months are mild cold and are optimum for tourism activities.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

It ranges between 28°4.04'-28°5.00' Latitude and 85°24.14'-85°25.85' Longitude. The area is within the Gosaikunda cryatalline Nappe. High-grade crystalline rock units north of Shivapuri zone are included in the Gosaikunda Crystalline Nappe. The frontal part of the Gosaikunda crystalline Nappe reaches almost the pegmatite of the Shivapuri injection zone and it joins the crystalline root zone in the Langtang Himal in the North. The crystalline rocks of this Nappe are separated from the underlying garnet-biotite grade metamorphic rocks of the lesser Himalaya tectonic unit by the main central thrust. The rock of the catchment including lake are predominantly of Gneiss followed by mica schist, calc-silicate gneiss, migmatite, marble and quartzite (RECHAM,HAF & EMRC JV 2005).

Geographically this zone is colluevial and morinal deposited surface, composed of various kinds of gneisses that forms the basement of the Tibetan-Tethys-Sedimentary sequence and consists of high grade metamorphic rocks which include various kinds of genisses, schists and migmatites. Although traditionally these rock units were thought to be very old rocks of the Indian shield forming the basement for the Tethyan as well as lesser Himalayan rocks, recent studies have shown that they are much younger rocks of the Neoproterozoic age, about 800 to 500 million years old.

The area has rugged terrain. The small valley from three directions ultimately joins to the main valley. Thus the water from these streams and lakes ultimately collects into Gosaikunda and reaches to SaraswotiKunda via BhairabKunda. Another series of wetlands joins with Saraswoti Kunda via kyumuehhokunda.

Clay mixed with humus at some points where the area has grazing land around. There is variation between lakes and some of them have stone in the base of the lake.

The wetlands experience long winter with pronounced cold from November to February with light summer and heavy rain from June to October. The other months are cold and clear.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The Gosaikunda and Naukunda wetland are the source of the Trishuli River. The amount of rain and snow determines the volume of water discharged to the Trishuli River. Sediments from the slope of the catchment are deposited at the bottom of lake.

The River stretch between Betrawati village and Trishuli town (Nuwakot district) is partially dammed to divert water to a reservoir that produces 20 MW electricity (from two power houses at Trishuli and Devighat) through a project known as "Trishuli Devighat hydroelectricity project". The major source of this electricity production is the Trishuli River that originates from the Trishul Dhara via Gosaikunda lake series. Thus the clean, unpolluted and regular supply of water down

stream from Gosaikunda-Naukunda lake series has high significance not only for the local communities of Dhunche but also to the down stream people.
The aquatic corridor that links Chitwan National Park (low land terai) with Langtang National Park (High altitude Himalaya) also substantially supports the ground water recharge, irrigation and domestic water use including cold water fish farming in Nuwakot.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

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)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.
Tp,O,U,Va,Vt,M

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

This zone represents a treeless region with shrub land interspersed by rocky slopes and alpine pasture. The vegetation is represented by Alpine pasture meadow and Dwarf Rhododendron scrub. The alpine pasture meadow is dominated by *Carex* spp., *Kobresia* spp., *Poa* spp., *Festuca* spp., with a number of colorful herbs belonging to family Rosaceae, Primulaceae, Ranunculacea, Gentianaceae, Polygonaceae, Campanulaceae, Papaveracea, Crassulaceae, Scrophulariaceae and so on. Vegetation of this area associates a number of medicinal and aromatic plants.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The common medicinal plants are Sharmaguru (*Swertia multicaulis*), Chiraito (*Swertia racemosa*), Bikh (*Aconitum spicatum*), Nirbishi (*Delphinum denudatum*),Kutki (*Neopicrorhiza scrophulariifolia)*, Bhulte (*Nardostachys grandiflora)*, Padamchal (*Rheum acuminatum*)*, Padamchal (Rheum australe*)*, Padamchal (Rheum moorcroftianum*)*, Jurinea dolomiaea, Hi,alayan Poppy (Meconopsis, dhwojii*)*, Bhutkesh (Heracleum lallii*), etc.

The dwarf Rhododendron scrub is composed with Sunpate (*Rhododendron anthopogon),* (*R. lepidotum*)*, R. setosum*, forming extensive mats of several hectares. Bajradanti (*Potentilla fruticosa), Cotoneaster microphyllus* are observed mainly in rocky areas. Dhupi (*Juniperus recurva*) and *Berberis* spp., are rarely observed in this area.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The densities of zooplankton were found $1.07x10^6$ ind./m^3 at 10 m depth. The size of the phytoplankton was bigger at 20 m depth. *Daphnia* sp., *Cyclops* sp., and Napuliar larvae of *Cyclops* were identified in the samples which were 33%, 53% and 14% respectively at 10m depth whereas 52%, 35% and 11% at 20 m. depth respectively. Zooplankton could support moderate fish population in Lake but were not recorded by a 30 mm variable mess gill.

Six wetland birds (Family Anatidae, order Anseriformes) Bar-headed Goose (*Anser indicus)*- Passage migrant less than five records at Park, Ruddy Shelduck (*Tadorna ferruginea)*- less than five records at Park, Breeding confirmed, Summer visitor, Common Teal (*Anas crecca)*- 5% chance to be seen, passage migrant, Tufted Duck (*Aythya fuligula)*- less than five records at Park, Passage migrant ; Common Merganser *(Mergus merganser),* less than five records at Park, Passage migrant,; Northern Pintail (*Anas acuta)*- 5% chance to be seen, Passage migrant, *(*Karki, and Thapa 2001) were said to inhabit the wetland. Of them Ruddy Shelduck is said to bred (Inskipp 1989) in Langtang National Park.

The local people (Nurpu Chiring Sherpa, Naukunda UC Chairman; Nima Gyalgen Tamang, Hotel owner, Peaceful hotel, Gosaikunda) informed that the birds mentioned above can bee seen in Saraswoti Kunda to Gosaikunda via Bhairab Kunda in July/August and Oct/Nov for about a brief period of 10-15 days. Two common teal (*Anas crecca)* were recorded on July 2000 at Bhairab Kunda.

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

The cultural and religious use of Gosaikunda is mainly celebrated during the Gangadashahara and Janai purnima festivals. The traditional healers such as Jhankri, Lama and some general people will play specific roles. Jhankri and Lama perform separate celebration as per their norms. Many local people gather in a group, make circles and perform cultural dances with duet in the local Tamang language. The marriage arrangement and love affairs also starts during these occasions. Local Sherpa

and Tamang people decorated with gold and silver ornaments and traditional dresses. Lama and Jhakris have specific dresses. People of the other castes and communities are also involved in the celebrations. Saints from different places such as Gorakhnath will come to the Gosainkunda area during the festival. The saints have used specific stoppages and routes from traditional times.
The archeological study is yet to do for the area. Any excavation is not been recorded. The site of Amar Singh and Lama Cave are some of the important archeological places and other are wanted for exploration.
People are not much seen to be dependent on the daily livelihood directly to the wetland. The tourism base of the social economy is dependent on wetland. Local herders are dependent to wetland for drinking their livestock and themselves.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box ❑ and describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

According to the Mythic tradition Gosaikunda's importance began after the god Shiva subdued the *Kalakuta* poison, which he consumed at the time of churning of the ocean (Mentioned in the *Mahabharat* and detailed story is found in the *Himawat Khanda* of the *Skandha Puran*). It mentions that when God Shiva consumed the poison his throat became blue and its effect made him to look into to proper place for water to subdue the effect of poison. He moved towards north, picked up his *Trishula*, stroke into the earth and subsequently sprang the water fountain from the hole. Thus, he laid his body in this lake and found himself completely relieved.
Gosainkund is source of religious and cultural assemblage. It also represents a great religious site for the entire Hindu and Buddhists community. People take holy bath during the Janaipurnima and Ganga dashahara festivals

24. Land tenure/ownership:

a) within the Ramsar site:
Government land owned by the Langtang National Park.

b) in the surrounding area:
Government land owned by the Langtang National Park.

25. Current land (including water) use:

a) within the Ramsar site:

b) in the surroundings/catchment:

Grazing during the summer and there are four hotels with camping sites near to the wetland. Mostly grazing areas towards the lower half are undisturbed upper half except the upper half which is used by trekking route for tourist and local people. A very small area, about 0.25 hectare is leased to four hotels, renewed every 5 year about 100 m south west of Gosaikunda wetlands. Another about 0.5 hectare of land adjacent to these hotels are facility zone of the pilgrims that encompasses a temple, one post of Langtang National Park , six rest houses, two toilets and some common places for the activities such as cultural dances. Areas between these facilities and further south west in the slopes are allowed to erect temporary teashops for the period of about 1 month (15 days each in the Ganga-dashahar and Janai-purnima festivals between June-September).

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site:

Pollution from the huge gathering during the Janaipurnima festival in the form of solid waste, plastic and cloth items added by the tourists and their support group staying near the site in 4 hotels, rest houses and tea shops. The source is generated within the site carried out from outside.

The palatable grasses are reduced and the growths of unpalatable and toxic plants are promoted as a result of overgrazing by Yaks, Yak hybrids, sheep's and goats.

b) in the surrounding area:

Grazing, Non-Timber Forest Product and fuel wood collection, garbage. Grazing by sheep, and chauri takes place in the site. The defecation reaches in the wetland. NTFP such as Swertia chiraito, S.multicaulis, Neopicrorhiza scrophulariiflora are collected by the local herders, persons attending the Janaipurnima festival and is unsustainable near the site. The visitors and the tea shops, hotels who cater to religious people and tourists/porters heavily depend up on the timber and fuel wood dependencies from the catchment and outside forest of the park.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Part of Langtang National Park. The park was established in 1976. **b)** If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ❑;Ib ❑; √II ❑; III ❑; IV ❑; V ❑; VI ❑

c) Does an officially approved management plan exist; and is it being implemented?:

An old approved management Plan exist but it is outdated. An approved buffer zone management plan is being implemented. A management plan including tourism is being prepared for the National Park.

d) Describe any other current management practices:
Lake area is designated as religious site (management category) and certain regulation on activities are regulated. The management zoning of Langtang National Park (approved by Department of National Parks and Wildlife Conservation) as Gosaikunda religious site regulates the killing of livestock for meat, over grazing of the site, pollution of the site, night halt of the transporting Yak-Nak and horses, ban on collection of fuel wood from the site.

28. Conservation measures proposed but not yet implemented:
e.g. management plan in preparation; official proposal as a legally protected area, etc.
Complete ban of killing animals for meat purpose and ban of grazing in the upper part of the catchment above the Gosaikunda Lake. The banned animals are goat., sheep, buffalo, cow, poultry which are consumed in the area.

29. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

The park head quarter at Dhunche has one guest house which provides lodging place for researcher. The Dhunche town has basic facilities for lodge and food. The lodge and food facility is also available near the Gosaikunda wetland in hotels.
The CAMP (Conservation Assessment and Management Planning, 2001) assessment has been used here. CAMP is national level expert consensus on the conservation status of plants besides also participated by regional experts. It is applied for Nepal but result will be considered while evaluating status in other participating countries while doing so in their respective countries. CAMP sometime s forwards it's analysis documents to support IUCN and other relevant organization. The categories used are DD – Data Deficient; EN- Endangered; Hf- Harvest for food; Hm- Harvest for medicine; H-Harvest; I-Interference; L- Loss of habitat; NT- Near threatened; Ov- Over exploitation; T-Trade, Tp- Trade in parts; VU- Vulnerable.)

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:
e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Park headquarter has recently built visitor information centre which provides basic information to visitors. The different conservation education related activities such as conservation of bamboo sticks (used by pilgrims), control of pollution (plastic bags, wet clothes), health care (high altitude

sickness, cold and safe drinking water) are carried out during the festivals. Ban on collection of sticks form forest tree and provide alternative bamboo (Nigalo) stick for religious trekkers, information not to disturb the wildlife, vegetation and litter the area, audio-visual and information materials distribution related to biodiversity conservation.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

The hotels provide basic food and lodge and tourists generally stop over there to go towards Helambu or Dhunche. People usually enjoy the sight seeing and cultural festivals. Observation of plants, animals such as Red Panda(*Ailurus fulgens*) and birds of the lower catchment and hiking to the ridge are among the preferred activities by visitors.

About 25-30 % of the tourist visiting Langtang National Park also visits Gosaikunda area. The highest number of tourist visiting to the Park is 13,166 in 2000/01 which has dropped down and reached to almost 5,000 now.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Territorial-State owned (Ministry of Forest and Soil Conservation). Functional-Department (Department of National Parks and Wildlife Conservation).

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Chief Conservation Officer: Dr. Narendra Man Babu Pradhan
Langtang National Park, Brabal, Dhunche, Rasuwa.
Nepal
Tel no : 00977 10540119/219
(Address for the DNPWC is also acceptable)

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

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http://www.worldwildlife.org/wildworld/profiles/g200/g112.html

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Annex 1. Laboratory Analysis of the water of Gosaikunda and Bhairabkunda Lakes of Langtang National Park.

Physical	Unit	WHOGV	Result	
			Gosaikunda	Bhairabkunda
Turbidity	NTU	5.0	<1.0	
Suspended Solids	Mg/l		<1.0	
Water Temperature during analysis	˚c		11	9
Transparency	m		>10	>10
Chemical				
pH		6.5-8.5	7.5	7.4
Total Alkalinity	Mg/l as $CaCo_3$	500.0	<2.0	12
Total Phosphate	Mg/l as $CaCo_3$		<0.05	
Total nitrogen	Mg/l as $CaCo_3$		<0.5	
Acidity	Mg/l as $CaCo_3$		<2.0	
Dissolved Oxygen	Mg/l		8.1	8.9
Biological oxygen Demand (BOD)	Mg/l		<0.5	<0.5
Free Carbon di-oxide	Mg/l		4.1	4.1
Hardness as $Caco_3$	Mg/l	100.0	4.0	6.0
Chloride	Mg/l	200.0	5.7	8.5
Nitrate-Nitrogen (N $o_{3\text{-}N)}$	Mg/l	45.0	<0.01	<0.01
Phosphate-Phosphorous (P04-P)	Mg/l		<0.01	<0.01