WETLANDS OF WESTERN NEPAL 2017
A Brief Profile of Selected Lakes

Government of Nepal
Ministry of Forests and Soil Conservation
Department of Forests
Babarmahal, Kathmandu, Nepal
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Wetlands of Western Nepal

Publisher
Department of Forests
Babarmahal, Kathmandu, Nepal
www.dof.gov.np
2017

Citation
DoF 2017, Wetlands of Western Nepal : A brief profile of Selected Lakes, Department of Forests, Babarmahal, Kathmandu, Nepal

Cover & inside Photo Credit
Conservation Development Foundation (CODEFUND), Nepal
Acknowledgements

Wetland conservation has been gaining importance globally and this is one of the major priority sectors of Government of Nepal since many years. Nepal’s wetlands follow the conservation history of more than 50 years. To enhance conservation of wetlands, Nepal has formulated the National Wetland Policy, 2003. Till date 10 wetlands of the country are declared as Ramsar sites after Nepal became the signatory of the Ramsar Convention in 1971. Wetlands are diverse like lakes, ponds, marshes, reservoirs, rivers and so on. Wetlands have ecological, socio-economic and cultural values and many indigenous communities depend on wetland resources for food and water. Wetlands protect human belief, inspire culture, maintain spirituality and admire prosperity of people.

Nepal has several wetlands of global significance. Therefore, Department of Forests conducted the inventory and assessment of lakes lying below 3000 masl in 13 districts (Achham, Baitadi, Bajhang, Bajura, Dadeldhura, Darchula, Dolpa, Doti, Gulmi, Humla, Jajarkot, Kanchanpur, and Kailali) in the fiscal year 2072/73. This document provides the brief profile of the selected lakes based on the inventory and assessment.

I would like to take this opportunity to thank Conservation Development Foundation (CODEFUND) Nepal, its team leader Mr. Shailendra Pokharel and team of experts for their service to carry out this task and submitting a comprehensive report on time. I would also like to thank former DDG Ganesh Jha, DDG Hem Aryan, DDG Shiva Kumar Wagle, Under-Secretary Mohan Raj Kafle, Under-Secretary Rabindra Maharjan, AFOS Shantaram Baral, Prakash Aryan and Ganesh Paudel for their continuous efforts and valuable technical inputs for this publication. I would also like to commend the generous support provided by all the communities, local institutions and individuals during the study. I am confident that the outcomes of this study will contribute in conserving these wetlands and enhancing the livelihood of wetland dependent communities.

Krishna Prasad Acharya
Director General
Wetlands are the vital ecosystem on the earth. Unplanned infrastructure development, encroachment, invasive species and sediment deposition has been affecting the wetlands. Besides that climate change has been posing serious threats to the freshwater ecosystems. Studies showed that from 1900 to the present day, 64% of wetlands have been lost as their value has not been realized in the past. Worldwide wetland resources are declining and hence we need to pay attention for the protection of these valuable wetland resources.

Nepal is signatory to the The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971. Till now, ten wetland sites of Nepal are listed in the Ramsar site of wetlands of international importance. Nepal has made several policy and legislative measures for the protection of wetlands. Notable of these is the National Wetland Policy 2012, which emphasizes the inventory of wetland resources. Inventory of wetland resources is necessary to protect and manage the wetlands as it serves as the baseline of wetlands. In this regard, Department of Forests has conducted the survey of the wetlands of the Mid-western and Far-western Development Region in fiscal year 2072/073. This report is the final output of the survey. Report contains the various informations about the 92 wetlands of these two development regions. Information regarding location, size, status, importance and other socio-economic characteristics of the wetlands have been contained in this report.

I hope this report would be useful for the academicians, governmental and nongovernmental organization to plan and carryout wetland conservation activities. The report serves as a guideline for wetland conservation and useful for planning. Thanks to all who contributed directly or indirectly in the preparation of this report.
सारसंक्षेप

मनाय राष्ट्रिय संयन्त्र तथा अन्तरराष्ट्रिय प्रतिबंधताका साथ सिमसार संरक्षणमा नेपाल सरकार क्रियाशील हुदै आएको छ । यसै क्रममा राष्ट्रिय सिमसार नीत २०१२ एक उपलब्धिका रूपमा रहेको छ जसले नेपालमा सिमसार संरक्षणका कार्यक्रम कार्यन्वयनलाई निर्देशित गरेको छ । बन विभागवाद नेपालका विभागन जिल्लाहरूमा सिमसार सम्बन्धि कार्यक्रमहरू संचालन हुने आएको छ । नेपालका ताल तलेयाहरू महत्त्वपूर्ण प्रकारका सिमसार हुनु जो स्थायी जलमण्डलको रूपमा जैविक विविधता, बाताकारणीय सेवा, संस्कृति र जिजिको पृजनकना आधार भूत खेत हुनु । तालका यिनै विविध महत्त्वात्मक मध्यनजर राख्दै तालका सवालहरूलाई सम्बन्धन गर्न नेपाल सरकार, संस्कृति, पर्यटन तथा नागरिक उड्डयन मन्त्रालय अन्तर्गतको ताल संरक्षण विकास समितिले सन् २०१४ सम्म नेपालका ६२ जिल्लाको तालहरूको अभिलेख तयार पारिएको छ । समितिले अभिलेख राखि बाइकी रेखाका परिचालनको गुल्मी, मध्यपरिचालन तथा सुदूर परिचालन १२ जिल्ला अञ्चल, होटी, वेबक्यो, वाजुरा, दाँलुला, बेटडी, डेडलुरा, हुंमा, डोल्पा, जाजरकोट, कन्नुपुर र कैलापी गरी कृषि ३१ जिल्लाका तालहरूको अध्ययन गरी अभिलेख राखेका कार्यलाई बन विभागवाद आ.व. २०७२७३ को कार्यक्रमवाट पूर्ता दिइएको छ ।

बन विभागवाद सेवा प्रदायक संस्था Conservation Development Foundation (CODEFUND) Nepal वाट अध्ययन कार्य गराई गो प्रतिबंधित नयाँ पारिएको हो । उक्त संस्थावाट सिमसार विज्ञानको एक संचालन समिति गठन गरी विज्ञानले बन तथा भू संरक्षण मन्त्रालयले विगतमा तयार पारिको सिमसार अभिलेख, परिक्रमण तथा मूल्यांकन विधि (Wetlands Inventory, Assessment and Monitoring Tool) लाई आवश्यकता अन्तर्निष्ठ निर्माण गरी ताल संरक्षण विधि तयार पारी आ.व. २०७२०२७३ मा अध्ययन कार्य गरिएको थियो । विज्ञानको दोभिले तयार पारिको ताल संरक्षण विधिलाई स्थलात्मक परिक्रमण गरी पूर्णता दिइयो । यस विद्यालाई स्थलात्मक रूपमा कार्यन्वयन गर्न अनुसंधानकार्यहरू ३५० गरी तालिम दिइयो र कार्यसुन्तित, वैज्ञानिक उपकरण र विभागको सहयोगको परत सहित विज्ञानको सुपरिवर्तन तथा अनुसंधान लाई जिल्लाहरूमा पठाईएको थियो । यी अनुसंधानकार्यहरूका प्रथमत: सम्बन्धित जिल्लाका जिल्लाविवाह समिति, बन कार्याइल र भू संरक्षण कार्यालयहरूमा गई तालहरूको प्रारम्भिक तथापुढिलाई प्रमाणित गरी प्रारंभिक लक्षित तालमा पूर्ण प्रतिष्ठा बा अप्रतिष्ठा अवलोकन, स्थलात्मक परिचय, समुद्रय बा जानकारीहरूको अन्तर्जात लक्षित अन्य आवश्यक विभिन्न तथापुढिलाई सामाजिक आर्थिक, जैविक विविधता, परिस्थितिक प्रणालीको आधारहरू लगायत तपाईलाई संकलन गरेका काम गरे पत्र प्रचार यसको संकलन तथापुढिलाई विश्लेषण, संशोधन तथा भू-सूचना प्रणाली (GIS) प्रयोग गरी स्थायी प्रणाली प्रतिबंधितको खाकामा उतारियो । यस अध्ययन बाट स्थलात्मक रूपमा भतिलाई समुद्र नदीको तलबेख ३,००० मीटर बहु र उचाईमा रहेका ०.५ हेक्टर भन्दा दुवा तालहरूको सूचनालाई सम्बन्धित परिस्थितिक प्रणालीको अवस्था/गण, स्रोत र सेवा, जैविक विविधता, सामाजिक आर्थिक अवस्था, व्यवस्थापनीय पक्ष, पर्यटको सम्बन्धमा इ. लागायतका विपर्ययलाई समेटी अभिलेखकरण गरिएको छ ।
उल्लेखित १३ जिल्लामा गरिएको अध्ययनवार ६२ वटा तालहरूको अभिलेख प्राप्त भएको छ जसमा अछाम जिल्लामा ५, डेल्गुरा, वैलाडी र वभाग प्रत्येक जिल्लामा १/१, बाजुरा, गुल्मी र डोटीमा २/२, कैलालीमा ४८, कन्वनपुरमा २९ वटा ताल भेटिएको छ। सबभन्दा घरे कैलाली जिल्लामा ४८ वटा यसपछि कन्वनपुर जिल्लामा २९ र अछाममा ७ तालहरू छन्। हुम्ला, डोल्या, जागरोकट र डाँडिला जिल्लामा भने ३,००० मिटरमध्ये कम उचाईमा ०.५ हेक्टर भन्दा ठूला कृत ताल भेटिएन। ९२ तालहरु मध्ये ५ वटाको मात्र परिस्थितिकी प्रणाली रामो अवस्थामा रहेको छ र भने अन्य तालहरुको अवस्था दासुम्यूख देखिएको छ।

भौगोलिक दृष्टिकोणले अध्ययन गरिएको क्षेत्रका ९६ तालहरू तागाम प्रदेशमा छन् भने ५ वटा सिमालिक र ५१ वटा महाभारत पर्वत श्रृंखलामा पर्दछन्। यसमा सबभन्दा सानो ताल ०.५ हेक्टरको रहेको छ र २००मा ७८ हेक्टरको घोडाडोडी ताल (कैलाली) छ जो रामसारसूचीमा समेट सूचीमात्र रहेको छ। स्थलरूप (Top map) नक्सामा देखिएको केलिप तालहरूको सबैको, अतिक्रमण भएका र यसलगत समयमा भेटिएन।

तराइका अधिकांश तालहरूलाई सिथाई र माछापुरलीको लागि अधिक प्रयोग गरिएको र महाभारत तथा चुरे खासगरी बाजुरा, अछाम र बैद्धिक माघदो वानाई दर्शन तथा विद्याय चाडवाड मनाउने प्रचलन रहेको पाइयो। वभागको दाउ तालमा कहिलेकाले पापी घट चंगाल गरेको अध्ययनको क्रममा देखिएको थियो।

कैलालीको घोडाडोडी ताल मा वार्षिक लगभग ३५,००० बर्दी पर्यटक भिटिने गर्नुहोस् तथापि छ। त्यस्तै कन्वनपुरको भिलामिला एक महत्वपूर्ण ताल हो र जहाँ वार्षिक २५,००० भन्दा बर्दी पर्यटक भिटिने गर्दछन्। कैलाली जिल्लाको गरेय भन्दा, लामो ताल, लाउका-भाउका ताल, सिद्ध सरोवर बद्दा ताल हस्ताक्षर परतेन प्रकाशनको वैशिष्ट्य समानान्तर रहेको छ। मोहना गोरीप्ङ्ङ ताल र पिपरा ताल ट्रांसवाइडरी (सीमावर्ती) तालहरू हुन्। कन्वनपुर जिल्लाको कालिकी र पुराङ्क ताल शुक्लाफाँट मनाउनु आरक्षण जोडिएका छन्।

तालहरूले जैविक विविधता (जसै विभिन्न स्तनधारी, चराचरु, सरिष्पू, उम्यथय, माछा प्रजाति)को कारण विशिष्ट छ। राजाको पहाडेले छैपारो Jalapura dasi -Hariyo Chheparo; Agaupani Mountain Lizard) बाजुरा जिल्लाको छेदा दह भने भेटिएको छ भने गुल्मी जिल्लाको सालीमिया तालमा Arisaema sp (Banko; Cobra Lilies) भेटिएको छ।

तालहरुले यस अध्ययन एवं सम्बन्धित प्राप्त तथ्याङ्कलाई अध्ययन गर्दा लगभग ६२ प्रतिशतले बढी तालहरूले व्यवस्थापन व्यावस्थान स्थानीय समुदायको पहलमा सरकारी निकायहरु बासगरी गाउँ, नगरपालिका र विस्तार सन्तान स्थान स्थानहरूले नै गरेका छ। अधिकांश तालहरूले मिचाहार प्रजातिको प्रकाशन प्रकाशन र तथा अतिक्रमण चपेटको देखिएको छ। योजनाविवरण विश्लेषण कार्यक्रममध्ये भागभागी प्रभावकारी कार्यविधि गराई भावी दिनहरुमा तालहरूले व्यवस्थापन योजना बनाई उत्पादकत्व उमोजन आवश्यक देखिएको छ।
EXECUTIVE SUMMARY

The Government of Nepal (GoN) has been engaged in wetlands conservation through many international commitments & national instruments. One of the outstanding deliveries Nepal made in this view is the formulation of the National Wetlands Policy (2012) which guides wetlands implementation. The Department of Forests (DoF) under the Ministry of Forests and Soil Conservation (MoFSC) is implementing institution for wetlands in Nepal. In this context, lake regarded as standing water body represents a wetlands type which provides vital resources essential for biodiversity; environmental regulation; culture and livelihoods in Nepal. Recognizing such lake values, GoN established a separate entity the National Lake Conservation Development Committee (NLCDC) under the Ministry of Culture, Tourism and Civil Aviation in 2007 to address overall issues of lakes. Since then, documentation of lakes in Nepal initiated by NLCDC, and accomplished inventory in 62 districts till 2014. Now, DoF is in the frontline to accomplish the inventory of lakes in other 13 districts of Western, Midwestern and Far western Nepal to complement over the previous task of NLCDC. These districts include Achha; Baitadi; Bajhang; Bajura; Dadeldhura; Darchula; Dolpa; Doti; Gulmi; Humla; Jajarkot; Kanchanpur; and Kailali.

DoF applied standard methodological process for the assessment and inventory of lakes which includes formation of Steering Committee of Experts. This committee provided directives and guidelines for the Team of Experts to develop Lake Inventory Tool from the modification of Wetlands Inventory, Assessment and Monitoring (WIAM) tool generated by MoFSC. Lake Inventory Tool was then developed, field tested and finalized. Field researchers were trained to apply tool, and sent to target districts with checklist; necessary gears and materials supervised and monitored regularly by team of experts. The researchers approached to the local government in districts mainly DDC, DFO and DSCO, and did primary verification of lakes in districts. With this background, researchers had direct visit to each specific lake where they verified checklist from transect walk; observation; assessment of ecological parameter; community and focus group consultation for socioeconomic and biodiversity information, and so on. Eventually, data from field were desktop analysed, synthesized and triangulated using GIS applications, and comprehended in the reporting format consisting of General Feature; Ecological Features; Socio-economic Feature; Ecological Goods & Services; Management & Restoration; Tourism Information; and Lake Condition. This lake inventory is very limited to document lakes with core area of more than 0.5 ha and they lye below 3000 masl.

Overall 92 numbers of lakes is recorded during inventory. Districtwise distribution of lakes are found as 7 in Achham; 1 in Baitadi; 1 in Bajhang; 2 in Bajura; 1 in Dadeldhura; 2 in Doti; 2 in Gulmi; 48 in Kailali, and 28 in Kanchanpur. Kailali district holds the largest number of lakes (48) followed by Kanchanpur (28) and Achham (7). Lakes of 0.5 ha core below 3000 masl in Humla; Dolpa; Jajarkot and Darchula are unavailable. In total, only 5 lakes are in a good condition; others are degrading.

Geographically, 76 lakes are distributed in Terai, 5 in Siwalik and 11 in Mahabharat regions in the study area. Core area of lakes varied from 1 ha to 78 ha. Ghodaghodi lake in the Kailali district is the largest
one in this study area which is also the Ramsar Site. Many lakes appeared in topo map are found dry, encroached and no more in scene during inventory. Most of the lakes in the Terai are used for irrigation and fishery, whereas in Siwalik and Mahabharat regions they are considered religious where people worship and celebrate local festivals as in Bajura, Achham & Baitadi. A water mill is seasonally in operation in Dau Tal (Bajhang).

Over 35,000 visitors observe Ghodaghodi lake (Kailali) annually. Jhilmila Tal is one of remarkable lakes in Kanchanpur with >25,000 annual visitors. Geraya Banda; Lami Tal; Laukabauka Tal and Siddha Sarobar Banda hold immense potential for tourism in Kailali. Mohana oxbow lake and Piparawa Tal are trans-boundary lakes. Kalikich Tal and Puraina Tal (b) in Kanchanpur share their boundaries with Sukhlapata Wildlife Reserve.

Lakes are found biodiversity rich with diverse species of birds; mammals; herpetofauna and fishes. An endemic species of mountain lizard i.e. Jalapura dasi (Hariyo Chheparo; Agaupani Mountain Lizard) is reported from Chhede Daha (Bajura). Likewise, plant species Arisaema sp (Banko; Cobra Lilies) is reported from Salimiya Daha (Gulmi).

Local government agencies such as VDCs, municipalities and DDCs have been instrumental for managing over 92% of lakes in cooperation with local communities either at low or moderate level. Most of the lakes are heavily infested by invasive species. Plan based intervention may need to enhance productivity of wetlands in the days to come.
## ACRONYM/ ABBREVIATION

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<th>Acronym</th>
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<td>ADB</td>
<td>Asian Development Bank</td>
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<td>Alt.</td>
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<tr>
<td>BCM</td>
<td>Billion Cubic Meter</td>
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<td>Bird Conservancy Nepal</td>
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<td>Department of Hydrology and Meteorology</td>
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<td>DOAD</td>
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<td>DOM</td>
<td>Dissolved Organic Matter</td>
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<td>EDR</td>
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<td>Ff</td>
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<td>Goss Development Production</td>
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<td>GLOF</td>
<td>Glacial Lake Outburst Flood</td>
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<td>Government of Nepal</td>
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<td>IIWWRP</td>
<td>Identification, Inventory of Wetlands and Report Preparation</td>
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<td>ILBM</td>
<td>Integrated Lake Basin Management</td>
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<td>Abbreviation</td>
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<td>ILEC</td>
<td>International Lake Environment Committee Foundation, Japan</td>
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<td>International Union for Conservation of Nature and Natural Resources</td>
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<td>NAST</td>
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<td>NBSAP</td>
<td>Nepal Notational Biodiversity Strategy and Action Plan</td>
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<td>NGO</td>
<td>Non Government Organization</td>
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<td>National Trust for Nature Conservation</td>
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<td>Protected Area (s)</td>
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<td>pH</td>
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<td>The Mountain Institute</td>
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<tr>
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<td>United Nation Development Program/Small Grant Program</td>
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<td>Water and Energy Commissions</td>
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<tr>
<td>WIAM</td>
<td>Wetland Inventory, Monitoring and Assessment Tool</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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<td>yr</td>
<td>Year</td>
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INTRODUCTION

1.1 ORIGIN OF THE TASK

Wetlands is an integral component of development in Nepal, so Government of Nepal (GoN) has earmarked wetlands as major component in development interventions. The Ramsar Convention (1971) is the milestone that Nepal signed as national commitment which is guiding Nepal for the conservation and sustainable use of wetlands resources. From this momentous period, Nepal’s wetlands program has been fully complying with international commitments such as Convention on Biological Diversity (1992), CITES (1973), United Nation Framework on Climate Change Convention(1994) and so on. Over 2 dozens of national legal instruments to contribute to global wetlands and its allies are in effect in Nepal. Of many, National Wetland Policy 2012 (NWP) under Articles 3.1.1-3.1.3 & 5.1 and Nepal Biodiversity and Action Plan 2014-2020 (NBSAP) are the most prominent documents to implement wetlands in Nepal.

The Ministry of Forests and Soil Conservation (MOFSC) is the focal canopy body of GoN, and Department of Forests (DOF) is implementing institution for wetlands outer of Protected Areas (PAs) but Department of National Parks and Wildlife Conservation (DNPWC) inside PAs. As executing authority, DoF has awarded the Contract of Services to Conservation Development Foundation (CODEFUND) under its annual program of 2015/16 for IDENTIFICATION, MAPPING AND PREPARATION OF REPORT ON WETLANDS OF WESTERN AND FARWESTERN NEPAL in 13 districts.

This work fully complies with the notions of Water Resource Strategy (2002); National Water Plan(2005); Integrate Water Resource Management Approach; NWP(2012); and NBSAP(2014-2020) Further, this also implements 4th Ramsar Strategic Plan(2016-2024) to Prevent, stop and reverse the loss and degradation of wetlands(Para 21), and Para 27 – the provisions including Inventories of All Wetlands (Ramsar 2016). The National Lake Conservation Development Committee (NLCDC)/Ministry of Culture and Tourism and Civil Aviation/GoN has accomplished inventory of lakes in 62 districts of east; central; Western and Midwestern Nepal from 2012 to 2015. This work tries to complete the study on status of lakes in remaining 13 districts under 3000 masl.

1.2 BACKGROUND: MAJOR REVIEW

1.2.1 Wetlands at Global Facet

The Ramsar Convention (hereby as Convention) defines wetland as “Areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meter”. This water masscovers a total 1,280 million hectares of global landthat also includes coastal regions to a depth of 6 meters at low tide; an area 33% larger than the United States and 50% larger than Brazil (MEA 2005). Of this, 2% of wetlands represent lakes; 30% bogs; 26% fen; 20% swamp; and 15% floodplain.

1 Item 5.4.4 Management of Wetlands Biodiversity in Wetland Biodiversity Strategy A {Improving Understanding of Wetlands and Wetlands Biodiversity (Priority Areas: WB-A1: Designing and Carrying Out, By 2017, Inventory and research to Access the Status and Trends of Changes in Wetlands and Wetlands Biodiversity)

2 Item 5.4.4 Management of Wetlands Biodiversity in Wetland Biodiversity Strategy A {Improving Understanding of Wetlands and Wetlands Biodiversity (Priority Areas: WB-A1: Designing and Carrying Out, By 2017, Inventory and research to Access the Status and Trends of Changes in Wetlands and Wetlands Biodiversity)
Wetlands maintain “ecological character”—the ecosystem components and processes that deliver ecosystem services like fresh water, food, and so on. A great numbers of 1.5 to 3 billion people rely on freshwater supply just from wetlands. However, the wetlands are either degrading or degraded. For example, in past 50 yrs, > 70% of wetlands degraded or converted more than 70% in USA and 93% in New Zealand alone. About 50% of specific wetlands in USA, Australia, Europe and New Zealand are converted into medium to high uncertainty. Estimated 6,000–7,000 Cubic Kilometer water is tapped in dams (MEA, 2005)

1.2.2 Understanding about Wetlands & Lakes Varies High in Nepal

For a layperson wetlands is a place where land never hides and water never dries ... Wetlands is simply an area that is covered with water for a part of the day or year ... Wetlands is a place where people can get their feet wet without being able to swim... Wetlands means जिसमें पानी in Nepali ... wetlands is water that sits on and kiss land and never silent.

Wetlands are as varied as the landscape which they occur; hence myriads of names. Multiplicity in narrating wetlands is clarified by Nepal’s National Wetlands Policy (NWP) that defines “wetlands as natural or artificially created areas, such as swamp, marsh, riverine floodplain, lake, water storage area and agriculture lands containing water from underground water resources or atmospheric precipitation that may be permanent or temporary, static or flowing, and freshwater or saline”.

Lake does not have a single global definition. Understanding of lake varies in countries all along with their languages (Box 1). In general, a lake is understood as a body of relatively still liquid of considerable size, localized in a basin, that is surrounded by land apart from a river or other outlet that serves to feed or drain the lake. Water is always a dominant character in lake that may or may not have inlets and outlets. Lakes lie on land and are not part of the ocean, and therefore are distinct from lagoons, and are also larger and deeper than ponds (Britannica online, Retrieved 2008-06-25; Dictionary.com definition, Retrieved 2008-06-25). Lakes can be contrasted with rivers or streams, which are usually flowing. However, most lakes are fed and drained by the rivers and streams.

Natural lakes are generally found in mountainous areas, rift zones, and areas with ongoing glaciations. Other lakes are found in endorheic basins or along the courses of mature rivers.

Box 1 Lake: Etymology, Meaning and Usage

The word ‘Lake’ comes from Middle English ‘Lake’ (lake, pond, waterway), from Old English ‘Lacu’ (pond, pool, stream), from Proto-Germanic ‘Lākō’ (pond, ditch, slow moving stream), from the Proto-Indo-European root ‘Le’ (to leak, drain). Cognates include Dutch ‘Laak’ (lake, pond, ditch), Middle Low German ‘Lāke’ water pooled in a riverbed, puddle), German ‘Lache’ (pool, puddle), and Icelandic ‘lækur’ (slow flowing stream). Also related are the English words leak and leach.

There is considerable uncertainty about defining the difference between lakes and ponds, and no current internationally accepted definition of either term across scientific disciplines or political boundaries exists (Moss et al. 1996). For example, limnologists have defined lakes as water bodies which are simply a larger version of a pond, which can have wave action on the shoreline or where wind-induced turbulence plays a major role in mixing the water column. None of these definitions completely excludes ponds and all are difficult to measure. For this reason, there has been increasing use made of simple size-based definitions to separate ponds and lakes. One definition of lake is a body of water of 2 hectares or more in area; (Williams et al. 2004; Moss et al. 1996) however, others have defined lakes as waterbodies of 5 hectares and above, or 8 hectares and above. Charles Elton, one of the founders of ecology, regarded lakes as waterbodies of 40 hectares or more (Elton 1954).

In common usage many lakes bear names ending with the word pond, and a lesser number of names ending with lake are in quasi-technical fact, ponds. For example, in Newfoundland, almost every lake is called a pond,
whereas in Wisconsin, almost every pond is called a lake (Thomas 2009). Source: Wikipedia: com

In some parts of the world there are many lakes because of chaotic drainage patterns left over from the last Ice Age. All lakes are temporary over geological time scales, as they will slowly fill in with sediments or spill out of the basin containing them.

Many lakes are artificial and are constructed for human uses like industry or agriculture, for hydro-power or domestic water supply, for aesthetic or recreational purposes.

1.2.3 Wetlands Conservation in Nepal

1.2.3.1 Nepal Receives Strong & Adequate Legal Backstopping for Wetlands

Nepal’s wetlands follow the conservation history of more than 50 years of history primarily associated with protection of forestland after 1950. Then, it was gradually tuned up with the protection of wildlife and biodiversity under Protected Area System (PA) (Pokharel and Adhikari 2009). Within this loop; after some lapses of time the Nepalese wetlands\(^3\) is evolved up as a separate agenda when Nepal became the signatory of Ramsar Convention (1971) with a quick response of establishing Koshi Tappu Wildlife Reserve (KTWR) in 1976 as the first wetlands recognized within PAs under the program and action of GoN. KTWR later in 1987 designated as the first Ramsar site of Nepal. Wetlands conservation in Nepal had formal beginning in 1987 after KTWR in an organized structure with a release of status paper on wetlands. Year 1998 is considered monumental year when IUCN Nepal had the publication on *An Inventory of Nepal’s Terai Wetlands*. Thereafter, this content has become masterpiece element of conservation documents but weak in delivery process.


Very relevant Acts are Aquatic Animals Protection Act (1961); National Parks and Wildlife Conservation Act (1973); Plant Protection Act (1973); Forest Act (1993); Water Resources Act (1993); Environment Protection Act (1996); Nepal Drinking Water Corporation Act (1988), and so on.

1.2.3.2 Though Many Institution, Wetlands Governance Staggeringly Weak

As indicated from Annex 1, wetlands is seriously divided under the legal provisions of different ministries and departments such as MoFSC; Ministry of Agriculture Development; Ministry of Education; Ministry of Science, Technology & Environment; Ministry of Industry; Ministry of Energy; Ministry of Irrigation; Ministry of Land Reform and Management; Ministry of Physical Infrastructure and Transportation; Ministry of Urban Development; Ministry of Cooperatives and Poverty Alleviation; Ministry of Culture, Tourism and Civil Aviation; and so on. None of these ministries has wetlands as core intervention theme but MoFSC is entitled to administer wetlands mechanism through DoF outside PAs and DNPWC inside PAs. DNPWC is the Administrative Authority for Ramsar implementation.

NWP guides ‘wetlands for sustainable development and environmental harmony’. This policy clearly makes provision at center through National Wetlands Committee chaired by the secretary of MoFSC and at district through Forest Sector Coordination Committee chaired by the President of DDC. This

\(^3\) Wetlands covers a total of 1280 million hectares in the global; area 33% larger than the USA and 50% larger than Brazil. Wetlands are globally known to provide ecosystem services such as PROVISIONAL (food; freshwater; fiber; fuelwood; biochemical and genetic materials); REGULATING (climate; hydrology; water purification; waste treatment; erosion & natural hazard; pollination); CULTURAL (spiritual and inspirational; recreational; aesthetic; educational) and SUPPORTING (Soil formation; nutrient cycling) (MEA 2005).
Some CFs are also managing wetlands in their forests through formation of wetlands management sub-committee. Other key development partners are the Ramsar Site; KNCF; IUCN Nepal; WWF Nepal; NTNC; The Mountain Institute; BCN; GEF/UNDP; UNDP/SGP; Toyota Foundation; Darwin Initiative; IUCN Netherlands; ILEC/Japan and so on. Some key NGOs involved are: LiBird which is integrating wetlands with agriculture biodiversity; NTNC is implementing Bagmati River Plan; TMI is providing support for the conservation of Rara lake in Mugu; Salppokhari in Bhojpur; and Dudhpokhari in Solukhumbu districts; CODEFUND is involved in lake and wetlands focused integrated conservation development. BCN has been implementing wetlands programs in Key Birds Areas. Wetlands Friends of Nepal is a network for wetlands management.

### 1.2.3.3 Wetlands Contributes Enormous Socio-Economic Values to Nepal

Nepal’s wetlands are the Himalayan water palace; unique; biological hotspots and supermarket of biogenes (Pokharel and Nakamura 2010). These are diverse like lakes; ponds; marshes; reservoirs; rivers and so on, and regarded as the Water Tower of Asia (Bhandari, Oh Suh and Woo 2008) with a huge water storage capacity (Hua 2009), 225 billion m$^3$. Over billions of the world’s population is served by the water originating from this landscape (WWF 2012). These freshwater bodies cover 5% of the country’s land which offer excellent ecological habitats for indigenous species of fishes (Rajbansi 2013); 25% of vascular plants of Nepal’s total including endemics (IUCN 2004); 193 wetlands dependent species of total birds’ including endemics, threatened at national and global levels (Baral et al. 1996; IUCN 2004). Moreover, some key species such as Gangetic Dolphin & Wild Water Buffalo, and Indian Smoothed-coated and common Otter; and reptiles like Magar and Gharials; and so on are known to occur in Nepal’s wetlands (IUCN 2004)

Socio-economic picture that Nepal’s wetlands contributing at a scale of national economy is not yet well synthesized; though believe that over 10% of Nepal’s ethnic groups are dependent to wetlands for the wide ranges of goods/services (IUCN 2004, GoN/MoFSC 2014) which is a sparking indication of wetlands being of a huge socio-economic dimension in Nepal4 (Table 1).

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Ethnic Groups</th>
<th>Places</th>
<th>Population %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tharu</td>
<td>All over the Terai</td>
<td>6.75</td>
</tr>
<tr>
<td>2</td>
<td>Mushar</td>
<td>East to Narayani. Concentrated in Navalparasi</td>
<td>0.76</td>
</tr>
<tr>
<td>3</td>
<td>Dusadh/Paswan/Pasi</td>
<td>Parsa</td>
<td>0.7</td>
</tr>
<tr>
<td>4</td>
<td>Kewat</td>
<td>Navalparasi</td>
<td>0.6</td>
</tr>
<tr>
<td>5</td>
<td>Mallah</td>
<td>Concentrated near Gandak barrage in WDR.</td>
<td>0.51</td>
</tr>
<tr>
<td>6</td>
<td>Kumal</td>
<td>Chitwan</td>
<td>0.44</td>
</tr>
<tr>
<td>7</td>
<td>Majhi</td>
<td>Inner Terai</td>
<td>0.32</td>
</tr>
<tr>
<td>8</td>
<td>Danuwar</td>
<td>Jhapa, Sindhuli, Siraha, Morang</td>
<td>0.23</td>
</tr>
<tr>
<td>9</td>
<td>Dhangar/Jhagar</td>
<td>Morang, Sunsari, Sarlahi</td>
<td>0.18</td>
</tr>
<tr>
<td>10</td>
<td>Bantar/Sardar</td>
<td>Sunsari and Saptari</td>
<td>0.16</td>
</tr>
</tbody>
</table>

---

4 Water from over 22,205 pond of the Terai is pumped out for crop production (CBS 2003). In 2001/2, Nepal had a production of 2,294,205 mt of rice (IUCN 2004). Total economic value of wetlands crops exceeds NRs. 25 billion a year (Shrestha 1994). Fish culture alone engages 20,000 fishermen in various river basins and paddy fields (Swar and Fernando 1980, Rajbansi and Gurung 1994) resulting an estimated 5,281 mt of fish. A total of 35,000 mt of fish production is made from various village ponds of the Terai (CBS 2003). The annual direct value of wetlands of the KTWR is NRs. >7 x 10$^9$ from irrigation, and Ghodaghodi lake with NRs. 10 billion from fuelwood (Joshee 2002). In 2006, Nepal made a total of US $ 160.3 million from eco-tourism in Pokhara.
Dependency of these communities not only limited to food and shelter from wetlands. In totality, wetlands protects human belief; inspire culture; maintains spirituality and admire prosperity of billions of people in the Region (IUCN 2004; Amatya 2006; Rajaure 2006). Values of wetlands ecosystems services are typically higher, that the “nexus” between water, food and energy is one of the most fundamental relationships (Ramsar 2016). Their conservation is therefore an integral and pivotal to any development interventions in Nepal.

1.2.3.4 Wetlands As Immense Religio-Cultural Resource

There are a number of lowland lakes with high religio-cultural values. For example, Mithila ritual Chhat5 is performed at Dev Tal of Bara district with a number of 5,000 visitors per year. Shivaganga Tal of Bara is visited by around 100,000 people annually to worship at the temple of Sahajanath Mahadev mainly in Shrawan and Shivaratri6. Likewise, Ghadirwa Tal of Parsa district is visited by 500,000 people annually during Chhat as there is also a Suryamai Temple at the middle of the lake which is one of the attractions. Two famous lakes of Dang district namely Musundi Jakhada and Tapta Kunda are regarded as religious lakes visited by 75,000 and 300,000 people annually respectively. Around 15,000 people visit Bahrakune lake of Dang since 5 temples are recently constructed to attract visitors. Mahadev/Sahadev lakes of Kailali district is visited by 100,000 ones where Bahadababa temple is also located. Labki Pokhari of Mahottari is a religoius one with a Hanuman temple on the side.

Midland lakes also holds religio-cultural values. Phewa lake, a multi purpose ressource value lake has been found visited by 187,000 people annually which also includes total visitors, and part of them also visit Barahi temple. Around 20,000 visitors annually take a holy bath in the Panchase lake of Parbat district. During Janai Purnima7, lakes of Lamjung district are crowded with visitors. Same case is observed at Jata Pokahari and Panh Pokhari of Ramechhap districts where around 10,000 visitors on each lake take holy bath during Janai Purnima. Satyawati lake of Palpa normally face around 10,000 visitors and 15,000 in Jetta Pokhari of Dolakha district; annually.

Highland lakes have both aesthetic and religious values. Around 16,000 people visit Gangapurna lake of Manang annually for recreational and religious purposes. Similarly, Gosainkunda, Gokyo and their associated lakes attract thousands of pilgrims as well as other visitors.

1.2.3.4 Nepal’s Wetlands as Hotspots and Biological Gene Treasure

Nepal’s wetlands are unique hotspots and gene treasure. 25% of Nepal’s plants species are found in wetlands with about 26 endemic wetlands species. The Terai wetlands alone banks genes of 318 species of plants. Of 123 globally threatened fauna of Nepal, the genes of 42 species are maintained in the freshwater biomes. Seventeen of 20 endemic vertebrates in Nepal are found in wetland. A 25% (193 spp) of birds, including 12 species under the Red List, are preserved in wetlands. Nepal’s 185 species of fishes, 27 species is reported as nationally threatened. Of 8 endemic fishes, 3 species of Schizothorax are only found in Rara lake. Some endangered Sahar (Tot putitora); Vulnerable Katle (Neolissocheilushexagonolepis); Asala (Schizothorax richardsonii); Rajabam (Anguilla bengalensis); and 17 species listed as Rare (IUCN 2004).

5 Chhat is a religious performance dedicated to Sun as the God of creation.
6 Holy night dedicated to the God Shiva also called Mahadeva. The Hindus believe that God Siva physically be present in his temple in this particular night to bestow his devotee. Thousands of Hindu visit Pashupatinath which is a sacred temple of Siva.
7 In Nepal, Raksha Bandhan is celebrated on Shravan purnima. It is also called Janai Purnima (Janai is sacred thread and purnima means full moon).
1.2.3.5 Status of Wetlands Unknown in Nepal

Inventorying of wetlands in Nepal had begun in Nepal from 1986 for specific issues of management envisioned by specific organizations. WECS in 1986 prepared inventory of 194 glacial lakes, later confirmed as 634 lakes (DHM 1998), this is viewed at a frame of glacial lake. DOAD (1992) evoked on an account of 743,563 ha of land under wetlands in view of fishery. IUCN very first time convened inventory of wetlands and cited 163 wetlands, a case limited to only Terai. ICIMOD prepared database of glacial lakes in 2001 at glass of GLOF. IUCN in 2009 again cited 891 sites which conflicts on total wetlands site in the Terai that it documented earlier in 1998 (Table 2).

<table>
<thead>
<tr>
<th>Site No.</th>
<th>%</th>
<th>By Topographic Zone</th>
<th>By Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site No.</td>
<td>%</td>
<td>Site</td>
<td>Site</td>
</tr>
<tr>
<td>Site No.</td>
<td>%</td>
<td>Site</td>
<td>Site</td>
</tr>
<tr>
<td>High HimL (&gt;4000M)</td>
<td>403</td>
<td>45</td>
<td>High Himalaya</td>
</tr>
<tr>
<td>High Mountain (3000-4000m)</td>
<td>27</td>
<td>3</td>
<td>High Mountain</td>
</tr>
<tr>
<td>Middle Mountain (1100-3000m)</td>
<td>182</td>
<td>20</td>
<td>Middle Mountain</td>
</tr>
<tr>
<td>Siwalik (300-1100m)</td>
<td>32</td>
<td>4</td>
<td>Siwalik</td>
</tr>
<tr>
<td>Terai (Below 300m)</td>
<td>121</td>
<td>14</td>
<td>Terai</td>
</tr>
<tr>
<td>Major Man-Made</td>
<td>22</td>
<td>2</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Riverine Wetlands</td>
<td>104</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Of above said wetlands; 10 are theGlobal Heritage:Ramsar Site (Table 3).

<table>
<thead>
<tr>
<th>SN</th>
<th>Name</th>
<th>Districts</th>
<th>Area (Ha)</th>
<th>Altitude (m)</th>
<th>Date (Incorporation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Koshi Tappu Wildlife Reserve</td>
<td>Sunsari</td>
<td>17,500</td>
<td>90</td>
<td>17.12.1988</td>
</tr>
<tr>
<td>2</td>
<td>Beesh Hazar Tal</td>
<td>Chitwan</td>
<td>3,200</td>
<td>286</td>
<td>13.08.2003</td>
</tr>
<tr>
<td>3</td>
<td>Ghodaghodi Tal</td>
<td>Kailali</td>
<td>2,563</td>
<td>205</td>
<td>13.08.2003</td>
</tr>
<tr>
<td>4</td>
<td>Jagadishpur Reservoir</td>
<td>Kapilbastu</td>
<td>225</td>
<td>197</td>
<td>13.08.2003</td>
</tr>
<tr>
<td>5</td>
<td>Gokyo Lake Complex</td>
<td>Solukhumbhu</td>
<td>7,770</td>
<td>975</td>
<td>23.09.2007</td>
</tr>
<tr>
<td>6</td>
<td>Gosainkunda Complex</td>
<td>Rasuwa</td>
<td>1,030</td>
<td>4,380</td>
<td>23.09.2007</td>
</tr>
<tr>
<td>7</td>
<td>Rara Lake</td>
<td>Mugu</td>
<td>1,583</td>
<td>2,990</td>
<td>23.09.2007</td>
</tr>
<tr>
<td>8</td>
<td>Shey-Phoksundo</td>
<td>Dolpa</td>
<td>494</td>
<td>3,612</td>
<td>23.09.2007</td>
</tr>
<tr>
<td>9</td>
<td>Mai Pokhari</td>
<td>Ilam</td>
<td>12</td>
<td>2,100</td>
<td>27.11.2008</td>
</tr>
<tr>
<td>10</td>
<td>Pokhara Valley Lake Cluster</td>
<td>Kaski</td>
<td>26106</td>
<td>550-2483</td>
<td>02.02.2016</td>
</tr>
</tbody>
</table>

Knowing enormous values, our foundation of wetlands quantum is incredibly weak, scattered & limited from many years such as:

- Four major river basins of Koshi, Gandaki, Karnali and Mahakali consists over 6000 rivers that spread down to south and cover an area of 529,
- 136 ha under floodplains(ICIMOD/ADB 2005);
- 3808 glaciers covering 4,212 km²(Bajracharya et al. 2010, Bajracharya and Maharjan 2010), and 2323 glacial lakes ICIMOD(ICIMOD 2001);
- 163 wetlands covering an area of 724,257 ha in the Terai(IUCN 1998);
- 5,358 lakes in Nepal(NLCDC 2010) etc.

Having all these explained above, it is clear that picture of wetlands in Nepal is blurred except lake in
term of status and distributions. As results, our development practices have failed to maximize benefits from recognizing wetlands as development unit in planning and actions.

1.3 STATUS OF LAKES IN NEPAL

1.3.1 Map-Based Lake inventory:

A milestone in wetlands inventory is considered done by NLCDC as part of preparing National Lake Strategic Plan (2010). This process entirely focused on map-based study of lake but no wetlands, and spotted 5,358 lake bodies. Of total Nepal’s districts, 74 contain lakes. There are 21 districts containing less than nine numbers of lakes, and 16 districts containing over 100 numbers of lakes. Of remaining 38 districts, 16 districts have lakes’ number in between 10-29 and 22 districts have lakes that vary from 30 to 99 in number (Figure 1, Annex 3). District map of Okhaldhunga indicates two lakes, but there are none on topo-sheet. Eight districts having high number of lakes are Humla (381 lakes); Taplejung (380 lakes); Kapilbastu (351 lakes); Solukhumbu (339 lakes); Rupandehi (289 lakes); Banke (243 lakes); Dhanusa (230 lakes); and Dolpa (210 lakes).

1.3.2 Field-Based Scientific Inventory of Lakes

NLCDC conducted field-based Scientific Inventory of Lakes from 2012. It has accomplished lake inventory in 62 districts with the finding that most of lakes they appeared in map does not exist these days. Most of the documented lakes are under tremendous socio-ecological stresses, and reported unbelievably encroached, degraded and disappearing (NLCDC 2016). Table 4 shows physiographic distribution of lakes NLCDC explored from scientific inventory in east Nepal totaling 101 number of lakes. In the compilation, NLCDC has covered lake specific data in brief form, for example:

Geographical coordinates and altitude; Administrative information on core and basin areas of lake Management overview; Classification; Hydro-Meteorological features (core area, basin area; depth; temperature; rainfall; maximum-minimum depth etc, and water quality); ecological features of core and basin areas (Soil features; hydrophytes, madrophytes and fauna including conservation status, endemism & biological invasion); Socio-economy (Settlement; accessibility; landuse; demography including ethnicity); Wetlands dependent community; Livestock; Traditional wateruse; Genesis; Provisional use; Cultural values; Structural & non-structural management, and Lake condition.

<table>
<thead>
<tr>
<th>S.N</th>
<th>District</th>
<th>No. of Lakes</th>
<th>Terai</th>
<th>Siwalik (700-1500 m)</th>
<th>Mahabharat (1500 – 2700 m)</th>
<th>From 2700-3000 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bhojpur</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dhankuta</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ilam</td>
<td>7</td>
<td>2</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Jhapa</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Khotang</td>
<td>7</td>
<td></td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Morang</td>
<td>11</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are 41 types of wetlands according to the Ramsar. All lakes are wetlands but all wetlands not lakes.


<table>
<thead>
<tr>
<th>District</th>
<th>Total</th>
<th>Lakes</th>
<th>Lakes 0.5 ha+</th>
<th>Lakes &gt; 3000 masl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Okhaldhunga</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panchthar</td>
<td>2</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sankhuwasava</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saptari</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siraha</td>
<td>13</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solukhumbu</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunsari</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taplejung</td>
<td>3</td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Terhathum</td>
<td>4</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Udyapur</td>
<td>4</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>58</td>
<td>5</td>
<td>27</td>
</tr>
</tbody>
</table>

1.4 OBJECTIVES OF PRESENT INVENTORY OF WETLANDS

The present task of field-base scientific inventory of wetlands in Western, Mid-western and Far-western Nepal has continued inventory of lakes in 13 districts so clarify status and distribution of lakes in ground situation. The major objective of the task is IDENTIFICATION, MAPPING AND PREPARATION OF REPORT OF WETLANDS IN MID-&-FARWESTERN NEPAL. Other specific objectives are:

- Reviewed of secondary information on wetlands applicable to this task;
- Conduct field based scientific inventory of wetlands using appropriate methodology and modern application such as Geological Information System and Geo-referencing technology;
- Schedule plan of action based on consultative and participatory process; and
- Generate a comprehensive Inventory report and District Maps of Wetlands in the target districts.

1.5 SCOPE & LIMITATIONS

Inventory is conducted in 9 districts of Far-Western Development Regions such as Achham; Baitadi; Bhajang; Bajura; Darchula; Dadheldhura; Doti; Kailali; and Kanchanpur, and 4 districts of Mid-Western Nepal such as Humla, Dolpa and Jajarkot and Gulmi. This inventory had assessed each lake under 3000 masl and of more than 0.5 ha in size. So, this task had missed some important lakes which are beyond 3000 masl.
2.1 APPROACHES APPLIED

Following approaches have been adopted during the inventory and assessment of wetlands:

2.1.1 Wetlands Basin Approach

Conserving wetlands does not imply concentrating intervention only in core water body. Moreover, management of wetlands does not stop at wetlands shore but extends into the basin, and often beyond. Therefore, while delineating wetlands area, research team has covered information of wetlands basin as an integral part of inventory. This information will be extremely useful in integrating issues of wetlands with human, biodiversity and socio-ecological dimensions in view of management, thereby upstream issues as well.

This approach fully complies with integrated water management approach that Nepal has been committing with global communities. It harmonizes sustainable management and use of wetlands resources as per the recent strategy of the Ramsar.

2.1.2 Ecosystem Approach

Inventory process fully harmonized notions of ‘Use ecosystems, but don’t lose them’. This approach governs the principles of ecosystem functions & integrity; recognizes ecosystem boundaries and trans-boundary issues; maintains biodiversity; recognizes the inevitability of change; recognizes as people as part of the ecosystem; recognizes the need for knowledge-based adaptive management; recognizing the need for multi-stakeholder collaboration; and making ecosystem-based management a mainstream development approach (Pirot et al., 2000).

Wetlands in Nepal are of small size but use is enormously high. So ecosystem approach of their management has been fully considered out most important whilst inventory.

2.1.3 Wetlands Basin Governance Approach

It is something very concrete, and determines who gets what water, when and how in transparent; responsive; accountable; and participatory manner. Governance manifests itself in daily interactions between local public official; citizens; communities; and organizations. Thus, how water is governed is critical for biodiversity and livelihoods (ILEC 2005). Unless lake governance at local administration not in place maintaining lake environment is often critical.

Thus, VDC and DDC as local governments are consulted as prerequisite of conducting field level exploration of lake data as in Figure 1. This approach has helped documentation of existing governance system as forefront players of individual wetlands site.
2.1.4 Making Process Consultative, Participatory & Less Drudge

Consultant researchers have adopted general, participatory and interactive approach as in Figure 2.

- Mobilization of the designated working team; regular contact & consultations with the DOF; DFOs; information sharing throughout the study period with DoF to respond directions; regular briefing/reporting to the DOF; communication/interaction among concerned line agencies; collection and utilization of the secondary data available with different environmental entities and line agencies, and review of all relevant documents and incorporating them within the study scope considered very fundamental to make the process participatory so far, and effective and efficient.

In central and DFOs levels meeting and consultations, Experts Team has worked outstandingly with personnel to access entities so their inputs and issues in study, assessment and consultations well incorporated and concerns internalized. In DFOs and VDCs, and in general meeting & consultation, communities concerns have become vibrant through iteration and reiteration, discussion and review process. At some place, team applied play and de-freezing tools and events to instigate local people very injective; proactive, interactive and participatory. In general, consultation process managed at 3 levels:

1. Consultation with the Client DoF for consensus on procedures,
2. DDC, VDC and community consultation for exploring local concerns, and
3. National level consultation for national inputs and suggestion on draft report of IIWRP.

2.1.5 Human Resource Capability for field-Base Scientific Inventory of Lakes

CODEFUND prepared human resources considering very short time factor for deliverable period to accomplish this task in time. For this, CODEFUND explored competent graduate students with education background of environmental studies, forestry, and natural resource management. They were trained for 2 days including one day practice to apply Lake Assessment and Inventory tool that experts designed with reference of past experience and wetlands inventory, assessment and Monitoring tool developed by MoFSC. They also trained to fill up tool sheet as Annex 4.

These trained experts visited each districts with the checklist of lakes expert team explored based on topo map. They consulted to DDC and DFO in each district with the testimonial letter provided by the
DoF. Based on inputs and suggestions from these district agencies, graduates verified each lake in target districts and prepared the profile of individual lakes as per indicators in tool sheet. For field verification, photographs of each lake, evidences of meeting with communities and so on were strictly documented.

CODEFUND will provide those evidences of field verification while submitting the draft report.

### 2.2 METHODOLOGY APPLIED

Figure 3 shows the overall methodological framework applied during inventory of lakes in target districts. Following are the steps applied following the methodology (Fig 1) until the preparation of the Midterm Progress Report. Following steps are followed strictly:

**STEP 1: FORMATION OF EXPERT TEAM (ET)**

ET was commissioned that constituted a Team Leader (TL) (Wetlands Expert) having outstanding experiences in Wetlands especially on ILBM implementation; biodiversity; CF; sub-watershed; landscape level project management; and preparation of strategies/management plans); a sociologist (>23 experience in teaching practices and extensive assessment of ethnobotany, traditional knowledge/socio-economy of indigenous communities), and a GIS expert (outstanding knowledge - both at field and desktop study for >10 years - on NRM including wetlands).

Further, the team was backstopped by 11 graduates having their background on environmental studies, wetlands, and forestry. Additional experts were also chosen from the expert pool of CODEFUND as per requirement of DoF with clearly defined ToR. These experts worked in a coherent with TL under the organogram of CODEFUND.

CODEFUND provided administrative support to ET including financial and logistics. A full-time workplace was furnished and maintained within the secretariat of CODEFUND to ensure full-time work environment having TL as full-time project operator, full-time graduate fellows, and part-time Office and Finance Assistants of CODEFUND for this task.
**STEP 2 INCEPTION REPORT ON DETAIL FRAMEWORK (METHODOLOGY & ACTIONS) AND FORMATION OF STEERING COMMITTEE OF EXPERTS (SCE)**

Frequent meeting was organized with DoF to discuss on the pertinent issues and requirements about IIWRP. Based on those events; proposal were revisited with motive of developing detail METHODOLOGICAL FRAMEWORK, and an inception report was prepared and submitted to DoF. CODEFUND delivered a brief PPT presentation in an inception workshop called on by DoF. This report was furnished with a detail FRAMEWORK OF ACTIONS with workplan, methodologies & tools. After review/comments on the framework plan, DoF approved it for further application with constructive suggestions. While developing methodologies, Approaches/Strategies as in 2.1 strictly followed. This step also established set of technical project SCE as parallel event as THE BACKBONE OF INVENTORY METHODOLOGY. This committee remain functional till the conduction of this assignment, and constitutes the representatives from the government; inter-government and non-government institution; academia and individual experts on wetlands (Annex 5). This Committee reviewed the processes and progresses of inventory including finalizing inventory tool; avail expertise; and finalize the progress report to ensure quality (Annex 6).

**STEP 3: LITERATURE REVIEW AND DIRECT & INDIRECT CONSULTATION (NATIONAL/INTERNATIONAL)**

ET and graduates conducted desk review of relevant literatures (published and unpublished) such as reviews relevant policies; previous task undertaken; analyze topo sheet, reference maps and map based lake inventory; District Profile; Village Profile; relevant reports from the national and international environmental entities and so on. Special attention was given to explore international practices of applying standard inventory tool with respect to the Assessment Tool by the Ramsar Secretariat and Wetlands Inventory, Assessment and Monitoring (WIAM) by MoFSC/GoN. Required demographic data on the various caste/ethnic groups, including demographic information on vulnerable groups were collected from secondary data from DDC/VDC within target districts. There was on-&-on parallel consultation among national and international entities engaged in similar cause and events through meeting; semi-structured questionnaire; interview; email; social media with and among DNPWC; DOF; NTNC, DDCs, DFOs, DSCOs, VDCs, IUCN; WWF; WCN; FECOFEN; TMI; IUCN; WWF and so on. Other non-governmental organization; conservation experts and other key stakeholders were also consulted when necessary. This step availed concerns; issues; gaps and so on from these partners in prior of field study/assessment and observation which became instrumental to fine-tuning inventory/assessment methods/process.

**STEP 4: CONSTRUCTION OF INVENTORY TOOL & FINALIZATION**

Following the progresses of STEP 3, ET in consultation with experts of SCE reviewed different tools such as lakebrief guidelines (by ILEC/Japan); WIAM (by MoFSC/GoN); Global Wetlands Assessment Guidelines (by Ramsar) and from other countries. The team constructed draft tool applicable to the case of the Nepalese wetlands and in consistent to tool applied by NLCDC. SCE including DoF also reviewed and discussed on this draft tool, and approved for pretesting it in field. After test, tool was revisited with suggestions incorporated from experts in tool, and considered final tool ready for application (Annex 4).

**STEP 5 & 6: FIELD SURVEY AND ASSESSMENT (INVENTORY), AND DATA COLLECTION & GEO-REFERENCING**

As proposed in Methodological Framework, for the execution of Activity 8, CODEFUND explored graduates of environmental studies and forestry for field assessment of individual lakes in target districts. From this process, 11 graduates were selected and trained for 2 days to implement Lake Inventory and Assessment tool from May 18 & 19, 2016 (Annex 6). At the end of training event, researchers were exposed for the preparation of reporting structure in a standard format.
ET and EGs conducted field survey in the target districts (Indicated by STEP 3) and applied inventory tool based on Direct Observation following Participatory Rapid Appraisal technique, and compilation of the firsthand data in questionnaire. Other applicable data collection tools included key informant interview, group discussion; indirect observation (for wildlife); census data; direct measurement of temperature and water volume; personal interview and so on.

In the field, EGs consulted different tier of stakeholders such as DDCs; DFOs; VDCs; CFUGs; local; local communities etc. Such CONSULTATION in village; district line agencies and local stakeholders was strictly followed as intimate subject to assess their opinions; roles and responsibility; concerns including difficulties & hindrances; knots in legal instruments; foresee strategic options; and so on to have their concerns, inputs and so on (Fig 2).

The note on GEO-REFERENCE of each wetland has been under progress by using GPS and Mobile Applications as reference dots to demarcate and map wetlands areas. Each lake will have its profile with GIS based landuse data and other details.

**STEP 7: DATA ANALYSIS, SYNTHESIS & TRIANGULATION**

ET has accomplished analyzing data through computer entry in a specific format, and then analyzed those following simple statistical procedures. Wetlands ranking analyzed and synthesized based on indicators in WIAM (CSUWN 2011) (Annex 8). Socio-ecological information explored in the fields and secondary sources of information are triangulated from multiple sources which include consultation with experts, local institution and key informants. Gereferences of individual lake is done to delineate wetlands and its basin, and then comparatively analyzed with Google Earth & Google Free Map Tool.

<table>
<thead>
<tr>
<th>Table 5 Tentative Feature of Wetlands To Cover In Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical location with coordinates and attitudes;</td>
</tr>
<tr>
<td>Conservation status;</td>
</tr>
<tr>
<td>Administrative description</td>
</tr>
<tr>
<td>Management/administrative authority and ownership</td>
</tr>
<tr>
<td>Wetlands type (national and scientific categories)</td>
</tr>
<tr>
<td>Hydrological character (Area, Inlet &amp; outlets)</td>
</tr>
<tr>
<td>Ecological feature (water volume; Ambient temperature; Average length/width etc)</td>
</tr>
<tr>
<td>Floral diversity</td>
</tr>
<tr>
<td>Faunal diversity</td>
</tr>
<tr>
<td>Endemism</td>
</tr>
<tr>
<td>Access route and distance</td>
</tr>
<tr>
<td>Socio-economic information</td>
</tr>
</tbody>
</table>

Data administration in this draft follows reporting orders as in Table 5. Some of sites in Kailaiand Kanchapur are on verification stage to validate data.

**STEP 8: DRAFT REPORT PREPARATION & SUBMISSION**

Based on Steps from 1 to 7, this draft report has been generated and submitted to DoF. CODEFUND anticipates that DoF provided the copies of draft to different stakeholders for their technical inputs, comments & suggestions which CODEFUND incorporated into draft in prior to entering to STEP 9.

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1 WIAM indicators include Biodiversity; Uniqueness; Human use of resources; Vulnerability (Settlement; Livestock grazing; Infrastructure development); Structural and non-structural practices; Conservation priority etc.
STEP 9, 10 & 11: NATIONAL SHARING (CONSULTATIVE) WORKSHOP ON IIWRP; AMENDMENT AND FINAL REPORT ON IDENTIFICATION, INVENTORY & REPORT PREPARATION

DoF has finalized Asadh 19, 2073 for the national level consultative workshop in Kathmandu. This event had reviewed and discussed on Draft IIWRP report among stakeholders not limited to DNPWC; NTNC; BCN; TMI; Academia; NGOs and so on, and provide necessary suggestions and comments on Draft IIWRP for further amendment.

STEP 12: REPORT SUBMISSION & CLEARANCE OF ALL OBLIGATIONS

CODEFUND submits this final report of assignment as per contractual procedures.
3.1 PHYSIOGRAPHIC DISTRIBUTION OF LAKES

Table 6 shows the finding of 92 lakes in the western and far western Nepal. The districtwise distribution of lakes are reported as Achham (7); Baitadi (1); Bajhang (1); Bajura (2); Dadeldhura (1); Doti (2); Gulmi (2); Kanchanpur (28); Kailali (48). Of these districts Kailali holds the largest number of lakes (48) followed by Kanchanpur (28) and Achham (7). No lakes are explored of bigger than 0.5 ha size below 3000 masl in Humla; Dolpa; Jajarkot and Darchula. Many lakes dotted in the map-based inventory in the Terai are found disappeared.

A total of 5 lakes are found to be in a good condition; remaining others are degrading. Core area of these lakes varies from less than 1 hectare to 78 in Ghodaghodi lake of Kailali district.

Over 92% of lakes are found under participatory management among local agencies such as VDCs, Municipalities and DDCs, and communities. Of this figure, 56% of lakes are under management by local communities mainly the schools; cooperative; board, conservation committee; and CFUGs. Other lakes have not received proper attention in terms of management.

3.2 DISTRICT-WISE DISTRIBUTION OF LAKES

3.2.1 Achham District

There are 7 lakes in Achham district (Table 7). Lamadaya Talis the largest one. Four lakes are in good condition whereas remaining three degrading.

<table>
<thead>
<tr>
<th>S.N</th>
<th>District</th>
<th>No. of lakes</th>
<th>Mountain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Terai</td>
</tr>
<tr>
<td>1</td>
<td>Achham</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Baitadi</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bajhang</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bajura</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Dadeldhura</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Darchula</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dolpa</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Doti</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Gulmi</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Humla</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Jajarkot</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Kailali</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>13</td>
<td>Kanchanpur</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>92</td>
<td>76</td>
</tr>
</tbody>
</table>
### Table 7 Lakes and Major Features in Achham District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Geraya Bonda</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>2.2</td>
<td>238.6</td>
</tr>
<tr>
<td>2</td>
<td>Batula Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>3.2</td>
<td>249.8</td>
</tr>
<tr>
<td>3</td>
<td>Jingale Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.1</td>
<td>118.5</td>
</tr>
<tr>
<td>4</td>
<td>Lamadaya Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>21.5</td>
<td>249.8</td>
</tr>
<tr>
<td>5</td>
<td>Lisedali Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.65</td>
<td>46</td>
</tr>
<tr>
<td>6</td>
<td>Mathillo Dhaune Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.63</td>
<td>535</td>
</tr>
<tr>
<td>7</td>
<td>Tallo Dhaune Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.55</td>
<td>539</td>
</tr>
</tbody>
</table>

### 3.2.2 Baitadi District

There is only one lake in Baitadi district (Table 8).

### Table 8 Lake and Major Features in Baitadi District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PaTal Bhumeshor Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.51</td>
<td>1.2</td>
</tr>
</tbody>
</table>

### 3.2.3 Bajhang District

There is only one lake in Bajhang district (Table 9).

### Table 9 Lake and Major Features in Bajhang District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Dau Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.6</td>
<td>193.6</td>
</tr>
</tbody>
</table>

### 3.2.4 Bajura district

There are two lakes in Bajura district. Both lakes are in degrading condition (Table 10).

### Table 10 Lakes and Major Features in Bajura District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chhede Daha</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.1</td>
<td>7.8</td>
</tr>
<tr>
<td>2</td>
<td>Dhalpuri</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.8</td>
<td>36.6</td>
</tr>
</tbody>
</table>

### 3.2.5 Dadeldhura District

There is only one lake in Dadeldhura district (Table 11).

### Table 11 Lake and Major Features in Dadeldhura District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ali Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.76</td>
<td>72.8</td>
</tr>
</tbody>
</table>

### 3.2.6 Darchula and Dolpa Districts

Darchula and Dolpa districts do not hold any lake below 3000 masl.

### 3.2.7 Doti District

There are two lakes in Doti district. Both lakes are in degrading condition (Table 12).
Table 12 Lakes and Major Features in Doti District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of Lakes</th>
<th>Type of Lake</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core</td>
<td>Basin</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chhatiwan Tal</td>
<td>1.9</td>
<td>66.7</td>
<td>Degrading</td>
</tr>
<tr>
<td>2</td>
<td>Rangeni Tal</td>
<td>0.5</td>
<td>8.2</td>
<td>Degrading</td>
</tr>
</tbody>
</table>

3.2.8 Gulmi District

There are two lakes in Gulmi district. Among two lakes, Timure Pokhari is in good condition and Dibrung Daha is degrading condition. Dibrung Daha is the largest one (Table 13).

Table 13 Lakes and Major Features in Gulmi District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type of Lake</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core</td>
<td>Basin</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Dibrung Daha</td>
<td>2</td>
<td>151.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>2</td>
<td>Timure Pokhari</td>
<td>0.5</td>
<td>16.6</td>
<td>Good</td>
</tr>
</tbody>
</table>

3.2.9 Humla District

No lakes in Humla district below 3000 masl.

3.2.10 Jajarkot District

No lakes in Humla district below 3000 masl.

3.2.11 Kailali District

There are 48 lakes in Kailali district. All lakes are in degrading condition (Table 14).

Table 14 Lakes and Major Features in Kailali District

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type of Lake</th>
<th>Area (Ha)</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core</td>
<td>Basin</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ajuwa Lake</td>
<td>4.1</td>
<td>9648.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>2</td>
<td>Baba Lake</td>
<td>3</td>
<td>9648.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>3</td>
<td>Bahuliya Tal</td>
<td>12</td>
<td>90</td>
<td>Degrading</td>
</tr>
<tr>
<td>4</td>
<td>Badka Lake</td>
<td>3.6</td>
<td>48.1</td>
<td>Degrading</td>
</tr>
<tr>
<td>5</td>
<td>Bhairbhuwa Lake</td>
<td>19.8</td>
<td>260</td>
<td>Degrading</td>
</tr>
<tr>
<td>6</td>
<td>Bhaiswa Lake</td>
<td>7</td>
<td>9684.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>7</td>
<td>Budi Nakror</td>
<td>14.9</td>
<td>9648.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>8</td>
<td>Chamraiya Tal</td>
<td>14.9</td>
<td>321</td>
<td>Degrading</td>
</tr>
<tr>
<td>9</td>
<td>Chhaya Tal</td>
<td>1.98</td>
<td>250</td>
<td>Degrading</td>
</tr>
<tr>
<td>10</td>
<td>Charra Lake</td>
<td>3.3</td>
<td>101.2</td>
<td>Degrading</td>
</tr>
<tr>
<td>11</td>
<td>Chiriya Lake</td>
<td>2.8</td>
<td>968.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>12</td>
<td>Dubri Lake</td>
<td>2</td>
<td>96.2</td>
<td>Degrading</td>
</tr>
<tr>
<td>13</td>
<td>Dudhawa Tal</td>
<td>4.41</td>
<td>80</td>
<td>Degrading</td>
</tr>
<tr>
<td>14</td>
<td>Faurahawa Lake</td>
<td>1</td>
<td>23.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>15</td>
<td>Gaichkatuwa Lake</td>
<td>6</td>
<td>9648.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>16</td>
<td>Ghod Lake</td>
<td>36</td>
<td>382.5</td>
<td>Degrading</td>
</tr>
<tr>
<td>17</td>
<td>Ghodaghodi Lake</td>
<td>78</td>
<td>9648.4</td>
<td>Degrading</td>
</tr>
<tr>
<td>18</td>
<td>Ghodchittiya Lake</td>
<td>0.9</td>
<td>48.1</td>
<td>Degrading</td>
</tr>
<tr>
<td>19</td>
<td>Gurduhawa Lake</td>
<td>2.8</td>
<td>50</td>
<td>Degrading</td>
</tr>
<tr>
<td>20</td>
<td>Guldrahawa Tal</td>
<td>4.1</td>
<td>60</td>
<td>Degrading</td>
</tr>
<tr>
<td>21</td>
<td>Jakhore Lake</td>
<td>13.4</td>
<td>314.1</td>
<td>Degrading</td>
</tr>
</tbody>
</table>
3.2.12 Kanchanpur District

There are 28 lakes in Kanchanpur district. All lakes are in degrading condition (Table 15)

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Type</th>
<th>Area (Ha)</th>
<th>Core</th>
<th>Basin</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ajayan Kunda</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.9</td>
<td>100</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>2</td>
<td>Ajingar Tal</td>
<td>Fresh water, Lacustrine, Seasonal</td>
<td>0.7</td>
<td>11.4</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>3</td>
<td>Banda Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>21</td>
<td>78.1</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>4</td>
<td>Baijyanath Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.9</td>
<td>20</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>5</td>
<td>Bantaria Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>6</td>
<td>66</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>6</td>
<td>Betkot Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>5</td>
<td>35.4</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>7</td>
<td>Copre Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.9</td>
<td>90</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>8</td>
<td>Gangla Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.9</td>
<td>50</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>9</td>
<td>Godbijula Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>8.8</td>
<td>96</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>10</td>
<td>Jhilmila Lake</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>4.3</td>
<td>40.2</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>11</td>
<td>Gobi Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>1.2</td>
<td>25</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td>12</td>
<td>Jharan Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.6</td>
<td>15</td>
<td></td>
<td>Degrading</td>
</tr>
<tr>
<td></td>
<td>Wetland Name</td>
<td>Water Type, Habitat, Duration</td>
<td>Area</td>
<td>Depth</td>
<td>Condition</td>
<td></td>
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<td>Kalikich Tal</td>
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<td>Mudka Lake</td>
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<td>25.5</td>
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<td>Newland Lake</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.8</td>
<td>18.7</td>
<td>Degrading</td>
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<td>Piplomandla Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
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<td>Peli Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
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<td>Purain Tal</td>
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<td>2.4</td>
<td>26.8</td>
<td>Degrading</td>
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<td>Pyara Tal</td>
<td>Fresh water, Lacustrine, Permanent</td>
<td>0.8</td>
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<td>Shova Tal</td>
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<td>Siddha Sarobar Banda</td>
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CHAPTER 4

PROFILES OF LAKES IN DISTRICTS

4.1 ACHHAM DISTRICT

MAP 1: Map showing lakes in Achham District
4.1.1 Batula Tal

1. General Feature

Conservation status: None.

Geographical coordination: Lat: 29.22937°N; Lon: 081.46633°E; Alt: 2,406 masl.

Geographical position: Mahabharat Range.

Administrative feature: FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.

Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions; Mujeda-Rupsa trail in south.

Management responsibility: None.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 30°C (Jun/July); Avg. Min: 5°C (Dec); Rainfall: 1891 mm /yr. (District profile Achham by Rural Access Program; 2011).

Area: Core Area: 3.2 ha; Avg. Length: 130 m; Avg. Width: 90 m; Avg. Depth: 8 m; Max–Min Surface Water Level: 9m-7 m; Basin Area: 249.8 ha.

Water Volume: Peak Period: 2,989,046 ltr; Dry period: 2,324,813 ltr; Inlet: One; Outlet: One.

Water quality: Physicochemical parameter: Temp.: 20.7°C, pH: 8.5; DO: 4.6mg/l; Transparency: 0.8 m.

Soil feature: Dark color; Clay loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: Core Area: Cynodon dactylon (LN: Dubo; EN: FF; LU: None); Pyrus persia (LN: Pihre Jhar; HT: FF; LU: None); Equisetum arvense (LN: Talche Jhar; EN: LU: None).

Major plants in basin: Rhododendron arboreatum (LN: Gurans; HT: Tr; LU: Ful); Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm).

Fish: Schizothorax sps (LN: Asala; LU: Meat).

Herpetofauna: Amolops marmoratus (LN: Hariyo Bhyaguto; EN: Marbled Cascade Frog); Bufo himalayanus (LN: Lekali Bhyagoto; EN: Toad); Laudakia
tuberculata (LN: Dunge Chheparo; EN: Himalayan Rock Lizard); *Asymblepharus sikimmensis* (LN: Chikane Girget; EN: Sikkim Skink).

**Birds**

- *Tragopans satyra* (LN; Monal; EN: Satyr Tragopan); *Pucrasia marcolophos* (LN: Funkrans; EN: Koklass Pheasant); *Lophophorus impejanus* (LN: Danphe; EN: Himalayan Monal); *Lophura leucolophus* (LN: Kalij; EN: Kalij Pheasant); *Anas platyrhynchos* (LN: Jalhans; EN: Mallard); *Gypaetus barbatus* (LN: Hardfor Ghidha; EN: Bearded Vulture); *Turdus boulboul* (LN: Madan Chanchar; EN: Grey-winged Blackbird); *Lanius schach* (LN: Bhadrai; EN: Long-tailed shrike); *Erocissa flavirostris* (LN: Sunthode Lampuchhre; EN: Yello/billed Blue Magpie); *Heterophasia capistrata* (LN: Kerra; EN: Rufous Sibia); *Motacilla alva* (LN: Seti Tiktike; EN: White Wagtail).

**Mammals**

- *Ochotona himalayana* (LN: Thute Muso; EN: Himalayan Pika); *Lepus nigricollis* (LN: Ban Kharayo; EN: Indian Hare); *Panthera pardus* (LN: Chituwa; EN: Common Leopard); *Canis aureus* (LN: Shyal; EN: Golden Jackal); *Lutra lutra* (LN: Kalo Oont; EN: Eurasian Otter); *Martes flavigula* (LN: Malsapro; EN: Yellowthroated Marten); *Semnopithecus schistaceus* (LN: Guna; EN: Nepal Grey Langur); *Sus scrofa* (LN: Bandel; EN: Eurasian Wildboar); *Moschus crysogaster* (LN: Kasturi; EN: Apine Muskdeer); *Muntiacus muntjack* (LN: Ratuwa; EN: Barking Deer); *Hemitragus jemlahicus* (LN: Jharal; EN: Himalayan Tahr); *Naemorhedus goral* (LN: Ghoral; EN: Common Goral).

**Invasive alien species**

None.

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

- *Dallena*: 1km from the lake; Main Trail: Mangalsen to Ramarosan road; 300 m from lake to the main trail.

**Land use**

- Forestland (70%); Grassland (5%); Settlement (2%); Wetlands (20%); Others (3%).

**Demography**

- Population: 4399; Male: 2109; Female: 2290; HHs: 824; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

Recently Banned for Livestock.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

- Fodder; Medicinal plants; Timber; Irrigation.

**Cultural services**

- Aesthetic; Recreation; Educational.

### 5. Restoration/Management

**Structural management**

- Wall around the lake.

**Non-structural management**

- Formal restriction for Livestock.

**Conservation plan**

None.

**Monitoring plan**

None.

### 6. Tourism information

- >5,000 annual visitors; Few hotels in lake site; Motarable road to Ramaroshan from Mangalsen; Moderate tourism potential. Needs promotional activities and good roads.

### 7. Lake condition

Good.
4.1.2 Geraya Bonda

**1. General Feature**

Conservation status: None.

Geographical coordination: Lat: 29.22208°N; Lon: 081.42749°E; Alt: 1,541 masl.

Geographical position: Mahabharat Range.

Administrative feature: FWDR; Accham district; Ramaroshan VDC; Ward-7; Geraya Bonda.

Boundary:
- **Core Area:** Forest in all directions.
- **Basin Area:** Suni Ban in west; Geraya in East; Kadh in South, Hade Kadh in North.

Management responsibility: Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

**2. Ecological Feature**

Climatic feature: Avg. Max: Temp: 30°C (Jun/July); Avg. Min: 5°C (Dec); Rainfall: 1891 mm/yr. (District Profile Achham, 2011).

Area:
- **Core Area:** 2.2 ha; Avg. Length: 80 m; Avg. Width: 40 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 6 m–2 m; Basin Area: 238.6 ha.

Water Volume:
- Peak Period: 851,580 ltr; Dry period: 119,221 ltr; Inlet: Thulo Khola & Sano Khola; Outlet: Geraya Khola.

Water quality:
- Physicochemical parameter: Temp.: 24.3°C; pH: 7.1; DO: 5.4 mg/l; Transparency: 0.4 m.

Soil feature: Grey color; Loamy sand texture.

Shocks/vulnerability: Water volume decreasing, Landslide and soil deposition.

Major aquatic plants:
- **Core Area:** *Pyrus persia* (LN: Pirejhar; HT: Hr; LU: None);
- *Acorus calamus* (LN: Bojho; HT: Hr; LU: Med);
- *Salix sps* (LN: Bains; HT: Tr; LU: Fod).

Major plants in basin:
- *Rhododendron sps* (LN: Gurans; HT: Tr; LU: Med);
- *Myrica sps* (LN: Kafal; HT: Tr; LU: Fruit, Fod);
- *Alnus nepalensis* (LN: Uttis; HT: Tr; LU: Tm);
- *Pinus roxburgii* (LN: Sallo; HT: Tr; LU: Tm);
- *Pyrus pashia* (LN: Mayal; HT: Tr; LU: Tm);

**Wetland code:** Toposheet no: 2981 14B

**Date of inventory:** May 31, 2016
Fish  
*Garra gotyla* (LN: Gadela; LU: Meat).

Herpetofauna  
*Bufo melonostictus* (LN: Khashre Bhyaguto; EN: Black/spined Toad);  
*Euphlyctis cyanophlyctis* (LN: Tiktike Paha; EN: Skittering Frog);  
*Calotes versicolor* (LN: Chheparo; EN: Garden Lizard);  
*Laudakia tuberculata* (LN: Paththar ChatuwaH; EN: Himalayan Rock Lizard);  
*Ptyas mucosa* (LN: Sarpa; EN: Asiatic Rat Snake).

Birds  
*Francolinus francolinus* (LN: Kalo Titra; EN: Black Francolin);  
*Lophura leucomelas* (LN: Kalij; EN: Kalij Pheasant);  
*Megalaima victoriae* (LN: Nyauli; EN: Great Barbet);  
*Eudynamys scolopacea* (LN: Koeli; EN: Asian Koel);  
*Curvus macrorhynchos* (LN: Kaag; EN: Large/billed Crow);  
*Myophonus caerules* (LN: Kalche; EN: Blue Whistling Thrush);  
*Parus major* (LN: Chichilkote; EN: Great tit).

Mammals  
*Lepus nigricollis* (LN: Bankharayo; EN: Indian Hare);  
*Lutra lutra* (LN: Oont; EN: Common Otter);  
*Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque);  
*Canis aureus* (LN: Shyal; EN: Golden Jackal);  
*Ursus thibetanus* (LN: Kalo Bhalu; EN: Asiatic Black Bear);  

Invasive alien species  
*Ageratina adenophora* (LN: Banmara; EN: Crofton Weed)

Endemic plant/animal  
None.

3. Socio-Economy at Basin

Nearby settlement  
*Tallo Patan*; 1km from lake; Main Trail: *Tallosaine* road; 1km from lake to the main trail.

Land use  
Forestland (75%); Grassland (1%); Shrubland (21%); Cultivation (3%).

Demography  
Population: 2498; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership  
State.

Wetlands dependent community  
None.

Livestock at basin  
>300.

Traditional production system  
Terrace farming.

Traditional water use practices  
Religious/ritual pond; Community pond; Local irrigation system

Cultural record  
*JalpaDevi Temple* at basin.

Genesis/origin of lake  
NA.

4. Ecosystem Goods/Services

Provisional services  
Fodder; Medicinal plants; Irrigation, Domestic water supply, Timber supply, Fuel wood supply.

Cultural services  
Aesthetic; Religious; Educational; *Hile Paith Ram* (Fair) during Baisakh, Magh and Jestha purnima.

5. Restoration/Management

Structural management  
Dam made with the support of DDC.

Non-structural management  
None.

Conservation plan  
None.

Monitoring plan  
None.

6. Tourism information

>5000 annual visitors; Motarable road upto Saini Bazar. Moderate tourism potential; Needs promotional activities and transportation; Few good hotels in Sainibazar.

7. Lake condition  
Degrading.
4.1.3 Jingale Tal

**Wetland code:**
Toposheet no: 2981 14B
Date of inventory: May 19, 2016

1. **General Feature**
   - Conservation status: None.
   - Geographical position: Mahabharat Range.
   - Administrative feature: FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.
   - Core Area: Forest in all directions.
   - Basin Area: Mujeda-Dhanesalla-Ramaroshan trail in west; Dense mixed forest in east and north; Mujeda-Rupsa trail in south.
   - Management responsibility: Community.
   - Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. **Ecological Feature**
   - Climatic feature:
   - Area:
     - Core Area: 1.1 ha; Avg. Length: 300 m; Avg. Width: 75 m; Avg. Depth: 12 m; Max–Min Surface Water Level: 13m-11 m; Basin Area: 118.5 ha.
   - Water Volume:
     - Peak Period: 11,070,540 ltr; Dry period: 8,742,888 ltr; Inlet: One; Outlet: One.
   - Water quality:
     - Physicochemical parameter: Temp: 19°C, pH: 8.6; DO: 5.6mg/l; Transparency: 0.8 m.
   - Soil feature: Dark color; Clay loam texture.
   - Shocks/vulnerability: Water volume decreasing.
   - Major aquatic plants:
     - Core Area: *Nelumbo nucifera* (LN: Nilo Kamal; EN: Blue lotus; HT: Ff; LU: None);
     - *Equisetum arvense* (LN: Talche Jhar; EN: LU: None);
     - *Rumex nepalensis* (LN: Halhale; HT: Hr; LU: Med, Fd);
     - *Ceratophyllum submersum* (LN: Panijhar; HT:S m; LU: None);
     - *Pyruspersia* (LN: Pihre Jhar; HT: Ff; LU: None);
   - Major plants in basin:
     - *Rhododendron arboretum* (LN: Gurans; HT: Tr; LU: Ful);
     - *Quercussemecarpifolia* (LN: Khasru; HT: Tr; LU: Tm); *Lyonia villosa*
Fish
- *Symplocos ramosissima* (LN: Angeri; HT: Tr; LU: Med);
- *Pinus wallichiana* (LN: Gobre Sallo; HT: Tr, LU: Tm);
- *Pyracantha crenulata* (LN: Ghangaru; HT: Tr; LU: Fr);
- *Berberis aristata* (LN: Chutro; HT: Tr; LU: Med).

Herpetofauna
- *Amolops marmoratus* (LN: Hariyo Bhyaguto; EN: Marbled Cascade Frog);
- *Bufo himalayanus* (LN: Lekali Bhyaguto; EN: Toad);
- *Laudakia tuberculata* (LN: Dunge Chheparo; EN: Himalayan Rock Lizard);

Birds
- *Tragopan satyra* (LN: Monal; EN: Satyr Tragopan);
- *Pucrasia marcolopha* (LN: Funkrans; EN: Koklass Pheasant);
- *Lophophorus impejanus* (LN: Danphe; EN: Himalayan Monal);
- *Lophura leucomelanos* (LN: Kalij; EN: Kalij Pheasant);
- *Anas platyrhynchos* (LN: Jalhans; EN: Mallard);
- *Gypaetus barbatus* (LN: Hardfor Gidhdha; EN: Bearded Vulture);
- *Turdus oulouboul* (LN: Madan Chanchar; EN: Grey/winged Blackbird);
- *Lanius schach* (LN: Bhadrai; EN: Long/tailed shrike);
- *Erocissa flavirostris* (LN: Sunthode Lampuchhre; EN: Yellow/billed Blue Magpie);
- *Heterophasia capistrata* (LN: Kerra; EN: Rufous Sibia);

Mammals
- *Ochotona himalayana* (LN: Thute Muso; EN: Himalayan Pika);
- *Lepus nigricollis* (LN: Ban Kharayo; EN: Indian Hare);
- *Panthera tigris* (LN: Chitua; EN: Common Leopard);
- *Canis aureus* (LN: Shyal; EN: Golden Jackal);
- *Lutra lutra* (LN: Kalo Oont; EN: Eurasian Otter);
- *Martes flavigula* (LN: Malsapro; EN: Yello/throated Marten);
- *Semnopithecus schistaceus* (LN: Gun; EN: Nepal Grey Langur);
- *Sus scrofa* (LN: Bandel; EN: Eurasian Wildboar);
- *Moschus moschiferus* (LN: Kasturi; EN: Apine Muskdeer);
- *Muntiacus muntjak* (LN: Ratuwa; EN: Barking Deer);
- *Hemitragus jemlahicus* (LN: Jharal; EN: Himalayan Tahr);
- *Hemitragus jemlahicus* (LN: Jharal; EN: Himalayan Tahr);

Invasive alien species
- *Ageratina adenophora* (LN: Banmara; EN: Crofton Weed).

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- *Dallena*; 1km from lake; Main Trail: Mangalsen- Ramarosan road; 500m from lake to the main trail.

Land use
- Forestland (70%); Grassland (5%); Settlement (2%); Wetlands (20%); Others (3%).

Demography
- Population: 4399; Male: 2109; Female: 2290; HHs: 824; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2011).

Jurisdiction/ownership
- State.

Wetlands dependent community
- None.

Livestock at basin
- Recently Banned for Livestocks grazing.

Traditional production system
- None.

Traditional water use practices
- None.

Cultural record
- None.

Genesis/origin of lake
- None.
4. Ecosystem Goods/Services

Provisional services  Fodder; Medicinal plants; Timber.
Cultural services    Aesthetic; Recreation; Educational.

5. Restoration/Management

Structural management None.
Non-structural management Formal restriction for Livestock.
Conservation plan None.
Monitoring plan None.

6. Tourism information

>5,000 visitors/yr; Few hotels in lake site; Motorable road to Ramaroshan form Mangalsen; Moderate tourism potential; Needs promotional activities and roads.

7. Lake condition

Good.
1. General Feature

Conservation status: None.
Geographical coordination: Lat: 29.23760°N; Lon: 081.48155°E; Alt: 2,522 masl.
Geographical position: Mahabharat Range.
Administrative feature: FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.
Management responsibility: Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp:30°C (Jun/July); Avg. Min:5°C (Dec); Rainfall: 1891mm/yr.
(District profile Achhamby Rural Access Program, 2011).
Area: Core Area: 21.5 ha; Avg. Length: 100 m; Avg. Width:40 m; Avg. Depth: 6 m; Basin Area: 249.8 ha.
Water Volume: Peak Period: 794,808 ltr; Dry period: 567,728 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.:18.5°C, pH:9.3; DO:5.7mg/l; Transparency: 0.5 m.
Soil feature: Dark color; Clay loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Cynodon dactylon (LN: Dubo; EN: HT: Ff; LU: None); Nelumbo nucifera; (LN: Ekpate, Kamal; HT: Ff; LU: None); Pyrusspersia (LN: Pirejhar; HT: Hr; LU: None)
Major plants in basin: Rhododendron companulatum (LN: Gurans; HT: Tr; LU: Ful); Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm); Lyonivillosa (LN: Angeri; HT: Tr; LU: Bed); Symplocosoramosisima (LN: Dabdabe; HT: Hr; LU: Bed); Pinus wallichiana (LN: Gobre Sallo; HT: Tr, LU: Tm); Pyrakantha crenulata (LN: Ghangaru; HT: Tr; LU: Fr); Berberis aristata (LN: Chutro; HT: Tr; LU: Med).
Fish: Schizothorax sps (LN: Asala; LU; Meat).
Herpetofauna: Amolops mormoratus (LN: Hariyo Bhyaguto; EN: Marbled Cascade Frog); Bufo himalayanus (LN: Lekali Bhyagoto; EN:Toad); Laudakia tuberculata
Birds

- *Tragopan satyra* (LN: Monal; EN: Satyr Tragopan); *Pucrasia marcolopha* (LN: Funkrans; EN: Koklass Pheasant); *Lophophorus impejanus* (LN: Danphe; EN: Himalayan Monal); *Lophuraleucemonanlos* (LN: Kalij; EN: Kalij Pheasant); *Anas platyrhynchos* (LN: Jhalans; EN: Mallard); *Gypaetus barbatus* (LN: Hardfor Gidhda; EN: Bearded Vulture); *Turdus boubloul* (LN: Madan Chanchar; EN: Grey/winged Blackbird); *Lanius schach* (LN: Bhadriai; EN: Long/tailed shrike); *Eroica flavirostris* (LN: Sunthode Lampuchhre; EN: Yello/billed Blue Magpie); *Heterophasiacapistrata* (LN: Kerra; EN: Rufous Sibia); *Motacilla alva* (LN: Seti Tiktike; EN: White Wagtail).

Mammals

- *Ochotona himalayana* (LN: Thute Muso; EN: Himalayan Pika); *Lepus nigricollis* (LN: Ban Kharayo; EN: Indian Hare); *Panthera pardus* (LN: Chituwa; EN: Common Leopard); *Canis aureus* (LN: Shyal; EN: Golden Jackal); *Lutra lutra* (LN: Kalo Oont; EN: Eurasian Otter); *Martes flavigula* (LN: Malsapro; EN: Yello/throated Marten); *Semnopithecus schistaceus* (LN: Guna; EN: Nepal Grey Langur); *Sus scrofa* (LN: Bandel; EN: Eurasian Wildboar); *Moschuscrysogaster* (LN: Kasturi; EN: Apine Muskdeer); *Muntiacus muntjac* (LN: Ratuwa; EN: Barking Deer); *Hemitragus jemlahicus* (LN: Jharal; EN: Himalayan Tahr); *Naemorhedus goral* (LN: Ghoral; EN: Common Ghoral).

Invasive alien species

- *Ageratina adenophora* (LN: Banmara; EN: Crofton Weed).

Endemic plant/animal

None.

Socio-Economy at Basin

3. Nearby settlement

- *Dallena*; 1km from lake; Main trail: Mangalsen- Ramarosan road; 500m from lake to the main trail.

4. Land use

- Forestland (88%); Grassland (0.24%); Shrubland (7%); Cultivation (4%); Sand (0.5%).

5. Demography

- Population: 4399; Male: 2109; Female: 2290; HHs: 824; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2011).

6. Jurisdiction/ownership

- State.

7. Wetlands dependent community

- None.

8. Livestock at basin

- Recently Banned for Livestock.

9. Traditional production system

- None.

10. Traditional water use practices

- None.

11. Cultural record

- None.

12. Genesis/origin of lake

- None.

Ecosystem Goods/Services

5. Provisional services

- Fodder; Medicinal plants; Timber; Irrigation.

6. Cultural services

- Aesthetic; Recreation; Educational.

Restoration/Management

5. Structural management

- None.

6. Non-structural management

- Formal restriction for Livestock.

7. Conservation plan

- None.

8. Monitoring plan

- None.

Tourism Information

5. >5,000 visitors/yr; Few hotels in lake site; Motarable road to Ramaroshan form Mangalsen; Moderate tourism potential; Needs promotional activities and roads.

Lake Condition

6. Good.
1. General Feature

Conservation status: None.
Geographical coordination: Lat: 29.23536°N; Lon: 81.48009°E; Alt: 2,516 masl.
Geographical position: Mahabharat Range.
Administrative feature: FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.
Boundary:
Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility: Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature:
Avg. Max: Temp: 30°C (Jun/July); Avg. Min: 5°C (Dec); Rainfall: 1891mm /yr. (District profile Achham by Rural Access Program, 2011).
Area:
Core Area: 2.6 ha; Avg. Length: 50 m; Avg. Width: 40 m; Avg. Depth: 5m; Max–Min Surface Water Level: 6m-4 m; Basin Area: 118.5 ha.
Water Volume:
Peak Period: 340,632 ltr; Dry period: 227,088 ltr; Inlet: Two; Outlet: One.
Water quality:
Physicochemical parameter: Temp.: 19°C, pH: 9.2; DO: 5.5mg/l; Transparency: 0.4 m.
Soil feature: Dark color; Clay loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants:
Core Area: Equisetum arvense (LN: Talche Jhar; HT: Hr; LU: Fodder);
Cynodon dactylon (LN: Dubo; EN: HT: Ff; LU: None); Nelumbo nucifera; (LN: Ekpate, Kamal; HT: Ff; LU: None); Pyrus persia (LN: Pirejhar; HT: Hr; LU: None).
Major plants in basin:
Rhododendron arboretum (LN: Laligurans; HT: Tr; LU: Med, fuel);
Rhododendron companulatum (LN: Setogurans; HT: Tr; LU: Med, Ful);
Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm); Lyonia villosa
Fish
Symplocos ramosissima (LN: Angeri; HT: Tr; LU: Bed);
Pinus wallichiana (LN: Gobre Sallo; HT: Tr, LU: Tm);
Pyracantha crenulata (LN: Ghangaru; HT: Tr; LU: Fr);
Berberis aristata (LN: Chutro; HT: Tr; LU: Med).

Fish
Schizothorax sps (LN: Asala; LU; Meat).

Herpetofauna
Amolops marmoratus (LN: Hariyo Bhyaguto; EN: Marbled Cascade Frog);
Bufo himalayanus (LN: Lekali Bhyagoto; EN: Toad);
Laudakia tuberculata (LN: Dunge Chheparo; EN: Himalayan Rock Lizard);
Asymblepharus sikimmensis (LN: Chikane Girget; EN: Sikkim Skink).

Birds
Tragopan satyra (LN: Monal; EN: Satyr Tragopan);
Pucrasia marcolopha (LN: Funkrans; EN: Koklass Pheasant);
Lophophorus impejanus (LN: Danphe; EN: Himalayan Monal);
Lophura leucomelas (LN: Kalij; EN: Kalij Pheasant);
Anas platyrhynchos (LN: Jalhans; EN: Mallard); Gypaetus barbatus (LN: Hardfor Gidhdha; EN: Bearded Vulture);
Turdus boulboul (LN: Madan Chanchar; EN: Grey/winged Blackbird);
Lanius schach (LN: Bhadrai; EN: Long/tailed shrike);
Erocissa flavirostris (LN: Sunthode Lampuchhre; EN: Yello/billed Blue Magpie); Heterophasia capistrata (LN: Kerra; EN: Rufous Sibia);
Motacilla alba (LN: Seti Tiktike; EN: White Wagtail).

Mammals
Ochotona himalayana (LN: Thute Muso; EN: Himalayan Pika);
Lepus nigricollis (LN: Ban Kharayo; EN: Indian Hare);
Panthera pardus (LN: Chituwa; EN: Common Leopard);
Canis aureus (LN: Shyal; EN: Golden Jackal);
Lutra lutra (LN: Kalo Oont; EN: Eurasian Otter);
Martes flavigula (LN: Malsapro; EN: Yello/throated Marten);
Semnopithecus ceylonicus (LN: Guna; EN: Nepal Grey Langur);
Sus scrofa (LN: Bandel; EN: Eurasian Wildboar);
Moschus cips (LN: Kasturi; EN: Apine Muskdeer);
Muntiacus muntjak (LN: Ratuwa; EN: Barking Deer);
Hemitragus jemlahicus (LN: Jharal; EN: Himalayan Tahr);
Naemorhedus goral (LN: Chitwan; EN: Common Goral).

Invasive alien species
Ageratina adenophora (LN: Banmara; EN: Crofton Weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Dallena; 1km from lake; Mangalsen- Ramarosan road; 500m from lake to the main trail.

Land use
Forestland (92.51%); Grassland (0.26%); Shrubland (0.79%); Others (0.1%).

Demography
Population: 4399; Male: 2109; Female: 2290; HHs: 824; Ethnicity: Brahmin / Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
Recently Banned for Livestock.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.
4. Ecosystem Goods/Services

Provisional services  Fodder; Medicinal plants; Timber.
Cultural services  Aesthetic; Recreation; Educational.

5. Restoration/Management

Structural management  None.
Non-structural management  Formal restriction for Livestock.
Conservation plan  None.
Monitoring plan  None.

6. Tourism information

>5,000 visitors/yr; Few hotels in lake site; Motarable road to Ramaroshan form Mangalsen; Moderate tourism potential; Needs promotional activities and roads.

7. Lake condition

Good.
4.1.6 Mathillo Dhaune Tal

Wetland code: Toposheet no: 2981 14B
Date of inventory: May 18, 2016

1. General Feature
Conservation status: None.
Geographical coordination: Lat: 29.23048°N; Lon: 081.46102°E; Alt: 2,316 masl.
Geographical position: Mahabharat Range.
Administrative feature: FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.
Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions.
Management responsibility: Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Area: Core Area: 1.63 ha; Avg. Length: 50 m; Avg. Width: 30 m; Avg. Depth: 3.6 m; Max–Min Surface Water Level: 5.5m-1.8 m; Basin Area: 535 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 16°C, pH: 8.4; DO: 5.3mg/l; Transparency: 0.4 m.
Soil feature: Grey color; Loamy sand texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Cynodon dactylon (LN: Dubo; EN: HT: Ff; LU: None).
Major plants in basin: Rhododendron Companulatum (LN: Gurans; HT: Tr; LU: Ful); Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm); Lyoniviillosa (LN: Angeri; HT: Tr; LU: Bed); Symlocos ramosissima (LN: Dabdabe; HT: Hr; LU: Bed); Pinus wallichiana (LN: Gobre Sallo; HT: Tr, LU: Tm); Pyracantha crenulata (LN: Ghangaru; HT: Tr; LU: Fr); Berberis aristata (LN: Chutro; HT: Tr; LU: Med).
Fish: Garra gotyla (LN: Gatedela machha; LU: Meat).
Herpetofauna: Amolops marmoratus (LN: Hariyo Bhyaguto; EN: Marbled Cascade
Frog); *Bufo himalayanus* (LN:Lekali Bhyagoto; EN:Toad); *Laudakia tuberculata* (LN:Dunge Chheparo; EN:Himalayan Rock Lizard); *Asymblepharus sikimmensis* (LN:Chikane Girget; EN; Sikkim Skink).

**Birds**
*Lophophorus impejanus* (LN:Danphe; EN:Himalayan Monal); *Lophura leucomelanos* (LN:Kaliij; EN:Kalij Pheasant); *Anas platyrhynchos* (LN:Jalhans; EN:Mallard); *Gypaetus barbatus* (LN:Hardfor Gidhda; EN:Bearded Vulture); *Turdus boulboul* (LN:Madan Chanchar; EN:Grey/winged Blackbird); *Lanius schach* (LN:Bhadrai; EN:Long/tailed shrike); *Eroicissa flavirostris* (LN:Sunthode Lampuchhre; EN:Yello/billed Blue Magpie); *Heterophasia capistrata* (LN:Kerra; EN:Rufous Sibia); *Motacilla alva* (LN:Seti Tiktike; EN:White Wagtail).

**Mammals**
*Lepus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Panthera pardus* (LN:Chituwa; EN:Common Leopard); *Canis aureus* (LN:Shyal; EN:Golden Jackal); *Lutra lutra* (LN:Kalo Oont; EN:Eurasian Otter); *Martes flavigula* (LN:Malsapro; EN; Yello/throated Marten); *Sus scrofa* (LN:Bandel; EN:Eurasian Wildboar); *Moschus crysogaster* (LN:Kasturi; EN; Apine Muskdeer); *Muntiacus muntjac* (LN:Ratuwa; EN; Barking Deer); *Hemitragus jemlahicus* (LN:Jharal; EN; Himalayan Tahr).

Invasive alien species None.
Endemic plant/animal None.

### 3. Socio-Economy at Basin

#### Nearby settlement
*Dallena*; 1km from lake; Mangalsen-Ramarosan road; 600m from lake to the main trail.

#### Land use
Forestland (70%); Grassland (5%); Settlement (2%); Wetlands (20%); Others (3%).

#### Demography
Population:4399; Male:2109; Female:2290; HHs:824; Ethnicity: Brahmin /Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion:Hinduism/Buddhism (CBS 2011).

#### Jurisdiction/ownership
State.

#### Wetlands dependent community
None.

#### Livestock at basin
Recently Banned for Livestocks.

#### Traditional production system
None.

#### Traditional water use practices
Religious/ritual pond.

#### Cultural record
None.

#### Genesis/origin of lake
None.

### 4. Ecosystem Goods/Services

#### Provisional services
Fodder; Medicinal plants; Timber; Irrigation.

#### Cultural services
Aesthetic; Recreation; Educational.

### 5. Restoration/Management

#### Structural management
None.

#### Non-structural management
Formal restriction for Livestock.

#### Conservation plan
None.

#### Monitoring plan
None.

### 6. Tourism information

>5,000 visitors/yr; Few hotels in lake site; Motarable road to Ramaroshan form Mangalsen; Moderate tourism potential; Needs promotional activities and roads.

### 7. Lake condition
Degrading.
4.1.7 Tallo Dhaune Tal

Wetland code:
Toposheet no: 2981 14B
Date of inventory: May 18, 2016

1. General Feature
Conservation status
None.
Geographical coordination
Lat:29.22903°N; Lon:081.45712°E; Alt:2,299 masl.
Geographical position
Mahabharat Range.
Administrative feature
FWDR; Achham district; Ramaroshan VDC; Ward-9; Ramaroshan.
Boundary
Core Area: Forest in all directions.
Basin Area: Forest in west and north; Cultivation land in east; Mujeda-Rupsa trail in south.
Management responsibility
Community.
Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Climatic feature
Avg. Max: Temp: 30°C (Jun/July); Avg. Min: 5°C (Dec); Rainfall: 1891mm/yr. (District profile Achham by Rural Access Program, 2011).
Area
Core Area: 0.55 ha; Avg. Length: 60 m; Avg. Width: 30 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 4m-2 m; Basin Area: 531 ha.
Water Volume
Peak Period: 204,379 ltr; Dry period: 102,190 ltr; Inlet: MoroKhola; Outlet: Dhaune Dhode.
Water quality
Physicochemical parameter: Temp.: 20.8°C, pH: 7.8; DO: 4.4mg/l; Transparency: 0.3 m.
Soil feature
Grey color; Loamy sand texture.
Shocks/vulnerability
Water volume decreasing.
Major aquatic plants
Core Area: *Nelumbo nucifera* (LN: Ekpathe, Kamal; HT: Ff; LU: None);
*Pyrus persia* (LN: Pirejhar; HT: Hr; LU: None);
*Cynodondactylon* (LN: Dubo; EN; HT: Ff; LU: None).
Major plants in basin
*Rhododendron arboretum* (LN: Gurans; HT: Tr; LU: Ful);
*Quercus semecarpifolia* (LN: Khasru; HT: Tr; LU: Tm);
*Lyonia villosa* (LN: Angeri; HT: Tr; LU: Bv);
*Symplocos ramosissima* (LN: Dabdabe; HT: Hr; LU: Bed);
*Pinus wallichiana* (LN: Gobre Sallo; HT: Tr, LU: Tm);
*Pyracantha crenulata* (LN: Ghangaru; HT: Tr; LU: Fr);
*Berberis aristata* (LN: Chutro; HT: Tr; LU: Med).
Fish

Herpetofauna Amolops marmoratus (LN:Hariyo Bhyaguto; EN:Marbled Cascade Frog); Bufo himalayanus (LN:Lekali Bhyagoto; EN:Toad); Laudakia tuberculata (LN: Dunge Chheparo; EN: Himalayan Rock Lizard); Asymblepharus sikimmensis (LN:Chikane Girget; EN; Sikkim Skink).

Birds Gypaetus barbatus (LN: Hardfor Gidhdha; EN:Bearded Vulture); Turdus boulboul (LN: Madan Chanchar; EN:Grey/winged Blackbird); Lanius schach (LN: Bhadrai; EN: Long/tailed shrike); Erocissa flavirostris (LN: Sunthode Lampuchhre; EN: Yello/billed Blue Magpie); Heterophasia capistrata (LN:Kerra; EN: Rufous Sibia); Motacilla alva (LN:Seti Tiktike; EN:White Wagtail); Tragopan satyra (LN; Monal; EN:Satyr Tragopan); Pucrasia marcolopha (LN:Funkrans; EN:Koklass Pheasant).

Mammals Panthera pardus (LN:Chituwa; EN:Common Leopard); Canisaureus (LN:Shyal; EN:Golden Jackal); Semnopithecus schistaceus (LN: Guna; EN:Nepal Grey Langur); Sus scrofa (LN: Bandel; EN:Eurasian Wildboar); Moschus crysogaster (LN:Kasturi; EN: Apine Muskdeer); Muntiacus muntjak (LN:Ratuwa; EN; Barking Deer); Hemitragus jemlahicus (LN:Jharal; EN; Himalayan Tahr); Naemorhedus goral (LN:Ghoral; EN:Common Goral).

Invasive alien species Eupatorium sp (LN: Banmara; EN: Thorughwort).
Endemic plant/animal None.

3. Socio-Economy at Basin
Nearby settlement Dallena; 1km from lake; Main Trail:Mangalsen- Ramarosan road; 200m from lake to the main trail.

Land use Forestland (70%); Grassland (5%); Settlement (2%); Wetlands (20%); Others (3%).

Demography Population:4399; Male:2109; Female:2290; HHs:824; Ethnicity: Brahmin / Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion:Hinduism/Buddhism (CBS 2011).

Jurisdiction/ownership State.
Wetlands dependent community None.
Livestock at basin Recently Banned for Livestock.
Traditional production system None.
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fodder; Medicinal plants; Timber.
Cultural services Aesthetic; Recreation; Educational.

5. Restoration/Management
Structural management None.
Non-structural management Formal restriction for Livestock.
Conservation plan None.
Monitoring plan None.

6. Tourism information
>5,000 visitors/yr; Few hotels in lake site; Motarable road to Ramaroshan form Mangalsen; Moderate tourism potential; Needs promotional activities and roads.

7. Lake condition Degrading.
4.2 BAITADI DISTRICT

MAP 2: Map showing lake in Baitadi District.
1. General Feature

Conservation status: Religious.
Geographical position: Mahabharat range.
Administrative feature: FWDR; Baitadi district; Basulinga VDC; Ward-1; PaTal Bhumeshor; Sidhhanath.

Boundary
- **Core Area**: Patal Bhumeshor temple in West; Sidhhanath in East; Patal Bhumeshor C.F in South; Sidhhanath Community Forest in North
- **Basin Area**: Seudi Bazar in west; Patan-8, Bhauneli-9 in east; Jeude Tol; in south; Tadi village-6 and Guwane-1,2,3 in north.

Management responsibility: Sidhhanath CFUG; Sidhhanath PaTal Bhumeshor Dharmik Chhetra.

Wetlands type: Natural; Lacus trine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 32.4°C (Jun/July); Avg. Min: 0.5°C (Dec); Rainfall: 1037 mm /yr. (source: http://www.floraofnepal.org/?page=StaticRoot/LandAndClimate/climate).

Area
- **Core Area**: 0.51 ha; Avg. Length: 80 m; Avg. Width: 30 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 6-3 m; **Basin Area**: 1.2ha.

Water Volume
- Peak Period: 35000 litre; Dry period: 12000 litre; Inlet: None; Outlet: Aakashay Pokhari in south (100m far from lake).

Water quality
- Physicochemical parameter: Temp.: 15°C, pH: 6; Transparency: 1m.

Soil feature: Dark colored; Sandyclay loam.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: None

Major plants in basin: Pinus roxburghii (LN:Salla; HT: Tr; LU: Tm); Terminalia alata (LN: Saaj; HT: Tr; LU: Tm); Bischofia javanica (LN: Kaini; HT: Tr; LU: Fodder); Rhododendron ferrugineum (LN: Laligurans; LU: Med); Quercus leucotrichophora (LN: Baanjh; LU: Fodder, fuel); Butea sps(LN: Palansh; LU: Med); Cupressus tarulosa (LN: Dhupi salla; LU: None)

Fish: Channa stewartii (LN: Hile; LU: Meat).
Herpetofauna

- *Rana tigrana* (LN: Vyaguto; EN: Frog); *Japalura variegata* (LN: Chhirke; EN: Variegated mountain lizard); *Bufo sps* (LN: Khasrebhyaguto; EN: Toad).

Birds

- *Megalaima virens* (EN: Great barbet; LN: Nyauli); *Francolinus francolins* (LN: Titra; EN: Black francolin Tit); *Lophura leucomelanos* (LN: Kaalij); *Urocissa erythroryncha* (L.N. Laampuchhre); *Treron sphenura* (LN: Pahadi Haleso)

Mammals

- *Muntiacus muntjak* (LN: Ratuwaa; EN: Barking deer); *Pardofelis nebulosa*; (LN: Chituwa; EN: leopard); *Sus scrofa* (LN: Bandel; EN: Wild boar); *Canis aureus* (LN: Syaal; EN: Fox); *Hystrix indica* (LN: Dumsi; EN: Porcupine)

Invasive alien species


Endemic plant/animal

- None

3. Socio-Economy at Basin

Nearby settlement:
- *Seudi Bazar*; 1.1km from lake; Mahakali highway; 1.1km from lake.

Land use
- Forestland (100%).

Demography

Jurisdiction/ownership
- State.

Wetlands dependent community
- None

Livestock at basin
- >1000.

Traditional production system
- None.

Traditional water use practices
- Few Water mill (Ghatta); Local irrigation system (*Basyau Kula, Samalla kulo, Saina*); 8-10 well and *kuwa*.

Cultural record
- None.

Genesis/origin of lake
- Natural.

4. Ecosystem Goods/Services

Provisional services
- None.

Cultural services
- Religious/ spiritual services-PaTal Bhumeshor temple; *Mela* in *Shivaratri* and *Sankranti*.

5. Restoration/Management

Structural management
- Surrounded by walls in all direction except in North.

Non-structural management
- None

Conservation plan
- Conservation and monitoring plan by *Sidhhanath Patal Bhumeshor Dharmik Manch; Basulinga 1.*

Monitoring plan
- Conservation and monitoring plan by *Sidhhanath Patal Bhumeshor Dharmik Manch; Basulinga 1.*

6. Tourism information

- 300-400 visitors/yr; Few good hotels and lodge in *Satbanjh*; (2 km far from the lake); Road favourable only for bikes from *Seudi* bazar; Moderate Tourism potential; Needs promotional activities.

7. Lake condition

- Degrading.
4.3 BAJHANG DISTRICT

MAP 3: Map showing lake in Bajhang District
4.3.1 Dau Tal

**1. General Feature**
- **Conservation status**: Religious site
- **Geographical coordination**: Lat:29.63682°N; Lon:81.09524°E; Alt:2233 masl.
- **Geographical position**: Mahabharat Range.
- **Administrative feature**: FWDR; Bajhang district; Surma VDCs; Ward no. 2, 3; Bhirkot.
- **Boundary**
  - **Core Area**: Dungra village in west; Bhirkot Village in east; Khaula school in south; Hila in north
  - **Basin Area**: Alka village in west; Bhirkot in east; Khaula School in south; Afra khola in north.
- **Management responsibility**: Dau Tal Conservation Committee
- **Wetlands type**: Fresh water /natural; Lacustrine; Permanent.

**2. Ecological Feature**
- **Climatic feature**: Avg. Max: Temp:18°C (Jun/July); Avg. Min: 2.4°C (Dec); Rainfall: 2146.16 mm/yr. (Bajhang District Climate and Energy Plan, 2014).
- **Area**
  - **Core Area**: 1.6 ha; Avg. Length:200 m; Avg. Width:100 m; Avg. Depth:5 m; Max–Min Surface Water Level:5-3 m; **Basin Area**: 193.6 ha.
- **Water Volume**: Peak Period:3 lakh ltr; Dry period:100000 m³; Inlet:Afra khola (Seasonal); Outlet:water infiltrated at south end of the lake
- **Water quality**: Physicochemical parameter: Temp:18°C, pH:6; Transparency:0.5 m.
- **Soil feature**: Grey color; Sandy clay
- **Shocks/vulnerability**: Water volume decreasing.
- **Major aquatic plants**
  - **Core Area**: *Eichhornia crassipes* (LN: Jalakumbhi; EN: water hyacinth; HT: Ff; LU: none)
- **Major plants in basin**
  - *Juglans regia* (LN:Okhar; HT:Tr; LU:oil and fruits,timber); *Quercus lanata* (LN: Baanjh; HT: Tr; LU: Tm); *Pyracantha crenulata* (LN: Khasru; HT:Tr; LU:Tm); *Castanopsis indica* (LN:Ghangaru; HT:Shr; LU:none); *Berberis aristata* (LN: Kirmadu; HT: Shr; LU: none); *Prinsepia utilis* (LN: Dhatelo; HT: Tr, LU: Tm); *Pyrus pashia* (LN: Mayal; HT: Tr; LU: Tm, fruits); *Prunus persica* (LN: aaru; EN: Peach; HT: Tr; LU: Tm, fruits, oil).
Fish  
*Channa stewartii* (LN: Hile; LU: Meat)

Herpeto-fauna  
*Rana tigrana* (LN: Vyaguto; EN: Frog); *Japalura variegata* (LN: Chhrike; EN: Variegated mountain lizard).

Birds  
*Streptopelia decaocto* (LN: Kanthay dhukur; EN: Eurasian collared dove); *Corvus splendens* (LN: kaag; EN: House Crow); *Sarcogyps calvus* (LN: Sungidhha; EN: Red headed vulture); *Falco tinnunculus* (LN: Baaj; EN: Common Kestrel); *Passer domesticus* (LN: Vangera; EN: Sparrow); *Lophura leucomelanu*s (LN: Kaalij; EN: Kaalij Pheasant); *Phalacrocorax carbo* (LN: Jalewa; EN: Great cormorant).

Mammals  
*Canis aureus* (LN: Syal; EN: Fox); *Myotis sicarius* (LN: Chamero; EN: Mouse eared Bat); *Hystrix indica* (LN: Dumsi; EN: Porcupine); *Felis chaus* (LN: BanBiralo; EN: Jungle Cat).

Invasive alien species None.

Endemic plant/animal None.

3. Socio-Economy at Basin

Nearby settlement  
*Bhirkot*; 50 m from lake; Chainpur-Dogadi-Daulichaur; About 1 km from lake to the main trail.

Land use  
Forestland (31.44%); Cultivation (31.99); Shrubland; (26.17%); Grassland (10.42%).

Demography  
Population: 550; Male: 300; Female: 250; HHs: 40; Ethnicity: Brahmin/Chhetri (100%); Major Religion: Hinduism (CBS 2012).

Jurisdiction/ownership  
State.

Wetlands dependent community None.

Livestock at basin  
>300.

Traditional production system None.

Traditional water use practices  
Religious/ritual pond, seasonal water mill (*Afra khola ghatta*).

Cultural record  
Religious site; Early Habitat of goddess *Surma Devi*.

Genesis/origin of lake  
Natural.

4. Ecosystem Goods/Services

Provisional services  
Fishes available in monsoon, fodder for cattle.

Cultural services  
Aesthetic and religious; Surma Devi temple at the distance just 1 km from the lake; *Mela* and *haatbazar* at different festivals.

5. Restoration/Management

Structural management  
Lake core area surrounded by stone wall (average 3 feet).

Non-structural management  
Informal rules such as prohibition in fishing, grazing of cattle around the lakes, restriction in bathing of cattle in lake.

Conservation plan  
Walls around lake to block excess outlet of water at south end of the lake.

Monitoring plan  
None.

6. Tourism information

Very few visitors; 3 and half hour off road walk from Dogadi; No hotels around lake; No tourism potential.

7. Lake condition  
Degrading.
4.4 BAJURA DISTRICT

MAP 4: Map showing lakes in Bajura District
4.4.1 Chhede Daha

**Wetland code:**
Toposheet no: 2981 10
Date of inventory: May 24, 2016

1. **General Feature**

- **Conservation status:** None.
- **Geographical coordination:** Lat:29.41577°N; Lon:81.31164°827° E; Alt:2159 masl.
- **Geographical position:** Mahabharat Range.
- **Administrative feature:** FWDR; Bajura district; Atichaur and Gudukhati VDCs; Ward-7,9; Atichaur.
- **Boundary:**
  - **Core Area:** Temple in East; Forest in South and West; Farm land in North.
  - **Basin Area:** Patna pani in west; Simkatna Danda in east; Dakundeli Danda in South; Ratakali Danda in north.
- **Management responsibility:** Chhede Daha Conservation Committee
- **Wetlands type:** Fresh water/natural; Lacustrine; Permanent.

2. **Ecological Feature**

- **Climatic feature:** Avg. Max Temp:25°C (Jun/July); Avg. Min:2.5°C (Dec); Rainfall:52.5 mm/yr. (Summary Fact Sheet of Bajura District; 2011).
- **Area:**
  - **Core Area:** 1.1ha; Avg. Length:70 m; Avg. Width:50 m; Avg. Depth:4.2 m; Max–Min Surface Water Level:3.9–6.2 m; Basin Area:7.8 ha.
- **Water Volume:**
  - Peak Period:615,976 ltr; Dry period:401,474 ltr; Inlet:None; Outlet:None.
- **Water quality:**
  - Physiochemical parameter: Temp.:23.8°C, pH:8.2; DO:3.2 mg/l, Transparency: 0.5m.
- **Soil feature:** Grey color; Sandclay loam texture.
- **Shocks/vulnerability:** Water volume decreasing.
- **Major aquatic plants:**
  - Core Area: *Equisetum arvense* (LN:Talche Jhar; EN:LU:None).
- **Major plants in basin:**
  - *Rhododendron sps* (LN:Gurans; HT:Tr; LU:Ful); *Alnus nepalensis* (LN: Utis; HT: Tr; LU: Tm); *Berberis aristata* (LN: Chutro; HT: Shrub, LU: Med); *Pyracantha crenulata* (LN: Ghangaru; HT: Shrub; LU: Fd).
- **Fish:** *Garra gotyla* (LN: Gadela; LU: Meat).
- **Herpetofauna:**
  - *Bufo melanostictus* (LN: Khashre Bhyaguto; EN: Blake / Spined Toad); *Paa minica* (LN: Paha; EN: Small Paa Frog); *Calotes versicolor*
(LN: Chheparo, EN: Common Garden Lizard); Jalapuradasi (LN: Hhariyo Chheparo; EN: Agaupani Mountain Lizard); Asamblepharus sikimmensis (LN: Bhane Mungr; EN; Sikkim Shink)

**Birds**

Francolinus francolinus (LC: Kalo Titra; EN: Black Francolin); Lophura leucomelanos (LN: Kalij; EN: Kalij Pheasant); Tadorna ferruginea (LN: Chakhewa Chakhewi; EN: Ruddy Shelduck); Neophron percnopterus (LN: Seto Giddha; EN: Egyptian Vulture); Flaco tinnunculus (LN:Baudai; EN: Common Krestral); Milvusmigrans (LN: Kalo Chil, EN: Black Kite).

**Mammals**

Muntiacus muntjak (LN:Ratuwa; EN:Barking Deer); Sus scrofa (LN:Badel; EN: Eurasian Wild Boar); Macaca mulatta (LN: Roto Bandar; EN: Rhesus Macaque); Semnopithecus schistaceus (LN: Nepali Langur; EN:Nepal Grey Langur); Canis aureus (LN: Shyal; EN: Golden Jackal); Ursus thibetanus (LN: Kalo Bhalu; EN: Asiatic Black Bear); Felis Bengalensis (LN: Chari Bagh; EN: Leopard Cat); Lutra lutra (LN:Kalo Oot; EN: Eurasian Otter)

**Invasive alien species**

Ageratina adenophora (LN: Kalo Banmara; EN: Crofton Weed)

**Endemic plant/animal**

Jalapura dasi (LN: Hariyo Chheparo; EN: Agaupani Mountain Lizard).


### 3. Socio-Economy at Basin

**Nearby settlement**

Lamgaun; 1km from lake; Main Trail:Bajura to Bajhang motor road (Underconstruction); 100 m from lake.

**Land use**

Agriculture (16%); Shrubland (81%); Grass land (3%).

**Demography**

Population: 4,277; Male: 2,082; Female: 2,195; HHs: 751; Ethnicity: Brahmin / Chhetri (86%); Janajati (0%); Dalit (13%); Other (1%). Major Religion: Hindu (Summary Fact Sheet of Bajura District).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

>500.

**Traditional production system**

None.

**Traditional water use practices**

Religious/ritual pond.

**Cultural record**

Religious site; Thaparmandau temple at basin.

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

Fodder; Medicinal plants; Domestic Water Supply; Picnic spot.

**Cultural services**

Aesthetic; Religious; Educational; Recreation.

### 5. Restoration/Management

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

### 6. Tourism information

>1000 visitors/yr; Few hotels in lake site; Seasonal Motarable road from Tipada; domestic tourism high. Needs Good Hotel, transportation and proper management of lake.

### 7. Lake condition

Degrading.
4.4.2 Dhalpuri Pokhari

Conservation status: None.

Geographical coordination: Lat: 29.36068° N; Lon: 81.40827° E; Alt: 2,528 masl.

Geographical position: Mahabharat Range.

Administrative feature: FWDR; Bajura district; Kailashmandau VDC; Ward-3; Dhalpuri.

Boundary:
- Core Area: Badimalika trail in the north and the west; Forest in east and south.
- Basin Area: Chiru Tala in west; Motipani in east; Bajaso Ghadi in South; Kaltare Danda in north.

Management responsibility: None.

Wetlands type: Fresh water/natural; Lacustrine; Seasonal.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 25°C (Jun/July); Avg. Min: 2.5°C (Dec); Rainfall: 52.5 mm/yr. (Summary Fact Sheet of Bajura District; 2011).

Area:
- Core Area: 1.8ha; Avg. Length: 100 m; Avg. Width: 40 m; Avg. Depth: 1.2 m; Max–Min Surface Water Level: 2.1 m–0.3 m;
- Basin Area: 36.6 ha.

Water Volume:
- Peak Period: 238,442 ltr; Dry period: 5,109 ltr; Inlet: None; Outlet: None.

Water quality:
- Physiochemical parameter: Temp.: 19°C, pH: 7.6; DO: 1.8mg/l, Transparency: 0.05m.

Soil feature: Dark color; Silty clay texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants:
- Core Area: Rumex nepalensis (LN: Halhale; HT: Ff; LU: Med).

Major plants in basin:
- Rhododendron arboretum (LN: Gurans; HT: Tr; LU: Ful);
- Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm);
- Lyonia ovalifolia (LN: Angeri; HT: Hr; LU: AB);
- Symlocos ramosissima (LN: Dabdabe; HT: Tr; LU: Bed);
- Pinus wallichiana (LN: Gobre salla; HT: Tr; LU: Tm).

Fish: NA.
Herpetofauna

Bufo melanostictus (LN: Khashre Bhyaguto; EN: Blake/Spined Toad);
Calotes versicolor (LN: Chheparo; EN: Common Garden Lizard);
Asymblepharus sikimmensis (LN: Bhane Mungro; EN: Sikkim Shink);
Laudakia tuberculata (LN: Chheparo; Rock lizard).

Birds

Pucrasia macrolopha (LN: Fungras, EN: Koklass Pheasant); Tragopan satyr (LN: Munal; EN: Satyr tragopan); Lophura leucomelanos (LN: Kali; EN: Kali Pheasant); Sitta himalayensis (LN: Katusemataa; EN: Green-backed Nuthatch); Parus monticolus (LN: Hariyo chichilkote; EN: Black Kite); Garrulax striatus (LN: Kali Toriganda; EN: Striated Laughingthrush); Heterophasia capistiata (LN: Sibia, Kerra; EN: Rufous sibia); Turdus boulboul (LN: Chahar; EN: Grey-winged Blackbied).

Mammals

Malvis flavigula (LN: Malsap; EN: Yellow throated martin); Canis aureus (LN: Shyal; EN: Golden Jackal); Ursus thibetanus (LN: Kalo Bhalu; EN: Asiatic Black Bear); Felis Bengalensis (LN: Chari Bagh; EN: Leopard Cat); Lutra lutra (LN: Kalo Oot; EN: Eurasian Otter).

Invasive alien species

Ageratina adenophora (LN: Kalo Banmara; EN: Crofton Weed); Naemorhedus goral (LN: Goral; EN: Common Goral).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Nateshori; 1km from lake; Main Trail: Bamka-Badimalika trail; very close to lake.

Land use

Forestland (5%); Grass land (95%).

Demography

Population: 9,586; Male: 4,489; Female: 5097; HHs: 1,818; Ethnicity: Brahmin /Chhetri (71%); Janajati (26%); Other (3%). Major Religion: Hindu (Summary Fact Sheet of Bajura District).

Jurisdiction/ownership

State.

Livestock at basin

>500.

Traditional production system

None.

Traditional water use practices

Watermill (Ghatta).

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Water for livestocks.

Cultural services

None.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

No visitors; No tourism potential.

7. Lake condition

Degrading.
MAP 5: Map showing lakes in Dadeldhura District.
4.5.1 Ali Tal

Wetland code: Toposheet no: 2980 14B
Date of inventory: May 31, 2016

1. General Feature

Conservation status
None.

Geographical coordination
Lat: 29.10046°N; Lon: 80.48918°E; Alt: 780 masl.

Geographical position
Churiya Range.

Administrative feature
FWDR; Dadeldhura district; Ali Tal VDC; Ward no. 4; Ali Tal.

Boundary
Core Area: Asigram Community Forest in West; Raksaun village in East and South; Bhumiraj Community Forest in North
Basin Area: Chanala Village in west; Bhotyaula in east; Dadele in south; Chaud mamur in north.

Management responsibility
Ali Tal Tourism Board

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max: Temp: 32°C (Jun/July); Avg. Min: 3°C (Dec); Rainfall: 1346.6 mm/yr. (source: http://www.rapnepal.com/district/district-profile-3).

Area
Core Area: 7.4 ha; Avg. Length: 500 m; Avg. Width: 350 m; Avg. Depth: 50 m; Max–Min Surface Water Level: 65–55 m; Basin Area: 72.8 ha.

Water Volume
Peak Period: 1 million m³; Dry period: 8750000 m³; Inlet: None; Outlet: Irrigation canal to Raksaun Dadele kelhet.

Water quality
Physicochemical parameter: Temp: 18°C; pH: 6; Transparency: 3 m.

Soil feature
Dark colored; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Eichhornia crassipes (LN: Jalakumbhi; EN: water hyacinth; HT: Ff; LU: none); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none).

Major plants in basin
Shorea robusta (LN: Sal; HT: Tr; LU: Tm); Pinus roxburghii (LN: Salla; HT: Tr; LU: Tm); Terminalia alata (LN: Saaj; HT: Tr; LU: Tm); Mallotus philippensis (LN: Rohini; HT: Tr; LU: Tm, Fr); Bischofia javanica (LN: Kaini; HT: Tr; LU: Fodder); Buchanania latifolia (LN: Gaayo; HT: Tr; LU: Tm);

Fish
Tautoga onitis (LN: Kalo Machha; LU: Meat); Labeo rohita (LN: Rohu; LU: Meat); Anguilla bengalensis (LN: Raj Ba m; LU: Meat)

Herpetofauna
Manis pentadactyla (LN: Salak; EN: Chinese pangolin); Varanus
**Birds**
- *Megalaima virens* (EN: Great barbet; LN: Nyauli); *Francolinus francolinus* (LN: Titra; EN: Black Francolin Tit); *Lophura leucomelanos* (LN: Kaalij; EN: Kaalij Pheasant); *Amaurornis phoenicurus* (LN: Jalkhukhuro; EN: Whitebreasted Hen).

**Mammals**
- *Sus scrofa* (LN: Bandel; EN: Wild boar); *Hystrix indica* (LN: Dumsi; EN: Porcupine); *Canis aureus* (LN: Syal; EN: Fox); *Felis chaus* (LN: Ban Biral; EN: Jungle Cat); *Manis pentadactyla* (LN: Salak; EN: Chinese Pangolin); *Muntiacus muntiac* (LN: Ratuwa; EN: Barking deer); *Naemorhedus goral* (LN: Ghoral; EN: Himalyan Goral).

**Invasive alien species**
- *Eupatorium* sp (LN: Banmara; EN: Thorughwort); *Trifolium repens* (EN: White clover).

**Endemic plant/animal**
- None.

### 3. Socio-Economy at Basin
**Nearby settlement**
- *Chanala Padyaha m*: 1 km from lake; Lamjile-Godam chowk-Ali Tal road; 3 km from lake to the main trail.

**Land use**
- Forestland (98.18%); Shrubland; (0.63%); Grassland; (0.98%); Agriculture (0.27%).

**Demography**
- Population: 13,461; Male: 6,446; Female: 7,015; HHs: 2,379. (CBS 2012).

**Jurisdiction/ownership**
- State.

**Wetlands dependent community**
- 48 households of Raksaun village for irrigation all-round the year.

**Livestock at basin**
- >1000.

**Traditional production system**
- Traditional farming including production of medicinal plants.

**Traditional water use practices**
- Religious/ritual pond; Local irrigation syste m; AliTal *kulo*

**Cultural record**
- None.

### 4. Ecosystem Goods/Services
**Provisional services**
- Irrigating and water supply in Raksaun and Dadele village.

**Cultural services**
- Aesthetic; Religious; Tourism, Local festivals.

### 5. Restoration/Management
**Structural management**
- Dam; Wall in outlet of lake.

**Non-structural management**
- Informal restrictions.

**Conservation plan**
- None.

**Monitoring plan**
- None.

### 6. Tourism information
- >2,500 visitors/yr; Few good hotels and lodges in Godam chowk (3 km far from the lake); Gravel road to Godam chowk from Budar, Doti; High tourism potential. Needs promotional activities.

### 7. Lake condition
- Degrading.
4.6 DOTI DISTRICT

MAP 6: Map showing lakes in Doti District.
4.6.1 Chhatiwan Tal

Wetland code: Toposheet no: 2980 15C
Date of inventory: June 03, 2016

1. General Feature
   Conservation status: None.
   Geographical position: Churiya.
   Administrative feature: FWDR; Doti district; Chhatiwan VDC; Ward- 3; Chhatiwan.
   Boundary:
      - Core Area: Farmland in East; Forest in others directions.
      - Basin Area: Pote Bonda in west; Ritha Gaun in east; Tomdek Danda in North and Bodar to Jarayal trail in south.
   Management responsibility: None.
   Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
   Climatic feature: Avg. Max: Temp: 33.7°C (Jun/July); Avg. Min: 3°C (Dec); Rainfall: 8608 mm/yr. (Source: Dotti District Profile by Field Co-ordinate Office (UNFCO) Region Dadeldhura, Nepal, 2013).
   Area:
      - Core Area: 1.9 ha; Avg. Length: 80 m; Avg. Width: 55 m; Avg. Depth: 7.5 m; Max–Min Surface Water Level: 8.5–5 m; Basin Area: 66.7 ha.
   Water Volume:
      - Peak Period: 965,124 ltr; Dry period: 393316 ltr; Inlet: None; Outlet: Mohoto Khola.
   Water quality:
      - Physiochemical parameter: Temp: 25.5°C, pH: 8.1; DO: 3.7 mg/l; Transparency: 0.9m.
   Soil feature: Grey color; Sandy clay loam texture.
   Shocks/vulnerability: Water volume decreasing.
   Major aquatic plants:
      - Core Area: Acorus calamus (LN: Bojho; HT: Hr; LU: Med); Colocasia sps (LN: Jaluka; EN: Elephant Ear); Rumex nipalensis (LN: Halhale; EN: Nepal Dock).
   Major plants in basin:
      - Pinus rusburghii (LN: Rani Salla HT: Tr; LU: Tm); Alnus nepalensis (LN: Uttis; HT: TR; LU: Tm); Sapium sps (LN: Khirro; EN: Tallow tree).
   Fish: Garra gotyla (LN: Pagarmachha; LU: Meat).
   Herpetofauna: Bufon melanostictus (LN: Khashre bhyaguto; EN: Black spined toad); Bufo
himalayanus (LN: Lekali Bhyagoto; EN: Toad); Varanus bengalensis (LN: Hallane Ghodo; EN: Bengal Monitor lizard); Euphlyctis cyanophlyctis (LN: Tik tike paha; EN: Skittering frog); Paa menica (LN: Paha; EN: Small Paha frog; Calotes versicolor (LN: Chheparo; EN: Common Garden Lizard); Asymblepharus sikimensis (LN: Chikani Girgit; EN: Sikkim Skink); Amphiesma stolatum (LN: Harara; EN: Buff/striped Keelback); Ptyas mucosa (LN: Sarpa; EN: Asiatic Rat Snake); Xenochrophis sanctiohannis (LN: Pani Sarpa; EN: St. John’s Water Snake).

Birds
Francolinus francolinus (LN: Kalo Titra; EN: Black Francolin); Lophura leucomelas (LN: Kalij; EN: Kalij Pheasant); Halcyon smyrnensis (LN: Seto Kanthe Matikore; EN: White/throated Kingfisher); Eudynamys scolopacea (LN: Koeli; EN: Asian Koel); Strix leptogrammica (LN: Chasme Ooluk; EN: Brown wood Owl); Streptopelia chinensis (LN: Kurle Dhukur; EN: Spotted Dove); Urocissa erythrorhyncha (LN: Shyal Pothari Lampuchhre; EN: Red/billed Blue Magpie); Dicrurus macrocercus (LN: Kalo Chibe; EN: Black Drogo); Vanellus indicus (LN: Huttityau; EN: Red/wattled Lapwing).

Mammals
Lutra lutra (LN: Oont; EN: Common Otter); Macaca mulatta (LN: Bandar; EN: Rhesus Macaque); Felis chaus (LN: Ban Biralo; EN: Jungle Cat); Canis aureus (LN: Shyal; EN: Golden Jackal); Panthera pardus (LN: Chituwa; EN: Common Leopard).

Invasive alien species
Ageratina adenophora (LN: Kalo Banmara; EN: Crofton Weed); Xathium sps (LN: Bhedekuro; EN: Common Koklebur).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Chhatiwan; 50 m from lake; Main Trail: Budar-Jarayal; 10 m from lake.
Land use
Forestland (71%); Agriculture (29%).
Demography
Population: 4001; Male: 1992; Female: 2009; HHs: 742; Ethnicity: Brahmin (9.9%); Chhetri (33.8%); Janajati (24.1%); Dalit (29.5%); Other (2.6%). Major Religion: Hindu. Major Dialect: Nepali (CBS 2012).

Jurisdiction/ownership
State.
Wetlands dependent community
None.
Livestock at basin
>300.
Traditional production system
None.
Traditional water use practices
Religious/ritual pond.
Cultural record
Religious site; Siddha Temple at basin.
Genesis/origin of lake
None.

4. Ecosystem Goods/Services
Provisional services
Fodder; Medicinal plants.
Cultural services
Aesthetic; Religious; Educational.

5. Restoration/Management
Structural management
None.
Non-structural management
None.
Conservation plan
None.
Monitoring plan
None.

6. Tourism information
>1,000 visitors/yr; Motorable road from Budar Bazar, abt 3 km from lake; Good hotel and Resorts in Budar Bazar; Needs promotional activities.

7. Lake condition
Degrading.
4.6.2 Rangeni Tal

Conservation status: None.


Geographical position: Churiya.

Administrative feature: FWDR; Doti district; Chhatiwan VDCs; Ward-1; Rangeni.

Boundary:
- Core Area: Grass land in all directions.
- Basin Area: Millchaura Bazar in west; Pine forest hill in East; Kailali-Doti highway in North; Private pine forest in South.

Management responsibility: Rangeni Tal Samrakshan Committee.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 33.7°C (Jun/July); Avg. Min: 3°C (Dec); Rainfall: 8608 mm/yr. (Source: Doti District Profile by Field Co-ordinate Office (UNFCO) Region Dadeldhura, Nepal; 2013).

Area:
- Core Area: 0.5ha; Avg. Length: 60 m; Avg. Width: 40 m; Avg. Depth: 3.6 m; Max–Min Surface Water Level: 2-4.9 m; Basin Area: 8.2 ha.

Water Volume:
- Peak Period: 345,885 ltr; Dry period: 141,178 ltr; Inlet: None; Outlet: None.

Water quality:
- Physicochemical parameter: Temp: 27.8°C, pH: 10.4; DO: 6.1; Transparency: 0.48 m.

Soil feature: Red color; Silt loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: None.

Major plants in basin:
- *Pinus rusburgii* (LN: Rani Sallo; HT: Tr; LU: TM); *Schima walichi* (LN: Chilaune; HT: TR; LU: Tm); *Myrica esculenta* (LN: Kafal; HT: Tr; LU: Fr); *Sapium sps* (LN: Khirro; EN: Tallow tree); *Pyrus pashia* (LN: Mayal; HT: Tr; LU: Tm).

Fish: None.
Herpetofauna

- **Bufo himalayanus** (LN: Khashre bhyaguto; EN: Himalayan Toad);
- **Bufo melanostictus** (LN: Khashre Bhyagoto; EN: Black/Spined Toad);
- **Euphlyctis canophlyctis** (Tik tike paha; EN: Skittering frog);
- **Mabuya carinata** (LN: Chikani Girit; EN: Brahmini Skink);
- **Varanus bengalensis** (LN: Hallane Ghodo; EN: Common Monitor);
- **Amphiesma platyceps** (LN: Rato Sarpa; EN: Mountain Keelback).

Birds

- **Francolinus francolinus** (LN: Kalo Titra; EN: Black Francolin);
- **Lophura leucomelanos** (LN: Kalij; EN: Kalij Pheasant);
- **Megalaima asiatica** (LN: Kuthurke; EN: Blue/throated Barbet);
- **Halcyon smyrnensis** (LN: Seto Kanthe Matikore; EN: White/throated kingfisher);
- **Eudynamys scolopacea** (LN: Koeli; EN: Asian Koel);
- **Vanellus indicus** (LN: Hutittyau; EN: Red/wattled lapwing);
- **Eurocissa erythrorhyncha** (LN: Shyalpothari Lampuchhre; EN: Red/billed Blue Magpie)

Mammals

- **Felis bengalensis** (LN: Charibagh; EN: Leopard Cat);
- **Panthera pardus** (LN: Chituwa; EN: Common Leopard);
- **Macaca mulatta** (LN: Rato Bandar; EN: Rhesus Macaque);
- **Felis chaus** (LN: Ban Biralo; EN: Jungle Cat);
- **Canis aureus** (LN: Shyal, EN: Golden Jackal);
- **Martes flavigula** (LN: Malsapro; EN: Yello/throated Marten).

Invasive alien species

- **Ageratina adenophora** (LN: Kalo Banmara; EN: Crofton Weed).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

- **Millchaura bazar**, 120 m from lake; Main Trail: Kailali-Doti highway; 40 m from lake.

Land use

Cultivation (58%); Grassland (27%); Forestland (15%).

Demography

Population: 4001; Male: 1992; Female: 2009; HHs: 742; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2011).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>500.

Traditional production system

None.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Timber Supply,

Cultural services

Aesthetic; Recreation; Educational.

5. Restoration/Management

Structural management

Dam and Fencing; Support from National Lake Conservation Nepal.

Non-structural management

Formal restriction.

Conservation plan

None

Monitoring plan

None.

6. Tourism information

>2000 internal visitors/yr; Few good hotels and Resorts at Budar Bazarnear lake site; 50m from Highway (Attariya to Silgadhi highway). Needs promotional activities.

7. Lake condition

Degrading.
MAP 7: Map showing lakes in Gulmi District
4.7.1 Dibrung Daha

Conservation status: None.


Geographical position: Mid Lands.

Administrative feature: WDR; Gulmi district; Dibrung VDC; Ward-2; Daha.

Boundary: Core Area: Settlement/outlet in east, Settlement in south direction, Agriculture land in west and Settlement in northern direction. Basin Area: Forest in North; Shantipur Road east; Settlement in south; Forest in West

Management responsibility: VDC/None.

Wetlands type: Fresh water/Natural; Lacustrine.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 29°C; Min: 19°C (Jun/July), Max: Temp: 23°C; Min: 9°C (Oct/Nov); Rainfall: 150 mm/June, 30 mm/Nov. (http://www.accuweather.com).

Area: Core Area: 2.0 ha; Avg. Length: 220 m; Avg. Width: 70 m; Avg. Depth: 1 m; Max–Min Surface Water Level: NA; Basin Area: 151.4 ha.

Water Volume: Peak Period: NA; Dry period: NA; Inlet: None; Outlet: Regulated drain.

Water quality: Physicochemical parameter: Temp.: 29°C, pH: 5.5; Transparency: 0.5 m.

Soil feature: Grey color; Loamy Sand texture.

Shocks/vulnerability: Man made at 2002 dug small pond at eastern side and made drainage system using pipe.

Major aquatic plants: Core Area: Rumex hastatus (LN: Halhale; HT: H; LU: Vg); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none). Centella asiatica (LN: Ghodtapre; HT: H; LU: Md).

Major plants in basin: Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm); Centella asiatica (LN: Ghodtapre; HT: H; LU: Md); Rumex hastatus (LN: Halhale; HT: H; LU: Vg); Fraxinus floribunda (LN: Lakuri; HT: Tr; LU: Tm); Plantago sp (LN: Jibre Saag; HT: H; LU: Vg); Taraxacum officinale (LN: Tuki Phool; HT: H; LU: none); Girardinia diversifolia (LN: allo; HT: S; LU: Fb).
Fish

Herpetofauna
- *Bufo himalayanus* (LN: Lekali Bhyagoto; EN: Toad);
- *Amolops marmoratus* (LN: Tite Paha);
- *Varanus bengalensis* (LN: Bhainse; EN: Monitor lizard);
- *Japalura variegata* (LN: Chhrike; EN: Variegated mountain lizard);

Birds
- *Urocissa erythrorhyncha* (LN: Syal Pothri Lamuchhre; EN: Red billed blue Magpie);
- *Prinia sps* (LN: Ghanse Fisto; EN: Grey crowned Prinia);
- *Neophron percnopterus* (LN: Seto Gidda; EN: Egyptian Vulture);
- *Aquila hastata* (LN: Laghu Mahachil; EN: Indian Spotted Eagle);
- *Gallinago nemoricola* (LN: Ban Chaha; EN: Wood snipe);
- *Catrceus wallichii* (LN: Chir; EN: Cheer Pheasant);
- *Francolinus francolinus* (LN: Kalo Titra; EN: Black Francolin);
- *Lophura leucomelanos* (LN: Kalij; EN: Kalij Pheasant).

Mammals
- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat);
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat);
- *Ursus thibetanus* (LN: Kalo Bhalu; EN: Asian Black Bear);
- *Panthera pardus* (LN: Chituwa; EN: Common leopard);
- *Neofelis nebulosa* (LN: Dwanse Bagh; EN: Clouded Leopard);
- *Caprolagus hispidus* (LN: Kharayo; EN: Hare);

Invasive alien species

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- Daha; Adjoining; Main Trail: Shantipur-Bhanjhyang-Daha; close to the lake.

Land use
- Forestland (42%); Shrub land (23%); Agriculture (35).

Demography
- Population: 700; Male: NA; Female: NA; HHs: 111; Ethnicity: Brahmin / Chhetri (10%); Janajati (70%); Dalit (15%); Other (5%). Major Religion: Hinduism (Field survey).

Jurisdiction/ownership
- State.

Livestock at basin
- >300.

Traditional production system
- Rice; Finger Millet; Maize; Wheat production.

Traditional water use practices
- None.

Cultural record
- None.

Genesis/ori gin of lake
- None.

4. Ecosystem Goods/Services

Provisional services
- Water for Cattle; Fodder

Cultural services
- Aesthetic; Recreational; Historic; Educational.

5. Restoration/Management

Structural management
- Small pond and drainage system; Support from VDC and DDC.

Non-structural management
- None.

Conservation plan
- None.

Monitoring plan
- None.

6. Tourism information

>500 visitors/yr; Few good hotels in Shantipur Bazar area nearly 3 Hrs walking distance; Dirt Motorable road to Shantipur Bazar; Tourism potential high; Needs promotional activities.

7. Lake condition
- Degrading
4.7.2 Timure Pokhari

1. General Feature

Conservation status: None.
Geographical position: Mid Lands.
Administrative feature: WDR; Gulmi district; Shantipur VDCs; Ward no. 9; Timure/Remi.
Boundary: Core Area: Timure Lake and Grass land in East, Agriculture land in South; Bushy Land in West; Bushy and Forest in Northern direction.
Basin Area: Bhanjyang trail in North; Shantipur Remi Road east; Gehhung in south; Kisikot in West.
Management responsibility: Timure Promotion Committee with the representation of VDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 29°C; Min: 19°C (Jun/July), Max Temp: 23°C; Min: 9°C (Oct/Nov); Rainfall: 150 mm/June, 30 mm/Nov. (http://www.accuweather.com).
Area: Core Area: 0.5 ha; Avg. Length: 30 m; Avg. Width: 15 m; Avg. Depth: 5 m; Max–Min Surface Water Level: NA; Basin Area: 16.6 ha.
Water Volume: Peak Period: NA; Dry period: NA; Inlet: None; Outlet: Regulated drain.
Water quality: Physicochemical parameter: Temp: 21°C, pH: 5.5; Transparency: 0.7 m.
Soil feature: Dark color; Loamy Sand texture.
Shocks/vulnerability: None.
Major aquatic plants: Core Area: Plantago sp (LN: Jibre Saag; HT: Hr; LU: Veg); Centella asiatica (LN: Ghodtapre; HT: Hr; LU: Med).
Major plants in basin: Quercus semecarpifolia (LN: Khasru; HT: Tr; LU: Tm); Cotoneaster.
Sp. (LN: Jarbuta/Thate; HT: Sr; LU: none); *Colocasia fallax* (LN: Ban Karkalo; HT: Sr; LU: Veg); *Centella asiatica* (LN: Ghodtapre; HT: Hr; LU: Med); *Rumex hastatus* (LN: Halhale; HT: Hr; LU: Veg); *Potentilla fulgens* (LN: Bajradanti; HT: Hr; LU: Med); *Fraxinus floribunda* (LN: Lakuri; HT: Tr; LU: Tm); *Argemone mexicana* (LN: Thakailo; HT: Sr; LU: Md); *Taraxacum officinale* (LN: Tuki Phool; HT: Hr; LU: none); *Houttuynia cordata* (LN: Gandhe Jhar), *Gnaphalium affine* (LN: Buki Phool; HT: H; LU: Fd); *Girardinia diversifolia* (LN: Allo; HT: Sr; LU: Fb); *Eupatorium adenophorum* (LN: Banmara; HT: Sr; LU: Fd); *Elsholtzia blanda* (LN: Ban Sila m; HT: Sr; LU: None).

**Fish**

*Cetaharyngodon idella* (LN: Carp; LU: Meat); *Carassius carassius* (LN: Ratomachha; LU: Meat).

**Herpetofauna**

*Bufo himalay anus* (LN: Lekali Bhyagoto; EN: Toad); *Amolops marmoratus* (LN: Tite Paha); *Varanus bengalensis* (LN: Bhainse; EN: Monitor lizard); *Japalura variegata* (LN: Chhrike; EN: Variegated mountain lizard); *Gloydius himalay anus* (LN: Lato Sarpa).

**Birds**

*Neophron percnopterus* (LN: Seto Gidda; EN: Egyptian Vulture); *Sarcogyps calvus* (LN: Sun Gidda; EN: Red Headed vulture); *Gyps bengalensis* (LN: Dangar Gidda; EN: White rumped vulture); *Aquila hastata* (LN: Laghu Mahachil; EN: Indian Spotted Eagle); *Gallinago nemoricola* (LN: Ban Chaha; EN: Wood snipe); *Catreus wallichii* (LN: Chir; EN: Cheer Pheasant); *Francolinus francolinus* (LN: Kalo Titra; EN: Black Francolin); *Lophura leucomelanos* (LN: Kalij; EN: Kalij Phesant); *Urocissa erythrorhyncha* (LN: Syal Pothri Lampuchhre; EN: Red billed blue Magpie).

**Mammals**

*Felis bengalensis* (LN: Charibagh; EN: Leopard Cat); *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat); *Ursus thibetanus* (LN: Kalo Bhalu; EN: Asian Black Bear); *Panthera pardus* (LN: Chituwa; EN: Common leopard); *Neofelis nebulosa* (LN: Dwane Bagh; EN: Clouded Leopard); *Caprolagus hispidus* (LN: Kharayo; EN: Hare); *Muntiacus muntjak* (LN: Ratuwa; EN: Barking deer).

**Endemic plant/animal**

None.

**3. Socio-Economy at Basin**

**Nearby settlement**

*Uppallo Remi*; 3500 m from lake; Main Trail: Shantipur-Remi-Timure-Bhanjhyang; 500 m from lake.

**Land use**

Shrubland (73%); Agriculture (27%).

**Demography**

Population: 175; Male: NA; Female: NA; HHs: 35; Ethnicity: Brahmin/Chhetri (20%); Janajati (70%); Dalit (5%); Other (5%). Major Religion: Hinduism (Field survey).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

>1500.

**Traditional production system**

Rice; Finger Millet; Maize; Wheat; Buck wheat.

**Traditional water use practices**

Drinking and cleaning water now rainfall water harvested.
<table>
<thead>
<tr>
<th>Cultural record</th>
<th>Religious site; Temple of <em>Sidda Devi</em> temple at basin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genesis/origin of lake</td>
<td>None.</td>
</tr>
</tbody>
</table>

### 4. Ecosystem Goods/Services

<table>
<thead>
<tr>
<th>Provisional services</th>
<th>Water for Cattle; Fodder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural services</td>
<td>Aesthetic; Recreational; Educational.</td>
</tr>
</tbody>
</table>

### 5. Restoration/Management

<table>
<thead>
<tr>
<th>Structural management</th>
<th>Fencing; Support from VDC and DDC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-structural management</td>
<td>None.</td>
</tr>
<tr>
<td>Conservation plan</td>
<td>None.</td>
</tr>
<tr>
<td>Monitoring plan</td>
<td>None.</td>
</tr>
</tbody>
</table>

### 6. Tourism information

>500 visitors/yr; Few good hotels in Shantipur Bazar area nearly 2.5 Hrs walking distance; Dirt Motorable road to Shantipur Bazar; Good hotel and transportation services from Tamghas Bazar; Tourism potential high. Needs promotional activities.

### 7. Lake condition

Good.
MAP 8: Map showing lakes in Kailali District
4.8.1 Ajuwa Lake

1. General Feature

Conservation status: None.
Geographical position: Terai Range.
Administrative feature: FWDR; Kailali district; Ghodaghodi Municipality; Ward-9; Ghodaghodi.
Boundary: Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility: Ghodaghodi Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Seasonal.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 4.1 ha; Avg. Length: 100 m; Avg. Width: 100 m; Avg. Depth: 1 m; Max–Min Surface Water Level: 0.5–1 m; Basin Area: 9648.4 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 24°C, pH: 5.9; Electric conductivity: NA; Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: None.
Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Ful); Synzgium cumini (LN: jamun; HT: TR; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).
Fish: NA.
Herpetofauna

*Bufo melanostictus* (LN: Khasre bhyaguto; EN: Black-spined toad); *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jerdon’s bull frog); *Amolops marmoratus* (LN: Tite Paha); *Python morulus* (LN: Ajingar; EN: Python); *Ptyas mucosa* (LN: Dhaman; EN: Ratsnake).

**Birds**

*Casmerodius albus* (EN: Great Egret); *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit); *Vanellus indicus* (LN: Tuttititau; EN: Red-watteled lapwing); *Falco tinnunculus* (LN: Baaj; EN: Common Kestrel).

**Mammals**

*Felis bengalensis* (LN: Charibagh; EN: Leopard Cat); *Lutra lutra* (LN: Oont; EN: Common Otter); *Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque); *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat); *Funambulus pennanti* (LN: Lokharke; EN: Squirrel).

**Invasive alien species**

*Lantana camara* (LN: Maleria; EN: Tickberry); *Eupatorium* sp (LN: Banmara; EN: Thoroughwort).

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

_Ghodaghodi Chowk_; 100 from lake; Main Trail: Mahendra Highway-Ghodaghodi lake-Ajuwa lake; 100 m from lake.

**Land use**

Forestland (100%); Agriculture (0%); Settlement (0%); Wetlands (0%); Others (0%).

**Demography**

Population: 616,697; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%). Major Religion: Hinduism. (CBS 2012).

**Jurisdiction/ownership**

State.

**Livestock dependent community**

None.

**Livestock at basin**

>200.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

Fodder; Medicinal plants.

**Cultural services**

Aesthetic; Religious; Educational.

### 5. Restoration/Management

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

### 6. Tourism information

Local visitors only; Motorable road to Ajuwa Lake; Transportation services from Mahendra Highway; No tourism potential.

### 7. Lake condition

Degrading.
4.8.2 Baba Lake

1. General Feature

Conservation status None.
Geographical position Terai Range.
Administrative feature FWDR; Kailali district; Ghodaghodi Municipality; Ward no. 1; Belkot.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Ghodaghodi Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 40.5°C (Jun/July); Avg. Min Temp: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 2.6 ha; Avg. Length: 500 m; Avg. Width: 200 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 0.5–3 m; Basin Area: 9648.4 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp: 24°C, pH: 5.9; Electric conductivity: NA. Transparency: 0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT; Sr; LU: Fod); Ceratophyllum demersum (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None).
Major plants in basin Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sissoo (LN: Sisoo; HT: Tr; LU: Tm); Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Synzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr; LU: Med, Fruit); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med); Bombax ceiba (LN: Simal; HT: Tr; LU: Med);
Fish Puntius sps (LN: Sedari; LU: Meat); Cetanoharyngodon idella (LN: Carp; LU: Meat); Hypophthalmichthys nobilis (LN: Carp; LU: Meat); Labeo rohita;
Herpetofauna

- *Euphlyctis cyanophlyctis* (LN:Tiktike Paha; EN:Skittering Frog)
- *Buttaphrynus melanostictus* (LN:Kalokhasre Bhaguto; EN:Blackspined Toad)
- *Calotes versicolor* (LN:Cheparo; EN:Garden lizard)
- *Varanus bengalensis* (LN:Gohoro; EN:Monitor Lizard)
- *Buynas sps* (LN:Karet; EN:Common Krait)
- *Python morulus* (LN:Ajingar; EN:Python)
- *Naja naja* (LN:Cobra; EN:Common Cobra)

Birds

- *Eudynamus scolopacea* (LN: Koili; EN: Asian Koel)
- *Psittacula sps* (LN: Suga; EN: Parrot)
- *Eupupa epops* (LN: Fapre; EN: Hoopoe)
- *Francolinus francolinus* (LN: Kalotitra; EN: Black Francolin)
- *Gallusgallus* (LN:Bankukhura; EN:Red Jungle fowl)
- *Passer domesticus* (LN:Bhagero; EN:Sparrow)
- *Corvussplendens* (LN: Kaag; EN:HouseCrow)
- *Streptopelia Chinensis* (LN:Dhukur; EN:Spotted Dove)
- *Dicrurus macrocercus* (LN:Chibe; EN:Drongo)
- *Ocyceros briostris* (LN:Dhanes; EN:Grey Hornbill)

Mammals

- *Herpestes sps* (LN:Nyarimusa; EN:Mongoose)
- *Canis aurens* (LN:Syal; EN:Golden jackal)
- *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat)
- *Lutra lutra* (LN:Oont; EN:Common Otter)
- *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque)
- *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat)

Invasive alien species

- *Ipomoea carnea* (LN:Besara m; EN: Pink morning glory)
- *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed)
- *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar)
- *Ageratum conyzoides* (LN:Nilo gande; EN:Cheek weed)
- *Casia tora* (LN:Kose; EN:Sickle pod)

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

- Belkot Gaun; 100 from lake; Main Trail:Mahendra Highway-Ghodaghodi lake-Belkot Gaun; 100 m from lake.

Land use

- Forestland (80%); Agriculture (10%); Settlement (5%); Wetlands (2%); Others (3%).

Demography

- Population: 616,697; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%).

Jurisdiction/ownership

- State.

Livestock at basin

- >200.

Traditional production system

- None

Traditional water use practices

- None

Cultural record

- None

Genesis/origin of lake

- None.

4. Ecosystem Goods/Services

Provisional services

- Fodder; Medicinal plants.

Cultural services

- None

5. Restoration/Management

Structural management

- None.

Non-structural management

- None.

Conservation plan

- None.

Monitoring plan

- None.

6. Tourism information

- Few local visitors; Transportable road to Baba Lake; Tourism potential high. Needs promotional activities.

7. Lake condition

- Degrading.
4.8.3 Bahuliya Tal

**Wetland code:**
Toposheet no: 2880 07D
Date of inventory: July 04, 2016

---

### 1. General Feature

**Conservation status**
None.

**Geographical coordination**
Lat:28.57836°N; Lon:80.72713°E; Alt:143 masl.

**Geographical position**
Tarai.

**Administrative feature**
FWDR; Kailali district; Dhangadi Sub-metropolitan; Ward no.18; Bahuliya.

**Boundary**
Core Area: Farmland in all directions.
Basin Area: I-Gaon to Bahuliya road in west; India’s border in east and south; Bahuliya gaon in North.

**Management responsibility**
Shree Jana Sahayogi Primary School, Bahuliya.

**Wetlands type**
Fresh water/natural; Lacustrine; Permanent.

### 2. Ecological Feature

**Climatic feature**
Avg. Max Temp: 40.5°C (Jun/July); Avg. Min Temp: 17.7°C (Dec); Rainfall: 1577mm / yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**
Core Area: 12 ha; Avg. Length: 900 m; Avg. Width: 40 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; Basin Area: 90 ha.

**Water Volume**
Peak Period: 67 million ltr; Dry period: 170,000 m³; Inlet: None; Outlet: Regulated drain (Avg. Max Temp: 31°C (Jun/July); Avg. Min Temp: 5°C (Dec) (DDC Profile 2006); Rainfall: 2500 mm/yr (With reference to www.slideshare.net/RajKumarAdhikari).

**Water quality**
Physiochemical parameter: Temp.: 29.1°C, pH: 7.8; DO: 4.2mg/l; Transparency: 0.35m.

**Soil feature**
Grey color; Clay loam.

**Shocks/vulnerability**
Water Volume decrease.

**Major aquatic plants**
Core Area: *Nymphaea stellata* (LN:Nilkamal; EN:Blue lotus; HT:Ff; LU:Orn); *Eichhornia carnea* (LN: Jalkumbhi; HT:Ff; LU:none).

**Major plants in basin**
*Bombax ceiba* (LN: Simal; HT:Tr; LU:Tm); *Syzygium cumini* (LN: jamun; EN: Black plum; HT: Ff, Lu: Lm).
Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Tm); Imperata cylindrica (LN:Siru; HT:Grass; LU:Fd); Eucalyptus alba (LN:Masala; HT:Tr; LU:Tm); Trewia nudiflora (LN:Vellor; HT:Tr; LU:Fd); schleichera oleosa (LN:Kusu m; HT:Tr; LU:Fd); Calotropis gigantea (LN:Ankh; HT:Tr; LU:Med); Desmostachya bipinata (LN:Kush; HT:Gr; LU:Fd).

Fish
Clarias batrachus (LN:Mangur; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat), Cirrhinus mrigala (LN:Naini; LU:Meat), Catla catla (LN:Vyakur; LU:Meat); Puntios sarona (LN:Kande; LU:Meat); Puntios ticto (LN:Kante; LU:Meat); Cetanoharyngodon idella (LN:Grass Carp; LU:Meat); Hypophthalmichthys molitrix (EN:Bighead Carp; LU:Meat); Hypophthalmichthys nobilis (EN:Silver Carp; LU:Meat).

Herpetofauna
Bufo melanostictus (LN:Khashre Bhyaguto; EN:Black-spined Toad); Kaloula taprobana (LN:Byaguyo; EN:Srilanka Bullfrog); Euphlyctis cyanophlyctis (LN:Tik-tike Paha; EN:Skittring Frog); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s Bullfrog); Xenochrophis piscator (LN:Pani Sarpa; EN:Chequered Keelback Watersnake); Pangshura tactum (LN:Kachhuwa; EN:Indian Roofed Turtle); Indotestudo elegata (LN:Kachhuwa; EN:Yellow-headed Tortoise); Asynblepharus sikimmensis (LN:Chikni Girgit; EN:Sikkim Skink).

Birds
Phalacrocorax niger (LN:Sano Jalewa; EN:Little Cormorent); Bulbuls ibis (LN:Kastu Bakulla; EN:Cattle Egret); Ceryle rudis (LN:Chhirbire Matikore; EN:Pied Kingfisher); Halcyon smyrnensis (LN:Setokanthe Matikore; EN:White-throated Kingfisher); Metopidius indicus (LN:Lama Aunle; EN:Bronze-winged Jacana); Pseudibis papillosa (LN; EN:Black Ibis); Vanellus indicus (LN:Huttityau; EN:Red-wattled Lapwing).

Mammals
Lupus nigricollis (LN:Ban Kharayo; EN:Indian Hare); Funambulus pennant (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); Hystrix indica (LN:Jure Dumsi; EN:Indian Crested Porcupine); Millardia meltada (LN:Makhamali Muso; EN:Common Soft-furred Rat); Bandicota indica (LN:Thulo Dhande Muso; EN:Greater Bandicot-rat); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Canis aureus (LN:Shyal; EN:Golden Jackle); Sus scrofa (LN:Bandel; EN:Wild Boar); Axis axis (LN:Chital; EN:Spotted Deer).

Invasive alien species
Ipomoea carnia (LN:Besara m; EN:Shrubby Morning Glory); Ageratum conyzoides (LN:Gandhe; EN:Villy Goat Weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Bahuliya gaon; 100 m from lake; Main Trail:I-Gaun to Bahuliya trail; 100m from lake.

Land use
Forestland (10%); Agriculture (80%); Settlement (5%); Other (5%).

Demography
Population: 20,508; Male:9,681; Female:10,827; HHs: 3,844; Ethnicity: Brahmin/Chhetri (38.04%); Janajati (44.89%); Dalit (16.87%); Other (0.20%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Tharu.

Livestock at basin
>1000.
Traditional production system  Fish farming, Patera sells.
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services  Fish, Raw patera.
Cultural services None.

5. Restoration/Management
Structural management None.
Non-structural management None.
Conservation plan None.
Monitoring plan None.

6. Tourism information  No visitors; Good hotels in Dhangadi Bazar; Motorable road to Phulbari; Transportation services to Phulbari but private vehicles refer to the Bahuliya; Needs promotional activities.

7. Lake condition  Degrading.
4.8.4 Badka Lake

1. General Feature

Conservation status: None.


Geographical position: Terai Range.

Administrative feature: FWDR; Kailali district; Chaumala V.D.C; Ward no. 1; Rajipur.

Boundary:

Core Area: Forest in all directions.
Basin Area: Forest in all directions.

Management responsibility: Khurkhuriya Conservation Committee with the representation of DDC.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature:

Avg. Max Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area:

Core Area: 3.6 ha; Avg. Length: 500 m; Avg. Width: 200 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 0.5–3 m; Basin Area: 48.1 ha.

Water Volume: NA.

Water quality:

Physicochemical parameter: Temp: 24°C, pH: 5.9; Electric conductivity: NA. Transparency: 0.5 m.

Soil feature: Grey color; Sandy loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants:

Core Area: Some species of algae observed.

Major plants in basin:

Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr, LU: Med, Fruit); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med); Bombax ceiba (LN: Simal; HT: Tr; LU: Med).

Fish:

Cetanoharyngodon idella (LN: Carp; LU: Meat); Labeo rohita (EN: Rohu; LU: Meat); Hypophthalmichthys nobilis (LN: Carp; LU: Meat)
Herpetofauna

Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python).

Birds

Eudynamys scolopacea (LN:Koili; EN:Asian Koel); Psittacula sps (LN:Suga; EN:Parrot); Eupupa epops (LN:Fapre; EN:Hoopoe); Francolinus francolinus (LN:Kalottira; EN:Black Francolin); (LN:Dhanes; EN:Grey Hornbill); Coracias bengalensis (LN:Theuwa; EN:Indian Roller); Halcyon smyrnensis (LN:Matikore; EN:Kingfisher).

Mammals

Herpestes sps (LN:Nyarimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal).

Invasive alien species

Ipomoea carnea (LN:Besara m; EN:Pink morning glory); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar); Ageratum conyzoides (LN:Nilo gande; EN:Cheek weed); Casia tora (LN:Kose; EN:Sickle pod).

Endemic plant/animal

None

3. Socio-Economy at Basin

Nearby settlement

Khurkhuriya Gaun; 50m from lake; Main Trail: Mahendra Highway-Chaumala –Khurkhuriya Gaun; 50 m from lake.

Land use

Forestland (90%); Agriculture (9%); Grassland (1%).

Demography

Population:27,586; Male:12,729; Female:14,857; HHs:5,293; Ethnicity: Brahmin/Chhetri (50%); Janajati (30%); Dalit (18%); Other (2%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>200.

Traditional production system

Rice Field, Fisheries.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Medicinal plants.

Cultural services

None.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

>1,000 visitors/yr; Transportable road to Badka Lake; Moderate tourism potential. Needs promotional activities.

7. Lake condition

Degrading.
4.8.5 Bhairbhuwa Lake

Wetland code: Toposheet no: 2880 08D
Date of inventory: Jun 2, 2016

1. General Feature

Conservation status None.
Geographical position Terai Range.
Administrative feature FWDR; Kailali district; Trishakti Bhajani Municipality; Ward no. 9; Pachmudiya.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Khurkuriya Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 19.8 ha; Avg. Length: 600 m; Avg. Width: 200 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 2–6 m; Basin Area: 260 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.: 24°C, pH: 5.9; Electric conductivity: N.A. Transparency: 0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Nymphae sps (LN: Kamal; HT: Ft; LU: Orn); Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT: Sr; LU: Fod); Ceratophyllum demersem (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None).
Major plants in basin Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Syzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr, LU: Med, Fruit); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med); Bombax ceiba
Fish
- *Puntius sps* (LN: Sedari; LU: Meat)
- *Cetanoharyngodon idella* (LN: Carp; LU: Meat)
- *Hypophthalmichthys nobilis* (LN: Carp; LU: Meat)
- *Labeo rohita* (EN: Rohu; LU: Meat)

Herpetofauna
- *Euphlyctis cyanophlyctis* (LN: Tiktike Paha; EN: Skittering Frog)
- *Buttaphrynus melanostictus* (LN: Kalokhasre Bhyaguto; EN: Blackspined Toad)
- *Calotes versicolor* (LN: Cheparo; EN: Garden Lizard)
- *Varanus bengalensis* (LN: Gohoro; EN: Monitor Lizard)
- *Bungarus sps* (LN: Kare; EN: Common Krait)
- *Naja naja* (LN: Cobra; EN: Common Cobra)

Birds
- *Ardenola greyii* (LN: Sim Bakulla; EN: Pond Heron)
- *Ardea alba* (LN: Bakulla; EN: Great Egret)
- *Eudynamys scolopacea* (LN: Koili; EN: Asian Koel)
- *Psittacula sps* (LN: Suga; EN: Parrot)
- *Eupupa epops* (LN: Fapre; EN: Hoopoe)
- *Francolinus francolinus* (LN: Kalotitra; EN: Black Francolin)
- *Gallus gallus* (LN: Bankukhura; EN: Red Jungle fowl)

Mammals
- *Herpestes sps* (LN: Nyarimusa; EN: Mongoose)
- *Canis aurens* (LN: Syal; EN: Golden jackal)
- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat)
- *Lutra lutra* (LN: Oont; EN: Common Otter)
- *Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque)
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat)

Invasive alien species
- *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory)
- *Ageratina adenophora* (LN: Lahare banmara; EN: Crofton weed)
- *Xanthium strumarium* (LN: Bhede kuro; EN: Cockle bur sheep bar)
- *Ageratum conyzoides* (LN: Nilo gande; EN: Cheek weed)
- *Casia tora* (LN: Kose; EN: Sickle pod)

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- *Pachmudiya Gaun*; 50m from lake; Main Trail: Mahendra Highway-Bhajani–Khailad-Pachmudiya Gaun; 50 m from lake.

Land use
- Forestland (99.57%); Agriculture (0.09%); Grassland (0.34%); Shrubland (0.43%).

Demography
- Population: 11,985; Male: 5817; Female: 6168; HHs: 2043; Ethnicity: Brahmin/Chhetri (14.23%); Janajati (69.12%); Dalit (16.35%); Other (0.3%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
- State.

Wetlands dependent community
- None.

Livestock at basin
- >500.

Traditional production system
- None

Traditional water use practices
- None

Cultural record
- None

Genesis/origin of lake
- None

4. Ecosystem Goods/Services

Provisional services
- Fodder; Medicinal plants.

Cultural services
- None

5. Restoration/Management

Structural management
- None

Non-structural management
- None

Conservation plan
- None

Monitoring plan
- None

6. Tourism information

>1,000 visitors/yr; Transportable road to Bhairbhuwa Lake; Moderate tourism potential. Needs promotional activities.

7. Lake condition
- Degrading.
4.8.6 Bhaiswa Lake

Wetland code:
Toposheet no: 2880 08B
Date of inventory: Jun 3, 2016

1. General Feature

Conservation status
None.

Geographical coordination
Lat:28.70467072 °N; Lon:80.95724591°E; Alt:165 masl.

Geographical position
Terai Rang e.

Administrative feature
FWDR; Kailali district; Ghodaghodi Municipality; Ward-9; Sadepani.

Boundary
Core Area:Forest in all directions.
Basin Area:Forest in all directions.

Management responsibility
Ghodaghodi Conservation Committee with the representation of DDC.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max: Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm /yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area:7 ha; Avg. Length:500 m; Avg. Width:200 m; Avg. Depth:4 m; Max–Min Surface Water Level:2–6 m; Basin Area:9648.4 ha.

Water Volume
NA.

Water quality
Physicochemical parameter: Temp.:24°C, pH:5.9; Electric conductivity: NA; Transparency:0.5 m.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Oryza rufipogon (LN:Jungalidhan; HT:E; LU: None);
Phragmites sps (LN: Narkat; HT; Sr; LU:Fod); Ceratophyllum demersem (LN: Patai; HT: S m; LU:None); Hydrilla sps (LN:Panijhyau; HT:FF; LU:None).

Major plants in basin
Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Tm); Shorea robusta (LN:Sal; HT:Tr; LU:Fur, fuel); Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia (LN:Hallo; HT:Tr; LU:Tm); Emblica officinalis (LN:Amala; HT:Tr, LU:Med, Fruit); Oroxylum indicum (LN:Tatelo; HT:Tr; LU:Med); Bombax ceiba(LN:Simal; HT:Tr; LU:Med);

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (EN:Rohu; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat)
Herpetofauna: *Bungarus sps* (LN:Karet; EN:Common Krait); *Bufo melanostictus* Schneider (LN: Khare bhyaguto; EN:Black-spined toad); *Python morulus* (LN:Ajingar; EN:Python).

Birds: *Francolinus francolinus* (LN:Kalottira; EN:Black Francolin); *Gallus gallus* (LN:Bankukhura; EN:Red Jungle fowl); *Passer domesticus* (LN:Bhagero; EN:Sparrow); *Corvus splendens* (LN:Kaag; EN:HouseCrow); *Streptopelia chinensis* (LN:Dhukur; EN:Spotted Dove); *Dicrurus macrocercus* (LN:Chibe; EN:Drongo); *Ocyeros birostris* (LN:Dhanes; EN:Grey Hornbill); *Vanellus indicus* (LN:Huttititau; EN:Red-watteled lapwing); *Falco tinnunculus* (LN:Baaj; EN:Common Kestrel); *Turdoides striata* (LN:Bhyakur; EN:Jungle Babbler).

Mammals: *Herpestes sps* (LN:Nyarimusa; EN:Mongoose); *Canis aurens* (LN:Syal; EN:Golden jackal); *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat); *Lutra lutra* (LN:Oont; EN:Common Otter); *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque); *Felis chaus* (LN:Ban Biralo; EN: Jungle Cat); *Funambulus pennantii* (LN: Northen palm squirrel; EN: Northen).

Invasive alien species: *Lantana camara* (LN: Maleria; EN: Tickberry); *Eupatorium sps* (LN: Banmara; EN:Thorughwort); *Ageratina adenophora* (LN: Lahare banmara ; EN:Crofton weed); *Xanthium strumarium* (LN:Bhede kuro; EN: Cockle bur sheep bar).

Endemic plant/animal: None.

3. **Socio-Economy at Basin**

Nearby settlement: *Sadepani Gaun*; 50m from lake; Main Trail:Mahendra Highway-Ghodaghodi–Sadepani Gaun; 50 m from lake.

Land use: Forestland (40%); Agriculture (30%); Settlement (18%); Wetlands (2%); Others (10%).

Demography: Population:27,586; Male:12729; Female:14857; HHs:5293; Ethnicity: Brahmin/Chhetri (49.64%); Janajati (31.66%); Dalit (18.35%); Other (0.35%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership: State.

Livestock at basin: >500.

Traditional production system: None

Traditional water use practices: None.

Cultural record: None.

Genesis/origin of lake: None.

4. **Ecosystem Goods/Services**

Provisional services: Fodder; Medicinal plants.

Cultural services: None.

5. **Restoration/Management**

Structural management: None.

Non-structural management: None.

Conservation plan: None.

Monitoring plan: None.

6. **Tourism information**

>1,000 visitors/yr; Transportable road to *Sadepani*; Moderate tourism potential high. Needs promotional activities.

7. **Lake condition**

Degrading.
4.8.7 Budi Nakror Lake

**Conservation status**: None.


**Geographical position**: Terai Range.

**Administrative feature**: FWDR; Kailali district; Ghodaghodi Municipality; Ward-9; Dipnagar.

**Boundary**

- **Core Area**: Forest in all directions.
- **Basin Area**: Forest in all directions.

**Management responsibility**: Ghodaghodi Conservation Committee with the representation of DDC.

**Wetlands type**: Fresh water/natural; Lacustrine; Permanent.

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### 1. General Feature

**Conservation status**: None.


**Geographical position**: Terai Range.

**Administrative feature**: FWDR; Kailali district; Ghodaghodi Municipality; Ward-9; Dipnagar.

**Boundary**

- **Core Area**: Forest in all directions.
- **Basin Area**: Forest in all directions.

**Management responsibility**: Ghodaghodi Conservation Committee with the representation of DDC.

**Wetlands type**: Fresh water/natural; Lacustrine; Permanent.

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### 2. Ecological Feature

**Climatic feature**: Avg. Max: Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**

- **Core Area**: 0.9 ha; Avg. Length:100 m; Avg. Width:50 m; Avg. Depth:4 m; Max–Min Surface Water Level:2–6 m; **Basin Area**:9684.4 ha.

**Water Volume**: NA.

**Water quality**: Physicochemical parameter: Temp.: 24°C, pH: 5.9; Electric conductivity: NA; Transparency: 0.5 m.

**Soil feature**: Grey color; Sandy loam texture.

**Shocks/vulnerability**: Water volume decreasing.

**Major aquatic plants**

- **Core Area**: *Nymphaea sps* (LN:Nilkamal; EN:Blue lotus; HT:Ff; LU:Orn);
- **Sphagnum nepalensis** (LN:Jhyau; HT:E m; LU:none).

**Major plants in basin**

- **Shorea robusta** (LN:Sal; HT:Tr; LU:Fur, fuel);
- **Dalbergia sisoo** (LN: Sisoo; HT: Tr; LU: Tm);
- **Emblica officinalis** (LN: Amala; HT:Tr, LU: Med, Fruit);
- **Oroxylum indicum** (LN: Tatelo; HT: Tr; LU: Med);
- **Bombax ceiba** (LN: Simal; HT: Tr; LU: Med).
Fish

*Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat); *Labeo rohita* (EN: Rohu; LU:Meat)

Herpetofauna

*Bungarus sps* (LN:Kare; EN:Common Krait); *Bufo melanostictus Schneider* (LN: Khasre bhyaguto; EN: Black-spined toad); *Python morulus* (LN: Ajingar; EN:Python).

Birds

*Eudynamys scolopacea* (LN: Koili; EN:Asian Koel); *Psittacula sps* (LN: Suga; EN: Parrot); *Eupupa epops* (LN: Fapre; EN: Hoopoe); *Francolinus francolinus* (LN: Kalotitra; EN: Black Francolin); (LN:Dhanes; EN:Grey Hornbill); *Coracias bengalensis* (LN:Theuwa; EN:Indian Roller); *Halcyon smyrnensis* (LN:Matikore; EN:Kingfisher).

Mammals

*Herpestes sps* (LN:Nyarimusa; EN:Mongoose); *Canis aurens* (LN:Syal; EN:Golden jackal).

Invasive alien species

*Ipomoea carnea* (LN:Besara m; EN:Pink morning glory); *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed); *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar); *Ageratum conyzoides* (LN:Nilo gande; EN:Cheek weed); *Casia tora* (LN:Kose; EN:Sickle pod).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

*Dipnagar Gaun*; 50m from lake; Main Trail:Mahendra Highway-Ghodaghodi–Sadepani Gaun-Dip Gaun; 50 m from lake.

Land use

Forestland (40%); Agriculture (30%); Settlement (18%); Wetlands (2%); Others (10%).

Demography

Population: 616,697; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%). Major Religion: Hinduism. (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>1500.

Traditional production system

None

Traditional water use practices

None

Cultural record

None

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Medicinal plants.

Cultural services

None.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

Local visitors; Transportable road to *Dipnagar Gaun*; High potentiality of local tourism.

7. Lake condition

Degrading.
1. General Feature

Conservation status: None.
Geographical position: Terai.
Administrative feature: FWDR; Kailali district; Udasipur VDC.; Ward no. 5; Chamraiya.
Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions.
Management responsibility: Chamraiya Lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.
Area: Core Area: 14.9ha; Avg. Length: 800 m; Avg. Width: 300 m; Avg. Depth: 2.5 m; Max–Min Surface Water Level: 3 m–2 m; Basin Area: 321.2 ha.
Water Volume: Peak Period: 20,437,920 ltr; Dry period: 13,625,280 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Azolla sps (LN: Panijhyau; HT: Ff; LU: None); Potamogeton nodosus (LN: Panikhar; HT: E m; LU: None); Typha angustifolia (LN: Pater; EN: Broadleaf cattail); Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none).
Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Ful); Syzigium cumini (LN: jamun; HT: TR; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Fr); Dalbergia sisoo (LN: Sisoo;
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Fish
- Cetanoharyngodon idella (LN:Carp; LU:Meat)
- Labeo rohita (EN:Rohu; LU:Meat)
- Hypophthalmichthys nobilis (LN:Carp; LU:Meat)

Herpetofauna
- Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad)
- Polypedtes maculates (LN:Rukh Bhyaguto)
- Python morulus (LN:Ajingar; EN:Python)
- Ptyas mucosa (LN:Dhaman; EN:Ratsnake)

Birds
- Casmerodius albus (LN:Bakulla; EN:Great Egret)
- Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit)
- Vannellus indicus (LN:huttityau; EN:Red-watteled lapwing)
- Falco tinnunculus (LN:Baaj; EN:Common Kestrel)
- Treron pompadora (LN:Dhukur EN:Pompadour Green Pigeon)

Mammals
- Felis bengalensis (LN: Charibagh; EN:Leopard Cat)
- Lutra lutra (LN:Oont; EN:Common Otter)
- Macaca mulatta (LN:Bandar; EN:Rhesus Macaque)
- Felis chaus (LN:Ban Biralo; EN: Jungle Cat)
- Funambulus pennant (LN:Lokharke; EN:Squirrel)
- Felis viverrina (LN:Malaha biralo; EN:Fishing cat)
- Vulpes bengalensis (LN:Fushre fauro; EN:Bengal Fox)
- Semnopithecus hector (LN:Dedu; EN:Terai grey langur)

Invasive alien species
- Lantana camara (LN:Maleria; EN:Tickberry)
- Eupatorium sp (LN: Banmara; EN:Thoroughwort)
- parthenium hysterophorus (LN:Gajar jhar; EN:famine weed)
- Ipomoea carnea (LN: Besara m; EN: Pink morning glory)

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- Udasipur; 100 m from lake; Main Trail: Mahendra high to Chamala road; 100 m from lake.

Land use
- Forestland (90%)
- Agriculture (9%)
- Wetlands (1%)

Demography
- NA

Jurisdiction/ownership
- State

Wetlands dependent community
- None

Livestock at basin
- >500

Traditional production system
- Fish farming; Irrigation

Traditional water use practices
- None

Cultural record
- None

Genesis/origin of lake
- None

4. Ecosystem Goods/Services

Provisional services
- Fodder; Medicinal plants

Cultural services
- None

5. Restoration/Management

Structural management
- Dam, by local community

Non-structural management
- None

Conservation plan
- None

Monitoring plan
- None

6. Tourism information

Few visitors; No tourism potential

7. Lake condition

Degrading
**1. General Feature**

**Conservation status**  
None.

**Geographical coordination**  
Lat: 28.72225°N; Lon: 80.61938°E; Alt: 175 masl.

**Geographical position**  
Tarai.

**Administrative feature**  
FWDR; Kailali district; Dhangadi Sub-metropolitan; Ward no.6; Jaligaon.

**Boundary**  
**Core Area:** Forest in all directions.  
**Basin Area:** Jai to Balami trail in west, Dunga gaon in east, Kurkaiya gaon in south, Chandpur to Ramnagar road in north.

**Management responsibility**  
Chhaya machha palan Samuha.

**Wetlands type**  
Fresh water/natural; Lacustrine; Permanent.

**2. Ecological Feature**

**Climatic feature**  
Avg. Max: Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**  
**Core Area:** 1.4815 ha; Avg. Length: 90 m; Avg. Width: 70 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; **Basin Area:** 250 ha.

**Water Volume**  
Peak Period: 12,600,000 ltr; Dry period: 3,500,000 ltr; Inlet: None; Outlet: None.

**Water quality**  
**Physiochemical parameter:** Temp.: 30.7°C, pH: 8.2; DO: 4.9 mg/l; Transparency: 0.3 m.

**Soil feature**  
Grey color; Clay loam.

**Shocks/vulnerability**  
Water Volume decrease.

**Major aquatic plants**  
**Core Area:** *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn).

**Major plants in basin**  
*Shorea robusta* (LN: sal; HT: Tr; LU: Tml); *Syzygium cumini* (LN: jamun; HT: Tr; LU: Tm, Md); *Dalbergia sissoo* (LN: Sisoo; HT: Tr; LU: Tm); *Trewia nudiflora* (LN: Vellor; HT: Tr; LU: Fd); *Saccharum spontaneum* (LN: Kans;
HT:Grass; LU:Fd); *Imperata cylindrica* (LN:Siru; HT:Grass; LU:Fd); *Desmostachya bipinna* (LN:Kush; HT:Grass; LU:Fd).

**Fish**


**Herpetofauna**

*Bufo stomaticus* (LN: Khatkhyarri Magoba; EN: Assam Toad); *Kaloula taprobanica* (LN: Byaguyo; EN: Srilanka Bullfrog); *Euphylyctis cyanophlyctis* (LN:Tik-tike Paha; EN: Skittering Frog); *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jordon’s Bullfrog); *Pangashura tectum* (LN: Kachhuwa; EN: Indian Roofed Turtle); *Xenochrophis piscator* (LN: Pani Sarpa; EN: Chequered Keelback Watersnake); *Amphiesma stolatum* (LN: Harara; EN: Buff-striped Keelback); *Naja naja* (LN:Goman Sanp; EN: Cobra).

**Birds**

*Phalacrocorax niger* (LN: Sano Jalewa; EN:Little Cormorent); *Ceryle rudis* (LN: Chhirbire Matikore; EN: Pied Kingfisher); *Halcyon capensis* (LN: Thulo Matikore; EN: Strok-billed Kingfisher); *Halcyon smyrnensis* (LN:Seto Kanthe Matikore; EN: White-throated Kingfisher); *Ichthyophaga ichthyotus* (LN: Machhakul; EN: Grey-headed Fisheagle); *Bulbulcus ibis* (LN:Bastu Bakulla; EN: Cattle Egret); *Casmerodius albus* (LN:Thulo Seto Bakulla; Great Egret); *Gyps tenuirostris* (LN:Sano Khayaro Giddha; EN:Slender-billed Vulture); *Pavo cristatus* (LN: Majur; EN: Indian Peafowl); *Gallus gillus* (LN:Luiche; EN:Red Jungle Fowl).

**Mammals**

*Lepus nigrillus* (LN: Ban Kharayo; EN: Indian Hare); *Funambulus pennant* (LN: Panch Darke Lokharke; EN:Northern Palm Squirrel); *Millardia melta* (LN: Makhamali Muso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:Thulo Dhande Muso; EN:Greater Bandicot-rat); *Hystrix indica* (LN: Jure Dumsi, EN: Indian Crested Porcupine) *Panthera pardus* (LN: Chituwa; EN:Common Leopard); *Canis aureus* (LN:Shyal; EN: Golden Jackle); *Macaca mulatta* (LN:Rato Bandar; EN:Rhesus Monkey); *Axis axis* (LN: Chital; EN: Spotted Deer); *Sus scrofa* (LN: Bandel; EN: Wild Boar).

**Invasive alien species**

*Ipomoea carnia* (LN: Besara m; EN: Shrubby Morning Glory); *Eichhornia crassipes* (LN: Jal Kumbhi; EN: Water Hyacinth).

**Endemic plant/animal**

None.

3. Socio-Economy at Basin

**Nearby settlement**

*Basant Tol; 50m from lake; Main Trail:Dhangadi Campus Mod to Kaligaon; 50m from lake.

**Land use**

Forestland (80%); Grassland (10%); Settlement (5%); Others (5%).

**Demography**

Population:101,970; Male:51,439; Female:50,531; HHS:21,030; Ethnicity:Brahamin/Chhetri (51.44%); Janajati (34.91%); Dalit (8.72%); Other (4.93%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

Tharu.

**Livestock at basin**

>1000.

**Traditional production system**

Fish farming and irrigation.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish farming by locals.
Cultural services: None.

5. Restoration/Management
Structural management: None (Boundary Maintaining).
Non-structural management: None (Cleaning the pond).
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
>500 visitors/year; Good hotels in Dhangadi Bazar; Motorable road Kaligaon; Transportation services to Campus Mod but private vehicles refer to the Kaligaon; Needs promotional activities.

7. Lake condition
Degrading.
4.8.10 Chharra Tal

1. General Feature

Conservation status
None.

Geographical coordination

Geographical position
Tarai.

Administrative feature
FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward no. 3; Khailad.

Boundary
Core Area: Forest in east, farmland in other directions.

Basin Area: Forest in all directions.

Management responsibility
Chharra Lake Management Community.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 3.3 ha; Avg. Length: 130 m; Avg. Width: 70 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 4 m–2 m; Basin Area: 101.2 ha.

Water Volume
Peak Period: 1,033,250 ltr; Dry period: 255,474 ltr; Inlet: None; Outlet: None.

Water quality
Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.

Soil feature
Dark color; Clay loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Ludwigia adscendes (LN: Jadelo; HT: E m; LU: None); Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).
Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Ful); Synzigium cumini (LN: jamun; HT: Tr; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Fr); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).

Fish: Puntius spp (LN: Sedari; LU: Meat); Ctenoharyngodon idella (LN: Carp; LU: Meat); Ctenoharyngodon idella (LN: Carp; LU: Meat).

Herpetofauna: Bungarus spp (LN: Karet; EN: Common Krait); Ptyas mucosa (LN: Dhaman; EN: Black-spined toad); Hoplobatrachus crassus (LN: Sirke Paha; EN: Jerdon’s bull frog); Amolops marmoratus (LN: Tite Paha); Varanus bengalensis (LN: Bhai; EN: Monitor lizard); Polyedtes maculates (LN: Rukh Bhyaguto).

Birds: Streptopelia Chinensis (LN: Dhukur; EN: Spotted Dove); Dicrurus macrocercus (LN: Chibe; EN: Drongo); Ocyeros birostris (LN: Dhanes; EN: Grey Hornbill); Coracias bengalensis (LN: Theuwa; EN: Indian Roller); Halcyon smyrnensis (LN: Matikore; EN: Kingfisher); Casmerodius albus (EN: Great Egret); Halcyon pileata (LN: Fisto; EN: Yellow-cheeked Tit); Vanelius indicus (LN: Huuttitau; EN: Red-watteled lapwing); Falco tinnunculus (LN: Baaj; EN: Common Kestrel).

Mammals: Felis bengalensis (LN: Charibagh; EN: Leopard Cat); Lutra lutra (LN: Oont; EN: Common Otter); Macaca mulatta (LN: Bandar; EN: Rhesus Macaque); Felis chaus (LN: Ban Biralo; EN: Jungle Cat); Funambulus pennanti (LN: Northen palm squirrel; EN: Northen); Felis viverrina (LN: Malaha biralo; EN: Fishing cat); Sus scrofa. (LN: Badel; EN: Wild Boar).

Invasive alien species: Lantana camara (LN: Maleria; EN: Tickberry); Eupatorium sp (LN: Banmara; EN: Thoroughwort); parthenium hysterophorus (LN: Gajar jhar; EN: Famine weed); Ipomoea carnea (LN: Besara m; EN: Pink morning glory).

Endemic plant/animal: None.

3. Socio-Economy at Basin

Nearby settlement: Khailad; 80 m from lake; Main Trail: Khailad to Bhajani road; 80 m from lake.

Land use: Forestland (97.60%); Agriculture (0.48%); Grassland (0.18%); Barrenland (1.73%).

Demography: Population: 11,985; Male: 5,817; Female: 6,168; HHs: 2043; Ethnicity: Brahmin/Chhetri (14.23%); Janajati (66.24%); Dalit (16.35%); Other (1.18%). Major Religion: Hindu (CBS 2012).

Jurisdiction/ownership: State.

Wetlands dependent community: None.

Livestock at basin: >500.

Traditional production system: Fish farming, irrigation, Fodder, Medicinal plants.

Traditional water use practices: None.

Cultural record: None.
Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
Dam, by local community.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors; Needs promotional activities and awareness.

7. Lake condition

Degrading.
4.8.11 Chiriya Lake

1. General Feature
   Conservation status: None.
   Geographical position: Terai Range.
   Administrative feature: FWDR; Kailali district; Ghodaghodi Municipality; Ward-1; Sitpur.
   Boundary: Core Area: Forest in North and South direction, Sitapur village in east and Belkot Gaun in west.
   Basin Area: Forest in North and South direction, Sitapur village in east and Belkot Gaun in west.
   Management responsibility: Ghodaghodi Conservation Committee with the representation of DDC.
   Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
   Climatic feature: Avg. Max Temp: 40.5°C (Jun/July); Avg. Min Temp: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
   Area: Core Area: 2.5 ha; Avg. Length: 500 m; Avg. Width: 200 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 2–6 m; Basin Area: 9684.4 ha.
   Water Volume: NA.
   Water quality: Physicochemical parameter: Temp.: 24°C, pH: 5.9; Electric conductivity: N.A. Transparency: 0.5 m.
   Soil feature: Grey color; Sandy loam texture.
   Shocks/vulnerability: Water volume decreasing.
   Major aquatic plants: Core Area: Few sps of algae were observed. None.
   Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Ful); Synzigium cumini (LN: jamun; HT: Tr; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).
   Fish: NA.
Herpetofauna

**Bufo melanostictus Schneider** (LN: Khasre bhyaguto; EN: Black-spined toad); **Hoplobatrachus crassus** (LN: Sirke Paha; EN: Jerdon’s bull frog); **Amolops marmoratus** (LN: Tite Paha); **Varanus bengalensis** (LN: Bhainse; EN: Monitor lizard); **Polypedates maculates** (LN: Rukh Bhyaguto); **Lissemys punctata andersoni webb** (LN: PuTali kachuwa; EN: North Indian flapshell turtle); **Python morulus** (LN: Ajingar; EN: Python); **Ptyas mucosa** (LN: Dhaman; EN: Ratsnake).

**Birds**

**Casmerodius albus** (LN: Thulo seto bakulla; EN: Great Egret); **Halcyon pileata** (LN: Fisto; EN: Yellow-cheeked Tit); **Vanellus indicus** (LN: Huttitita; EN: Red-watteled lapwing); **Falco tinnunculus** (LN: Baa; EN: Common Kestrel); **Treron pompadora** (LN: Dhukur EN: Pompadour Green Pigeon).

**Mammals**

**Felis bengalensis** (LN: Charibagh; EN: Leopard Cat); **Lutra lutra** (LN: Oont; EN: Common Otter); **Macaca mulatta** (LN: Bandar; EN: Rhesus Macaque); **Felis chaus** (LN: Ban Biralo; EN: Jungle Cat); **Funambulus pennanti** (LN: Lokharke; EN: Squirrel).

**Invasive alien species**

**Lantana camara** (LN: Maleria; EN: Tickberry); **Eupatorium sp** (LN: Banmara; EN: Thorughwort).

**Endemic plant/animal**

None.

3. **Socio-Economy at Basin**

**Nearby settlement**

Sitapur Gaun; 50m from lake; Main Trail: Mahendra Highway-Ghadaghodi–Sadepani Gaun-Dip Gaun-Sitapur Gaun; 50 m from lake.

**Land use**

Forestland (69%); Agriculture (22%); Wetlands (2%); Others (3%); Grassland (3%); Shrubland (1%).

**Demography**

Population: 27,586; Male: 12729; Female: 14857; HHs: 5293; Ethnicity: Brahmin/Chhetri (49.64%); Janajati (31.66%); Dalit (18.35%); Other (0.35%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

>1500.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

4. **Ecosystem Goods/Services**

**Provisional services**

Fodder; Medicinal plants.

**Cultural services**

None.

5. **Restoration/Management**

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

6. **Tourism information**

Few visitors; Transportable road to Sitpur; Low tourism potential.

7. **Lake condition**

Degrading.
1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kailali district; Udasipur VDC.; Ward no. 7; Dudhiya.
Boundary Core Area: School in east; forest in other directions.
Basin Area: Forests in all direction.
Management responsibility Dudhiya Lake Management Community.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.
Area Core Area: 1.8ha; Avg. Length: 100 m; Avg. Width: 60 m; Avg. Depth: 2.5 m; Max–Min Surface Water Level: 3 m–2 m; Basin Area: 96.2
Water Volume Peak Period: 510,948 ltr; Dry period: 340,632 ltr; Inlet: None; Outlet: None.
Water quality Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Ceratophyllum demersum (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None).
Major plants in basin Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Dalbergia sissoo (LN: Sisoo; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr; LU: Med, Fruit); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med); Bombax ceiba (LN: Simal; HT: Tr; LU: Med).
Fish Cetanoharyngodon idella (LN: Carp; LU: Meat); Hypophthalmichthys
Herpetofauna

- *Bungarus sps* (LN: Karet; EN: Common Krait)
- *Bufo melanostictus Schneider* (LN: Khasre bhyaguto; EN: Black-spined toad)
- *Python morulus* (LN: Ajíngar; EN: Python)

Birds

- *Eudynamys scolopacea* (LN: Koili; EN: Asian Koel)
- *Psittacula sps* (LN: Suga; EN: Parrot)
- *Eupupa epops* (LN: Fapre; EN: Hoopoe)
- *Francolinus francolinus* (LN: Kalotitra; EN: Black Francolin)
- *Coracias bengalensis* (LN: Theuwa; EN: Indian Roller)
- *Halcyon smyrnensis* (LN: Matikore; EN: Kingfisher)

Mammals

- *Herpestes sps* (LN: Nyarimusa; EN: Mongoose)
- *Canis aurens* (LN: Syal; EN: Golden jackal)

Invasive alien species

- *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory)
- *Ageratina adenophora* (LN: Lahare banmara; EN: Crofton weed)
- *Xanthium strumarium* (LN: Bhede kuro; EN: Cockle bur sheep bar)
- *Ageratum conyzoides* (LN: Nilo gande; EN: Cheek weed)
- *Casia tora* (LN: Kose; EN: Sickle pod)

Endemic plant/animal

None

3. Socio-Economy at Basin

Nearby settlement

- *Dudhiya*; 100 m from lake; Main Trail: Hasuliya to Dudhiya gaun road; 100 m from lake.

Land use

- Forestland (89.75%)
- Agriculture (1%)
- Wetland (10%)

Demography

- Population: 9,304; Male: 4,474; Female: 4,830; HHs: 1,492; Ethnicity: Brahmin/Chhetri (22.97%); Janajati (70%); Dalit (6.35%); Other (0.4%)
- Major Religion: Hinduism/Buddhism (CBS 2012)

Jurisdiction/ownership

State

Wetlands dependent community

None

Livestock at basin

> 700

Traditional production system

None

Traditional water use practices

None

Cultural record

None

Genesis/origin of lake

None

4. Ecosystem Goods/Services

Provisional services

- Fodder
- Medicinal plants
- Timber

Cultural services

None

5. Restoration/Management

Structural management

- Dam, by local community

Non-structural management

None

Conservation plan

None

Monitoring plan

None

6. Tourism information

- Only local visitors
- Few teashops at hotel site
- No tourism potential

7. Lake condition

Degrading
1. General Feature

Conservation status
None.

Geographical coordination

Geographical position
Tarai.

Administrative feature
FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward no.1; Dudhawa Gaon.

Boundary
Core Area: Paddy field in west; Trishakti-Bajani road in other directions.

Basin Area: Kandra Nadi in North; India in south; Piparawa Tal in east; Mohana oxbow lake in west.

Management responsibility
Trishakti-Bhajani Municipality.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max Temp: 40.5°C (Jun/July); Avg. Min Temp: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 4.41ha; Avg. Length: 250 m; Avg. Width: 40 m; Avg. Depth: 1 m; Max–Min Surface Water Level: 1.5-0.5 m; Basin Area: 80 ha.

Water Volume
Peak Period: 18,000,000 ltr; Dry period: 1,500,000 ltr; Inlet: None; Outlet: None.

Water quality
Physiochemical parameter: Temp.: 36.8°C, pH: 8.9; DO: 4.3mg/l; Transparency: 0.4m.

Soil feature
Red color; Clay loam.

Shocks/vulnerability
Water Volume decrease.

Major aquatic plants
Core Area: None.

Major basin plants
Syzygium cumini (LN: jamun; HT: TR; LU: Tm, Md); Dalbergia sisoo (LN: Sisoo; HT: TR; LU: Tm); Trewia nudiflora (LN: Vellor; HT: TR; LU: Fd); Eucalyptus alba (LN: Masala; HT: TR; LU: Tm); Zizyphus rugosa (LN: Rukh...
Fish

*Ctenoharyngodon idella* (LN: Grass Carp; LU:Meat); *Hypophthalmichthys nobilis* (EN:Bighead Carp; LU:Meat); *Hypophthalmichthys molitrix* (LN:Silver Carp; LU:Meat); *Labeo rohita* (LN:Rohu; LU:Meat), *Cirrhinus mrigala* (LN:Naini; LU:Meat), Catla catla (LN:Vyakur; LU:Meat).

Herpetofauna

*Euphlyctis cyanophlyctis* (LN:Tik-tike Paha; EN:Skittring Frog); *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s Bullfrog); * Xenochrophis piscator* (LN:Paní Sarpa; EN:Chequered Keelback Watersnake); *Varanus flavescens* (LN:Sun Gohoro; EN:Golden Monitor Lizard); *Indotestudo elogata* (LN:Kachhuwa; EN:Yellow-headed Tortoise); *Asynblepharus sikimmensis* (LN:Chikni Girgit; EN:Sikkem Skink); *Naja naja* (LN:Goman Sarpa; EN:Spectacled Cobra) Naja Kaouthia (LN:Goman; EN:Monocled Cobra); *Bungarus caeruleus* (LN:Karet Sarpa; EN:Common Krait); *Xenochrophis piscator* (LN:Paní Sarpa; EN:Chequered Keelback Watersnake).

Birds

*Ceryle rudis* (LN:Chhirebire Matikore; EN:Pied Kingfisher); *Phalacrocorax niger* (LN:Sano Jalewa; EN:Little Cormorent); *Bulbuls cus ibis* (LN:Bastu Bakulla; EN:Cattle Egret); *Halcyon capensis* (LN:Thulo Matikore; EN:Strok-billed Kingfisher); *Halcyon smyrnensis* (LN:Setokanthe Matikore; EN:White-throated Kingfisher); *Ichthyophaga ichthyaetus* (LN; Machhakul; EN:Grey-headed Fisheagle); *Coracias begalensis* (LN:Theuwa; EN:Indian Roller).

Mammals

*Lupus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulus pennant* (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); *Hystrix indica* (LN:Jure Dumsi; EN:Indian Crested Porcupine); *Millardia mel tada* (LN:Makhamali Muso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:Thulo Dhande Muso; EN:Greater Bandicott-rat); *Canis aureus* (LN:Shyal; EN:Golden Jackle).

Invasive alien species

*Ipomoea carnea* (LN:Besara m; EN:Shrubby Morning Weed).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

*Dudhawaphant*; 20m from lake; Main Trail:Tikunihya-Bhajani road; 20m from lake.

Land use

Forestland (5%); Grassland (5%); Farmland (70%); Settlement (15%); Other (5%).

Demography

Population:11,247; Male:5,643; Female:5,604; HHs:1,818; Ethnicity: Brahmin/Chhetri (23.09%); Janajati (46.90%); Dalit (12.12%); Other (17.89%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

Tharu.

Livestock at basin

>500.

Traditional production system

Fish farming.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.
4. Ecosystem Goods/Services

Provisional services  Fish farming by locals.
Cultural services  None.

5. Restoration/Management

Structural management  None.
Non-structural management  None.
Conservation plan  None.
Monitoring plan  None.

6. Tourism information

Novisitors; Good hotels in Bhajani Bazar; Motarable road to Bhajani; Transportation services to Bhajani Bazar; Needs promotional activities.

7. Lake condition

Degrading.
4.8.14 Faurahauwa Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Ratanpur VDC.; Ward-7; Ratanpur.
Boundary: Core Area: Forest in west and south; Ratanpur Gaun in North; Barren land in east.
Basin Area: Forest in all directions.

Management responsibility: Ratanpur Lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Seasonal.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr.
Area: Core Area: 1ha; Avg. Length: 70 m; Avg. Width: 50 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 2.5 m–1.5 m; Basin Area: 23.4 ha.
Water Volume: Peak Period: 248,3778 ltr; Dry period: 102,190 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.
Soil feature: Dark color; Clay loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: None.
Major plants in basin: Shorea robusta (LN: Sal; HT: Tr; LU: Ful); Synzgium cumini (LN: Jamun; HT: TR; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).

Fish: None.
Herpetofauna: Bufo melanostictus (LN: Khasre bhyaguto; EN: Black-spined...
Birds

- *Casmerodius albus* (EN: Great Egret); *Halcyon pileata* (LN:Fisto; EN:Yellow-cheeked Tit); *Vanellus indicus* (LN:Huttititau; EN:Red-watteled lapwing); *Falco tinnunculus* (LN:Baaj; EN:Common Kestrel); *Treron pompadora* (LN:Dhukur EN:Pompadour Green Pigeon); *Turoides striata* (LN:Bhyakur; EN:Jungle Babbler).

Mammals

- *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat); *Lutra lutra* (LN:Oont; EN:Common Otter); *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennanti* (LN:Lokharke; EN:squirrel).

Invasive alien species


Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

*Ratanpur*; 40 m from lake; Main Trail: Highway to Ratanpur road; 50 m from lake.

Land use

Forestland (84%); Agriculture (1%); Grassland (2); (10%); Barrenland (13%).

Demography

Population: 6,979; Male: 3,509; Female: 3,470; HHs: 1,187; Ethnicity: Brahmin/Chhetri (2.42%); Janajati (96.17%); Dalit (0.80%); Other (0.61%). Major Religion: Hindu (CBS 2012).

Jurisdiction/ownership

State.

Livestock at basin

>500.

Traditional production system

None.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Drinking water for cattle.

Cultural services

None.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

No visitors. No tourism potential.

7. Lake condition

Degraded.
4.8.15 Gaichkutiwa Lake

**1. General Feature**

- **Conservation status**: None.
- **Geographical coordination**: Lat:28.7137492°N; Lon:80.96543057°E; Alt:177 masl.
- **Geographical position**: Terai Range.
- **Administrative feature**: FWDR; Kailali district; Ghodaghodi Municipality; Ward-8; Dipnagar.
- **Boundary**: 
  - **Core Area**: Forest in all directions.
  - **Basin Area**: Forest in all directions.
- **Management responsibility**: Ghodaghodi Conservation Committee with the representation of DDC.
- **Wetlands type**: Fresh water/natural; Lacustrine; Permanent.

**2. Ecological Feature**

- **Climatic feature**: 
  - Avg. Max: Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
- **Area**: 
  - **Core Area**: 5.4 ha; Avg. Length:200 m; Avg. Width:80 m; Avg. Depth:4 m; Max–Min Surface Water Level:2–6 m; **Basin Area**: 9648.4 ha.
- **Water Volume**: NA.
- **Water quality**: 
  - Physicochemical parameter: Temp.:24°C, pH:5.9; Electric conductivity: N.A. Transparency: 0.5 m.
- **Soil feature**: Grey color; Sandy loam texture.
- **Shocks/vulnerability**: Water volume decreasing.
- **Major aquatic plants**: None.
- **Major plants in basin**: 
  - *Shorea robusta* (LN: sal; HT: Tr; LU: Ful);
  - *Syzygium cumini* (LN: jamun; HT: Tr; LU: Tm);
  - *Adenia cordifolia* (LN: Asna; HT: Tr; LU: Tm);
  - *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm);
  - *Dalbergia sissoo* (LN: Sisoo; HT: Hr; LU: Med).
- **Fish**: NA.
- **Herpetofauna**: *Bufo melanostictus* (LN: Khasre bhyaguto; EN: Black-spined toad);
**Hoplobatrachus crassus** (LN:Sirke Paha; EN:Jerdon’s bull frog); **Python morulus** (LN:Ajingar; EN:Python); **Ptyas mucosa** (LN:Dhaman; EN:Ratsnake).

**Birds**  
*Casmerodius albus* (EN:Great Egret); **Halcyon pileata** (LN:Fisto; EN:Yellow-cheeked Tit); **Vanellus indicus** (LN:hatttititi; EN:Red-watteled lapwing); **Falco tinnunculus** (LN:Baaj; EN:Common Kestrel).

**Mammals**  
*Felis bengalensis* (LN:Charibagh; EN:Leopard Cat); **Lutra lutra** (LN:Oont; EN:Common Otter); **Macaca mulatta** (LN:Bandar; EN:Rhesus Macaque); **Felis chaus** (LN:Ban Biralo; EN:Jungle Cat); **Funambulus pennanti** (LN:Lokharke; EN:squirrel).

**Invasive alien species**  
*Lantana camara* (LN:Maleria; EN:Tickberry); **Eupatorium** sp (LN:Banmara; EN:Thorughwort).

**Endemic plant/animal**  
None.

### 3. Socio-Economy at Basin

**Nearby settlement**  
Dipnagar; 50m from lake; Main Trail:Mahendra Highway-Ghodagholi–Sadepani Gaun-Gaun; 50 m from lake.

**Land use**  
Forestland (69%); Agriculture (22%); Wetlands (2%); Others (3%); Grassland (3%); Shrubland (1%).

**Demography**  
Population:616,697; Male:NA; Female:NA; HHs:504; Ethnicity: Brahmin / Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%). Major Religion: Hinduism. (CBS 2012).

**Jurisdiction/ownership**  
State.

**Wetlands dependent community**  
None.

**Livestock at basin**  
>200.

**Traditional production system**  
None

**Traditional water use practices**  
None.

**Cultural record**  
None.

**Genesis/origin of lake**  
None.

### 4. Ecosystem Goods/Services

**Provisional services**  
Fodder; Medicinal plants.

**Cultural services**  
None.

### 5. Restoration/Management

**Structural management**  
None.

**Non-structural management**  
None.

**Conservation plan**  
None.

**Monitoring plan**  
None.

### 6. Tourism information

Few visitors; Transportable road to Dip Gaun; Tourism potential high. Needs promotional activities.

### 7. Lake condition

Degrading.
4.8.16 Ghod Tal

1. General Feature

Conservation status None.
Geographical position Terai Zone.
Administrative feature FDR; Kailali district; Trishakti bhajani Municipality; Ward-9; Himatpur.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Ghodaghodi Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp: 30.56°C (Jun/July); Avg. Min: 17.52°C (Dec); Rainfall: 1850.67 mm/yr. (District climate and energy plan of kailali).
Area Core Area: 36 ha; Avg. Length: 200 m; Avg. Width: 130 m; Avg. Depth: 8.5 m; Max–Min Surface Water Level: 9–6.5 m; Basin Area: 382.5 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.: 10°C, pH: 6.7; Electric conductivity: 6.7. (Source: Mgmt plan of Ghodaghodi management team 2012); Transparency: 0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Azolla sps (LN: Panijhyau; HT: Ff; LU: None); Potamogeton nodosus (LN: Panikhar; HT: E m; LU: None); Ludwigia adscendes (LN: Jad elo; HT: E m; LU: None); Utricularia australia (LN: Simghas; HT: S m; LU: None).
Major plants in basin Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo
**Shorea robusta** (LN: Sal; HT: Tr; LU: Fur, fuel); **Synzigium cumini** (LN: Jamun; HT: Tr; LU: Tm, Fr); **Adena cordifolia** (LN: Haldo; HT: Tr; LU: Tm); **Emblica officinalis** (LN: Amala; HT: Tr, LU: Med); **Oroxylum indicum** (LN: Tatelo; HT: Tr; LU: Med); **Bombax ceiba** (LN: Simal; HT: Tr; LU: Med); **Butea monosperma** (LN: Palash; HT: Tr; LU: Tm, Rel); **Terminalia chebula** (LN: Harro; HT: Tr; LU: Med); **Terminalia bellirica** (LN: Barro; HT: Tr; LU: Med); **Terminalia elliptica** (LN: Saanj; HT: Tr; LU: Tm, Fuel). **Trewia nudiflora** (LN: Ghuthel; HT: Tr; LU: Fod).

**Fish**
- **Puntius sps** (LN: Sedari; LU: Meat)
- **Cetanoharyngodon idella** (LN: Carp; LU: Meat)
- **Hypophthalmichthys nobilis** (LN: Carp; LU: Meat)
- **Labeo rohita** (EN: Rohu; LU: Meat)

**Herpetofauna**
- **Euphlyctis cyanophlyctis** (LN: Tiktike Paha; EN: Skittering Frog)
- **Buttaphrynus melanostictus** (LN: Kalokhasre Bhyaguto; EN: Blackspined Toad)
- **Calotes versicolor** (LN: Cheparo; EN: Garden Lizard)
- **Varanus bengalensis** (LN: Gohoro; EN: Monitor Lizard)
- **Bungarus sps** (LN: Karet; EN: Common Krait)
- **Bufo melanostictus** (Schneider) (LN: Khasre bhyaguto; EN: Black-spined toad)
- **Python morulus** (LN: Ajingar; EN: Python)
- **Naja naja** (LN: Cobra; EN: Common Cobra)

**Birds**
- **Anas acuta** (LN: Haans; EN: Pintail Duck)
- **Ciconia ciconia** (LN: Bhudiphor; EN: White Stork)
- **Gallinula chloropus** (LN: Bagale Simkukhura; EN: Common Moorhen)
- **Eudynamys scolopacea** (LN: Koili; EN: Asian Koel)
- **Psittacula sps** (LN: Suga; EN: Parrot)
- **Eupupa epops** (LN: Fapre; EN: Hoopoe)
- **Francolinus francolinus** (LN: Kalottitra; EN: Black Francolin)
- **Halcyon smyrnensis** (LN: Matikore; EN: Kingfisher)
- **Leophronpercnopterus** (LN: Seto giddha; EN: Egyptian vulture)
- **Casmerodius albus** (LN: Bastu Bakulla; EN: Great Egret)
- **Halcyon pileata** (LN: Fisto; EN: Yellow-cheeked Tit)
- **Vanellus indicus** (LN: huttityau; EN: Red-watteled lapwing)

**Mammals**
- **Herpestes sps** (LN: Nyarimusa; EN: Mongoose)
- **Canis aurens** (LN: Syal; EN: Golden jackal)
- **Felis bengalensis** (LN: Charibagh; EN: Leopard Cat)
- **Lutra lutra** (LN: Oont; EN: Common Otter)
- **Macaca mulatta** (LN: Bandar; EN: Rhesus Macaque)
- **Felis chaus** (LN: Ban Biral; EN: Jungle Cat)

**Invasive alien species**
- **Aescynomene sps** (LN: Khekri; EN: Curly Indigo)
- **Lantana camara** (LN: Maleria; EN: Tickberry)
- **Eupatorium sps** (LN: Banmara; EN: Thoroughwort)
- **Parthenium hysterophorus** (LN: Gajar jhar; EN: Famine weed)
- **Ipomoea carnea** (LN: Besara m; EN: Pink morning glory)

**Endemic plant/animal**
- None.

### 3. Socio-Economy at Basin

**Nearby settlement**
- Sukkad Bazzari; 100 m from lake; Main Trail: Mahendra highway; close to the lake.

**Land use**
- Forestland (96.39%); Agriculture (3%); Grassland (0.23%); Shrubland (0.37%).

**Demography**
- Population: 11,985; Male: 5817; Female: 6168; HHs: 2043; Ethnicity: Brahmin/Chhetri (14.23%); Janajati (69.12%); Dalit (16.35%); Other (0.3%). Major Religion: Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership State.
Wetlands dependent community None.
Livestock at basin >23,500.
Traditional production system Traditional farming including cashcrop & medicinal plant.
Traditional water use practices Religious/ritual pond.
Cultural record Sidda Baba temple at basin.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fodder; Medicinal plants.
Cultural services Religious; Educational.

5. Restoration/Management
Structural management None.
Non-structural management Formal restriction.
Conservation plan None.
Monitoring plan None.

6. Tourism information >1500 visitors/yr; Few good hotels in lake site; Motorable road to sukkad Bazar; Good hotel and transportation services from sukkahad Bazar; Moderate tourism potential. Needs promotional activities.

7. Lake condition Degrading.
1. General Feature

Conservation status: Ramsar site
Geographical position: Terai Zone.
Administrative feature: FDR; Kailali district; Ghodaghodi Tal, Ghodaghodi nagarpalika; ward no. 5, Darakh VDC.
Boundary: Core Area: Forest in all directions.
Basin Area: Tropical Deciduous forest and small streams and ponds in all direction.
Management responsibility: Ghodaghodi Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 30.56°C (Jun/July); Avg. Min: 17.52°C (Dec); Rainfall: 1850.67 mm/yr. (District climate and energy plan of kailali).
Area: Core Area: 78.1 ha; Avg. Length: 200 m; Avg. Width: 130 m; Avg. Depth: 8.5 m; Max–Min Surface Water Level: 9–6.5 m; Basin Area: 9648.4 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 10°C, pH: 6.7; Electric conductivity: 6.7. (Source: Mgmt plan of Ghodaghodi management team 2012); Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Ludwigia adscendes (LN:Jadelo; HT:E m; LU:None); Utricularia australis (LN: Simghas; HT: Sm; LU: None); Nelumbo nucifera (LN: kamal; HT: Ff; LU: None); Mariscus sp. (LN: karaunte grass; HT: Ff;
Major plants in basin
Shorea robusta (LN:sal; HT:Tr; LU:Ful); Adina cordifolia (LN:Asna; HT:Tr; LU:TM); Acacia catechu (LN:Khayar; HT:Tr; LU:TM, Fr); Dalbergia sisoo (LN:Sisoo; HT:HR; LU:Med); Lagerstroemiaparviflora (LN:Bot Dharayo; HT:TR; LU:TM); Ougeinia dalbergioides (LN:Sandan, HT:Tr; LU:TM, Fod); Terminalia alata (LN:Sanjh; HT:Tr; LU:TM); Syzygium cumini (LN:Jamun; HT:Tr; LU:Fod, TM); 1 species of Orchid was recorded Aderides odorata. (Source:Mgmt. Plan of Ghodaghodi Site 2012).

Fish
Puntius sps (LN:Sedari; LU:Meat); Notopterus notopterus (LN:Chuche; LU:Meat); Oxogaster bacula (LN:Chela; LU:Meat); Cetanoharyngodon idella (LN:Carp; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat); Labeo rohita (EN:Rohu; LU:Meat); 29 sps of fishes are recorded.

Herpetofauna
Crocodyles palustris (LN:Muggar; EN:Mugar crocodile); Indotestudo elongate (LN:Kachhwa; LU:Yellowheaded Tortoise); Varanus bengalensis (LN:Gohoro; EN:Monitor Lizard); Euphyllys cyanophylys (LN:Tiktle Paha; EN:Skittering Frog); Butthaphyrus melanostictus (LN:Kalokhasre Bhyaguto; LU:Blackspined Toad); Bungarays sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider (LN:Khasre bhyaguto; LU:Blackspined toad); Python moruluss (LN:Ajingar; EN:Python); Naja naja (LN:Cobra; EN:Common Cobra); 9 sps of herpetofauna are recorded.

Birds
Ketupa zeylonensis (LN:Latokosero; EN:Brown fish Owl); Oxyerobisiostris (LN:EN:Grey Hornbill); Anas acuta (LN:Haans; EN:Pintail Duck); Ciconia ciconia (LN:Bhudiphor; EN:White Stork); Bubo budo (LN:Latokosero; EN:Eurasian Eagle Owl); Gallinula chloropus (LN:Bagale Simkukhura; EN:Common Moorhen); Aythya nyroca (LN:hans; EN:ferruginous duck); Anthropoceros coronatus (LN:kalo dhanes; EN:Oriental pied hornbill); Leptoptilos javanicus (LN:Garud; EN:Lesser adjutant); 96 sps of birds were recorded.

Mammals
Rucervus sps (LN:Barhasingha; EN:Swamp Deer); Panthera pardus (LN:Bagh; EN:Tiger); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Northen palm squirrel; EN:Northen); Felis viverrina (LN:Malaha biralo; EN:Fishing cat); Sus scrofa. (LN:Badel; EN:Eurasian wild Boar); Axis axis (LN:Chittal; EN:Spotted dear); 34 sps of mammals are recorded (Source:Nepal Biodiversity Resource Book).

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sp (LN:Banmara; EN:Thoroughwort), potherium hysterophorus (LN:Gajar jhar; EN:Famine weed); Ipomoea carnea (LN:Besara m; EN:Pink morning glory).

Endemic plant/animal
None.
3. Socio-Economy at Basin

Nearby settlement: Sukhad Bazaar; close to the lake; Main Trail: Mahendra highway-15 m from lake.

Land use: Forestland (69%); Agriculture (22%); Wetlands (2%); Others (3%); Grassland (3%); Shrubland (1%).

Demography: Population: 616,697; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%). Major Religion: Hinduism. (CBS 2012).

Jurisdiction/ownership: State.

Wetlands dependent community: None.

Livestock at basin: >23500.

Traditional production system: Traditional farming including cashcrop & medicinal plant.

Traditional water use practices: Religious/ritual pond.

Cultural record: Siddha baba temple at basin.

Genesis/origin of lake: None.

4. Ecosystem Goods/Services

Provisional services: Fodder; Medicinal plants.

Cultural services: Aesthetic; Religious; Educational.

5. Restoration/Management

Structural management: Dam; Support from Ministry of Environment; NLCDC and DDC.

Non-structural management: Formal restriction.

Conservation plan: Available (by the East Foundation and DFO).

Monitoring plan: None.

6. Tourism information

>35,000 visitors/yr; Few good hotels in lake site; Motorable road to sukkad Bazar; Good hotel and transportation services from sukkahad Bazar; Tourism potential high. Needs promotional activities.

7. Lake condition: Degrading.
4.8.18 Godchittiya Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Chaumala VDC.; Ward-1; Kurkuria.
Boundary: Core Area: Forest in east and south; Farmland and Kurkuria gaun in west and north.
Basin Area: Forest in all directions.
Management responsibility: Kurkuriya lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp:40.50°C (Jun/July); Avg. Min:17.70°C (Dec); Rainfall: 1577 mm/yr.
Area: Core Area: 0.9ha; Avg. Length:150 m; Avg. Width:80 m; Avg. Depth:3 m; Max–Min Surface Water Level:4 m–2 m; Basin Area: 48.1ha
Water Volume: Peak Period:1,362,528 ltr; Dry period:681,264 ltr; Inlet:None; Outlet:None.
Water quality: Physicochemical parameter: Temp.:24°C, pH:6; Transparency:0.3 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: None.
Major plants in basin: Shorea robusta (LN: sal; HT:Tr; LU:Ful); Synzgium cumini (LN: jamun; HT:TR; LU:Tm); Adena cordifolia (LN: Asna; HT:Tr; LU: Tm); Acacia catechu (LN: Khayar; HT:Tr; LU: Tm); Dalbergia sisoo (LN: Sisoo; HT:Hr; LU: Med).
Fish: None.
Herpetofauna: Bufo melanostictus (LN: Khasre bhyaguto; EN: Black-spined toad);
Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Python morulus (LN:Ajingar; EN:Python); Ptyas mucosa (LN:Dhaman; EN:Ratsnake).

**Birds**
Casmerodius albus (EN:Great Egret); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:Huttititau; EN:Red-watteled lapwing); Falco tinnunculus (LN:Baaj; EN:Common Kestrel).

**Mammals**
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Lokharke; EN:squirrel).

**Invasive alien species**
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sp (LN:Banmara; EN:Thorughwort).

**Endemic plant/animal**
None.

3. **Socio-Economy at Basin**

**Nearby settlement**
Kurkuriya Gaun; 100 m from lake; Main Trail: Chamala to Kurkuriya gaun road; 50 m from lake.

**Land use**
Forestland (96.39%); Agriculture (3%); Grassland (0.23%); Shrubland (0.37%).

**Demography**
Population: 27,586; Male: 12,729; Female: 14,857; HHs: 5,293; Ethnicity: Brahmin/Chhetri (50%); Janajati (30%); Dalit (18%); Other (2%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**
State.

**Wetlands dependent community**
None.

**Livestock at basin**
>2000.

**Traditional production system**
Rice field, Fishery.

**Traditional water use practices**
None.

**Cultural record**
None.

**Genesis/origin of lake**
None.

4. **Ecosystem Goods/Services**

**Provisional services**
Fodder; Medicinal plants.

**Cultural services**
None.

5. **Restoration/Management**

**Structural management**
None.

**Non-structural management**
None.

**Conservation plan**
None.

**Monitoring plan**
None.

6. **Tourism information**
No visitors; No tourism potential.

7. **Lake condition**
Degraded.
4.8.19 Gurdhawa Tal

**Wetland code:**
Toposheet no: 2787 - 16 B
Date of inventory: May 22, 2016

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### 1. General Feature

**Conservation status**
None.

**Geographical coordination**

**Geographical position**
Terai.

**Administrative feature**
FWDR; Kailali district; Bhajani Municipality; Ward no. 2; *Prithibipur*.

**Boundary**
Core Area: Grassland in the west, Forest in other directions.

Basin Area: Forest in all directions.

**Management responsibility**
Chamraiya Lake Management Community.

**Wetlands type**
Fresh water/natural; Lacustrine; Permanent.

### 2. Ecological Feature

**Climatic feature**
Avg. Max Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**
Core Area: 2.8ha; Avg. Length: 700 m; Avg. Width: 150 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 5 m–3 m; Basin Area: 50.4 ha.

**Water Volume**
Peak Period: 14,902,650 ltr; Dry period: 8,941,590 ltr; Inlet: None; Outlet: None.

**Water quality**
Physicochemical parameter: Temp: 25°C, pH: 6; Transparency: 0.5 m.

**Soil feature**
Dark color; Clay loam texture.

**Shocks/vulnerability**
Water volume decreasing.

**Major aquatic plants**
Core Area: *Azolla* sps (LN: Panijhyau; HT: Ff; LU: None); *Potamogeton nodosus* (LN: Panikhar; HT: E m; LU: None); *Ludwigia adscendens* (LN: Jadelo; HT: E m; LU: None); *Utricularia australis* (LN: Simghas; HT: S m; LU: None); *Oryza rufipogon* (LN: Jungalidhan; HT: E m; LU: None); *Phragmites sps* (LN: Narkat; HT; Sr; LU: Fod); *Ceratophyllum demersum* (LN: Patai; HT: S m; LU: None); *Hydrilla sps* (LN: Panijhyau; HT: Ff; LU: None); *Typha angustifoli* (LN: Pater; EN: Broadleaf cattletail); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: none).
Major plants in basin

- *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med)
- *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Tm)
- *Shorea robusta* (LN: Sal; HT: Tr; LU: Fur, fuel)
- *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Med)
- *Adena cordifolia* (LN: Haldo; HT: Tr; LU: Tm)
- *Emblica officinalis* (LN: Amala; HT: Tr, LU: Med)
- *Oroxylum indicum* (LN: Tatelo; HT: Tr; LU: Med, Fruit)
- *Adena cordifolia* (LN: Haldo; HT: Tr; LU: Tm)
- *Emblica officinalis* (LN: Amala; HT: Tr, LU: Med, Fruit)
- *Oroxylum indicum* (LN: Tatelo; HT: Tr; LU: Med)
- *Bombax ceiba* (LN: Simal; HT: Tr; LU: Med)
- *Butea monosperma* (LN: Palash; HT: Tr; LU: Tm, Rel)
- *Terminalia chebula* (LN: Harro; HT: Tr; LU: Med)
- *Terminalia bellirica* (LN: Barro; HT: Tr; LU: Med)
- *Terminalia elliptica* (LN: Saanj; HT: Tr; LU: Tm, Fuel)
- *Trewia nudiflora* (LN: Gadhul; HT: Tr; LU: Fod)

Fish

- *Puntius sps* (LN: Sedari; LU: Meat)
- *Cetanoharyngodon idella* (LN: Carp; LU: Meat)
- *Hypophthalmichthys nobilis* (LN: Carp; LU: Meat)
- *Labeo rohita* (LN: Rohu; LU: Meat)

Herpetofauna

- *Euphlyctis cyanophlyctis* (LN: Tiki Paha; EN: Skittling Frog)
- *Buttaphrynus melanostictus* (LN: Kalokhasre Bhagato; EN: Blackspined Toad)
- *Calotes versicolor* (LN: Cheparo; EN: Garden Lizard)
- *Varanus bengalensis* (LN: Gohoro; EN: Monitor Lizard)
- *Bungarus sps* (LN: Karet; EN: Common Krait)
- *Bufo melanostictus* (LN: Khasre Bhagato; EN: Black-spined toad)
- *Python morulus* (LN: Ajingar; EN: Python)
- *Naja naja* (LN: Cobra; EN: Common Cobra)
- *Crocodiles palustris* (LN: Muggar; EN: Mugger crocodile)
- *Indotestudo elongate* (LN: Chakhuwa; EN: Yellow/Headed Tortoise)

Birds

- *Eudynamys scolopaceae* (LN: Koili; EN: Asian Koel)
- *Psittacula sps* (LN: Suga; EN: Parrot)
- *Eupupa epops* (LN: Fapre; EN: Hoopoe)
- *Francolinus francolinus* (LN: Kalotitra; EN: Black Francolin)
- *Gallus gallus* (LN: Bankukura; EN: Red Jungle fowl)
- *Passer domesticus* (LN: Bhagora; EN: Sparrow)
- *Corvus splendens* (LN: Kaag; EN: House Crow)
- *Streptopelia chinensis* (LN: Dhukur; EN: Spotted Dove)
- *Dicrurus macrocercus* (LN: Chibe; EN: Drongo)
- *Ocyerco bistrostris* (LN: Dhanes; EN: Grey Hornbill)
- *Coracias bengalensis* (LN: Theuwa; EN: Indian Roller)
- *Halcyon smyrnensis* (LN: Matikore; EN: Kingfisher)
- *Leopthronphoropterus* (LN: Seeto giddha; EN: Egyptian vulture)
- *Casperodius albus* (EN: Great Egret)
- *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit)
- *Vanellus indicus* (LN: Huttityau; EN: Red-watteled lapwing)
- *Falco tinnunculus* (LN: Baaj; EN: Common Kestrel)
- *Treron pompadora* (LN: Dhukur; EN: Pompadour Green Pigeon)
- *Turdoides striata* (LN: Bhayakur; EN: Jungle Babbler)

Mammals

- *Herpestes sps* (LN: Nyarimusa; EN: Mongoose)
- *Canis aurens* (LN: Syl; EN: Golden Jackal)
- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat)
- *Lutra lutra* (LN: Oont; EN: Common Otter)
- *Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque)
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat)
- *Funambulus pennantii* (LN: Lokharke; EN: Squirrel)
- *Felis viverrina* (LN: Malaha biralo; EN: Fishing Cat)
- *Sus scrofa* (LN: Badel; EN: Eurasian Wild Boar)
- *Axis axis* (LN: Chittal; EN: Spotted Deer)
- *Muntiac muntjac* (LN: Ratuwa; EN: Barking Deer)
- *Sus scrofa* (LN: Badel; EN: Wild Boar)

Invasive alien species

- *Lantana camara* (LN: Maleria; EN: Tickberry)
- *Eupatorium sps* (LN: Banmara; EN: Thorughwort)
- *Parthenium hysterophorus* (LN: Gajar jhar; EN: Famine Weed)
- *Ipomoea carnea* (LN: Besara m;
3. Socio-Economy at Basin

**Nearby settlement**
*Prithivipur,* 1km from lake; Main Trail: Bhajani to Lalboji trail; 1km from lake.

**Land use**
Forestland (63%); Grassland (4%); Wetland (1); Others (32%).

**Demography**
Population: 11247; Male: 5643; Female: 5604; HHs: 1818; Ethnicity: Brahmin/Chhetri (23.09%); Janajati (50.3%); Dalit (16.24%); Other (10.37%). Major Religion: Hindu (CBS 2012).

**Jurisdiction/ownership**
State.

**Wetlands dependent community**
None.

**Livestock at basin**
>1000.

**Traditional production system**
None.

**Traditional water use practices**
None.

**Cultural record**
None.

**Genesis/origin of lake**
None.

4. Ecosystem Goods/Services

**Provisional services**
Fodder; Medicinal plants; Timber.

**Cultural services**
None.

5. Restoration/Management

**Structural management**
Dam by local community.

**Non-structural management**
None.

**Conservation plan**
None.

**Monitoring plan**
None.

6. Tourism information

Very few visitors; No tourism potential.

7. Lake condition

Degrading.
1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kailali district; Pawera VDC.; Ward no.3; Chhoti Paliya.
Boundary Core Area: Chhoti Paliya to Mohanpur road in north; Farmland in other directions
Basin Area: Sunhara Tal in west; Mohana nadi in south; Mohanpur gaon in east and Chhotki paliya to Ratanpur road in north.
Management responsibility Sunhara Lower Secondary School, Chhoti Paliya.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 40.5°C (Jun/July); Avg. Min Temp: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area Core Area: 4.1 ha; Avg. Length: 80 m; Avg. Width: 50 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; Basin Area: 60 ha.

Water Volume Peak Period: 10,000,000 ltr; Dry period: 750,000 ltr; Inlet: None; Outlet: None.

Water quality Physiochemical parameter: Temp.: 36.2°C, pH: 8.9; DO: 5.1mg/l; Transparency: 0.3m.

Soil feature Grey color; Sandy loam.
Shocks/vulnerability Water Volume decrease.

Major aquatic plants

Major basin plants Bombox ceiba (LN: Simal; HT: Tr; LU: Tm); Syzygium cumini (LN: Jamun; HT: TR; LU: Tm, Md); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Zizyphus rugosa (LN: Rukh Bayar; HT: Tr; LU: Med); Eucalyptus alba (LN: Masala; HT: Tr; LU: Tm); Trewia nudiflora (LN: Vellor; HT: Tr; LU: Fd); schleicheria
Fish
- *Cetanoharyngodon idella* (LN: Grass Carp; LU: Meat);
- *Hypophthalmichthys nobilis* (EN: Bighead Carp; LU: Meat);
- *Hypophthalmichthys molitrix* (LN: Silver Carp; LU: Meat);

Herpetofauna
- *Bufo melanostictus* (LN: Khashre Bhyaguto; EN: Black-spined Toad);

Birds
- *Phalacrocorax niger* (LN: Sano Jalewa; EN: Little Cormorent);

Mammals

Invasive alien species

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- Chhoti Paliya; 20m from lake; Main Trail: Dhargadi-Rampur road; 1km (Pabera Bazar to Chhoti Paliya road; 20m) from lake.

Land use
- Forestland (20%); Grassland (5%); Farmland (40%); Settlement (30%); Other (5%).

Demography
- Population: 5,835; Male: 2,813; Female: 3,022; HHs: 980; Ethnicity: Brahmin/Chhetri (8.45%); Janajati (90.45%); Dalit (0.55%); Other (0.55%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
- State.

Wetlands dependent community
- Tharu.

Livestock at basin
- >500.

Traditional production system
- Fish farming.
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<td>Structural management</td>
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<td>None.</td>
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<td>Conservation plan</td>
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<td>Monitoring plan</td>
<td>None.</td>
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<td><strong>6. Tourism information</strong></td>
<td>No visitors; Good hotels in Pabera Bazar; Motarable road to Chhoti Paliya; Transportation services to Pabera Bazar but private vehicles refer to the Lake from lake; Needs promotional activities.</td>
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<tr>
<td><strong>7. Lake condition</strong></td>
<td>Degradling.</td>
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4.8.21 Jakhor Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Dhangadi Sub-metropolitancity; Ward no. 7; Dhangadi.
Boundary: Core Area: School in east; forest in other directions.
Basin Area: Chamraiya forest in the west; Dadakharka-Maipokhari-Jasbire road in east; Bhitte-Talagau trail in south; Deurali-Talagau trail in north.
Management responsibility: Dudhiya Lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.
Area: Core Area: 13.4 ha; Avg. Length: 300 m; Avg. Width: 150 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 6 m–2 m; Basin Area: 314.1 ha.
Water Volume: Peak Period: 7,664,220 ltr; Dry period: 2,554,740 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: *Ludwigia adscendes* (LN: Jadelo; HT: E; LU: None); *Utricularia australis* (LN: Simghas; HT: S; LU: None); *Oryza rufipogon* (LN: Jungalidhan; HT: E; LU: None); *Sphagnum nepalensis* (LN: Jhyau; HT: E; LU: None).
Major plants in basin: *Shorea robusta* (LN: sal; HT: Tr; LU: Ful); *Synzigium cumini* (LN: jamun; HT: Tr; LU: Tm); *Adena cordifolia* (LN: Asna; HT: Tr; LU: Tm); *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Fr); *Dalbergia sissoo* (LN: Sisoo; HT: Hr; LU: Med).
Fish: *Puntius sps* (LN: Sedari; LU: Meat); *Cetanogynngodon idella* (LN: Carp;
Herpetofauna

*Ctenopharyngodon idella* (LN:Carp; LU:Meat)

*Herpetofauna*

- *Bungarus spp* (LN:Karet; EN:Common Krait)
- *Ptyas mucosa* (LN:Dhaman; EN:Ratsnake)
- *Bufo melanostictus Schneider* (LN:Khasre bhyaguto; EN:Black-spined toad)
- *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s bull frog)
- *Varanus bengalensis* (LN:Bhainse; EN:Monitor lizard)
- *Polypedtes maculates* (LN:Rukh Bhyaguto)

*Birds*

- *Streptopelia Chinensis* (LN:Dhukur; EN:Spotted Dove)
- *Dicrurus macrocercus* (LN:Chibe; EN:Drongo)
- *Ocyrrhynchus bicornis* (LN:Thruhwort)
- *Bufo melanostictus Schneider* (LN:Khasre bhyaguto; EN:Black-spined toad)
- *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s bull frog)
- *Varanus bengalensis* (LN:Bhainse; EN:Monitor lizard)
- *Polypedtes maculates* (LN:Rukh Bhyaguto)

*Mammals*

- *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat)
- *Lutra lutra* (LN:Oont; EN:Common Otter)
- *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque)
- *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat)
- *Funambulus pennant* (LN:Lokharke; EN:Squirrel)
- *Felis viverrina* (LN:Malaha biralo; EN:Fishing cat)
- *Sus scrofa* (LN:Badel; EN:Wild Boar)

*Invasive alien species*

- *Lantana camara* (LN:Maleria; EN:Tickberry)
- *Eupatorium sp* (LN:Banmara; EN:Thruhwort)
- *Parthenium hysterophorus* (LN:Gajar jhar; EN:Famine weed)
- *Ipomoea carnea* (LN:Besara m; EN:Pink morning glory)

*Endemic plant/animal*

None.

**3. Socio-Economy at Basin**

**Nearby settlement**

*Dudhiya*; 100 m from lake; Main Trail: Hasuliya to Dudhiya gaun road; 100 m from lake.

**Land use**

Forestland (95%); Grassland (4%); Agriculture (1).

**Demography**

Population: 9,304; Male: 4,474; Female: 4,830; HHs: 1,492; Ethnicity: Brahmin/Chettri (22.97%); Janajati (70%); Dalit (6.35%); Other (0.4%).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

Dhangadi bazar.

**Livestock at basin**

>500.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

**4. Ecosystem Goods/Services**

**Provisional services**

Fish supply.

**Cultural services**

None.

**5. Restoration/Management**

**Structural management**

Dam, by local community.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

**6. Tourism information**

Local visitors; Needs promotional activities and awareness.

**7. Lake condition**

Degrading.
4.8.22 Joginiya Lake

**Toposheet no:** 2880 07B  
**Date of inventory:** June 03, 2016

### 1. General Feature

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kailali district; Chaumala VDC.; Ward no. 9; Joginiya.

Boundary: Core Area: Forest in all directions.

Management responsibility: Puraina Management Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

### 2. Ecological Feature

Climatic feature: `Avg. Max: Temp:40.50°C (Jun/July); Avg. Min:17.70°C (Dec); Rainfall: 1577 mm/yr.`

Area: Core Area: 8.8ha; Avg. Length:300 m; Avg. Width:140 m; Avg. Depth:3.5 m; Max–Min Surface Water Level:4 m–3 m; Basin Area: 63.8 ha.

Water Volume: Peak Period:4,768,848 ltr; Dry period:3,576,636 ltr; Inlet:None; Outlet:None.

Water quality: Physicochemical parameter: Temp.:25°C, pH: 6; Transparency: 0.4 m.

Soil feature: Grey color; Sandy loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: Core Area: Some species of algae observed.

Major plants in basin: *Shorea robusta* (LN:Sal; HT:Tr; LU:Fur, fuel); *Dalbergia sisoo* (LN:Sisoo; HT:Tr; LU:Tm); *Emblica officinalis* (LN:Amala; HT:Tr, LU:Med, Fruit); *Oroxyllum indicum* (LN:Tatelo; HT:Tr; LU:Med); *Bombax ceiba* (LN:Simal; HT:Tr; LU:Med).

Fish: *Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Labeo rohita* (EN:Rohu; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat).
Herpetofauna

- *Bungarus sps* (LN:Karet; EN:Common Krait); *Bufo melanostictus Schneider* (LN:Khasre bhyaguto; EN:Black-spined toad); *Python morulus* (LN:Ajingar; EN:Python).

Birds

- *Eudynamys scolopacea* (LN:Koili; EN:Asian Koel); *Psittacula sps* (LN:Suga; EN:Parrot); *Eupupa epops* (LN:Fapre; EN:Hoopoe); *Francolinus francolinus* (LN:Kalotitra; EN:Black Francolin); (LN:Dhanes; EN:Grey Hornbill); *Coracias bengalensis* (LN:Theuwa; EN:Indian Roller); *Halcyon smyrnensis* (LN:Matikore; EN:Kingfisher).

Mammals

- *Herpestes sps* (LN:Nyarimusa; EN:Mongoose); *Canis aurens* (LN:Syal; EN:Golden jackal).

Invasive alien species

- *Ipomoea carnea* (LN:Besara m; EN:Pink morning glory); *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed); *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar); *Ageratum conyzoides* (LN:Nilo gande; EN:Cheek weed); *Casia tora* (LN:Kose; EN:Sickle pod).

Endemic plant/animal

None

### 3. Socio-Economy at Basin

**Nearby settlement**

Chaumala Gaun; 200 m from lake; Main Trail: Chaumala to Goderiya Gaun road; 50 m from lake.

**Land use**

Forestland (93%); Wetland (3%).

**Demography**

Population: 27,586; Male: 12,729; Female: 14,857; HHs: 5,293; Ethnicity: Brahmin/Chhetri (50%); Janajati (30%); Dalit (18%); Other (2%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

> 700.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/orIGIN of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

Fodder; Medicinal plants; Drinking water for cattle.

**Cultural services**

None.

### 5. Restoration/Management

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

### 6. Tourism information

No visitors; No hotels at lake site; No tourism potential.

**Lake condition**

Degrading.
4.8.23 Kamal Pokhari

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Hasuliya Municipality; Ward no. 1; Hasuliya.
Boundary: Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility: Hasuliya lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.
Area: Core Area: 21ha; Avg. Length: 500 m; Avg. Width: 200 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 3.5 m–2.5 m; Basin Area: 349.3 ha.
Water Volume: Peak Period: 9,935,100 ltr; Dry period: 510,948 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.: 24°C; pH: 6; Transparency: 0.2 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Azolla sps (LN: Panijhyau; HT: Ff; LU: None); Potamogeton nodosus (LN: Panikhar; HT: E m; LU: None); Typha angustifolia (LN: Pater; EN: Broadleaf cattletail); Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none).
Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Ful); Synzigium cumini (LN: jamun; HT: TR; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Fr); Dalbergia sissoo (LN: Sisoo; HT: Hr; LU: Med); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med).
Fish: Cetanoharyngodon idella (LN: Carp; LU: Meat); Hypophthalmichthys
**Herpetofauna**

- *Bufo melanostictus schneider* (LN: Khasre bhyaguto; EN: Black-spined toad)
- *Polypedtes maculates* (LN: Rukh Bhyaguto; EN: Python)
- *Python morulus* (LN: Ajingar; EN: Python)
- *Ptyas mucosa* (LN: Dhaman; EN: Ratsnake)

**Birds**

- *Casmerodius albus* (LN: Bakulla; EN: Great Egret)
- *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit)
- *Vanellus indicus* (LN: Huttityau; EN: Red-watteled lapwing)
- *Falco tinnunculus* (LN: Baaj; EN: Common Kestrel)
- *Treron pompadora* (LN: Dhukur; EN: Pompadour Green Pigeon)

**Mammals**

- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat)
- *Lutra lutra* (LN: Oont; EN: Common Otter)
- *Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque)
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat)
- *Funambulus pennanti* (LN: Northen palm squirrel; EN: Northen)
- *Felis viverrina* (LN: Malaha biralo; EN: Fishing cat)
- *Vulpes bengalensis* (LN: Fushre fauro; EN: Bengal Fox)
- *Semnopithecus hector* (LN: Dedu; EN: Terai grey langur)

**Invasive alien species**

- *Lantana camara* (LN: Maleria; EN: Tickberry)
- *Eupatorium sp* (LN: Banmara; EN: Thorughwort)
- *Parthenium hysterophorus* (LN: Gajar jhar; EN: famine weed)
- *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory)

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

- *Hasuliya Gaun*: 400 m from lake; Main Trail: Mahendra highway to Hasuliya road; 50 m from lake.

**Land use**

- Forestland (89.70%)
- Agriculture (6.05%)
- Barrenland (0.89%)
- Grassland (0.02%)
- Shrubland (0.02%)

**Demography**

- Population: 14,129
- Male: 6,872
- Female: 7,257
- HHs: 2,385
- Ethnicity: Brahmin/Chhetri (49.64%); Janajati (31.66%); Dalit (18.35%); Other (0.35%)
- Major Religion: Hindu (CBS 2012)

**Jurisdiction/ownership**

State

**Wetlands dependent community**

Hasuliya gaun.

**Livestock at basin**

>1000

**Traditional production system**

Fishery

**Traditional water use practices**

None

**Cultural record**

None

**Genesis/origin of lake**

None

### 4. Ecosystem Goods/Services

**Provisional services**

- Fodder
- Medicinal plants

**Cultural services**

None

### 5. Restoration/Management

**Structural management**

None

**Non-structural management**

None

**Conservation plan**

None

**Monitoring plan**

None

### 6. Tourism information

No visitors; No tourism potential.

### 7. Lake condition

Degrading
4.8.24 Kohilai Lake

1. General Feature

Conservation status: None.
Geographical position: Terai Range.
Administrative feature: FWDR; Kailali district; Hasuliya Municipality; Ward-8; Sitalpur.
Boundary: Core Area: Forest in all directions; village in south.
Basin Area: Forest in all directions.
Management responsibility: Ghadariya Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 60.4 ha; Avg. Length: 900 m; Avg. Width: 300 m; Avg. Depth: 5 m; Max–Min Surface Water Level: 2 m–6 m; Basin Area: 350.2 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 24°C, pH: 5.9; Electric conductivity: N.A. Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Nymphae sps (LN: Kamal; HT: Ft; LU: Orn); Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT: Sr; LU: Fod); Ceratophyllum demersem (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None).
Major plants in basin: Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo
(LN:Sisoo; HT:Tr; LU:Tm); *Shorea robusta* (LN:Sal; HT:Tr; LU:Fur, fuel);
*Syzygium cumini* (LN:Jamun; HT:Tr; LU:Tm, Fr); *Adena cordifolia* (LN:Haldo; HT:Tr; LU:Tm); *Emblica officinalis* (LN:Amala; HT:Tr, LU:Med, Fruit); *Oroxylum indicum* (LN:Tatelo; HT:Tr; LU:Med);
*Bombax ceiba* (LN:Simal; HT:Tr; LU:Med).

**Fish**
- *Puntius sps* (LN:Sedari; LU:Meat);
- *Cetanoharyngodon idella* (LN:Carp; LU:Meat);
- *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat);
- *Labeo rohita* (EN:Rohu; LU:Meat)

**Herpetofauna**
- *Euphlyctis cyanophlyctis* (LN:Tikte Paha; EN:Skittring Frog);
- *Bittaphyrus melanostictus* (LN:Kalokhasre Bhyaguto; EN:Blackspined Toad);
- *Calotes versicolor* (LN:Cheparo; EN:Garden lizard);
- *Varanus bengalensis* (LN:Gohoro; EN:Monitor Lizard);
- *Bungarus sps* (LN:Karet; EN:Common Krait);
- *Naja naja* (LN:Cobra; EN:Common Cobra).

**Birds**
- *Ardenola greyii* (LN:Sim Bakulla; EN:Pond Heron);
- *Ardea alba* (LN:Bakulla; EN:Great Egret);
- *Eudynamys scolopacea* (LN:Koili; EN:Asian Koel);
- *Psittacula sps* (LN:Suga; EN:Parrot);
- *Eupupa epops* (LN:Fapre; EN:Hoopoe);
- *Francolinus francolinus* (LN:Kalogitra; EN:Black Francolin);

**Mammals**
- *Herpestes sps* (LN:Nyarimusa; EN:Mongoose);
- *Canis aurens* (LN:Syal; EN:Golden jackal);
- *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat);
- *Lutra lutra* (LN:Oont; EN:Common Otter);
- *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque);
- *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat)

**Invasive alien species**
- *Ipomoea carnea* (LN:Besara m; EN:Pink morning glory);
- *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed);
- *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar);
- *Ageratum conyoides* (LN:Nilo gande; EN:Cheek weed);
- *Casia tora* (LN:Kose; EN:Sickle pod).

**Endemic plant/animal**
None.

### 3. Socio-Economy at Basin

**Nearby settlement**
- *Sitalpur Gaun*; 50m from lake; Main Trail:Mahendra Highway-Masuriya–Gadhariya Gaun; 50 m from lake.

**Land use**
- Forestland (94%); Agriculture (4%); Grassland (1%); Wetlands (1%).

**Demography**
- Population: 14,129; Male:6,872; Female:7,257; HHs:2,385; Ethnicity: Brahmin/Chhetri (49.64%); Janajati (31.66%); Dalit (18.35%); Other (0.35%). Major Religion: Hindu (CBS 2012).

**Jurisdiction/ownership**
- State.

**Wetlands dependent community**
- *Sitalpur Gaun*.

**Livestock at basin**
- >2500.

**Traditional production system**
- None.

**Traditional water use practices**
- None.

**Cultural record**
- None.
Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
Aesthetic; Religious; Educational.

5. Restoration/Management

Structural management
Dam; Support from Ministry of Environment; NLCDC and DDC.

Non-structural management
Formal restriction.

Conservation plan
Available (by the East Foundation and DFO).

Monitoring plan
None.

6. Tourist information

>1,000 visitors/yr; Transportable road to Sitalpur; Local teashops at lake site. Moderate tourism potential; Needs promotional activities.

7. Lake condition

Degrading.
1. General Feature

Conservation status: None.

Geographical coordination: 
\( \text{Lat:} 28.55262559^\circ \text{N;} \ \text{Lon:} 80.95183765^\circ \text{E;} \ \text{Alt:} 157 \text{ masl.} \)

Geographical position: Tarai.

Administrative feature: FWDR; Khailali district; Khailal VDC.; Ward no. 10; Khailad.

Boundary: Core Area: Kirtipur Gaun in the west, Forest in the east and north; Bijuliya Gaun in the South.
Basin Area: Forests in all direction.

Management responsibility: Chamraiya Lake Management Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: 
\( \text{Avg. Max Temp:} 40.50^\circ \text{C (Jun/July); Avg. Min Temp:} 17.70^\circ \text{C (Dec); Rainfall:} 1577 \text{ mm/yr.} \)

Area: 
Core Area: 20.3 ha; Avg. Length: 800 m; Avg. Width: 300 m; Avg. Depth: 2.5 m; Max–Min Surface Water Level: 3 m–2 m; Basin Area: 287.1 ha.

Water Volume: Peak Period: 20,437,920 ltr; Dry period: 13,625,280 ltr; Inlet: None; Outlet: None.

Water quality: Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.

Soil feature: Dark color; Clay loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: 
Core Area: Ludwigia adscendes (LN: Jadelo; HT: E m; LU: None); Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).

Major plants in basin: 
Shorea robusta (LN: sal; HT: Tr; LU: Ful); Syngonium cumini (LN: jamun; HT: TR; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Fr); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).
Fish  
*Puntius* sps (LN: Sedari; LU: Meat); *Cetanoharyngodon idella* (LN: Carp; LU: Meat); *Cetanoharyngodon idella* (LN: Carp; LU: Meat)

Herpetofauna  
*Bungarus* sps (LN: Karet; EN: Common Krait); *Ptyasmucosa* (LN: Dhaman; EN: Ratsnake); *Bufo melanostictus Schneider* (LN: Khasre bhyaguto; EN: Black-spined toad); *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jerdon’s bull frog); *Amolops marmoratus* (LN: Tite Paha); *Varanus bengalensis* (LN: Bhaanse; EN: Monitor Lizard); *Polypedtes maculates* (LN: Rukh Bhyaguto; EN: Tree Frog).

Birds  
*Streptopelia Chinensis* (LN: Dhukur; EN: Spotted Dove); *Dicrurus macrocercus* (LN: Chibe; EN: Drongo); *Ocyberos birostris* (LN: Dhanes; EN: Grey Hornbill); *Coracias bengalensis* (LN: Theuwa; EN: Indian Roller); *Halcyon snyrmensis* (LN: Matikore; EN: Kingfisher); *Casmerodius albus* (EN: Great Egret); *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit); *Vanellus indicus* (LN: Huttititau; EN: Red-watteled lapwing); *Falco tinnunculus* (LN: Baaj; EN: Common Kestrel).

Mammals  
*Felis bengalensis* (LN: Charibagh; EN: Leopard Cat); *Lutra lutra* (LN: Oont; EN: Common Otter); *Macaca mulatta* (LN: Bandar; EN: Rhesus Macaque); *Felix chaus* (LN: Ban Biralo; EN: Jungle Cat); *Funambulus pennant* (LN: Lokharke; EN: Squirrel); *Felis viverrina* (LN: Malaha biralo; EN: Fishing cat); *Sus scrofa* (LN: Bhaals; EN: Wild Boar).

Invasive alien species  
*Lantana camara* (LN: Maleria; EN: Tickberry); *Eupatorium sp* (LN: Banmara; EN: Thorughwort); *Parthenium hysterophorus* (LN: Gajar jhar; EN: Famine weed); *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory).

Endemic plant/animal  
None.

3. Socio-Economy at Basin  
Nearby settlement  
*Dammadi Tol*; close to the lake; Main Trail: Mahendra highway-Masuriya-Dammadi Tol; close to the lake.

Land use  
Forestland (99%); Agriculture (0.5%); Grassland (0.5%).

Demography  
Population: 11,985; Male: 5,817; Female: 6,168; HHs: 2043; Ethnicity: Brahmin/Chhetri (14%); Janajati (67%); Dalit (16%); Other (3%).


Jurisdiction/ownership  
State.

Wetlands dependent community  
None.

Livestock at basin  
>500.

Traditional production system  
Fish farming, irrigation.

Traditional water use practices  
None.

Cultural record  
None.

Genesis/origin of lake  
None.

4. Ecosystem Goods/Services  
Provisional services  
Fodder; Medicinal plants.

Cultural services  
None.

5. Restoration/Management  
Structural management  
Dam, by local community.

Non-structural management  
None.

Conservation plan  
None.

Monitoring plan  
None.

6. Tourism information  
No visitors; No hotels at the lake site; No tourism potential.

7. Lake condition  
Degrading.
4.8.26 Lami Tal

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Attariya Municipality; Ward no. 9; Malakheti.
Boundary: Core Area: Attariya buspark in west; Forest in others directions.
Basin Area: Forest in all directions.
Management responsibility: Attariya lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp:40.50°C (Jun/July); Avg. Min:17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area:
Core Area: 7.3ha; Avg. Length:200 m; Avg. Width:100 m; Avg. Depth:4 m;
Max–Min Surface Water Level:5 m–3 m; Basin Area: 209.5 ha.

Water Volume:
Peak Period: 2,838,600 ltr; Dry period: 4725,790 ltr; Inlet: None; Outlet: None.

Water quality:
Physicochemical parameter: Temp.: 24°C, pH:6; Transparency: 0.4 m.

Soil feature:
Grey color; Sandy loam texture.

Shocks/vulnerability:
Water volume decreasing.

Major aquatic plants:
Core Area: Typha angustifolia (LN: Pater; EN: Broadleaf cattail);
Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT: FF; LU: Orn);
Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).

Major aquatic plants:
Core Area: Utricularia australis (LN: Simghas; HT: S m; LU: None);
Oryza rufipogon (LN: Jugalidhan; HT: E m; LU: None);
Phragmites sps (LN: Narkat; HT: S; LU: Fod);
Ceratophyllum demersum (LN: Patai; HT: S m; LU: None);
Hydrilla sps (LN: Pani; HT: FF; LU: None).

Major plants in basin:
Dalbergia sissoo (LN: Sisoo; HT: Tr; LU: Tm);
Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel);
Syngizium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr);
Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm);
Emblica officinalis (LN: Amala; HT: Tr,
LU:Med, Fruit); Oroxyllum indicum (LN:Tatelo; HT:Tr; LU:Med); Bombax ceiba(LN:Simal; HT:Tr; LU:Med);

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (EN:Rohu; LU:Meat) Hypophthalmichthys nobilis (LN:Carp; LU:Meat).

Herpetofauna
Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider(LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python).

Birds
Passer domesticus (LN:Bhagero; EN:Sparrow); Corvus splendens (LN:Kaag; EN:House Crow); Streptopelia Chinensis (LN:Dhukur; EN:Spotted Dove); Dicrurus macrocercus (LN:Chibe; EN: Drongo); Ocyceros birostris (LN:Dhanes; EN:Grey Hornbill); Vanellus indicus (LN:huttititaau; EN:Red-watteled lapwing); Falco tinnunculus(LN:Baaj; EN:Common Kestrel); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Herpestes sps (LN:Nyarimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennant(LN:Lokharke; EN:Squirrel).

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sps (LN:Banmara; EN:Thorughwort); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Attариya Buspark; 100 m from lake; Main Trail:Attarya to Lami Tal trail; very close to the lake.

Land use
Forestland (73%); Agriculture (26%); Others (1%).

Demography
Population:23,814; Male:11,300; Female:12,514; HHs:4,803; Ethnicity: Brahmin/Chhetri (64.74%); Janajati (15%); Dalit (21.68%); Other (0.58%). Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>1000.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services
Provisional services
Fodder; Medicinal plants, Timber.

Cultural services
None.

5. Restoration/Management
Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
Only local visitors; Good road and hotel facilities at lake site; Moderate tourism potential; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status None.


Geographical position Tarai.

Administrative feature FWDR; Kailali district; Trishakti Bhajani Municipality; Ward-10 Bijuliya.

Boundary Core Area: Kirtipur Gaun in the west, Forest in the east and north; Bijuliya Gaun in the South.

Basin Area: Forest in all directions.

Management responsibility Chamraiya Lake Management Community.

Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.

Area Core Area: 46.1 ha; Avg. Length: 800 m; Avg. Width: 300 m; Avg. Depth: 2.5 m; Max–Min Surface Water Level: 3 m–2 m; Basin Area: 583.2 ha.

Water Volume Peak Period: 20,437,920 ltr; Dry period: 13,625,280 ltr; Inlet: None; Outlet: None.

Water quality Physicochemical parameter: Temp: 25°C, pH: 6; Transparency: 0.3 m.

Soil feature Dark color; Clay loam texture.

Shocks/vulnerability Water volume decreasing.

Major aquatic plants Core Area: Ludwigia adscendes (LN: Jadelo; HT: E m; LU: None); Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None, Ceratophyllum
demersem (LN:Patai; HT:S m; LU:None); Hydrilla sps (LN:Panijhyau; HT:FF; LU:None).

Major plants in basin

Acacia catechu (LN:Khayar; HT:Tr; LU:Tm, Med); Dalbergia sissoo (LN:Sisoo; HT:Tr; LU:Tm); Shorea robusta (LN:Sal; HT:Tr; LU:Fur; fuel); Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia (LN:Haldo; HT:Tr; LU:Tm); Emblica officinalis (LN:Amala; HT:Tr, LU:Med, Fruit); Bombax ceiba (LN:Simal; HT:Tr; LU:Med); Butea monosperma (LN:Palash; HT:Tr; LU:Tm, Rel); Terminalia chebula (LN:Harro; LU:Med); Terminalia bellirica (LN:Barro; HT:Tr; LU:Med); Terminalia elliptica (LN:Saanj; HT:Tr; LU:Tm, Fuel)

Fish

Puntius sps (LN:Sedari; LU:Meat); Cetanoharyngodon idella (LN:Carp; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat)

Herpetofauna

Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider(LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python); Indotestudo elongata (LN:Kachhuwa; EN:Yellow/white Tortoise).

Birds

Coracias bengalensis (LN:Theuwa; EN:Indian Roller); Halcyon smyrnensis (LN:Matikore; EN:Kingfisher); Leophron percnopterus (LN:Seto giddha; EN:Egyptian vulture); Casmerodius albus (LN: Bastu Bakulla; EN:Great Egret); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:huttitita; EN:Red-watteled lapwing); Falco tinnunculus(LN:Baaj; EN:Common Kestrel); Gallus gallus (LN:Bankukhura; EN:Red Jungle fowl).

Mammals

Herpestes sps (LN:Nyarimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biral; EN:Jungle Cat); Sus scrofa. (LN:Badel; EN:Eurasian wild Boar); Axisaxis (LN:Chittal; EN:spotted deer); Muntiac muntjac (LN:Ratuwa; EN:Barking deer); Sus scrofa (LN:Badel; EN:Wild Boar).

Invasive alien species

Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sps (LN:Agaritana adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar); Ageratum conyzoides (LN:Nilo gande; EN:Cheek weed); Casia tora (LN:Kose; EN:Sickle pod).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Bijuliya; 100 m from lake; Main Trail:Mahendra high to Chamala road; 100 m from lake.

Land use

Forestland (99%); Grassland (1%).

Demography

Population:14917; Male:7507; Female:7410; HHs:20507; Ethnicity:Brahmin/Chhetri (19.44%); Janajati (68.05%); Dalit (12.24); Other (0.27%); Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>500.
Traditional production system  Fish farming, irrigation.
Traditional water use practices  None.
Cultural record  None.
Genesis/origin of lake  None.

4. Ecosystem Goods/Services
Provisional services  Fodder; Medicinal plants; Picnic spot.
Cultural services  None.

5. Restoration/Management
Structural management  Dam, by local community.
Non-structural management  None.
Conservation plan  None.
Monitoring plan  None.

6. Tourism information  >2000 visitors; local teashops in Bijuliya; Moderate Tourism Potential; Needs more infrastructural and promotional activities

7. Lake condition  Degrading.
4.8.28 Lukli Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward-9; Sayapatri.
Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions.
Management responsibility: Sayapatri Lake Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp:40.50°C (Jun/July); Avg. Min:17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area:6.5 ha; Avg. Length:250 m; Avg. Width:130 m; Avg. Depth: 4.5 m; Max–Min Surface Water Level:5 m–4 m; Basin Area:623.6 ha.
Water Volume: Peak Period: 4,612,725 ltr; Dry period: 3,690,180 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.4 m.
Soil feature: Dark color; Clay loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Utricularia australis (LN:Simghas; HT:S m; LU: None); Oryza rufipogon (LN:Jungalidhan; HT:E m; LU:None); Phragmites sps (LN:Narkat; HT: Sr; LU:Fod); Ceratophyllum demersum (LN:Patai; HT:S m; LU:None); Hydrilla sps (LN:Panijhyau; HT:Fr; LU:None).
Major plants in basin: Dalbergia sissoo (LN:Sisoo; HT:Tr; LU:Tm); Shorea robusta (LN:Sal; HT:Tr; LU:Fur, fuel); Syzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia (LN:Haloo; HT:Tr; LU:Tm); Emblica officinalis (LN:Amala; HT:Tr, LU:Med, Fruit); Oroxylum indicum (LN:Tatelo);
Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat).

Herpetofauna
Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python).

Birds
Francolinus francolinus (LN:Kalottita; EN:Black Francolin); Gallus gallus (LN:Bankukhura; EN:Red Jungle fowl); Passer domesticus (LN:Phagero; EN:Sparrow); Corvus splendens (LN:Kaag; EN:House Crow); Streptopelia chinensis (LN:Kukur; EN:Spotted Dove); Dicrurus macrocercus (LN:Chibe; EN:Drongo); Ocyceros bicornis (LN:Khabar; EN:Grey Hornbill); Vanellus indicus (LN:Rene; EN:Red-watteled lapwing); Falco tinnunculus (LN:Baaj; EN:Common Kestrel); Turdoides striata (LN:Khadak; EN:Jungle Babbler).

Mammals
Herpestes sps (LN:Nyirimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennant (LN:Lokharke; EN:Squirrel).

Invasive alien species
Lantana camara (LN:Maleri; EN:Tickberry); Eupatorium sps (LN:Banmara; EN:Thorughwort); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Sayapatri Gaun; 100m from lake; Main Trail: Dongpur to Sayapatri trail; 200m from lake.

Land use
Forestland (73%); Agriculture (26%); Others (1%).

Demography
Population: 14917; Male: 7507; Female: 7410; HHs: 20507; Ethnicity: Brahmin/Chhetri (19.44%); Janajati (68.05%); Dalit (12.24); Other (0.27%). Major Religion: Hindu (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Dongpur community

Livestock at basin
>1000.

Traditional production system
Rice field.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services
Provisional services
Fodder; Medicinal plants; Timber.

Cultural services
None.

5. Restoration/Management
Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
No visitors.

7. Lake condition
Degrading.
4.8.29 Mahadeva Tal

**Wetland code:**
Toposheet no: 2880 07B
Date of inventory: June 03, 2016

1. General Feature

- **Conservation status:** None.
- **Geographical coordination:** Lat: 28.74393647°N; Lon: 80.7096003°E; Alt: 168 masl.
- **Geographical position:** Tarai.
- **Administrative feature:** FWDR; Kailali district; Dhangaadi Municipality; Ward-16; Rampur.
- **Boundary:** Core Area: Forest in West and north directions; Rampur Gaun in East; School in south. Basin Area: Forest in all directions.
- **Management responsibility:** Bheda Baba Lake Management Community.
- **Wetlands type:** Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

- **Climatic feature:** Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.
- **Area:** Core Area: 21.3 ha; Avg. Length: 300 m; Avg. Width: 190 m; Avg. Depth: 3.5 m; Max–Min Surface Water Level: 4 m–3 m; Basin Area: 193.4 ha.
- **Water Volume:** Peak Period: 6,472,008 ltr; Dry period: 4,854,006 ltr; Inlet: None; Outlet: None.
- **Water quality:** Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.
- **Soil feature:** Grey color; Sandy loam texture.
- **Shocks/vulnerability:** Water volume decreasing.
- **Major aquatic plants:** Core Area: *Nelumbo nucifera* (LN: Kamal; HT: Ff; LU: Orn); *Azolla sps* (LN: Panijhyau; HT: Ff; LU: None); *Potamogeton nodosus* (LN: Panikhar; HT: E m; LU: None); *Typha angustifolia* (LN: Pater; EN: Broadleaf cattail); *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).
- **Major plants in basin:** *Shorea robusta* (LN: sal; HT: Tr; LU: Ful); *Synzigium cumini* (LN: jaman; HT: Tr; LU: Tm); *Adena cordifolia* (LN: Asna; HT: Tr; LU: Tm); *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Fr); *Dalbergia sisoo* (LN: Sisoo;
**Fish**
- Cetanoharyngodon idella (LN:Carp; LU:Meat)
- Hypophthalmichthys nobilis (LN:Carp; LU:Meat)

**Herpetofauna**
- Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad)
- Polypedtes maculatus (LN:Rukh Bhyaguto; EN:Python)
- Ptyas mucosa (LN:Dhaman; EN:Ratsnake)

**Birds**
- Casmerodius albus (LN:Bakulla; EN:Great Egret)
- Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit)
- Vanellus indicus (LN:huittyayu; EN:Red-watteled lapwing)
- Falco tinnunculus (LN:Baaj; EN:Common Kestrel)
- Treron pompadora (LN:Dhukur; EN:Pompadour Green Pigeon)

**Mammals**
- Felis bengalensis (LN:Charibagh; EN:Leopard Cat)
- Lutra lutra (LN:Oont; EN:Common Otter)
- Macaca mulatta (LN:Bandar; EN:Rhesus Macaque)
- Felis chaus (LN:Ban Biralo; EN:Jungle Cat)
- Funambulus pennanti (LN:Lokharke; EN:Northen palm squirrel)
- Felis viverrina (LN:Malaha biralo; EN:Fishing cat)
- Vulpes bengalensis (LN:Fushre fauro; EN:Bengal Fox)
- Semnopithecus hector (LN:Dedu; EN:Terai grey langur)

**Invasive alien species**
- Lantana camara (LN:Maleria; EN:Tickberry; Eupatorium sp (LN:Banmara; EN:Thorughwort; Parthenium hysterophorus (LN:Gajar jhar; EN:famine weed); Ipomoea carnea (LN:Besara m; EN:Pink morning glory).

**Endemic plant/animal**
None.

3. Socio-Economy at Basin

**Nearby settlement**
Rampur; 50 m from lake; Main Trail: Chaumal bazar to Rampur road; 50 m from lake.

**Land use**
Forestland (88%); Shrubland (1%); Grassland (6%); Agriculture (4%); Wetlands (1%)

**Demography**
Population: 10,1970; Male: 51,439; Female: 50,531; HHs: 21,030; Ethnicity: Brahmin/Chhetri (50%); Janajati (25%); Dalit (10%); Other (15%). Major Religion: Hindu (CBS 2012).

**Jurisdiction/ownership**
State.

**Wetlands dependent community**
None.

**Livestock at basin**
>1000.

**Traditional production system**
None.

**Traditional water use practices**
None.

**Cultural record**
Bhedbaba Temple

**Genesis/origin of lake**
None.

4. Ecosystem Goods/Services

**Provisional services**
Fodder; Medicinal plants.

**Cultural services**
None.

5. Restoration/Management

**Structural management**
None.

**Non-structural management**
None.

**Conservation plan**
None.

**Monitoring plan**
None.

6. Tourism information

**Only local visitors; Few teashops in Rampur village; No tourism potential.**

7. Lake condition
Degrading.
4.8.30 Mohana Oxbow Tal

Wetland code: Toposheet no:2880 12B
Date of inventory:July 8, 2016

1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kailalidistrict; Trishakti-Bhajani Municipality; Ward no.3; Dudhawaphant.
Boundary Core Area: Paddy field in east and north; India in south and west.
Basin Area: Dudhawalake in east, Kalapatal trail in north; India in west and south.
Management responsibility Trishakti-Bhajani Municipality.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 40.5°C (Jun/Jul); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 30 ha; Avg. Length: 900 m; Avg. Width: 50 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3-1 m; Basin Area: 150ha.
Water Volume Peak Period: 189,000,000ltr; Dry period: 37,800,000ltr; Inlet: None; Outlet: None.
Water quality Physiochemical parameter: Temp.: 36.5°C, pH: 8.4; DO: 4.5mg/l; Transparency: 0.5m.
Soil feature Grey color; Sandy loam.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: None.
Major plants in basin Shorearobusta (LN:sal; HT:Tr; LU:Tml); Syzygiumcumini (LN:jamun; HT:TR; LU:Sm, Md); Phramitisvallatoria (LN:Narkat; HT:Grass, LU:Fd); Bomboxceiba (LN:Simal; HT:Tr; LU:Tm); Trewianudiflora (LN:Vellor; HT:Tr; LU:Fd).
Fish Clariasbatrachus (LN:Mangur; LU:Meat); Labeorohita (LN:Rohu; LU:Meat), Cirrhinusmrigala (LN:Naini; LU:Meat), Catlocatla (LN:Vyakur; LU:Meat); Puntiossarona (LN:Kande; LU:Meat); Puntiostricto (LN:Bhite;
Herpetofauna
- *Euphlyctiscyanophlyctis* (LN:Tik-tike Paha; EN:Skittring Frog)
- *Hoplobatrachuscrasrasus* (LN:Sirke Paha; EN:Jerdon’s Bullfrog)
- *Xenochrophispiscator* (LN:PaniSarpa; EN:Chequered Keelback Watersnake)
- *Varanusflavescens* (LN:Sun Gohoro; EN:Golden Monitor Lizard)
- *Indotestudelologata* (LN:Kachhuwa; EN:Yellow-headed Tortoise)
- *Najaanaja* (LN:GomanSarpa; EN:Spectacled Cobra)
- *Najakaouthia* (LN:Goman; EN:Monocled Cobra)
- *Bungarusaeruleus* (LN:KaretSarpa; EN:Common Krait)

Birds
- *Cerylerudis* (LN: Chhirebire Matikore; EN: Pied Kingfisher)
- *Phalacrocoraxniger* (LN:Sano Jalewa; EN:Little Cormorent)
- *Bulbulcuis ibis* (LN: BastuBakulla; EN: Cattle Egret)
- *Halcyon capensis* (LN: ThuloMatikore; EN:Strok-billed Kingfisher)
- *Halcyon smyrnensis* (LN:SetokantheMatikore; EN:White-throated Kingfisher)
- *Ichthyophagaichthyaetus* (LN; Machhakul; EN:Grey-headed Fisheagle)
- *Coraciasbeggalis* (LN:Thewu; EN:Indian Roller)

Mammals
- *Funambulus pennant* (LN:PanchDarkeLokharke; EN:Northern Palm Squirrel)
- *Hystrixindica* (LN:Jure Dumsi; EN:Indian Crested Porcopine)
- *Millardiameltada* (LN:MakhamaliMuso; EN:Common Soft-furred Rat)
- *Bandicotaindica* (LN:ThuloDhandeMuso; EN:Greater Bandicot-rat)
- *Canishaureus* (LN:Shyal; EN:Golden Jackie)
- *Sus scrofa* (LN:Bandel; EN:Urasian Wild Boar)
- *Boselaphoustragocamelus* (LN:Nil Gai; EN:Blue Bull)

Invasive alien species: *Ipomoeacarnia* (LN:Besara m; EN:Shrubby Morning Glory)

Endemic plant/animal: None.

3. Socio-Economy at Basin
Nearby settlement: *Dudhawaphant*; 1000m from lake; Main Trail:Tikuniya-Bhajaniraod; 100m from lake.

Land use: Forestland (10%); Grassland (5%); Farmland (60%); Settlement (10%); Other (15%).

Demography: Population:11,247; Male:5,643; Female:5,604; HHs:1,818; Ethnicity:Brahmin/Chhetri (23.09%); Janajati (46.90%); Dalit (12.12%); Other (17.89%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership: State.

Wetlands dependent community: None.

Livestock at basin: >1000.

Traditional production system: None.

Traditional water use practices: None.

Cultural record: None.

Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: None.

Cultural services: None.

5. Restoration/Management
Structural management: None.

Non-structural management: None.

Conservation plan: None.

Monitoring plan: None.

6. Tourism information
No visitors;Good hotels in BhajaniBazar; Motarable road to Bhajani; Transportation services to Bhajani Bazar; Needs promotional activities.

7. Lake condition: Degrading.
### 4.8.31 Nami Tal

**Wetland code:**
*Toposheet no:* 2880 07A
*Date of inventory:* July 03, 2016

#### 1. General Feature

- **Conservation status:** None.
- **Geographical coordination:** 28.72905°N; 80.62032°E; Alt: 174 masl.
- **Geographical position:** Tarai.
- **Administrative feature:** FWDR; Kailali district; Dhangadi Sub-metropolitan; Ward no.6; Jaligaon.
- **Boundary:** Core Area: Trail in east and Forest in other directions.
  Basin Area: Campus mod to Bijuliya road in west, Nathuniya lake in north; Jaligaon trail in south and Kapani nala in east.
- **Management responsibility:** Janajyoti Machha Palan Samuha.
- **Wetlands type:** Fresh water/natural; Lacustrine; Permanent.

#### 2. Ecological Feature

- **Climatic feature:** Avg. Max Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).
- **Area:** Core Area: 3 ha; Avg. Length: 100 m; Avg. Width: 60 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3-1 m; Basin Area: 250 ha.
- **Water Volume:** Peak Period: 23,100,000 ltr; Dry period: 2,400,000 ltr; Inlet: None; Outlet: None.
- **Water quality:** Physiochemical parameter: Temp.: 32°C, pH: 9; DO: 5.8 mg/l; Transparency: 0.4 m.
- **Soil feature:** Grey color; Clay loam.
- **Shocks/vulnerability:** Water Volume decrease.
- **Major aquatic plants:** Core Area: None.
Major basin plants

- *Shorea robusta* (LN: sal; HT: Tr; LU: Tml)
- *Syzygium cumini* (LN: jamun; HT: Tr; LU: Tml)
- *Dalbergia sissoo* (LN: Sisoo; HT: Tr; LU: Tml)
- *Trewia nudiflora* (LN: Vellor; HT: Tr; LU: Fd)
- *Saccharum spontanum* (LN: Kans; HT: Grass; LU: Fd)
- *Imperata cylindrica* (LN: Siru; HT: Grass; LU: Fd)
- *Desmostachya bipinnata* (LN: Kush; HT: Grass; LU: Fd)

Fish

- *Cetanoharyngodon idella* (LN: Grass Carp; LU: Meat)
- *Labeo rohita* (LN: Rohu; LU: Meat)
- *Hypophthalmichthys nobilis* (LN: Bighead Carp; LU: Meat)
- *Hypophthalmichthys molitrix* (LN: Silver Carp; LU: Meat)
- *Cirrhinus mrigala* (LN: Naini; LU: Meat)
- *Catla catla* (LN: Vyakur; LU: Meat)

Herpetofauna

- *Bufo stomaticus* (LN: Khatkhyarri Magoba; EN: Assam Toad)
- *Kaloula taprobana* (LN: Byaguyo; EN: Srilanka Bullfrog)
- *Euphlyctis cyanophlyctis* (LN: Tik-tike Paha; EN: Skittering Frog)
- *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jerdon's Bullfrog)
- *Pangashura tectum* (LN: Kachhuwa; EN: Indian Roofed Turtle)
- *Indotestudo elongate* (LN: Kachhuwa; EN: Yellow-headed Tortoise)
- *Xenochrophis piscator* (LN: Pani Sarpa; EN: Chequered Keelback Watersnake)
- *Pyton molurus* (LN: Ajinger; EN: Rock Python)

Birds

- *Phalacrocorax niger* (LN: Sano Jalewa; EN: Little Cormorent)
- *Amaurornis phoenicurus* (LN: Sim Kukhura; EN: White-breasted Waterhen)
- *Metopidius indicus* (LN: Lama Aunle; EN: Bonze-winged Jacana)
- *Bulbulcus ibis* (LN: Bastu Bakulla; EN: Cattle Egret)
- *Ceryle rudis* (LN: Chhirbire Matikore; EN: Pied Kingfisher)
- *Halcyon capensis* (LN: Thulo Matikore; EN: Strok-billed Kingfisher)
- *Halcyon smyrnensis* (LN: Seto Kanthe Matikore; EN: White-throated Kingfisher)
- *Ichtyophaga ichthyoeutus* (LN: Machhakul; EN: Grey-headed Fisheagle)
- *Pavo cristatus* (LN: Majur; EN: Indian Peafowl)
- *Gallus gallus* (LN: Luiche; EN: Red Jungle Fowl)

Mammals

- *Lepus nigricollis* (LN: Ban Kharayo; EN: Indian Hare)
- *Funambulus pennant* (LN: Panch Darke Lokharke; EN: Northern Palm Squirrel)
- *Millardia meltata* (LN: Makhamali Muso; EN: Common Soft-furred Rat)
- *Bandicota indica* (LN: Thulo Dhande Muso; EN: Greater Bandicoot-rat)
- *Hystrix indica* (LN: Jure Dumsi; EN: Indian Crested Porcupine)
- *Felis bengalensis* (LN: Charhi Bagh; EN: Leopard Cat)
- *Panthera pardus* (LN: Chituwa; EN: Common Leopard)
- *Canis aureus* (LN: Shyal; EN: Golden Jackle)
- *Macaca mulatta* (LN: Rato Bandar; EN: Rhesus Monkey)
- *Axis axis* (LN: Chital; EN: Spotted Deer)
- *Sus scrofa* (LN: Bandel; EN: Wild Boar)

Invasive alien species

- *Ipomoea carnia* (LN: Besara m; EN: Shrubby Morning Glory)
- *Ageratum conyzoides* (LN: Gandhe; EN: Billy Goat Weed)

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Jaligaon; 50m from lake; Main Trail: Dhangadi Campus Mod to Jaligaon; 50m from lake.
Land use: Forestland (60%); Grassland (10%); Agriculture (20%); Settlement (5%); Other (5%).

Demography: Population: 101,970; Male: 51,439; Female: 50,531; HHs: 21,030; Ethnicity: Brahmin/Chhetri (51.44%); Janajati (34.91%); Dalit (8.72%); Other (4.93%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership: State.

Wetlands dependent community: Tharu.

Livestock at basin: >1000.

Traditional production system: Fish farming and irrigation.

Traditional water use practices: None.

Cultural record: None.

Genesis/origin of lake: None.

4. Ecosystem Goods/Services

Provisional services: Fish, recreation and domestic water supply.

Cultural services: None.

5. Restoration/Management

Structural management: None.

Non-structural management: None.

Conservation plan: None.

Monitoring plan: None.

6. Tourism information

>500 visitors/year; Good hotels in Dhangadi Bazar; Motorable road to Kaligaon; Transportation services to Campus Mod but private vehicles refer to the Kaligaon; Needs promotional activities.

7. Lake condition: Degrading.
1. General Feature

Conservation status None.
Geographical position Terai Range.
Administrative feature FWDR; Kailali district; Ghodaghodi Municipality; Ward no. 9; Sadepani.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Ghodaghodi Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec);
Rainfall:1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:26.6 ha; Avg. Length:700 m; Avg. Width:200 m; Avg. Depth:4 m; Max–Min Surface Water Level:2–6 m; Basin Area:9648.4 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.:24°C, pH:5.9; Electric conductivity:N.A. Transparency:0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Azolla sps (LN:Panijhyau; HT:Ff; LU: None); Ludwigia adscendes (LN:Jadolo; HT:Es m; LU:None); Potamogeton nodosus (LN:Panikhar; HT:E m; LU; None); Utricularia australis (LN:Simghas; HT:S m; LU; None).
Major plants in basin Acacia catechu (LN:Khayar; HT:Tr; LU:Tm, Med); Dalbergia sisoo
Fish
- *Puntius sps* (LN:Sedari; LU: Meat)
- *Cetanoharyngodon idella* (LN:Carp; LU: Meat)
- *Hypophthalmichthys nobilis* (LN:Carp; LU: Meat)
- *Labeo rohita* (LN:Rohu; LU: Meat)

Herpetofauna
- *Euphlyctis cyanophlyctis* (LN:Tiktike Paha; EN: Skittering Frog)
- *Buttaphrynus melanostrictus* (LN:Kalokhasre Bhyaguto; EN: Blackspined Toad)
- *Calotes versicolor* (LN:Cheparo; EN: Garden lizard)
- *Varanus bengalensis* (LN:Gohoro; EN: Monitor Lizard)
- *Bungarus sps* (LN:Karet; EN: Common Krait)
- *Bufo melanostictus* (LN:Khasre bhyaguto; EN: Black-spined toad)
- *Python morulus* (LN:Ajingar; EN: Python)
- *Naja naja* (LN:Cobra; EN: Common Cobra)

Birds
- *Anas acuta* (LN:Haans; EN: Pintail Duck)
- *Ciconia ciconia* (LN:Bhudiphor; EN: White Stork)
- *Gallinula chloropus* (LN:Bagale Simkukhura; EN: Common Moorhen)
- *Eudynamys scolopacea* (LN:Koili; EN: Asian Koel)
- *Psittacula sps* (LN:Suga; EN: Parrot)
- *Eupupa epops* (LN:Fapre; EN: Hoopoe)
- *Francolinus francolinus* (LN:Kalottitra; EN: Black Francolin)
- *Halcyon smyrnensis* (LN:Matikore; EN: Kingfisher)
- *Leophronperconopterus* (LN:Seto giddha; EN: Egyptian vulture)
- *Casmerodius albus* (LN: Bastu Bakulla; EN: Great Egret)
- *Halcyon pileata* (LN:Fisto; EN: The Black-capped kingfisher)
- *Vanellus indicus* (LN:Huttityau; EN: Red-watteled lapwing)

Mammals
- *Herpestes sps* (LN:Nyarimusa; EN: Mongoose)
- *Canis aurens* (LN:Syal; EN: Golden jackal)
- *Felis bengalensis* (LN:Charibagh; EN: Leopard Cat)
- *Lutra lutra* (LN:Oont; EN: Common Otter)
- *Macaca mulatta* (LN:Bandar; EN: Rhesus Macaque)
- *Felis chaus* (LN:Ban Biraloo; EN: Jungle Cat)

Invasive alien species
- *Aescynomene sps* (LN:Khekri; EN: Curly Indigo)
- *Lantana camara* (LN:Malera; EN: Tickberry)
- *Eupatorium sps* (LN:Banmara; EN: Thorughwort)
- *Parthenium hysterophorus* (LN:Gajar jhar; EN: Famine weed)
- *Ipomoea carnea* (LN:Besara m; EN: Pink morning glory)

Endemic plant/animal
- None.

3. Socio-Economy at Basin

Nearby settlement
- *Sadepani Gaun*; 50m from lake; Main Trail: Mahendra Highway–Ghodaghodi–Sadepani Gaun; 50m from lake.

Land use
- Forestland (50%); Agriculture (20%); Settlement (20%); Wetlands (0%); Others (10%).

Demography
- Population: 616,697; Male: NA; Female: NA; HHs: 504; Ethnicity: Brahmin/Chhetri (21.13%); Janajati (41.53%); Dalit (1.11%); Other (5%). Major Religion: Hinduism. (CBS 2012).

Jurisdiction/ownership
- State.

Wetlands dependent community
- None.
Livestock at basin >200.
Traditional production system None
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fodder; Medicinal plants.
Cultural services Aesthetic; Religious; Educational.

5. Restoration/Management
Structural management None.
Non-structural management None.
Conservation plan None.
Monitoring plan None.

6. Tourism information >1,000 visitors/yr; Transportable road to Sadepani; Tourism potential high. Needs promotional activities.

7. Lake condition Degrading.
4.8.33 Nardahuwa Lake

1. General Feature

Conservation status None.
Geographical position Mahabharat Range.
Administrative feature FWDR; Kailali district; Godhariya Municipality; Ward-2; Masuriya.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Puraina Management Community.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall:1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:13.7ha; Avg. Length:310 m; Avg. Width:150 m; Avg. Depth:3.5 m; Max–Min Surface Water Level:4 m–3 m; Basin Area:1022.8 ha
Water Volume Peak Period:5,279,796 ltr; Dry period:3,959,847 ltr; Inlet:None; Outlet:None.
Water quality Physicochemical parameter: Temp.:25°C, pH:6; Transparency:0.4 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area:Oryza rufipogon (LN:Jungalidhan; HT:E m; LU:None); Phragmites sps (LN:Narkat; HT; Sr; LU:Fod); Ceratophyllum demersem (LN:Patai; HT:S m; LU:None); Hydrilla sps (LN:Panijhyau; HT:Ff; LU:None)
Major plants in basin Shorea robusta (LN:sal; HT:Tr; LU:Ful); Synzigium cumini (LN:jamun; HT:Tr; LU: Tm); Adena cordifolia (LN:Asna; HT: Tr; LU: Tm); Acacia
**Fish**

NA

**Herpetofauna**

- *Buttaphrynus melanostictus* (LN: Kalokhasre Bhyaguto; EN: Blackspined Toad)
- *Calotes versicolor* (LN: Cheparo; EN: Garden lizard)
- *Varanus bengalensis* (LN: Gohoro; EN: Monitor Lizard)
- *Bungarus sps* (LN: Karet; EN: Common Krait)
- *Naja naja* (LN: Cobra; EN: Common Cobra)

**Birds**

- *Passer domesticus* (LN: Bhagero; EN: Sparrow)
- *Corvus splendens* (LN: Kaag; EN: House Crow)
- *Streptopelia Chinensis* (LN: Dhukur; EN: Spotted Dove)
- *Ocyceros birostris* (LN: Dhanes; EN: Grey Hornbill)
- *Coracias bengalensis* (LN: Theuwa; EN: Indian Roller)
- *Halcyon smyrnensis* (LN: Matikore; EN: Kingfisher)

**Mammals**

- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat)
- *Lutra lutra* (LN: Oont; EN: Common Otter)
- *Macaca mulatta* (LN: Bandar; EN: Monkey)
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat)

**Invasive alien species**

- *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory)
- *Ageratina adenophora* (LN: Lahare banmara; EN: Crofton weed)

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

Masuriya; 100 m from lake; Main Trail: Mahendra high to Chamala road; 100 m from lake.

**Land use**

Forestland (80%); Barrenland (10%); Wetlands (5%); Others (5%).

**Demography**

Population: 22017; Male: 10677; Female: 11340; HHs: 3828; Ethnicity: Brahmin/Chhetri (37.58%); Janajati (36.71%); Dalit (25.49%); Other (0.225%). Major Religion: Hindu (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

>500.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

Fodder; Medicinal plants.

**Cultural services**

None.

### 5. Restoration/Management

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

### 6. Tourism information

No visitors. No tourism potential.

### 7. Lake condition

Degrading.
4.8.34 Nathuniya Tal

1. General Feature

Conservation status
None.

Geographical coordination
Lat: 28.54509199°N; Lon: 80.85579955° E; Alt: 151 masl.

Geographical position
Mahabharat Range.

Administrative feature
FWDR; Kailali district; Godhariya Municipality; Ward-2; Masuriya.

Boundary
Core Area: Forest in all directions.
Basin Area: Forest in all directions.

Management responsibility
Puraina Management Community.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 5.8ha; Avg. Length: 170 m; Avg. Width: 90 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 4 m–2 m; Basin Area: 1022.8 ha

Water Volume
Peak Period: 1,737,223 ltr; Dry period: 868,612 ltr; Inlet: None; Outlet: None.

Water quality
Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.4 m.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Some species of algae observed.

Major plants in basin
*Shorea robusta* (LN: Sal; HT: Tr; LU: Fur, fuel); *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Tm); *Emblica officinalis* (LN: Amala; HT: Tr, LU: Med, Fruit); *Oroxylum indicum* (LN: Tatelo; HT: Tr; LU: Med); *Bombax ceiba* (LN: Simal; HT: Tr; LU: Med).

Fish
*Cetanoharyngodon idella* (LN: Carp; LU: Meat); *Labeo rohita* (LN: Rohu;
Herpetofauna

- *Hypophthalmichthys nobilis* (LU:Meat; LN:Carp; EN:Black-spined toad)
- *Bufo melanostictus Schneider* (LN:Khasre bhyaguto; EN:Black-spined toad)
- *Python morulus* (LN:Ajingar; EN:Python)

Birds

- *Eudynamys scolopacea* (LN:Koili; EN:Asian Koel)
- *Psittacula sp* (LN:Suga; EN:Parrot)
- *Eupupa epops* (LN:Fapre; EN:Hoopoe)
- *Francolinus francolinus* (LN:Kalotitra; EN:Black Francolin)
- *Coracias bengalensis* (LN:Theuwa; EN:Indian Roller)
- *Halcyon smyrnensis* (LN:Matikore; EN:Kingfisher)

Mammals

- *Herpestes sp* (LN:Nyarimusa; EN:Mongoose)
- *Canis aurens* (LN:Syal; EN:Golden Jackal)

Invasive alien species

- *Ipomoea carnea* (LN:Besara m; EN:Pink morning glory)
- *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed)
- *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar)
- *Ageratum conyzoides* (LN:Nilo gande; EN:Cheek weed)
- *Casia tora* (LN:Kase; EN:Sickle pod)

Endemic plant/animal

None

3. Socio-Economy at Basin

Nearby settlement

- Masuriya; 100 m from lake; Main Trail: Mahendra high to Chamala road; 100 m from lake.

Land use

- Forestland (80%)
- Barrenland (10%)
- Wetlands (5%)
- Others (5%)

Demography

- Population: 22017
- Male: 10677
- Female: 11340
- HHs: 3828
- Ethnicity: Brahmin/Chhetri (37.58%); Janajati (36.71%); Dalit (25.49%); Other (0.225%)
- Major Religion: Hindu (CBS 2012)

Jurisdiction/ownership

State

Wetlands dependent community

None

Livestock at basin

>500

Traditional production system

None

Traditional water use practices

None

Cultural record

None

Genesis/origin of lake

None

4. Ecosystem Goods/Services

Provisional services

- Fodder
- Medicinal plants

Cultural services

None

5. Restoration/Management

Structural management

None

Non-structural management

None

Conservation plan

None

Monitoring plan

None

6. Tourism information

No visitors. No tourism potential

7. Lake condition

Degrading
4.8.35 Piparawa Tal

**Wetland code:**
Toposheet no: 2880 12B
Date of inventory: July 8, 2016

1. **General Feature**

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward no.3; Dudhawaphant.
Boundary: Core Area: Paddy field in west and north; Forest in east and India in south.
Basin Area: Farmland in west; India in south; Road in north and Kandra Nadi in east.
Management responsibility: Piparawa Mahila Samuha, Dudhawaphant.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. **Ecological Feature**

Climatic feature: Avg. Max: Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 40 ha; Avg. Length: 600 m; Avg. Width: 40 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 4.5-1.5 m; Basin Area: 190 ha.
Water Volume: Peak Period: 135,000,000 ltr; Dry period: 22,500,000 ltr; Inlet: None; Outlet: None.
Water quality: Physiochemical parameter: Temp.:36.8°C, pH:8.9; DO: 4.3mg/l; Transparency: 0.4m.
Soil feature: Red color; Clay loam.
Shocks/vulnerability: Water Volume decrease.
Major aquatic plants: Core Area: *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: none).
Major plants in basin: Bombox ceiba (LN:Simal; HT:Tr; LU:Tm); Syzygium cumini (LN:Jamun; HT:Tr; LU:Tm, Md); Trewia nudiflora (LN:Vellar; HT:Tr; LU:Fd); Saccharum spontanum (LN:Kans; HT:Grass; LU:Fd); Imperata cylindrica (LN:Siru; HT:Grass; LU:Fd); Desmostachya bipinata (LN:Kush, HT:Gr, LU:Fd).

Fish: Clarias batrachus (LN:Mangur; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat); Cirrhinus mrigala (LN:Naini; LU:Meat); Catla catla (LN:Vya; LU:Meat); Puntius sarona (LN:Kunde; LU:Meat); Puntius ticto (LN:White; LU:Meat); Cetanoharyngodon idella (LN:Grass Carp; LU:Meat); Hypophthalmichthys nobilis (EN:Bighead Carp; LU:Meat); Hypophthalmichthys molitrix (EN:Silver Carp; LU:Meat).

Herpetofauna: Euphlyctis cyanophlyctis (LN:Tik-tik Paha; EN:Skittering Frog); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s Bullfrog); Xenochrophis piscator (LN:Pani Sarpa; EN:Chequered Keelback Watersnake); Varanus flavescens (LN:Sun Gohoro; EN:Golden Monitor Lizard); Indotestudo elongata (LN:Kachhuwa; EN:Yellow-headed Tortoise); Naja naja (LN:Goman Sarpa; EN:Spectacled Cobra); Naja Kaouthia (LN:Goman; EN:Monocled Cobra); Bungarus caeruleus (LN:Karet Sarpa; EN:Common Krait); Xenochrophis piscator (LN:Pani Sarpa; EN:Chequered Keelback Watersnake).

Birds: Ceryle rudis (LN:Chhirebire Matikore; EN:Pied Kingfisher); Phalacrocorax niger (LN:Sano Jalewa; EN:Little Cormorent); Bulbulcus ibis (LN:Bastu Bakula; EN:Cattle Egret); Halcyon capensis (LN:Thulo Matikore; EN:Strok-billed Kingfisher); Halcyon smyrnensis (LN:Setokanthe Matikore; EN:White-throated Kingfisher); Ichthyophaga ichthyaetus (LN: Machhakul; EN:Grey-headed Fisheagle); Coracias beglalensis (LN:Theuwa; EN:Indian Roller); Pavo cristatus (LN:Major; EN:Indian Peafowl).

Mammals: Funambulus pennant (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); Hystrix indica (LN:Jure Dumsi; EN:Indian Crested Porcupine); Millardia meltada (LN:Makhamali Muso; EN:Common Soft-furred Rat); Bandicota indica (LN:Thulo Dhande Muso; EN:Greater Bandicot-rat); Canis aureus (LN:Shyal; EN:Golden Jackle); Sus scrofa (LN:Bandel; EN:Urasian Wild Boar); Boselaphus tragocamelus (LN:Nil Gain; EN:Blue Bull).

Invasive alien species: Ipomoea carnea (LN:Besara m; EN:Shrubby Morning Glory), Eichhornia crassipes (LN:Jal Kumbhi; EN:Water Hyacinth); Cassiatorea (LN:Corkor; EN:Sicklesena); Pistia stratiotes (LN:Kumbhika; EN:Water Lettuce).

Endemic plant/animal: None.

3. Socio-Economy at Basin

Nearby settlement: Dudhawaphant; 20m from lake; Main Trail:Tikuniya-Bhajani road; 20m from lake.

Land use:
- Forestland (40%)
- Grassland (5%)
- Farmland (40%)
- Settlement (10%)
- Other (5%)

Demography:
- Population: 11,247
- Male:5,643
- Female:5,604
- HHs:1,818
- Ethnicity: Brahmin/Chhetri (23.09%); Janajati (46.90%); Dalit (12.12%); Other (17.89%)
- Major Religion: Hinduism/Buddhism (CBS 2012)

Jurisdiction/ownership: State.
Wetlands dependent community: None.
Livestock at basin: >500.
Traditional production system: Fish farming.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish.
Cultural services: None.

5. Restoration/Management
Structural management: None.
Non-structural management: None.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
No visitors; Good hotels in Bhajani Bazar; Motorable road to Bhajani; Transportation services to Bhajani Bazar; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature
Conservation status: None.
Geographical position: Mahabharat Range.
Administrative feature: FWDR; Kailali district; Godhariya Municipality; Ward-2; Masuriya.
Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions.
Management responsibility: Puraina Management Community.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 13.1ha; Avg. Length: 300 m; Avg. Width: 170 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 5 m–3 m; Basin Area: 1022.8 ha
Water Volume: Peak Period: 7,238,430 ltr; Dry period: 4,343,058 ltr; Inlet: None; Outlet: None.
Water quality: Physicochemical parameter: Temp: 25°C, pH: 6; Transparency: 0.4 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Potamogeton nodosus (LN: Panikhar; HT: E m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None); Phragmites sps (LN: Narkat; HT: Sr; LU: Fod); Ceratophyllum demersem (LN: Patai; HT: Sm; LU: None); Typha angustifoli (LN: Pater; EN: Broadleaf cattletail); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).
Major plants in basin: Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Synzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Emblica officinalis (LN: Amala; HT: Tr; LU: Med, Fruit); Oroxylum indicum (LN: Tatelo; HT: Tr; LU: Med); Butea monospermea (LN: Palash; HT: Tr; LU: Tm, Rel); Bombax ceiba
Fish

*Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Labeo rohita* (LN:Rohu; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat)

Herpetofauna

*Euphlyctis cyanophlyctis* (LN:Tiktihe Paha; EN:Skittring Frog); *Buttaphrynus melanostictus* (LN:Kalokhasre Bhagyuto; EN: Blacksplined Toad); *Calotes versicolor* (LN: Chepardo; EN:Garden lizard); *Varanus bengalensis* (LN: Gohoro; EN: Monitor Lizard)

Birds

*Ardenola greyii* (LN:Sim Bakulla; EN:Pond Heron); *Ardea alba* (LN:Bakulla; EN:Great Egret); *Corvussplendens* (LN:Kaag; EN: House Crow); *Passer domesticus* (LN:Bhagero; EN:Sparrow); *Streptopelia Chinensis* (LN:Dhukur; EN:Spotted Dove); *Dicrurus macrocercus* (LN:Chibe; EN:Drongo); *Casmerodius albus* (LN:Bakulla; EN:Great Egret); *Turdoides striata* (LN:Bhyakur; EN:Jungle Babbler)

Mammals

*Lutra lutra* (LN:Oont; EN:Common Otter); *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennant* (LN:Lokharke:EN:Northen palm squirrel; EN:Northen); *Felis viverrina* (LN:Malaha biralo; EN:Fishing cat

Invasive alien species


Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Masuriya; 100 m from lake; Main Trail: Mahendra high to Chamala road; 100 m from lake.

Land use

Forestland (97%); Barrenland (1%); Shrubland (1%); Grassland (1%).

Demography

Population: 22017; Male: 10677; Female: 11340; HHs: 3828; Ethnicity: Brahm/Chhetri (37.58%); Janajati (36.71%); Dalit (25.49%); Other (0.225%). Major Religion: Hindu (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>500.

Traditional production system

None.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Medicinal plants.

Cultural services

None.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

No visitors. No tourism potential.

7. Lake condition

Degrading.
1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Dhangadi Sub-metropolitan; Ward no.18; Himpur.

Boundary:
- Core Area: Farmland in all directions.
- Basin Area: Kheda to Purainat Tal trail in north and west; I-Gaon to Bahuliya trail in east, Human settlement i.e. Himpur.

Management responsibility: Dhangadhi Sub-Metropolitan.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.5°C (Jun/July); Avg. Min: 17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area:
- Core Area: 1.7 ha; Avg. Length: 90 m; Avg. Width: 50 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3-1 m;
- Basin Area: 100ha.

Water Volume:
- Peak Period: 18,000,000 ltr; Dry period: 2,800,000 ltr; Inlet: None; Outlet: None.

Water quality:
- Physiochemical parameter: Temp.: 30°C, pH: 7.6; DO: 3.9mg/l; Transparency: 0.3m.

Soil feature: Grey color; Clay loam.
Shocks/vulnerability: Water Volume decrease.
Major aquatic plants:
- Core Area: Nympheastellata (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn).

Major plants in basin:
- Bomboxceiba (LN: Simal; HT: Tr; LU: Tm);
- Syzygiumcumini (LN: jamun; HT: TR; LU: Tm, Md);
- Dalbergiasisoo (LN: Sisoo; HT: Tr; LU: Tm);
**Imperata cylindrica** (LN:Siru; HT:Grass; LU:Fd); **Eucalyptus alba** (LN:Masala; HT:Tr; LU:Tm); **Trewianudiflora** (LN:Vellor; HT:Tr; LU:Fd); **schleicheria oleosa** (LN:Kusu m; HT:Tr; LU:Fd); **Calotropis gigantea** (LN:Ankh; HT:Tr; LU:Med); **Desmostachya bipinata** (LN:Kush; HT:Gr; LU:Fd).

**Fish**

*Clarias batrachus* (LN:Mangur; LU:Meat); *Labeorohita* (LN:Rohu; LU:Meat), *Cirrhinus mrigala* (LN:Nainti; LU:Meat), *Catlacatla* (LN:Vyakur; LU:Meat); *Puntios sarana* (LN:Kande; LU:Meat); *Puntios sicto* (LN:Bhite; LU:Meat); *Cetanoharyngodonidella* (LN:Grass Carp; LU:Meat); *Hypophthalmichthys nobilis* (EN:Bighead Carp; LU:Meat).

**Herpetofauna**

*Bufostomaticus* (LN:Khatkhyarri Magoba; EN:Assam Toad); *Kaloulata probanica* (LN:Byaguto; EN:Srilanka Bullfrog); *Euphlyctis cyanophlyctis* (LN:Tik-tike Paha; EN:Skittring Frog); *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s Bullfrog); *Xenochrophis piscator* (LN:PaniSarpa; EN:Chequered Keelback Watersnake); *Amphiesma stolutum* (LN:Harara; EN:Buff-striped Keelback).

**Birds**

*Phalacrocorax nigripes* (LN:Sano Jalewa; EN:Little Cormorent); *Bulbulcus ibis* (LN:BastuBakulla; EN:Cattle Egret); *Ceryle rudis* (LN:ChhibireMatikore; EN:Pied Kingfisher); *Halcyon smyrnensis* (LN:Setokanthe Matikore; EN:White-throated Kingfisher); *Glaucidium ruticum* (LN:Dundula; EN:Jungle Owlet); *Ichthyophaga ichthyopterus* (LN; Machhakul; EN:Grey-headed Fisheagle); *Vanellus indicus* (LN:Huttityau; EN:Red-wattled Lapwing).

**Mammals**

*Funambulus pennant* (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); *Milliardia melada* (LN:MakhamaliMuso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:ThuloDhandeMuso; EN:Greater Bandicot-rat); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Canis aureus* (LN:Shyal; EN; Golden Jackle).

**Invasive alien species**

*Ipomoea carnea* (LN:Besara m; EN:Shrubby Morning Glory); *Ageratum conyzoides* (LN:Gandhe; EN: Billy Goat Weed); *Parthenium hysterophorus* (LN:KanikeGhans; EN:Bitter Weed).

**Endemic plant/animal**

None.

**3. Socio-Economy at Basin**

**Nearby settlement**

Himpurgaon; 50m from lake; Main Trail:I-Gaun to Bahuliya trail; 200m from lake.

**Land use**

Forestland (15%); Agriculture (70%); Settlement (10%); Other (5%).

**Demography**

Population:20,508; Male:9,681; Female:10,827; HHs:3,844; Ethnicity: Brahmin/ Chhetri (38.04%); Janajati (44.89%); Dalit (16.87%); Other (0.20%). Major Religion: Hinduism/ Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

Tharu.
Livestock at basin >500.
Traditional production system Fish farming.
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services None.
Cultural services None.

5. Restoration/Management
Structural management None.
Non-structural management None.
Conservation plan None.
Monitoring plan None.

6. Tourism information
No visitors; Good hotels in Dhangadi Bazar; Motorable road to Phulbari; Transportation services to Phulbari; private vehicles refer to the Himpur; Needs promotional activities.

7. Lake condition Degrading.
4.8.38 Raji Tal

Wetland code:
Toposheet no:2880 03D
Date of inventory: July 6, 2016

1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kailali district; Godawari VDC.; Ward no.8; Basanta Tol.
Boundary Core Area:Forest in in all directions.
Basin Area:Basaini forest in west; Ansipalaune danda in north; Kharpani Maindan in south; Basanta tol in east.
Management responsibility Godawari VDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max:Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:1.3062 ha; Avg. Length:100 m; Avg. Width:60; Avg. Depth:1.2 m; Max–Min Surface Water Level:1.7 m -0.5 m; Basin Area:100 ha.
Water Volume Peak Period:13,090,000 ltr; Dry period:1,000,000 ltr; Inlet:None; Outlet:None.
Water quality Physiochemical parameter:Temp.:30.3°C, pH:8.1; DO:4.2mg/l; Transparency:0.3m.
Soil feature Gray color; Clay loam.
Shocks/vulnerability Water Volume decrease.
Major aquatic plants Core Area:None.
Major plants in basin Syzygium cumini(LN:jamun; HT:TR; LU:Tm, Md); Terminalia alata (LN:Asna; HT:Tr; LU:Tm); Adina cordifolia (LN:Haldu, HT:Tr; LU:Tm); Mallotus philippensis (LN:Sindhure; HT:Hr; LU:Fd); Trewia nudiflora (LN:Vellor; HT:Tr; LU:Fd).
Fish NA
Herpetofauna

Bufo melanostictus (LN:Khashre Bhyaguto; EN:Black-spined Toad);
Kaloula taprobanica (LN:Byaguyo; EN:Srilanka Bullfrog); Euphlyctis cyanophlyctis (LN:Tik-tike Paha; EN:Skittering Frog); Varanus bengalensis (LN:Bainse Gohoro; EN:Bengal Monitor); Asynblepharus sikimmensis (LN:Chikni Girgit; EN:Sikkem Skink); Naja naja (LN:Goman Sarpa; EN:Spectacled Cobra).

Birds

Phalacrocorax niger (LN:Sano Jalewa; EN:Little Cormorent);
Bulbulcus ibis (LN:Bastu Bakulla; EN:Cattle Egret); Halcyon capensis (LN:Thulo Matikore; EN:Strok-billed Kingfisher); HALCYON SMYRNENSIS (LN:SETOKANTHE MATIKORE; EN:WHITE-THROATED KINGFISHER); Ichthyophaga ichthyaetus (LN; Machhakul; EN:Grey-headed Fisheagle); Pavo cristatus (LN:Majur; EN:Peacock).

Mammals

Lepus nigricollis (LN:Ban Kharayo; EN:Indian Hare); Funambulus pennant (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); Hystrix indica (LN:Jure Dumsi; EN:Indian Crested Porcupine); Millardia meltada (LN:Makhamali Muso; EN:Common Soft-furred Rat); Munticus muntjak (LN:Ratuwa; EN:Barking Deer); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Canis aureus (LN:Shyal; EN; Golden Jackle); Sus scrofa (LN:Bandel; EN:Wild Boar); Boselaphus tragocamelus (LN:Nil Gain; EN:Blue Bull).

Invasive alien species

Cassia tora (LN:Corkor; EN:Sicklesena).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Basanta Tol; 200m from lake; Main Trail:Shyaule to Bandagada road trail; 250m from lake.

Land use

Forestland (80%); Grassland (3%); Farmland (10%); Settlement (5%); Other (2%).

Demography

Population:15,572; Male:7,052; Female:8,520; HHs:2,906; Ethnicity: Brahmin/Chhetri (42.62%); Janajati (8.27%); Dalit (48.62%); Other (0.59%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

>2000.

Traditional production system

None.

Traditional water use practices

None.

Cultural record

None.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fish.

Cultural services

None.

5. Restoration/Management

Structural management

Wall at the periphery by VDC.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

No visitors;Good hotels in Attariya Bazar; Motarable road to Bandagada; Transportation services to Shyaule Bazar but private vehicles refer to the Basanta Tol; Needs promotional activities.

7. Lake condition

Degrading.
4.8.39 Rara Lake

1. General Feature

Conservation status: None.
Geographical position: Terai Range.
Administrative feature: FWDR; Kailali district; Chaumala V.D.C; Ward-1; Khurkhuriya.
Boundary: Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility: Khurkhuriya Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max: Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area:2.1 ha; Avg. Length:200 m; Avg. Width:190 m; Avg. Depth:4 m; Max–Min Surface Water Level:5–3 m; Basin Area:34 ha
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.:24°C, pH:5.9; Electric conductivity: NA. Transparency:0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area:Utricularia australis (LN:Simghas; HT:S m; LU: None); Oryza rufipogon (LN:Jungalidhan; HT:E m; LU:None); Phragmites sps (LN:Narkat; HT; Sr; LU:Fod); Ceratophyllum demersem (LN:Patai; HT:S m; LU:None); Hydroilla sps (LN:Panijhyau; HT:FF; LU:None).
Major plants in basin: Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Tm); Shorea robusta (LN:Sal; HT:Tr; LU:Fur, fuel); Syzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia (LN:Haldo; HT:Tr; LU:Tm); Emblica officinalis

Wetland code: Toposheet no: 2880 08A
Date of inventory: Jun 2, 2016
(LN:Amala; HT:Tr, LU:Med, Fruit); *Oroxylum indicum* (LN:Tatelo; HT:Tr; LU:Med); *Bombax ceiba*(LN:Simal; HT:Tr; LU:Med);

Fish
None

Herpetofauna
*Bungarus sps* (LN:Karet; EN:Common Krait); *Bufo melanostictus Schneider*(LN:Khasre bhyaguto; EN:Black-spined toad); *Python morulus*(LN:Ajingar; EN:Python).

Birds
*Passer domesticus* (LN:Bhagero; EN:Sparrow); *Corvus splendens* (LN:Kaag; EN: House Crow); *Streptopelia Chinensis* (LN:Dhukur; EN:Spotted Dove); *Dicrurus macrocercus*(LN:Chibe; EN:Drongo); *Ocyceros birostris* (LN:Dhanes; EN:Grey Hornbill); *Vanellus indicus* (LN:huttititaau; EN:Red-watteled lapwing); *Falco tinnunculus*(LN:Baaj; EN:Common Kestrel); *Turdoides striata* (LN:Bhyakur; EN:Jungle Babbler).

Mammals
*Herpestes sps* (LN:Nyarimusa; EN:Mongoose); *Canis aurens* (LN:Syal; EN:Golden jackal.

Invasive alien species
*Lantana camara* (LN:Maleria; EN:Tickberry); *Eupatorium sps* (LN:Banmara; EN:Thoroughwort); *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed); *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
*Khurkhuriya Gaun*; 50m from lake; Main Trail:Mahendra Highway-Chaumala–Khurkhuriya Gaun; 50 m from lake.

Land use
Forestland (90%); Agriculture (10%).

Demography
Population:27,586; Male:12,729; Female:14,857; HHs:5,293; Ethnicity: Brahmin/Chhetri (50%); Janajati (30%); Dalit (18%); Other (2%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
NA.

Traditional production system
None

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
No visitors; No tourism potential.

7. Lake condition
Degrading.
4.8.40 Rupiya Tal

Conservation status
None.

Geographical coordination
Lat: 28.57333327°N; Lon: 80.91472439° E; Alt: 152 masl.

Geographical position
Tarai.

Administrative feature
FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward-9; Sayapatri.

Boundary
Core Area: Forest in all directions.
Basin Area: Forest in all directions.

Management responsibility
Sayapatri Lake Management Community.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 6.7 ha; Avg. Length: 400 m; Avg. Width: 120 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 5 m–3 m; Basin Area: 623.6 ha

Water Volume
Peak Period: 6,812,640 ltr; Dry period: 4,087,584 ltr; Inlet: None; Outlet: None.

Water quality
Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.5 m.

Soil feature
Dark color; Clay loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT: Sr; LU: Fod); Ceratophyllum demersum (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: FF; LU: None).

Major plants in basin
Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr; LU: Med, Fruit); Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Syzygium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm); Oroxylum indicum (LN: Tatelo;
HT:Tr; LU:Med); **Bombax ceiba** (LN:Simal; HT:Tr; LU:Med);

**Fish**
*Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Labeo rohita* (EN:Rohu; LU:Meat) *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat);

**Herpetofauna**
*Bungarus sps* (LN:Karet; EN:Common Krait); *Bufo melanostictus Schneider*(LN:Khasre bhyaguto; EN:Black-spined toad); *Python morulus* (LN:Ajingar; EN:Python).

**Birds**
*Passer domesticus* (LN:Bhagero; EN:Sparrow); *Corvus splendens* (LN:Kaag; EN: House Crow); *Streptopelia chinensis* (LN:Dhukur; EN:Spotted Dove); *Dicrurus macrocercus*(LN:Chibe; EN:Drongo); *Ocyeros briostris* (LN:Dhanes; EN:Grey Hornbill); *Vanelius indicus* (LN:ivotitita; EN:Red-watteled lapwing); *Falco tinnunculus*(LN:Baa; EN:Common Kestrel); *Turdoides striata* (LN:Bhayak; EN:Jungle Babbler).

**Mammals**
*Herpestes sps* (LN:Nyarimusa; EN:Mongoose); *Canis aurens* (LN:Syal; EN:Golden jackal); *Felis bengalensis* (LN:Charibagh; EN:Leopard Cat); *Lutra lutra* (LN:Oont; EN:Common Otter); *Macaca mulatta* (LN:Bandar; EN:Rhesus Macaque); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennant* (LN:Lokharke; EN:Squirrel);

**Invasive alien species**
*Lantana camara* (LN:Maleria; EN:Tickberry); *Eupatorium sps* (LN:Bannara; EN:Thoroughwort); *Ageratina adenophora* (LN:Lahare banmara; EN:Crofton weed); *Xanthium strumarium* (LN:Bhede kuro; EN:Cockle bur sheep bar).

**Endemic plant/animal**
None.

### 3. Socio-Economy at Basin

**Nearby settlement**
*Sayapatri Gaun;* 100m from lake; Main Trail:Dongpur to Sayapatri trail; 200m from lake.

**Land use**
Forestland (98%); Shrubland (1%); Grassland (1%).

**Demography**
Population:14917; Male:7507; Female:7410; HHs:20507; Ethnicity: Brahmin/Chhetri (19.44%); Janajati (68.05%); Dalit (12.24); Other (0.27%). Major Religion:Hindu (CBS 2012).

**Jurisdiction/ownership**
State.

**Wetlands dependent community**
Dongpur community

**Livestock at basin**
>1000.

**Traditional production system**
Rice field.

**Traditional water use practices**
None.

**Cultural record**
None.

**Genesis/origin of lake**
None.

### 4. Ecosystem Goods/Services

**Provisional services**
Fodder; Medicinal plants; Timber.

**Cultural services**
None.

### 5. Restoration/Management

**Structural management**
Dam, by local community.

**Non-structural management**
None.

**Conservation plan**
None.

**Monitoring plan**
None.

### 6. Tourism information

No visitors; No tourism potential.

### 7. Lake condition
Degraded.
4.8.41 Sahadeva Tal

**1. General Feature**

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kailali district; Dhangadhi Municipality; Ward-16; Rampur.

Boundary:
- **Core Area:** Forest in West and north directions; Rampur Gaun in East; School in south.
- **Basin Area:** Forests in all directions.

Management responsibility: Bhedababa lake Management Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

**2. Ecological Feature**

Climatic feature: Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area:
- **Core Area:** 9.4ha; Avg. Length: 300 m; Avg. Width: 190 m; Avg. Depth: 3.5 m; Max–Min Surface Water Level: 4 m–3 m; **Basin Area:** 193.4 ha.

Water Volume:
- Peak Period: 6,472,008 ltr; Dry period: 4,854,006 ltr; Inlet: None; Outlet: None.

Water quality:
- Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.3 m.

Soil feature:
- Grey color; Sandy loam texture.

Shocks/vulnerability:
- Water volume decreasing.

Major aquatic plants:
- **Core Area:** *Nelumbo nucifera* (LN: Kamal; HT: Ff; LU: Orn); *Azolla sps* (LN: Panijhyau; HT: Ff; LU: None); *Potamogeton nodosus* (LN: Panikhar; HT: E m; LU: None); *Typha angustifolia* (LN: Pater; EN: Broadleaf cattletail); *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).

Major plants in basin:
- *Shorea robusta* (LN: sal; HT: Tr; LU: Ful); *Synzigium cumini* (LN: jamun; HT: Tr; LU: Tm); *Adena cordifolia* (LN: Asna; HT: Tr; LU: Tm); *Acacia*
catechu (LN:Khayar; HT:Tr; LU:Tm, Fr); Dalbergia sisoo (LN:Sisoo; HT:Hr; LU:Med); Oroxylum indicum (LN:Tatelo; HT:Tr; LU:Med).

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat).

Herpetofauna
Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad); Polypedtes maculates (LN:Rukh Bhyaguto); Python morulus (LN:Ajingar; EN:Python); Ptyas mucosa (LN:Dhaman; EN:Ratsnake).

Birds
Casmerodius albus (LN:Bakulla; EN:Great Egret); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:huttityau; EN:Red-watteled lapwing); Falco tinnunculus (LN:Baaj; EN:Common Kestrel); Treron pompadora (LN:Dhukur EN:Pompadour Green Pigeon).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennantii (LN:Northen palm squirrel; EN:Northen); Felis viverrina (LN:Malaha biraloo; EN:Fishing cat); Vulpes bengalensis (LN:Fushre fauro; EN:Bengal Fox) Semnopithecus hector (LN:Dedu; EN:Terai grey langur).

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sp (LN:Banmara; EN:Thorughwort); parthenium hysterophorus (LN:Gajar jhar; EN:famine weed); Ipomoea carnea (LN:Besara m; EN: Pink morning glory).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Rampur; 50 m from lake; Main Trail:Chaumal bazar to Rampur road; 50 m from lake.

Land use
Forestland (70%); Barrenland (15%); Wetlands (10%); Others (5%).

Demography
Population:10,1970; Male:51,439; Female:50,531; HHs:21,030; Ethnicity:Brahmin/Chhetri (50%); Janajati (25%); Dalit (10%); Other (15%). Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>1000.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Bhedababa Temple.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
Only local visitors; No tourism potential.

7. Lake condition
Degrading.
### 4.8.42 Sarkiniya Lake

#### 1. General Feature

**Conservation status** None.

**Geographical coordination** Lat: 28.55463772°N; Lon: 80.84224385°E; Alt: 155 masl.

**Geographical position** Mahabharat Range.

**Administrative feature** FWDR; Kailali district; Godhariya Municipality; Ward-2; Masuriya.

**Boundary**
- **Core Area**: Forest in all directions.
- **Basin Area**: Forest in all directions.

**Management responsibility** Puraina Management Community.

**Wetlands type** Fresh water/natural; Lacustrine; Permanent.

#### 2. Ecological Feature

**Climatic feature**

- Avg. Max Temp: 40.50°C (Jun/July);
- Avg. Min Temp: 17.70°C (Dec);
- Rainfall: 1577 mm/yr. ([www.beautifulfarwestnepal.blogspot.com](http://www.beautifulfarwestnepal.blogspot.com)).

**Area**

- **Core Area**: 9ha; Avg. Length: 150 m; Avg. Width: 70 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3 m–1 m;
- **Basin Area**: 1022.8 ha.

**Water Volume**

- Peak Period: 894,159 ltr; Dry period: 447,080 ltr; Inlet: None; Outlet: None.

**Water quality**

- Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.2 m.

**Soil feature**

- Grey color; Sandy loam texture.

**Shocks/vulnerability**

- Water volume decreasing.

**Major aquatic plants**

- **Core Area**: *Typha angustifolia* (LN: Pater; EN: Broadleaf cattail); *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: FF; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).

- **Major aquatic plants**
  - **Core Area**: *Oryza rufipogon* (LN: Jungalidhan; HT: E m; LU: None);
  - *Phragmites sps* (LN: Narkat; HT: Sr; LU: Fod); *Ceratophyllum demersem* (LN: Patai; HT: S m; LU: None); *Hydrilla sps* (LN: Panijhyau; HT: FF; LU: None)

**Major plants in basin**

- *Shorea robusta* (LN: sal; HT: Tr; LU: Ful); *Synzigium cumini* (LN: jamun; HT: Tr; LU: Tm); *Adena cordifolia* (LN: Asna; HT: Tr; LU: Tm); *Acacia*
catechu (LN:Khayar; HT:Tr; LU:Tm, Fr); Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Med);

Fish
NA

Herpetofauna
Buttaphrynus melanostictus (LN:Kalokhasre Bhyaguto; EN:Blackspined Toad); Calotes versicolor (LN:Cheparo; EN:Garden lizard); Varanus bengalensis (LN:Gohoro; EN:Monitor Lizard); Bungarus sps (LN:Karet; EN:Common Krait); Naja naja (LN:Cobra; EN:Common Cobra).

Birds
Passer domesticus (LN:Bhagero; EN:Sparrow); Corvus splendens (LN:Kaag; EN:House Crow); Streptopelia Chinensis (LN: Dhukur; EN:Spotted Dove); Ocyaceros birostris (LN:Dhanes; EN:Grey Hornbill); Coracias bengalensis (LN: Theuwa; EN:Indian Roller); Halcyon smyrnensis (LN:Matikore; EN:Kingfisher).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat)

Invasive alien species
Ipomoea carnea (LN:Besara m; EN:Pink morning glory); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Masuriya; 100 m from lake; Main Trail:Mahendra high to Chamala road; 100 m from lake.

Land use
Forestland (50%); Agriculture (10%); Settlement (30%); Wetlands (5%); Others (5%).

Demography
Population:22017; Male:10677; Female:11340; HHs:3828; Ethnicity:Brahmin/Chhetri (37.58%); Janajati (36.71%); Dalit (25.49%); Other (0.225%). Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors; No hotels at lake site; No tourism potential.

7. Lake condition

Degrading.
4.8.43 Siddha Baba Pokhari

1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kailali district; Attariya Munjcipality; Ward no.7; Phakalpur.
Boundary Core Area:Forest in eas; grassland in west and north and Phakalpur to Zonapur trail in south.
Basin Area:Phakalpur to Zonapur trail in west and north; Siddha Baba Community forest in east and south.
Management responsibility Siddha Baba Community Forest, Phakalpur.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max:Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 0.5661 ha; Avg. Length:50 m; Avg. Width:50 m; Avg. Depth:1 m; Max–Min Surface Water Level:1.5-0.5 m; Basin Area:30 ha.
Water Volume Peak Period:5,400,000 ltr; Dry period:600,000 ltr; Inlet:None; Outlet:None.
Water quality Physiochemical parameter: Temp.: 33°C, pH:8.7; DO:5.7mg/l; Transparency:0.25m.
Soil feature Red color; Clay loam.
Shocks/vulnerability Water Volume decrease.
Major aquatic plants Core Area:Nymphaea stellata (LN:Nilkamal; EN:Blue lotus; HT:Ff; LU:Orn); Sphagnum nepalensis (LN:Jhyau; HT:E m; LU:none).
Major basin plants Syzygium cumini (LN:jamun; HT:TR; LU:Tm, Md); Dalbergia sisoo
Fish
- *Cetanoharyngodon idella* (LN: Grass Carp; LU: Meat);
- *Hypophthalmichthys nobilis* (EN: Bighead Carp; LU: Meat);
- *Hypophthalmichthys molitrix* (LN: Silver Carp; LU: Meat);
- *Labeo rohita* (LN: Rohu; LU: Meat),
- *Cirrhinus mrigala* (LN: Naini; LU: Meat),
- *Catla catla* (LN: Vyakur; LU: Meat).

Herpetofauna
- *Bufo melanostictus* (LN: Khashre Bhyaguto; EN: Black-spined Toad);
- *Kaloula tapirobanica* (LN: Byaguyo; EN: Sri Lanka Bullfrog);
- *Euphylctis cyanophlyctis* (LN: Tik-tike Paha; EN: Skittering Frog);
- *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jerdon’s Bullfrog);
- *Xenochrophis piscator* (LN: Pani Sarpa; EN: Chequered Keelback Watersnake);
- *Varanus flavescens* (LN: Sun Gohoro; EN: Golden Monitor Lizard);
- *Indotestudo elegata* (LN: Kachhuwa; EN: Yellow-headed Tortoise);

Birds
- *Phalacrocorax niger* (LN: Sano Jalewa; EN: Little Cormorant);
- *Bulbulcus ibis* (LN: Bastu Bakulla; EN: Cattle Egret);
- *Halcyon capensis* (LN: Thulo Matikore; EN: Strok-billed Kingfisher);
- *Halcyon smyrnensis* (LN: Setokanthe Matikore; EN: White-throated Kingfisher);
- *Metopidius indicus* (LN: Lama Aunle; EN: Bronze-winged Jacana);
- *Ichthyophaga ichthyaeus* (LN: Machhakul; EN: Grey-headed Fisheagle);

Mammals
- *Lupus nigricollis* (LN: Ban Kharayo; EN: Indian Hare);
- *Funambulus pennant* (LN: Panch Darke Lokharke; EN: Northern Palm Squirrel);
- *Hystrix indica* (LN: Jure Dumsi; EN: Indian Crested Porcupine);
- *Millardia melta* (LN: Makhamali Muso; EN: Common Soft-furred Rat);
- *Bandicota indica* (LN: Thulo Dhande Muso; EN: Greater Bandicot-rat);
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat);
- *Canis aureus* (LN: Shyal; EN: Golden Jackal);
- *Sus scrofa* (LN: Bandel; EN: Wild Boar);
- *Axis axis* (LN: Chital; EN: Spotted Deer).

Invasive alien species
- *Ipomoea carnea* (LN: Besara m; EN: Shrubby Morning Glory);
- *Ageratum conyzoides* (LN: Gandhe; EN: Billy Goat Weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
*Phakalpur gaon*; 20m from lake; Main Trail: Shyaule to Zonapur road trail; 300m from lake.

Land use
- Forestland (60%); Grassland (10%);
- Farmland (15%); Settlement (10%); Other (5%).

Demography
- Population: 11,400; Male: 5,428; Female: 5,972; HHs: 1,912; Ethnicity: Brahmin/Chhetri (35.42%); Janajati (52.82%);
- Dalit (11.56%); Other (0.20%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Tharu.

Livestock at basin
No livestock.

Traditional production system
Fish farming.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: None.
Cultural services: None.

5. Restoration/Management
Structural management: None.
Non-structural management: Boring water inlet.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
No visitors; Good hotels in Attariya Bazar; Motorable road to Zonapur; Transportation services to Shyaule Bazar but private vehicles refer to the Phakalpur; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Trishakti-Bhajani Municipality; Ward-9; Dongpur.

Boundary: Core Area: Forest in all directions.
Basin Area: Forest in all directions.

Management responsibility: Sayapatri Lake Management Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area: Core Area: 24.1 ha; Avg. Length: 700 m; Avg. Width: 350 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 4 m–2 m; Basin Area: 623.6 ha.

Water Volume: Peak Period: 27,818,280 ltr; Dry period: 13,909,140 ltr; Inlet: None; Outlet: None.

Water quality: Physicochemical parameter: Temp: 25°C, pH: 6; Transparency: 0.5 m.

Soil feature: Dark color; Clay loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants: Core Area: Typha angustifolia (LN: Pater; EN: Broadleaf cattail); Nymphaea stellata (LN: Nikamal; EN: Blue lotus; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).

Major aquatic plants: Core Area: Utricularia australis (LN: Simghas; HT: S m; LU: None); Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT: Sr); Ceratophyllum demersum (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Paniyhau; HT: Ff; LU: None).

Major plants in basin: Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Shorea robusta (LN: Sal;
HT:Tr; LU:Fur, fuel; Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia (LN:Haldo; HT:Tr; LU:Tm); Emblica officinalis (LN:Amala; HT:Tr, LU:Med, Fruit); Oroxyllum indicum (LN:Tatelo; HT:Tr; LU:Med); Bombax ceiba (LN:Simal; HT:Tr; LU:Med);

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat)

Herpetofauna
Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider (LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python).

Birds
Passer domesticus (LN:Bhagero; EN:House Crow); Streptopelia chinensis (LN:Spotted Dove); Dicrurus macrocercus (LN:Chibe; EN:Drongo); Ocyceros birostris (LN:Grey Hornbill); Vanellus indicus (LN:Red-watteled lapwing); Falco tinnunculus (LN:Baaj; EN:Common Kestrel); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Herpestes sps (LN:Nyarimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Charbati; EN:Common Otter); Macaca mulatta (LN:Bhandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biral; EN:Jungle Cat); Funambulus pennantii (LN:Lokharke; EN:Squirrel);

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sps (LN:Banmara; EN:Thorughwort); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Sayapatri Gaun; 100m from lake; Main Trail:Dongpur to Sayapatri trail; 200m from lake.

Land use
Forestland (98%); Shrubland (1%); Grassland (1%).

Demography
Population:14917; Male:7507; Female:7410; HHs:20507; Ethnicity:Brahmin/Chhetri (19.44%); Janajati (68.05%); Dalit (12.24); Other (0.27%). Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Dongpur community
Livestock at basin
>1000.

Traditional production system
Rice field.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services
Provisional services
Fodder; Medicinal plants; Timber.

Cultural services
None.

5. Restoration/Management
Structural management
Dam, by local community.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
No visitors; No tourism potential.

7. Lake condition
Degrading.
4.8.45 Sukhaiya Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kailali district; Dhangadi Sub-metropolitancity; Ward no. 6; Dhangadi.

Boundary:
- Core Area: Forest in all directions.
- Basin Area: Forest in all directions.

Management responsibility: Dhangadi Lake Management Community.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 40.50°C (Jun/July); Avg. Min Temp: 17.70°C (Dec); Rainfall: 1577 mm/yr.

Area:
- Core Area: 5.9 ha; Avg. Length: 110 m; Avg. Width: 90 m; Avg. Depth: 3 m;
- Max–Min Surface Water Level: 4 m–2 m;
- Basin Area: 165.5 ha.

Water Volume:
- Peak Period: 1,124,086 ltr;
- Dry period: 357,664 ltr;
- Inlet: None;
- Outlet: None.

Water quality:
- Physicochemical parameter: Temp: 25°C, pH: 6;
- Transparency: 0.3 m.

Soil feature: Grey color; Sandy loam texture.

Shocks/vulnerability: Water volume decreasing.

Major aquatic plants:
- Core Area: Utricularia australis (LN: Simghas; HT: S; LU: None);
- Oryza rufipogon (LN: Jungalidhan; HT: E; LU: None);
- Phragmites sps (LN: Narkat; HT: Sr; LU: Fod);
- Ceratophyllum demersum (LN: Patai; HT: S; LU: None);
- Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None).

Major plants in basin:
- Dalbergia sissoo (LN: Sisoo; HT: Tr; LU: Tm);
- Shorea robusta (LN: Sal; HT: Tr; LU: Fur, Fuel);
- Synzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr);
- Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm);
- Emblica officinalis (LN: Amala; HT: Tr; LU: Med, Fruit);
- Oroxylum indicum (LN: Tatelo;
HT:Tr; LU:Med); Bombax ceiba (LN:Simal; HT:Tr; LU:Med);
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat)

Herpetofauna
Bungarus spp (LN:Karet; EN:Common Krait); Bufo melanostictus Schneider(LN:Khasre bhyaguto; EN:Black-spined toad); Python morulus (LN:Ajingar; EN:Python).

Birds
Francolinus francolinus (LN:Kalotitra; EN:Black Francolin); Gallusgallus (LN:Bankukhura; EN:Red Jungle fowl); Passer domesticus(LN:Bhagero; EN:Sparrow); Corvussplendens (LN:Kaag; EN: House Crow); Streptopelia Chinensis (LN:Dhukur; EN:Spotted Dove); Dicurus macrocercus(Chibe; EN:Drongo); Ocyceros birostris (LN:Dhanes; EN:Grey Hornbill); Vanellus indicus (LN:huuttitita; EN:Red-watteled lapwing); Falco tinnunculus(LN:Baaj; EN:Common Kestrel); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Herpestes spp (LN:Nyarimusa; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal); Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Macaque); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennantii (LN:Lokharke; EN; Northen palm squirrel).

Invasive alien species
Lantana camara (LN:Malera; EN:Tickberry); Eupatorium spp (LN:Banmara; EN:Thoroughwort); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Dhangadi Bazar; 100 m from lake; Main Trail:Dhangadi to Jakhor Tal, Road:100 m from lake.

Land use
Forestland (70%); Agriculture (28%); Grassland (2%).

Demography
Population:9,304; Male:4,474; Female:4,830; HHS:1,492; Ethnicity: Brahmin/Chhetri (22.97%); Janajati (70%); Dalit (6.35%); Other (0.4%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Livestock at basin
>500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fish supply.

Cultural services
None.

5. Restoration/Management

Structural management
Dam, by local community.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors; No tourism potential.

7. Lake condition

Degrading.
4.8.46 Sukhaliya Lake

Conservation status None.


Geographical position Mahabharat Range.

Administrative feature FWDR; Kailali district; Godhariya Municipality; Ward-2; Karketi.

Boundary Core Area: Forest in all directions.

Basin Area: Forest in all directions.

Management responsibility Puraina Management Community.

Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area Core Area: 10ha; Avg. Length: 200 m; Avg. Width: 90 m; Avg. Depth: 4 m; Max–Min Surface Water Level: 6 m–2 m; Basin Area: 1022.8 ha.

Water Volume Peak Period: 3,065,688 ltr; Dry period: 1,021,896 ltr; Inlet: None; Outlet: None.

Water quality Physicochemical parameter: Temp.: 25°C, pH: 6; Transparency: 0.4 m.

Soil feature Grey color; Sandy loam texture.

Shocks/vulnerability Water volume decreasing.

Major aquatic plants Core Area: Oryza rufipogon (LN: Jungalidhan; HT: E m; LU: None); Phragmites sps (LN: Narkat; HT: Sr; LU: Fod); Ceratophyllum demersum (LN: Patai; HT: S m; LU: None); Hydrilla sps (LN: Panijhyau; HT: Ff; LU: None)

Major plants in basin Shorea robusta (LN: sal; HT: Tr; LU: Ful); Synzigium cumini (LN: jamun; HT: Tr; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia
catechu (LN:Khayar; HT:Tr; LU:Tm, Fr); Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Med);”

Fish
None.

Herpetofauna
Buttaphrynus melanostictus (LN:Kalokhasre Bhyaguto; EN:Blackspined Toad); Calotes versicolor (LN:Cheparo; EN:Garden lizard); Varanus bengalensis (LN:Gohoro; EN:Monitor Lizard); Bungarus spp (LN:Karet; EN:Common Krait); Naja naja (LN:Cobra; EN:Common Cobra).

Birds
Passer domesticus (LN:Bhagero; EN:Sparrow); Corvus splendens (LN:Kaag; EN: House Crow); Streptopelia Chinensis (LN: Dhukur; EN: Spotted Dove); Ocyceros birostris (LN:Dhanes; EN:Grey Hornbill); Coracias bengalensis (LN:Theuwa; EN:Indian Roller); Halcyon smyrnensis (LN:Matikore; EN:Kingfisher).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat)

Invasive alien species
Ipomoea carnea (LN:Besara m; EN:Pink morning glory); Ageratina adenophora (LN:Lahare banmara; EN:Crofton weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Karketi; 100 m from lake; Main Trail: Mahendra high to Chamala road; 100 m from lake.

Land use
Forestland (70%); Agriculture (28%); Grassland (2%).

Demography
Population:22017; Male:10677; Female:11340; HHs:3828; Ethnicity: Brahmin/Chhetri (37.58%); Janajati (36.71%); Dalit (25.49%); Other (0.225%). Major Religion:Hindu (CBS 2012).

Jurisdiction/ownership
State.

Livestock at basin
>500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors; No hotels at lake site; No tourism potential.

7. Lake condition
Degrading.
4.8.47 Sunhara Tal

1. General Feature

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kailali district; Pawera VDC.; Ward no.3; Chhotki Paliya.

Boundary:
- Core Area: Farmland in west; road to India in east; Pabera to Badki Paliya road in north and human settlement in south.
- Basin Area: Mohana nadi in west and south; Guldrahawa Tal in east; Chhotki paliya to Paliyaghat road in north.

Management responsibility: Jana Kalyana Higher Secondary School, Chhoti Paliya.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp:40.5°C (Jun/July); Avg. Min:17.7°C (Dec); Rainfall: 1577mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area:
- Core Area: 5 ha; Avg. Length:200 m; Avg. Width:40 m; Avg. Depth:2 m; Max–Min Surface Water Level:3-1 m; Basin Area: 50 ha.

Water Volume:
- Peak Period:33,000,000 ltr; Dry period:8,250,000 ltr; Inlet:None; Outlet:None.

Water quality: Physiochemical parameter:Temp.:37.2°C, pH:9.3; DO:4.2mg/l; Transparency:0.4m.

Soil feature: Grey color; Sandy loam.

Shocks/vulnerability: Water Volume decrease.

Major aquatic plants: None.

Major plants in basin:
- *Bombox ceiba* (LN:Simal; HT:Tr; LU:Tm);
- *Syzygium cumini* (LN:jamun; HT:TR; LU:Tm, Md);
- *Dalbergia sisoo* (LN:Sisoo; HT:Tr; LU:Tm);
- *Zizyphus rugosa* (LN:Rukh Bayar; HT:Tr; LU:Med);
- *Eucalyptus alba* (LN:Masala;
**Fish**  
*Labeo rohita* (LN:Rohu; LU:Meat), *Cirrhinus mrigala* (LN:Naini; LU:Meat); *Clarias batrachus* (LN:Mangur; LU:Meat); *Catla catla* (LN:Vyakur; LU:Meat); *Puntius sarona* (LN:Kande; LU:Meat); *Puntius ticto* (LN:Bhite; LU:Meat); *Cetanoharyngodon idella* (LN: Grass Carp; LU:Meat); *Hypophthalmichthys nobilis* (EN:Bighead Carp; LU:Meat); *Hypophthalmichthys molitrix* (LN:Silver Carp; LU:Meat).

**Herpetofauna**  
*Bufo melanostictus* (LN:Khashre Bhyaguto; EN:Black-spined Toad); *Kaloula taprobanica* (LN:Byaguyo; EN:Srilanka Bullfrog); *Euphlyctis cyanophlyctis* (LN:Tik-tike Paha; EN:Skittring Frog); *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s Bullfrog); *Xenochrophis piscator* (LN:Pani Sarpa; EN:Chequered Keelback Watersnake); *Varanus flavescens* (LN:Sun Gohoro; EN:Golden Monitor Lizard); *Indotestudo elongata* (LN:Kachhuwa; EN:Yellow-headed Tortoise); *Asynblepharus sikimmensis* (LN:Chikni Girgit; EN:Sikkem Skink).

**Birds**  
*Phalacrocorax niger* (LN:Sano Jalewa; EN:Little Cormorent); *Bulbulcus ibis* (LN:Bastu Bakulla; EN:Cattle Egret); *Halcyon capensis* (LN:Thulo Matikore; EN:Strok-billed Kingfisher); *Halcyon smyrnensis* (LN:Setokanthe Matikore; EN:White-throated Kingfisher); *Metopidius indicus* (LN:Lama Aunle; EN:Bronze-winged Jacana); *Ichthyophaga ichthyaetus* (LN; Machhakul; EN:Grey-headed Fisheagle); *Coracias begalensis* (LN:Theuwa; EN:Indian Roller).

**Mammals**  
*Lepus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulus pennant* (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); *Hystrix indica* (LN:Jure Dumsi; EN:Indian Crested Porcupine); *Millardia meltada* (LN:Makhamali Muso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:Thulo Dhande Muso; EN:Greater Bandicot-rat); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Canis aureus* (LN:Shyal; EN; Golden Jackle); *Sus scrofa* (LN:Bandel; EN:Wild Boar); *Axis axis* (LN: Chital; EN:Spotted Deer).

**Invasive alien species**  
*Ipomoea carnia* (LN:Besara m; EN:Shrubby Morning Glory); *Parthenum hysterophorus* (LN:Kanike Ghans; EN:Bitter Weed); *Ageratum conyzoides* (LN:Ghande; EN:Billy Goat Weed).

**Endemic plant/animal**  
None.

### 3. Socio-Economy at Basin

**Nearby settlement**  
*Chhoti Paliya; 20m from lake; Main Trail:Dhangadi-Rampur road; 1km (Pabera Bazar to Chhoti Paliya road; 20m) from lake.

**Land use**  
Forestland (20%); Grassland (5%); Farmland (40%); Settlement (30%); Other (5%).

**Demography**  
Population:5,835; Male:2,813; Female:3,022; HHs:980; Ethnicity:Brahmin/Chhetri (8.45%); Janajati (90.45%); Dalit (0.55%); Other (0.55%). Major Religion:Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**  
State.

**Wetlands dependent community**  
Tharu.
Livestock at basin >500.
Traditional production system Fish farming.
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services None.
Cultural services None.

5. Restoration/Management
Structural management None.
Non-structural management None.
Conservation plan None.
Monitoring plan None.

6. Tourism information
No visitors; Good hotels in Pabera Bazar; Motorable road to Chhotki Paliya; Transportation services to Pabera Bazar but private vehicles refer to the Lake from lake; Needs promotional activities.

7. Lake condition Degrading.
4.8.48 Thongruwa Tal

1. General Feature

Conservation status
None.

Geographical coordination
Lat: 28.7269556°N; Lon: 80.77126001°E; Alt: 175 masl.

Geographical position
Tarai.

Administrative feature
FWDR; Kailali district; Chaumala VDC.; Ward-1; Chaumala.

Boundary
Core Area: Forest in east and south; Farmland and Kurkuria gaun in west and north.
Basin Area: Forest in all directions.

Management responsibility
Kurkuriya lake Management Community.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max: Temp: 40.50°C (Jun/July); Avg. Min: 17.70°C (Dec); Rainfall: 1577 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 0.6ha; Avg. Length: 100 m; Avg. Width: 80 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3 m–1 m; Basin Area: 48.1 ha.

Water Volume
Peak Period: 681,264 ltr; Dry period: 227,088 ltr; Inlet: None; Outlet: None.

Water quality
Physicochemical parameter: Temp.: 24°C, pH: 6; Transparency: 0.3 m.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Typha angustifolia (LN:Pater; EN: Broadleaf cattail);
Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn);
Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).

Major plants in basin
Shorea robusta (LN: sal; HT: Tr; LU: Ful); Syzigium cumini (LN: jamun; HT: Tr; LU: Tm); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm); Acacia
catechu (LN: Khayar; HT: Tr; LU: Tm, Fr); Dalbergia sisoo (LN: Sisoo; HT: Hr; LU: Med).

Fish
Cetanoharyngodon idella (LN: Carp; LU: Meat); Ctenopharyngodon idella (LN: Grass carp; LU: Meat); Hypophthalmichthys nobilis (EN: Bighead; LU: Meat); Labeo rohita (LN: Rohu; LU: Meat)

Herpetofauna
Bufo melanostictus (LN: Khasre bhyaguto; EN: Black-spined toad); Hoplobatrachus crassus (LN: Sirke Paha; EN: Jerdon’s bull frog); Varanus bengalensis (LN: Bhainse; EN: Monitor lizard); Polypedtes maculates (LN: Rukh Bhyaguto).

Birds
Casmerodius albus (EN: Great Egret); Halcyon pileata (LN: Fisto; EN: Yellow-cheeked Tit); Vanellus indicus (EN: Red-wattled lapwing); Falco tinnunculus (LN: Baaj; EN: Common Kestrel)

Mammals
Felis bengalensis (LN: Charibagh; EN: Leopard Cat); Lutra lutra (LN: Oont; EN: Common Otter); Macaca mulatta (LN: Bandar; EN: Rhesus Macaque); Felis chaus (LN: Ban Biralo; EN: Jungle Cat). Semnopithecus hector (LN: Dedu; EN: Terai grey langur).

Invasive alien species
Lantana camara (LN: Maleria; EN: Tickberry); Eupatorium sp (LN: Banmara; EN: Thoroughwort)

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Kurkuriya Gaun; 100 m from lake; Main Trail: Chamala to Kurkuriya gaun road; 50 m from lake.

Land use
Forestland (20%); Farmland (60%); Settlement (20%); Others (10%).

Demography
Population: 27,586; Male: 12,729; Female: 14,857; HHs: 5,293; Ethnicity: Brahmin/Chhetri (50%); Janajati (30%); Dalit (18%); Other (2%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Kurkuriya gaun.

Livestock at basin
>2000.

Traditional production system
Rice field, Fishery.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors; No tourism potential.

7. Lake condition

Degrading.
4.9 KANCHAPUR DISTRICT

MAP 9: Map showing lakes in Kanchanpur District.
1. General Feature

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kanchanpur district; Shankarpur VDC.; Ward no.3; Kanjagaon.

Boundary:
- Core Area: Kanjagaon to Kasawa Trail in north and south; Farmland in east and west.
- Basin Area: Kharrakhola in north; Dodanadi in west; Kanjagau road in south and Kanjagau community forest in east.

Management responsibility: Shankarpur VDC.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area: Core Area:1.9024ha; Avg. Length:190 m; Avg. Width:20 m; Avg. Depth:2 m; Max–Min Surface Water Level:3-1 m; Basin Area:100ha.

Water Volume: Peak Period:11,400,000ltr; Dry period:1,500,000 ltr; Inlet:None; Outlet:None.

Water quality: Physiochemical parameter: Temp:28.5°C, pH:8.2; DO:5.2mg/l; Transparency:0.4 m.

Soil feature: Grey color; Sandy Clay loam.

Shocks/vulnerability: Water Volume decrease.

Major aquatic plants: Core Area:None.

Major plants in basin: Shorearobusta (LN: sal; HT:Tr; LU:Tml); Saccharum spontanim (LN: Kans; HT: Grass; LU: Fd); Imperata cylindrica (LN: Siru; HT: Grass;
**Fish**

Clarias batrachus (LN:Mangur; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat), Cirrhinus mrigala (LN:Naini; LU:Meat); Catla catla (LN:Vyakur; LU:Meat); Puntio s sarona (LN:Kande; LU:Meat); Pun tiosticto (LN:Bhite; LU:Meat).

**Herpetofauna**

Microhyla oranata (LN:Byang; EN:Oranate Rice Frog); Bufostomaticus (LN:KhatkhyarriMagoba; EN:Assam Toad); Kaloula taprobana (LN:Byaguyo; EN:Srilanka Bullfrog); Euphlyctis cyanophlyctis (LN:Tik- tike Paha; EN:Skittring Frog); Pangshura tatum (LN:Kachhuwa; EN:Indian Roofed Turtle); Sphaerotheca breviceps (LN:RaneBhyaguto; EN:Indian Burrowing Frog); Melanochelys trijuga (LN:Kachhuwa; EN; Eastern Black Turtle); Xenochrophis piscator (LN:Panisarpa; EN:ChequeredKeelbackWatersnake); Amphiesma stolatum (LN:Harara; EN:Buff-striped Keelback).

**Birds**

Metopidius indicus (LN:Lama Aunle; EN:Bronze-winged Jacana); Haliaeetus leucoryphus (LN:BoksiCheel; EN:Pallas’s Fish Eagle); Ceryle rudis (LN:ChhibreMatikore; EN:Pied Kingfisher); Amaurornis phoenicurus (LN:SimKukhura; EN:White-breasted Waterhen); Bubulcus ibis (LN:BastuBakulla; EN:Cattle Greget); Halcyon capensis (LN:ThuloMatikore; EN:Strok-billed Kingfisher); Pavocristatus (LN:Majur; EN:Indian Peafowl); Gallus gallus (LN:Luiche; EN:Red Jungle Fowl).

**Mammals**

Lepus nigricollis (LN:Ban Kharayo; EN:Indian Hare); Funambulus pennant (LN:PanchDarkeLokharke; EN:Northern Palm Squirrel); Millardi amelta (LN:MakhamaliMuso; EN:Common Soft-furred Rat); Bandicota indica (LN:ThuloDhandeMuso; EN:Greater Bandicoot); Hystrix indica (LN:Jure Dumsi; EN:Indian Crested Porcupine) Felis Bengalensis (LN:Chari Bagh; EN:Leopard Cat); Canis aureus (LN:Shyal; EN; Golden Jackle); Macaca mulatta (LN:Rato Bandar; EN:Rhesus Monkey); Boselaphus tragocamelus (LN:Nil Gai; EN:Blue Bull); Axis axis (LN: Chital; EN:Spotted Deer); Sus scrofa (LN:Bandel; EN:Wild Boar).

**Invasive alien species**

Ipomoea carnea (LN:Besara m; EN:Shrubby Morning Glory).

**Endemic plant/animal**

None.

3. Socio-Economy at Basin

**Nearby settlement**

Kasawagaon; 50m from lake; Main Trail:Kanjagaon to Kasawa trail; 100m from lake.

**Land use**

Forestland (20%); Agriculture (60%); Settlement (15%); Others (5%).

**Demography**

Population:7251; Male:3549; Female:3702; HHs:1,065; Ethnicity: Brahmin/Chhetri (5.92%); Janajati (91.67%); Dalit (1.83%); Other (0.58%). Major Religion:Hinduism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

Tharu.

**Livestock at basin**

>1000.
Traditional production system | Irrigation.
Traditional water use practices | None.
Cultural record | None.
Genesis/origin of lake | None.

4. Ecosystem Goods/Services
Provisional services | None.
Cultural services | None.

5. Restoration/Management
Structural management | None.
Non-structural management | None.
Conservation plan | None.
Monitoring plan | None.

6. Tourism information
No visitors; Few good hotels in Belauri Bazar; Motorable road to Belauri Bazaar and Belauri Bazar to Dhangadi; Transportation services from Mahendrangar to Belauri Bazar or Dhangadi to Belauri Bazar; Needs promotional activities.

7. Lake condition | Degrading.
4.9.2 Ajingar Lake

1. General Feature

Conservation status: None.
Geographical position: Terai Range.
Administrative feature: FWDR; Kanchanpur district; Daijee VDC; Ward no. 9; Jhalari Municipality; Sisaiya.
Boundary: Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility: Sisaiya Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Seasonal.

2. Ecological Feature

Climatic feature: Avg. Max. Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area:0.7 ha; Avg. Length:150 m; Avg. Width:65 m; Avg. Depth:5 m; Max–Min Surface Water Level:2-3 m; Basin Area:11.4 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp:24°C; pH:6.0; Transparency:0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: *Typha angustifolia* (LN:Pater; HT: Hr; LU: None) *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus, HT:Ff; LU:Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).
Major plants in basin: *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med); *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Tm); *Shorea robusta* (LN: Sal; HT: Tr; LU: Fur, fuel); *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Tm, Fr); *Adena cordifolia*
Fish
None

Herpetofauna
Bufo melanostictus (LN:Khasre bhyaguto; EN:Black-spined toad); Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Ptyas mucosa (LN:Dhaman; EN:Ratsnake).

Birds
Cacromeridius albus (EN:Great Egret; EN:Thuloseto Bakulla); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vannellusindicus (LN:Huttititau; EN:Red-watteled lapwing); Falcotinnunculus (LN:Baaj; EN:Common Kestrel);

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Lokharke; EN:Squirrel);

Invasive alien species
Lantana camara (LN:Malera; EN:Tickberry); Eupatorium sps (LN:Bannara; EN:Thorughwort), Parthenium hyst chewphorus (LN:Gajar jhar; EN:Famine weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Sisaiya; 1km from lake; Main Trail:Kaluwapur-Sisaiya road; 1km from lake to the main trail.

Land use
Forestland (99%); Shrubland (1%).

Demography
Population: 24,347; Male: 11,407; Female: 12,940; HHs: 4,782; Ethnicity: Brahmin/Chhetri (51.56%); Janajati (38.4%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
None.

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

>200 visitors/yr; No hotels at the lake site; Few hotels in Sisaya; No tourism potential.

7. Lake condition
Degrading.
4.9.3 Baijyanath Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kanchanpur district; Bani Municipality; Ward no. 2; Krishnapuri.
Boundary: Core Area: Farmland in south, forest in all directions.
Basin Area: Paddy field in east and forest in other directions.
Management responsibility: Galabari Community Forest.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp:30.5 °C (Jun/July); Avg. Min:17.5 °C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 0.9936 ha; Avg. Length: 80 m; Avg. Width: 40 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; Basin Area: 20 ha.
Water Volume: Peak Period: 6,400,000 ltr; Dry period: 325,000 ltr; Inlet: None; Outlet: None.
Water quality: Physiochemical parameter: Temp.: 30.1 °C, pH: 8.3; DO: 3.6; Transparency: 0.3 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water Hyacinth.
Major aquatic plants: Core Area: Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT:Ff; LU:Orn); Nelumbo nucifera (LN: Kamal; HT:Ff; LU:none).
Major plants in basin: Shorea robusta (LN: sal; HT: Tr; LU: Tml); Syzygium cumini (LN: jamun; HT: Tr; LU: Tm, Md); Terminalia alata (LN: Asna; HT: Tr; LU: Tm);
Mallotus philippensis (LN:Sindhure; HT: Hr; LU: Fd); Osbeckia stellate (LN: Asare; HT: Sh, LU: Md, Leaf); Toonaciliata (LN: Tooni; HT: Tr; LU: Tm); Imperata cylindrica (LN: Siru; HT: Grass; LU: Fd); Thysanolaena maxima (LN: Amriso; HT: Grass; LU: Fd).

Fish
Cetanoharyngodonidella (LN: Grass Carp; LU: Meat); Labedorhita (LN: Rohu; LU: Meat); Hypophthalmichthys nobilis (EN: Bighead Carp; LU: Meat); Hypophthalmichthys molitrix (LN: Silver Carp; LU: Meat); Cirrhinus mirgala (LN: Naini; LU: Meat).

Herpetofauna
Bufomelonostictus (LN: Khashre Bhyaguto; EN: Black-spine Toad); Bufostomaticus (LN: Khatkhyarri Magoba; EN: Assam Toad); Euphlyctiscyanophlyctis (LN: Tik-tike Paha; EN: Skittering Frog); Limnonectasteraensis (LN: Tik-tike Paha; EN: Nepalese Terai Frog); Sphaerotheracrevipes (LN: Rani Byaguyo; EN: Indian Burrowing Frog) Hardellathurjii (LN: Kachhuwa; EN: Eastern Crowned River Tutle); Pangshurapextum (LN: Kachhuwa; EN: Indian Roofed Turtle); Chitraindica (LN: Badahar; EN: Narrow-headed Softshell Turtle); Rhapphotyphlops braminus (LN: Teliya Sanp; EN: Common Blind Snake); Enhydris enhydris (LN: Pani Sarpa; EN: Common Smooth Water snake); Varanus bengalensis (LN: Bhainse Gohoro; EN: Bengal Monitor Lizard); Varanus flavescens (LN: Sun Gohoro; EN: Golden Monitor Lizard).

Birds
Dendrocygna javanica (LN: Silsile; EN: Lesser Whistling-duck); Amaurornis phoenicurus (LN: Sim Kukhura; EN: White-breasted Waterhen); Metopidius indicus (LN: Lama Aunle; EN: Bronze-winged Jacana); Phalacrocorax niloticus (LN: Sano Jalewa; EN: Little Cormorant); Bulbuculus ibis (EN: Bastu Bakulla; EN: Cattle Egret); Anthracoceros albirostris (EN: Kalo Dhanesh; EN: Oriental Pied Hornbill); Mulleripicus pulverulentus (LN: Raj Lahache; EN: Great Slaty Woodpecker); Grus antigone (LN: Sarus; EN: Sarus Crane); Pavo rothschildianus (LN: Majur; EN: Indian Peafowl).

Mammals
Lepus nigricollis (LN: Kharayo; EN: Indian Hare); Hystrix brachyuran (LN: Malaya Dhumsi; EN: Malayan Porcupine); Felis bengalensis (LN: Chari Bagh; EN: Leopard Cat); Patherapardus (LN: Chituwa; EN: Common Leopard), Pantheratigris (LN: Pate Bagh; EN: Bengal Tiger); Canis aureus (LN: Shyal; EN: Golden Jackal); Macac macaca (LN: Bandel; EN: Eurasian Wild Boar); Boselaphus tragocamelus (LN: Nil Gai; EN: Blue Bull).

Invasive alien species
Ipomoea carnea (LN: Besara m; EN: Shrubby Morning Glory).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Bani Gaon; 20 from lake; Main Trail: Bani Bazar to Baijyanath trail; 10m from lake.

Land use
Forestland (60%); Agriculture (20%); Settlement (10%); Others (10%).

Demography
Population: 36,706; Male: 17,552; Female: 19,154; HHs: 6,723; Ethnicity: Brahmin/Chhetri (53.92%); Janajati (32.39%); Dalit (13.32%); Other (0.37%). Major Religion: Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership: State.
Wetlands dependent community: None.
Livestock at basin: Restriction for livestock.
Traditional production system: Fish farming.
Traditional water use practices: Irrigation.
Cultural record: Baijyanath Temple.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish, Irrigation in Rainy season.
Cultural services: Aesthetic/Religious.

5. Restoration/Management
Structural management: None.
Non-structural management: Restriction for Livestocks.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
<500 visitors; Few good hotels in Bani Bazar which is 100m from lake. Lake is very close to the Mahendra Highway; Transportation services from Attariya to Mahendrangar at any time; Needs promotional activities.

7. Lake condition: Degrading.
4.9.4 Banda Lake

Wetland code:
Toposheet no:2880 06B
Date of inventory: May 27, 2016

1. General Feature

Conservation status None.
Geographical position Terai Range.
Administrative feature FWDR; Kanchanpur district; Belauri Municipality; Ward no. 1, 2 & 4; Bhaisouri Gaun.
Boundary
Core Area:Agricultural land in east and west direction, Nursery in South and Road in North direction.
Basin Area:Forest in all directions.
Management responsibility Bhaisouri Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:21ha; Avg. Length:2000 m; Avg. Width:1500 m; Avg. Depth:8.5 m; Max–Min Surface Water Level:2-3 m; Basin Area:78.1 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.:24°C, pH:5.7; Transparency:0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Typha angustifolia (LN:Pater; HT:Hr; LU:None) Nymphea stellata (LN:Nilkamal; HT:FF; LU:Orn); Sphagnum nepalensis (LN:Jhyau; HT:E m; LU:None).
Major plants in basin Acacia catechu (LN:Khayar; HT:Tr; LU:Tm, Med); Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Tm); Shorea robusta (LN:Sal; HT:Tr; LU:Fur, fuel); Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adena cordifolia
Fish
*Cetanohargygodon idella* (LN:Carp; LU:Meat); *Labeo rohita* (LN:Rohu; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:meat).

Herpetofauna
*Bufo melanostictus* (LN:Khasre bhyaguto; EN:Black-spined toad); *Calotes versicolor* (LN:Cheparo; EN:Garden Lizard); *Python morulus* (LN:Ajingar; EN:Asiatic Rock Python); *Ptyas mucosa* (LN:Dhaman; EN:Ratsnake).

Birds
*Casmerodius albus* (EN:Great Egret; EN:Thuloseto Bakulla); *Halcyon pileata* (LN:Fisto; EN:Yellow-cheeked Tit); *Vanellus indicus* (LN:Huttitalu; EN:Red-watteled lapwing); *Falcocinunculus* (LN:Baaj; EN:Common Kestrel); *Treron pompadora* (LN:Haleso; EN:Pompadour Green Pigeon); *Turdoides striata* (LN:Bhyakur; EN:Jungle Babbler).

Mammals
*Macaca mulatta* (LN:Bandar; EN:Rhesus Monkey); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennanti* (LN:Lokharke; EN:Squirrel); *Vulpes bengalensis* (LN:Fushre fauro; EN:Bengal Fox); *Semnopithecus hector* (LN:Dedu; EN:Terai grey langur).

Invasive alien species
*Mikania micrantha* (LN:Lahare Banmara; EN:Bitter Vine); *Eupatorium sps* (LN:Banmara; EN:Thoroughwort).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
*Bhaisouri Gaun*; 1km from lake; Main Trail:Puspalal Basti-Khiriya-Bhaisouri; 1km from lake.

Land use
Agriculture (100%).

Demography
Population:13,707; Male:6,461; Female:7,266; HHs:2,175; Ethnicity:Brahmin/Chhetri (31.04%); Janajati (58.96%); Dalit (5%); Other (5%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>500.

Traditional production system
Traditional farming including aromatic & medicinal plant.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Medicinal plants.

Cultural services
Aesthetic; Religious; Educational.

5. Restoration/Management

Structural management
None.

Non-structural management
Informal restriction.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

>3,000 visitors/yr; No hotels at lake site; Moderate tourism potential. Needs promotional activities.

7. Lake condition
Degrading.
4.9.5 Bantaria Tal

**1. General Feature**

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kanchanpur district; Belluri Municipality; Ward no. 2; Shreepur.
Boundary Core Area:Forest in the west, Farmland in the east and north and road in south.
Basin Area:Kaluwapur to Belauri Bazar road in west, Bantaria forest in east, Mainagaon to Bakunda road in south and north.
Management responsibility None.
Wetlands type Fresh water/natural; Lacustrine; Temporary.

**2. Ecological Feature**

Climatic feature Avg. Max.Temp:30.5 °C (Jun/July); Avg. Min:17.5 °C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:6 ha; Avg. Length:200 m; Avg. Width:60 m; Avg. Depth:1.5 m; Max–Min Surface Water Level:2.8 m-0.2 m; Basin Area:60 ha.
Water Volume Peak Period:33,600,000 ltr; Dry period:300,000 ltr; Inlet:None; Outlet:None.
Water quality Physiochemical parameter:Temp.:28.4 °C, pH:7.6; DO:3.8; Transparency:0.4 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water Hyacinth.
Major aquatic plants Core Area:None.
Major plants in basin **Shorea robusta** (LN: sal; HT:Tr; LU:Tml); **Syzygium cumini** (LN: jamun;
HT:TR; LU:Tm, Md); *Terminalia alata* (LN:Asna; HT:Tr; LU:Tm); *Mallotus philippensis* (LN:Sindhure; HT:Hr; LU:Fd); *Trewia nudiflora* (LN:Vellor; HT:Tr; LU:Fd).

**Fish**
*Cetanoharyngodon idella* (LN:Grass Carp; LU:Meat); *Labeo rohita* (LN:Rohu; LU:Meat); *Hypophthalmichthys nobilis* (EN:Bighead Carp; LU:Meat); *Hypophthalmichthys molitrix* (LN:Silver Carp; LU:Meat); *Cirrhinus mrigala* (LN:Naini; LU:Meat), *Catla catla* (LN:Vyakur; LU:Meat).

**Herpetofauna**
*Bufo stomaticus* (LN:Khatkhyarri Magoba; EN:Assam Toad); *Kaloula taprobanica* (LN:Byaguyo; EN:Srilanka Bullfrog); *Euphlyctis cyanophlyctis* (LN:Tik-tike Paha; EN:Skittring Frog); *Melanochelys trijuga* (LN:Kachhuwa; EN; Eastern Blace Turtle); *Aspideretes gangeticus* (LN:Kataiya; EN:Indian Soft Shell); *Python molurus* (LN:Ajinger; EN:Burmese Rock Python); *Amphieisma stolatum* (LN:Harara; EN:Buff-striped Keelback); *Xenochophis piscator* (LN:Pani Sarpa; EN:Chequered Keelback Watersnake); *Naja naja* (GN:Goban Sarpa; EN:Spectacled Cobra).

**Birds**
*Phalacrocorax niger* (LN:Sano Jalewa; EN:Little Cormorent); *Casmerodius albus* (EN:Thulo Seto Bakull; EN:Great Egret); *Ciconia episcopus* (LN:Lovipapi Garud; EN:Wooly-necked Stork); *Pavo cristatus* (LN:Major; EN:Indian Peafowl); *Gallus gallus* ( LN:Luiche; EN:Red Jungle Fowl); *Bubulcus ibis* (LN:Bastu Bakulla; EN:Cattle Egret); *Halcyon smyrnensis* (LN:Setokanthe Matekore; EN:White-throated Kingfisher); *Ceryle rudis* (LN:Chirbire Matikore; EN:Pied Kingfisher); *Pernisptilorhyncus* (LN:Madhuwa; EN:Oriental Honey Buzzard); *Sturis contra* (LN:Dangre Sarau; EN:Asian Pied Starling).

**Mammals**
*Lepus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Felis bengalensis* (LN:Chari Bagh; EN:Leopard Cat); *Canis aureus* (LN:Shyal; EN:Golden Jackle); *Macaca mulatta* (LN:Rato Bandar; EN:Rhesus Monkey); *Sus scrofa* (LN:Bandel; EN:Eurasian Wild Boar); *Funambulus pennant* (LN:Panchdharke Lokharke; EN:Northern Palm Squirrel).

**Invasive alien species**
*Ipomoea cornia* (LN:Besara m; EN:Shrubby Morning Glory); *Ageratum conizoides* (LN:Gandhe; EN:Billy Goat Weed).

**Endemic plant/animal**
None.

### 3. Socio-Economy at Basin

**Nearby settlement**
*Maina Gaon*; 50m from lake; Main Trail:Kaluwapur to Belauri Bazarroad; 50m from lake.

**Land use**
Forestland (30%); Grassland (5%) Agriculture (50%); Settlement (10%); Others (5%).

**Demography**
Population:21,387; Male:10,223; Female:11,164; HHs:3,554; Ethnicity:Brahmin/Chhetri (29.49%); Janajati (65.89%); Dalit (3.70%); Other (0.92%). Major Religion:Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**
State.

**Wetlands dependent community**
Tharu Community seasonal.

**Livestock at basin**
>1000.
Traditional production system: Fish farming, Irrigation.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish, Irrigation.
Cultural services: None.

5. Restoration/Management
Structural management: None.
Non-structural management: None
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
>300 visitors/year; Few good hotels in Belauri Bazar which is 3km from lake; Motorable road to Maina Gaon; Transportation services from Mahendrangar to Belauri Bazar; Needs promotional activities.

7. Lake condition
Degrading.
4.9.6 Betkot

**Wetland code:**
- **Toposheet no:** 2980 14C
- **Date of inventory:** May 24, 2016

1. **General Feature**

   **Conservation status:** None.
   **Geographical coordination:** Lat: 29.024034209°N; Lon: 80.904504798°E; Alt: 151 masl.
   **Geographical position:** Terai.
   **Administrative feature:** FWDR; Kanchanpur district; Daijee V.D.Cs; Ward no. 2; Betkot.
   **Boundary:**
     - **Core Area:** Forest in all directions.
     - **Basin Area:** Forest in all directions.
   **Management responsibility:** Betkot Conservation Committee with the representation of DDC.
   **Wetlands type:** Fresh water/natural; Lacustrine; Permanent.

2. **Ecological Feature**

   **Climatic feature:**
   - Avg. Max: Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec);
   - Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).

   **Area**
   - Core Area: 5 ha; Avg. Length: 200 m; Avg. Width: 150 m; Avg. Depth: 5 m; Max–Min Surface Water Level: NA; Basin Area: 35.5ha.

   **Water Volume:** NA.

   **Water quality:**
   - Physicochemical parameter: Temp: 24°C, pH: 6; Electric conductivity: N.A; Transparency: 0.5 m.

   **Soil feature:** Grey color; Sandy loam texture.

   **Shocks/vulnerability:** Water volume decreasing.

   **Major aquatic plants**
   - Core Area: *Typha angustifolia* (LN: Pater; HT: Hr; LU: None); *Nymphaea stellata* (LN: Nilkamal; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).

   **Major plants in basin**
   - *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med);
   - *Dalbergia sissoo* (LN: Sisoo; HT: Tr; LU: Tm);
   - *Shorea robusta* (LN: Sal; HT, fuel);
   - *Adena cordifolia* (LN: Haldo; HT: Tr; LU: Tm);
   - *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Tm, Fr);
   - *Bombax ceiba* (LN: Simal; HT: Tr; LU: Med); *Embilica officinalis* (LN: Amala; HT: Tr, LU: Med, Fruit);
   - *Oroxylum indicum* (LN: Tatelo; HT: Tr);
Fish
Butea monosperma (LN:Palash; HT:Tr; LU:Tm, Rel).
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat).
Herpetofauna
Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Ptyas mucosa (LN:Dhaman; EN:Rat snake); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Varanus bengalensis (LN:Bhainse; EN:Monitor lizard); Polypedtes maculates (LN:Rukh Bhyaguto; EN:Common Indian tree frog); Python morulus (LN:Ajingar; EN:Asiatic Rock Python).

Birds
Casmerodius albus (EN:Great Egret; EN:Thuloseto Bakulla); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:Huttitiitau; EN:Red-watteled lapwing); Falconiniunculus (LN:Baaj; EN:Common Kestrel); Treron pompadora (LN:Haleso; EN:Pompadour Green Pigeon); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Lokharke; EN:Squirrel).

Invasive alien species
Mikaniamicrantha (LN:Lahare Banmara; EN:Bitter Vien); Eupatorium sps (LN:Banmara; EN:Thorughwort); Ageratum conyzoides (LN:Nilo gande; EN:Cheek weed); Casia tora (LN:Kose; EN:Sickle pod).

Endemic plant/animal None.

3. Socio-Economy at Basin
Nearby settlement Chhela Gaun; 5 km from lake; Main Trail:Daiji-Chhela-Betkot-Dadeldhura; 5km from lake to the main trail.
Land use Forestland (95%); Agriculture (4%); Others (1%).
Demography Population:27,481; Male:12,985; Female:14,496; HHs:5,091; Ethnicity:Brahmin/Chhetri (51.57%); Janajati (38.43%); Dalit (5%); Other (5%). Major Religion:Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership State.
Wetlands dependent community None.
Livestock at basin None.
Traditional production system None.
Traditional water use practices Religious/ritual pond.
Cultural record Religious site; Baijanath Temple; Fair at Magh Sukla Dashami.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fodder; Medicinal plants.
Cultural services Aesthetic; Religious; Educational.

5. Restoration/Management
Structural management Wall around lake.
Non-structural management None.
Conservation plan None.
Monitoring plan None.

6. Tourism information
>2,000 visitors/yr; road close to Lake; No tourism potential.

7. Lake condition Degrading.
4.9.7 Copre Tal

**Wetland code:**
Toposheet no: 2980 14C
Date of inventory: June 28, 2016

### 1. General Feature

**Conservation status**
None.

**Geographical coordination**
Lat:29.03158°N; Lon:80.28837°E; Alt:621 masl.

**Geographical position**
Churiya Hills.

**Administrative feature**
FWDR; Kanchanpur district; Betkot municipality; Ward no. 4; Bagun.

**Boundary**
Core Area: Forest in all directions.
Basin Area: Baitada to Sai sau trail in west; Chullu Gad in east; Churiya hill with dense forest in north; Chullu Gad in south.

**Management responsibility**
None.

**Wetlands type**
Fresh water/natural; Lacustrine; Seasonal.

### 2. Ecological Feature

**Climatic feature**
Avg. Max Temp: 30.5°C (Jun/July); Avg. Min Temp: 17.5°C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**
Core Area: 0.9335 ha (Measured by GPS Etrex10); Avg. Length: 90 m; Avg. Width: 50 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2–1 m; Basin Area: 90 ha.

**Water Volume**
Peak Period: 9,000,000ltr; Dry period: No water; Inlet: None; Outlet: None.

**Water quality**
Physicchemical parameter: Temp.: 27.8°C, pH: 7.5; DO: 5.53mg/l, Transparency: 0.2m.

**Soil feature**
Grey color; Sandy loam texture.

**Shocks/vulnerability**
Water volume decreasing.

**Major aquatic plants**
Core Area: *Aconogonum molle* (LN: Thotne; HT: Sh; LU: Med, Veg, Cosmetic).

**Major plants in basin**
*Shorearobusta* (LN: sal; HT: Tr; LU: Tml); *Syzygium cumini* (LN: jamun; HT: Tr; LU: Tm, Md); *Terminalia alata* (LN: Asna; HT: Tr; LU: Tm); *Semecarpus anacardium* (LN: Bhalayo; HT: Sh; LU: Me); *Mallotus philippensis* (LN: Sindhure; HT: Hr; LU: Fd); *Artemisia vulgaris* (LN: Titepati; HT: Sh, LU: Md, Leaf); *Dioscorea bulbifera* (LN: Gittha; HT: Cl; LU: Fd, fruit); *Cassia fistula* (LN: Rajbriksha; HT: Tr; LU: Med, pod); *Bauhinia vahlii* (LN: Bhorla; HT: Cl, LU: Bed.); *Urtica dioica* (LN: Sisnu; HT: Herb; LU: Med, leaf); *Ceropegia macrantha* (LN: Ban Simi);
**3. Socio-Economy at Basin**

**Nearby settlement**
Bagun; 3km from lake; Main Trail: Bagun to Shivalinga; 2km from lake.

**Land use**
- Forestland (80%)
- Grassland (10%)
- Others (10%)

**Demography**
- Population: 27,481
- Male: 12,895
- Female: 14,496
- HHs: 5,091
- Ethnicity: Brahmin/Chhetri (57.72%); Janajati (21.85%); Dalit (19.41%); Other (1.02%)
- Major Religion: Hinduism/Buddhism (CBS 2012)

**Jurisdiction/ownership**
- State

**Livestock at basin**
- >200

**Traditional production system**
- None

**Traditional water use practices**
- None

**Cultural record**
- None

**Genesis/origin of lake**
- None

**4. Ecosystem Goods/Services**

**Provisional services**
- Fodder; Medicinal plants, Timber

**Cultural services**
- None

**5. Restoration/Management**

**Structural management**
- None

**Non-structural management**
- None

**Conservation plan**
- None

**Monitoring plan**
- None

**6. Tourism information**

No visitors; Few good hotels in the way (Chhela, Betkot); Motorable road to Shivalinga; Needs promotional activities.

**7. Lake condition**
Degrading
4.9.8 Gangla Tal

1. General Feature

Conservation status: None.
Geographical position: Tarai.
Administrative feature: FWDR; Kanchanpur district; Punarbas Municipality; Ward no.9; Dhakka.
Boundary:
   Core Area: Paddy field in all directions.
   Basin Area: Dhakka to Bhakunda trail in east; Sugarcane farmland in west; Belauri to Dhangadi road in south; Dhakka to Motipur trail in north.
Management responsibility: Shree Janasewa Krishi Sahakari Sastha Limited.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7 ml/yr. (www.beautifulfarwestnepal.blogspot.com).
Area:
   Core Area: 1.9115 ha; Avg. Length: 70 m; Avg. Width: 60 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; Basin Area: 50 ha.
Water Volume:
   Peak Period: 8,400,000 ltr; Dry period: 1,200,000 ltr; Inlet: None; Outlet: None.
Water quality:
   Physiochemical parameter: Temp: 26.8°C, pH: 8.1, DO: 4.3 mg/l; Transparency: 0.3 m.
Soil feature: Red color; Clay loam.
Shocks/vulnerability
Water volume decrease.

Major aquatic plants
Core Area: None.

Major plants in basin
*Dalbergiasiso* (LN:Sisoo; HT:Tr; LU:Tm); *Saccharumspontanim* (LN:Kans; HT:Grass; LU:Fd); *Saccharumbengalensis* (LN:Worila; HT:Grass, LU:Fd); *Imperatacylindrica* (LN:Siru; HT:Grass; LU:Fd); *Meliaazedarach* (LN:Masala; HT:Tr; LU:Fd); *Eucalyptus alba* (LN:Anka; HT:Tr; LU:Tm); *Zizyphusrugosa* (LN:Siru; HT:Grass; LU:Fd); *Impatienstomentosa* (LN:Siru; HT:Grass; LU:Fd); *Calotropis gigantean* (LN:Anka; Tr:Shrub; LU:Med).

Fish
*Cetanoharyngodonidella* (LN:Grass Carp; LU:Meat); *Hypophthalmichthysnobilis* (EN:Bighead Carp; LU:Meat); *Laberorohtita* (LN:Rohu; LU:Meat); *Cirrhinusmrigala* (LN:Naini; LU:Meat).

Herpetofauna
*Kaloulataprobanica* (LN:Srilanka Bullfrog); *Euphlyctiscyanophlyctis* (LN:Tik-tike Paha; EN:Skittling Frog); *Naja naja* (LN:Kachhuwa; EN; Indian Roofed Turtle); *Boigaforseni* (LN:Lohagin; EN:Forsten’s Cat Snake); *Amphiesma stolatum* (LN:Harara; EN:Buff-striped Keelback); *Enhydrisobdelli* (EN:Common Smooth Watersnake).

Birds
*Metopidiusindicus* (LN:Lama Aunle; EN:Bronze-winged Jacana); *Phalacrocoraxjaponicus* (LN:Sano Jalewa; EN:Little Cormorent); *Halcyon capensis* (LN:ThuloMatikore; EN:Strok-billed Kingfisher); *Bubulcus ibis* (LN:BastuBakulla; EN:Cattle Egret); *Mesophoyxintermedia* (LN:MajhaulaSetoBakulla; EN:Intermediate Egret); *Centrourussimensis* (LN:DhodeGokul; EN:Greater Coucal); *Pavocris tus* (LN:Majur; EN:Indian Peafowl); *Gallus gallus* (LN:Luiche; EN:Red Jungle Fowl).

Mammals
*Lepusnigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulusspennant* (LN:PanchDarkeLokharke; EN:Northern Palm Squirrel); *Millariameltada* (LN:MakhamaliMuso; EN:Common Soft-furred Rat); *Bandicotaindica* (LN:ThuloDhandeMuso; EN:Greater Bandicot-rat); *Hystrixindica* (LN:Jure Dumsi, EN:Indian Crested Porcupine) *Canis aureus* (LN:Shyal; EN; Golden Jackle).

Invasive alien species
*Ageratum conyzoides* (LN:Gandhe; EN:Billy Goat Weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
*DhakkaGaon*; 50m from lake; Main Trail:Belauri to Dhanghadi; 1km from lake.

Land use
Forestland (5%); Agriculture (80%); Settlement (10%); Others (5%).

Demography
Population:15,401; Male:7,262; Female:8,139; HHs:2,760; Ethnicity: Brahmin/Chhetri (24.10%); Janajati (58.50%); Dalit (16.82%); Other (0.58%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
Tharu.

Livestock at basin
>500.
Traditional production system  Fish farming and irrigation.
Traditional water use practices  None.
Cultural record  None.
Genesis/origin of lake  None.

4. Ecosystem Goods/Services
Provisional services  Fish, recreation.
Cultural services  None.

5. Restoration/Management
Structural management  None (Maintaining depth by takeout of soil).
Non-structural management  None.
Conservation plan  None.
Monitoring plan  None.

6. Tourism information
No visitors; Few good hotels in Belauri Bazar; Motorable road to New Dhakka; Transportation services from Mahendrangar to Belauri Bazar and Belauri Bazar to Dhangadi; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kanchanpur district; Beldandi Municipality; Ward no. 4; Ratanpur.

Boundary: Core Area: Agriculture land in all directions.

Basin Area: Beldandi to Khayarighat road in south, Plot to Khayarighat road in west; Belluri Nahar in North and Chatakpur Gaon in east.

Management responsibility: Krishi Samuha Ratanpur.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 30.5 °C (Jun/July); Avg. Min: 17.5 °C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area: Core Area: 1.2723 ha; Avg. Length: 70 m; Avg. Width: 50 m; Avg. Depth: 1 m; Max–Min Surface Water Level: 1.5 m-0.5 m; Basin Area: 25 ha.

Water Volume: Peak Period: 5,250,000 ltr; Dry period: 1,200,000 ltr; Inlet: None; Outlet: None.

Water quality: Physiochemical parameter: Temp.: 34.5 °C, pH: 7.5; DO: 0.7; Transparency: 0.3 m.

Soil feature: Grey color; Sandy loam texture.

Shocks/vulnerability: WaterHycianth.
Major aquatic plants

**Core Area:** *Eichhorniacrassipes* (LN:JalKumbhi; EN:Water Hyacinth).

Major plants in basin

* Bomboxceiba* (LN:Simal; HT:Tr; LU:Tm); *Syzygiumcumini* (LN:jamun; HT:TR; LU:Tm, Md); *Eucalyptus alba* (LN:Masala; HT:Tr; LU:Tm); *Dalbergiasisoo* (LN:Sisoo; HT:Tr; LU:Tm).

Fish

*Cetanoharyngodonidella* (LN: Grass Carp; LU:Meat); *Hypophthalmichthysnobilis* (EN:Bighead Carp; LU:Meat); *Hypophthalmichthysmolitrix* (LN:Silver Carp; LU:Meat); *Labeorohita* (LN:Rohu; LU:Meat), *Cirhinusmrigala* (LN:Naini; LU:Meat), *Puntiossarona* (LN:Kande; LU:Meat); *Channasp* (LN:Bhoti; LU:Meat).

Herpetofauna

*Microhylaoranata* (LN:Byang; EN:Oranate Rice Frog); *Sphaerothecabreviceps* (LN:RaniBhyagoto; EN:Indian Burrowing Frog); *Bufostomaticus* (LN:KhatkhyarriMagoba; EN:Assam Bullfrog); *Euphylctiscyanophlyctis* (LN:Tik-tike Paha; EN:Skittering Frog); *Hoplobatrachuscrassus* (LN:Sirke Paha; EN:Jerdon's Bullfrog); *Haplolbatrachustigerinus* (LN:Sirke Paha; EN:Indian Bullfrog); *Melanochelystricarinata* (LN:Padanikachhuwa; EN:Tricarinata Hill Turtle); *Aspideretesageticus* (LN:Kataiya; EN: Indian Softshell Turtle); *Rhaphotyphlopsbraminus* (LN:TeliyaSanp; EN:Common Blind Snake); *Enhydrisenhydris* (LN:Machhagidhi; EN:Common Smooth Watersnake).

Birds


Mammals

* Lepusnigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Callorsciuruspapyrenerthus* (LN:Pahadi Ban Lokharke; EN:Irrawaddy Squirrel); *Tateraindica* (LN:UfraneMuso; EN:Indian Gerbil); *Golundaellioti* (LN:JhadiMuso; EN:Indian Bush Rat); *Hystrixbrachyura* (LN:Malaya Dumsi; EN:Malayan Porcupine), *Canisaureus* (LN:Shyal; EN:Golden Jackle).

Invasive alien species

*Eichhorniacrassipes* (LN:JalKumbhi; EN:Water Hyacinth); *Ipomoeacarnea* (LN:Besara m; EN:Shrubby Morning Glory).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Ratanpur; lake at the centre; Main Trail:Beldandi to Ratanpurgaon; 30m from lake.

Land use

Forestland (5%); Agriculture (80%); Settlement (10%); Others (5%).

Demography

Population:17,570; Male:8,236; Female:9,334; HHs:3,022; Ethnicity: Brahmin/Chhetri (55.64%); Janajati (27.71%); Dalit (16.14%); Other (0.51%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community
None.
Livestock at basin >200.
Traditional production system Fish Farming.
Traditional water use practices None.
Cultural record None.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fish.
Cultural services None.

5. Restoration/Management
Structural management None.
Non-structural management Cleaned once a year.
Conservation plan None.
Monitoring plan None.

6. Tourism information
No visitors; Few good hotels in Beldandi Bazar which is 2km from lake; Motarable road to lake; Transportation services from Mahendrangar to Beldandi and 2km refer to private vehicles; Needs promotional activities.

7. Lake condition Degrading.
4.9.10 Godbijula Lake

1. General Feature

Conservation status
None.

Geographical coordination

Geographical position
Terai Range.

Administrative feature
FWDR; Kanchanpur district; Krishnapur Municipality; Ward-2; Bandi.

Boundary
Core Area: Agricultural land in south and east direction and road in north and west direction.
Basin Area: Forest in all directions.

Management responsibility
Godbijula Conservation Committee with the representation of DDC.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max Temp: 30.5°C (Jun/July); Avg. Min Temp: 17.5°C (Dec); Rainfall: 1422.7 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 8.8 ha; Avg. Length: 500 m; Avg. Width: 100 m; Avg. Depth: 3 m; Max–Min Surface Water Level: 1–2.5 m; Basin Area: 96 ha.

Water Volume
NA.

Water quality
Physicochemical parameter: Temp.: 23°C, pH: 5.7; Transparency: 0.5 m.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: *Typha angustifolia* (LN: Pater; HT: Hr; LU: Nonel) *Nymphaea stellata* (LN: Nilkamal; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: None).

Major plants in basin
*Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med); *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Tm); *Shorea robusta* (LN: Sal; HT: Tr; LU: Fur, fuel); *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Tm, Fr); *Adena cordifolia* (LN: Asna; HT: Tr; LU: Tm);
Fish: *Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:meat); *Labeo rohita* (LN:Rohu; LU:Meat).

Herpetofauna: *Bufo melanostictus* (LN:Khasre bhyaguto; EN:Black-spined toad); *Calotes versicolor* (LN:Cheparo; EN:Garden Lizard); *Python morulus* (LN:Ajingar; EN:Asiatic Rock Python); *Ptyas mucosa* (LN:Dhaman; EN:Ratsnake).

Birds: *Casmerodius albus* (EN:Great Egret; EN:Thuloseto Bakulla); *Halcyon pileata* (LN:Fisto; EN:Yellow-cheeked Tit); *Vanellus indicus* (LN:Huttitita; EN:Red-watteled lapwing); *Falcotinnunculus* (LN:Baaj; EN:Common Kestrel); *Treron pompadora* (LN:Haleso; EN:Pompadour Green Pigeon); *Turdoides striata* (LN: Bhyakur; EN:Jungle Babbler).

Mammals: *Macaca mulatta* (LN:Bandar; EN:Rhesus Monkey); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennanti* (LN:Lokharke; EN:Squirrel); *Vulpesbengalensis* (LN:Fushre fauro; EN:Bengal Fox) *Semnopithecus hector* (LN: dedu; EN:Terai grey langur).


Endemic plant/animal: None.

3. Socio-Economy at Basin

Nearby settlement: *Bandi Gaun*; 50 m from lake; Main Trail: Bandi Chowk-Bandi Gaun-Lake; 50 m from lake.

Land use: Forestland (8%); Agriculture (3%); Shrubland (45%); Grassland (29%); Barrenland (15%).

Demography: Population: 36706; Male: 17552; Female: 19154; HHs: 6723; Ethnicity: Brahmin/Chhetri (52.15%); Janajati (43.12%); Dalit (3.72%); Other (1%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership: State.

Wetlands dependent community: None.

Livestock at basin: >2500.

Traditional production system: Traditional farming including aromatic & medicinal plant.

Traditional water use practices: None.

Cultural record: None.

Genesis/origin of lake: None.

4. Ecosystem Goods/Services

Provisional services: Fodder; Medicinal plants.

Cultural services: Aesthetic; Religious; Educational.

5. Restoration/Management

Structural management: None.

Non-structural management: None.

Conservation plan: None.

Monitoring plan: None.

6. Tourism information

Few visitors; No tourism potential.

7. Lake condition

Degrading.
4.9.11 Jhilmila Lake

1. General Feature
Conservation status None.
Geographical coordination Lat:29.06757153°N; Lon:80.18779043°E; Alt:668 masl.
Geographical position Terai.
Administrative feature FWDR; Kanchanpur district; Bhimdutta Municipality; Ward-9; Jhilmila.
Boundary Core Area: Forest in all directions.
Basin Area: Forest in all directions.
Management responsibility Jhilmila Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Climatic feature Avg. Max Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 4.3 ha; Avg. Length:700 m; Avg. Width:130 m; Avg. Depth:9 m; Max–Min Surface Water Level:NA; Basin Area: 40.2 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.: 24°C, pH: 6.0; Electric conductivity: N.A. Transparency: 0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: *Nymphaea stellata* (LN:Nilkamal; EN:Blue lotus; HT:Ff; LU:Orn); *Sphagnum nepalensis* (LN:Jhyau; HT:E m; LU:none).
Major plants in basin *Shorea robusta* (LN:Sal; HT:Tr; LU:Fur, fuel); *Synzigium cumini* (LN:Jamun; HT:Tr; LU:Tm, Fr); *Mallootus philippensis* (LN:Sindure; HT:Tr; LU:Med); *Emblica officinalis* (LN:Amala; HT:Tr, LU:Med, Fruit); *Bombax ceiba* (LN:Simal; HT:Tr; LU:Med); *Butea monosperma*
(LN:Palash; HT:Tr; LU:Tm, Rel); Terminalia chebula (LN:Harro; LU:Med); Terminalia bellirica (LN:Barro; HT:Tr; LU:Med); Terminalia elliptica (LN:Saanj; HT:Tr; LU:Tm, Fuel); Imperata cylindrica (LN:Siru; HT:HR; LU:Fod).

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat) Clarias batrachus (LN:Mungri; LU:meat) Mylopharyngodon piceus (EN:Kalokarp; LU:Meat); Hypophthalmichthys molitrix (LN:Silvercarp; LU:Meat).

Herpetofauna
Bufo melanostictus (LN:Khasre bhyaguto; EN:Black-spined toad ); Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Varanus bengalensis (LN:Bhainse; EN:Monitor lizard); Polypedtes maculates (LN:Rukh Bhyaguto; EN:Common Indian tree frog); Lissemys punctata andersoni webb (LN:PuTali kachuwa; EN:North Indian flapshell turtle); Python morulus (LN:Ajingar; EN:Asiatic Rock Python); Ptyas mucosa (LN:Dhaman; EN:Ratsnake).

Birds
Casmerodius albus (EN:Great Egret; EN:Thuloseto Bakulla); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:Huttititau; EN:Red-watteled lapwing); Falco tinnunculus (LN:Baa); EN:Common Kestrel); Treron pompadora (LN:Haleso; EN:Pompadour Green Pigeon); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennantii (LN:Lokharke; EN:Squirrel); Sus scrofa. (LN:Badel; EN:Wild Boar); Axis axis (LN:Chittal; EN:spotted deer); Boselaphus tragocamelus (LN:Nilgai; EN:Bluebull). Vulpes bengalensis (LN:Fushre fauro; EN:Bengal Fox); Semnopithecus hector (LN:Dedu; EN:Terai grey langur).

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Parthenium hysterophorus (LN:Gajar jhar; EN:Famine weed); Ipomoea carnea (LN:Besara m; EN: Pink morning glory); Ageratina adenophora (LN:Lahe baranmara; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Bramhadev; 9 km from lake; Main Trail:Bramhadev-Tarakot-Jhilmila; 9 km from lake.

Land use
Forestland (98%); Grassland (2%).

Demography
Population:10, 4599; Male:51, 087; Female:53, 512; HHs:20, 684; Ethnicity:Brahmin/Chhetri (67.3%); Janajati (26.14%); Dalit (6.17%); Other (0.19%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>2500.
<table>
<thead>
<tr>
<th>Traditional production system</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional water use practices</td>
<td>Religious/ritual pond.</td>
</tr>
<tr>
<td>Cultural record</td>
<td>Religious site; Shiva Parbati Mandir; Fair at <em>Magh Sukla Dashami</em>.</td>
</tr>
<tr>
<td>Genesis/origin of lake</td>
<td>None.</td>
</tr>
</tbody>
</table>

### 4. Ecosystem Goods/Services

- **Provisional services**
  - Fodder; Medicinal plants.
- **Cultural services**
  - Aesthetic; Religious; Educational.

### 5. Restoration/Management

- **Structural management**
  - Dam; Support from Ministry of Environment; NLCDC and DDC.
- **Non-structural management**
  - Formal restriction.
- **Conservation plan**
  - Available (by the East Foundation and DFO).
- **Monitoring plan**
  - None.

### 6. Tourism information

- >25,000 visitors/yr; Tourism potential high. Needs promotional activities.

### 7. Lake condition

- Degrading.
1. General Feature

<table>
<thead>
<tr>
<th>Conservation status</th>
<th>None.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative position</td>
<td>Tarai.</td>
</tr>
<tr>
<td>Administrative feature</td>
<td>FWDR; Kanchanpur district; Bani Municipality; Ward no. 2; Krishnapur.</td>
</tr>
<tr>
<td>Boundary</td>
<td>Core Area: Forest in all directions.</td>
</tr>
<tr>
<td></td>
<td>Basin Area: Baijyanath Tal in the east, Bani to Muktakamaya trail, East-west highway in south, Bolabari Community Forest in the west.</td>
</tr>
<tr>
<td>Management responsibility</td>
<td>Golabari Community Forest.</td>
</tr>
<tr>
<td>Wetlands type</td>
<td>Fresh water/natural; Lacustrine; Permanent.</td>
</tr>
</tbody>
</table>

2. Ecological Feature

<table>
<thead>
<tr>
<th>Climatic feature</th>
<th>Avg. Max Temp: 30.5 °C (Jun/July); Avg. Min Temp: 17.5 °C (Dec); Rainfall: 1422.7 ml/yr. (<a href="http://www.beautifulfarwestnepal.blogspot.com">www.beautifulfarwestnepal.blogspot.com</a>).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Core Area: 0.6328 ha; Avg. Length: 100 m; Avg. Width: 30 m; Avg. Depth: 1 m; Max–Min Surface Water Level: 1.5-0.5 m; Basin Area: 15 ha.</td>
</tr>
<tr>
<td>Water Volume</td>
<td>Peak Period: 4,500,000 ltr; Dry period: 750,000 ltr; Inlet: None; Outlet: .</td>
</tr>
<tr>
<td>Water quality</td>
<td>Physiochemical parameter: Temp.: 28.7 °C, pH: 7.3; DO: 4.2 mg/l; Transparency: 0.3 m.</td>
</tr>
<tr>
<td>Soil feature</td>
<td>Grey color; Sandy loam texture.</td>
</tr>
<tr>
<td>Shocks/vulnerability</td>
<td>Water Hycianth. LU: Orn); Nelumbo nucifera (LN: Kamal; HT: Ff; LU: none).</td>
</tr>
<tr>
<td>Major plants in basin</td>
<td>Shorea robusta (LN: sal; HT: Tr; LU: Tml); Syzygium cumini (LN: jamun; HT: Tr; LU: Tm, Md); Terminalia alata (LN: Asna; HT: Tr; LU: Tm);</td>
</tr>
</tbody>
</table>
**Mallotus philippensis** (LN:Sindhure; HT:Hr; LU:Fd); **Osbeckia stellate** (LN:Asare; HT:Sh, LU:Md, Leaf); **Toonaciliata** (LN:Tooni; HT:Tr; LU:Tm); **Imperata cylindrica** (LN:Siru; HT:Grass; LU:Fd); **Thysanolaena maxima** (LN:Amriso; HT:Grass; LU:Fd).

**Fish**

**Cetanoharyngodonidella** (LN: Grass Carp; LU:Meat); **Labeorohita** (LN:Rohu; LU:Meat); **Hypophthalmichthys molitrix** (LN:Silver Carp; LU:Meat); **Cirrhinusmrigala** (LN:Naini; LU:Meat).

**Herpetofauna**

**Bufomelonostictus** (LN:Khashre Bhyaguto; EN:Black-spined Toad); **Bufostomaticus** (LN:Khatkhyarri Magoba; EN:Assam Toad); **Euphlyctiscyanophlyctis** (LN:Tik-tike Paha; EN:Skittering Frog); **Limonectesteraiensis** (LN:Tik-tike Paha; EN:Nepalese Terai Frog); **Sphaerothecabreviceps** (LN:Rani Byaguyo; EN:Indian Burrowing Frog) **Hardellathurjii** (LN:Kachhuwa; EN:Eastern Crowned River Tutle); **Pangshurapectum** (LN:Kachhuwa; EN:Indian Roofed Turtle); **Chitraindica** (LN:Badahar; EN; Narrow-headed Softshel Turtle); **Rhaphotophyllophtusbraminus** (LN:Teliya Sanp; EN:Common Blind Snake); **Enhydriensehynis** (LN:Pani Sarpa; EN:Common Smooth Watersnake); **Varanus bengalensis** (LN:BhainseGohoro; EN:Bengal Monitor Lizard); **Varanusflavescens** (LN:Sun Gohoro; EN:Golden Monitor Lizard).

**Birds**

**Dendrocygnajavanica** (LN:Silsile; EN:Lesser Whistling-duck); **Amaurornisphoenicurus** (LN:Sim Kukhura; EN:While-breasted Waterhen); **Metopidiusindicus** (LN:Lama Aunle; EN:Bronze-winged Jacana); **Phalacrocoraxindicus** (LN:Sano Jalewa; EN:Little Cormorent); **Bubulcus ibis** (EN:Bastu Bakulla; EN:Cattle Egret); **Anthracocerosalbirostris** (LN:Kalo Dhanesh; EN:OrienTal Pied Hornbill); **Mulleripicusbraveolus** (LN:Raj Lahache; EN:Great Slaty Woodpecker); **Grus antigone** (LN:Sarus; EN:Sarus Crane); **Pavocristatus** (LN:Majur; EN:Indian Peafowl).

**Mammals**

**Lepusnigricollis** (LN:Ban Kharayo; EN:Indian Hare); **Hystrix brachyuran** (LN:Malaya Dhumsi; EN:Malayan Porcupine); **Felisbengalensis** (LN:Chari Bagh; EN:Leopard Cat); **Patherapardus** (LN:Chituwa; EN:Common Leopard), **Pantheratigris** (LN:Pate Bagh; EN:Bengal Tiger); **Canisaureus** (LN:Shyal; EN; Golden Jackie); **Macacamulatta** (LN:Rato Bandar; EN:Rhesus Monkey); **Axis axis** (LN: Chital; EN:Spotted Deer); **Sus scrofa** (LN:Bandel; EN:Eurasian Wild Boar); **Boselaphustragocamelus** (LN:Nil Gai; EN:Blue Bull).

**Invasive alien species**

**Ipomoea carnea** (LN:Besara m; EN:Shrubby Morning Glory).

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

**Bani Gaon;** 20 from lake; Main Trail:Bani Bazar to Baijyanath trail; 10m from lake.

**Land use**

Forestland (80%); Agriculture (10%); Settlement (8%); Others (2%).

**Demography**

Population:36,706; Male:17,552; Female:32,39; HHs:6,723; Ethnicity: Brahmin/Chhetri (53.92%); Janajati (32.39%); Dalit (13.32%); Other (0.37%). Major Religion:Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership State.
Wetlands dependent community None.
Livestock at basin Restriction for livestock.
Traditional production system Fish farming.
Traditional water use practices Irrigation.
Cultural record Baijyanath Temple.
Genesis/origin of lake None.

4. Ecosystem Goods/Services
Provisional services Fish, Irrigation in Rainy season.
Cultural services Aesthetic/Religious.

5. Restoration/Management
Structural management None.
Non-structural management Restriction for Livestocks.
Conservation plan None.
Monitoring plan None.

6. Tourism information
<500 visitors; Few good hotels in Bani Bazar which is 100m from lake. Lake is very close to the Mahendra Highway; Transportation services from Attariya to Mahendrangar at any time; Needs promotional activities.

7. Lake condition Degrading.
4.9.13 Kalikich Taal

Wetlands of Western Nepal 2017

Wetland code:
Toposheet no: 2880 02C
Date of inventory: June 29, 2016

1. General Feature
Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kanchanpur district; Beldandi Municipality; Ward no. 3; Gaudi.
Boundary Core Area: Farmland in south, forest in all directions.
Basin Area: Gaudi gaon and Beldandichowk in south; Gaudi to Maghgaon trail, and Shukla Phanta Wildlife Reserve boundary in east and north.
Management responsibility Shukla Phanta Wildlife Reserve.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Climatic feature Avg. Max: Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 10 ha; Avg. Length: 550 m; Avg. Width: 300 m; Avg. Depth: 5 m; Max–Min Surface Water Level: 6-4 m; Basin Area: 50ha.
Water Volume Peak Period: 750,000,000ltr; Dry period: 150,000,000 ltr; Inlet: None; Outlet: 
Water quality Physicochemical parameter: Temp.: 34.8°C, pH: 7.5; DO: 3.7; Transparency: 0.6 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability WaterHyacinth.
Major plants in basin Shorea robusta (LN: sal; HT: Tr; LU: Tml); Syzygium cumini (LN: jamun; HT: TR; LU: Tm, Md); Terminalia alata (LN: Asna; HT: Tr; LU: Tm); Mallotus philippensis (LN: Sindhure; HT: Hr; LU: Fd); Trewia nudiflora
Fish
Cetanoharyngodon idella (LN: Grass Carp; LU: Meat); Labeo rohita (LN: Rohu; LU: Meat); Hypophthalmichthys nobilis (EN: Bighead Carp; LU: Meat); Hypophthalmichthys molitrix (LN: Silver Carp; LU: Meat); Cirrhinus mrigala (LN: Naini; LU: Meat); Catla catla (LN: Vyakur; LU: Meat).

Herpetofauna
Crocodilepuspalustris (LN: Magar Gohi; EN: Mugger Crocodile); Bufo stomaticus (LN: Khatkhyarri Magoba; EN: Assam Toad); Kaloula taprobana (LN: Byaguyo; EN: Sri Lanka Bullfrog); Euphyllyctis cyanophlyctis (LN: Tik-tike Paha; EN: Skittring Frog); Melanocheiles trijugu (LN: Kachihuwa; EN: Eastern Blace Turtle); Naja naja (LN: Goban Sarpa; EN: Spectacled Cobra); Aspideretes gangeticus (LN: Kataiya; EN: Indian Soft Shell); Python molurus (LN: Ajinger; EN: Burmese Rock Python); Amphiesmo stolatum (LN: Harara; EN: Buff-sripeed Keelback); Xenochrophis piscator (LN: Pani Sarpa; EN: Chequered Keelback Watersnake).

Birds
Gallus gallus (LN: Luiche; EN: Red Jungle Fowl); Phalacrocorax niger (LN: Sano Jalewa; EN: Little Cormorent); Casmerodiayus desus (EN: Thulo Seto Bakull; EN: Great Egret); Ciconia episcopus (LN: Lovipapi Garud; EN: Wooly-necked Stork); Pavo cristatus (EN: Majur; EN: Indian Peafowl); Bubulcus ibis (LN: Bastu Bakulla; EN: Cattle Egret); Halcyon smyrnensis (LN: Setokanthe Matekore; EN: White-throated Kingfisher); Pernisptilorhyncus (LN: Madhuwa; EN: Oriental Honey Buzzard); Ceryle rudis (LN: Chirbire Matikore; EN: Pied Kingfisher); Sturlus contra (LN: Dangre Sarau; EN: Asian Pied Starling).

Mammals
Lepus nigricollis (LN: Ban Kharayo; EN: Indian Hare); Felis chaus (LN: Ban Biral; EN: Jungle Cat); Felis bengalensis (LN: Chari Bagh; EN: Leopard Cat); Canis aureus (EN: Shyal; EN: Golden Jackle); Macaca mulatta (LN: Rato Bandar; EN: Rhesus Monkey); Sus scrofa (LN: Bandel; EN: Eurasian Wild Boar); Funambulus pennant (LN: Panchdharke Lokharke; EN: Northern Palm Squirrel).

Invasive alien species
Ipomoea cornua (LN: Besara m; EN: Shrubby Morning Glory); Ageratum conizoides (LN: Gandhe; EN: Billy Goat Weed).

Endemic plant/animal
None.

3. Socio-Economy at Basin

Nearby settlement
Gaudi; 50m from lake; Main Trail: Mahendranagar to Beldandiroadgaon; 100m from lake.

Land use
Forestland (60%); Grassland (5%) Agriculture (15%); Settlement (10%); Others (10%).

Demography
Population: 17,570; Male: 8,236; Female: 9,334; HHs: 3,022; Ethnicity: Brahmin/Chhetri (55.64%); Janajati (27.71%); Dalit (16.14%); Other (0.51%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>2000.

Traditional production system
None.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: None.
Cultural services: None.

5. Restoration/Management
Structural management: Fencing by Shukla Phanta Wildlife Reserve.
Non-structural management: Gaurding by National Army.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
>2000 visitors/year; Few good hotels in Beldandi Check Post which is 100m from lake; Motorable road to Beldandi check post; Transportation services from Mahendranagar to Beldandi; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature
Conservation status: None.
Geographical position: Terai Range.
Administrative feature: FWDR; Kanchanpur district; Belauri Municipality; Ward-1; Laxmipur.
Boundary: Core Area: Forest in west and south direction, Agricultural Land in north direction and road in east direction.
Basin Area: Forest in all direction.
Management responsibility: Laxmipur Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
Climatic feature: Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7 mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 15.4 ha; Avg. Length: 200 m; Avg. Width: 130 m; Avg. Depth: 4 m; Max–Min Surface Water Level: NA; Basin Area: 148.7 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 24°C, pH: 5.8; Electric conductivity: N.A; Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Typha angustifolia (LN: Pater; HT: Tr; LU: None) Nymphaea stellata (LN: Nilkamal; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).
Major plants in basin: Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Syzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adena cordifolia (LN: Haldo; HT: Tr; LU: Tm); Bombax ceiba (LN: Simal; HT: Tr; LU: Med); Butea monosperma (LN: Palash; HT: Tr; LU: Tm, Rel); Terminalia chebula (LN: Harro; LU: Med); Terminalia bellirica (LN: Barro; HT: Tr; LU: Med); Terminalia elliptica (LN: Saanj; HT: Tr; LU: Tm, Fuel).
Fish: Cetanoharyngodon idella (LN: Carp; LU: Meat); Labeo rohita
(LN:Rohu; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:meat); Hypophthalmichthys molitrix (LN:Silvercarp; LU:Meat); Clarias batrachus (LN:Mungrì; LU:meat).

Herpetofauna
Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Ptyas mucosa (LN:Dhaman; EN:Ratsnake); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Varanus bengalensis (LN:Bhainse; EN:Monitor lizard); Polypedates maculatus (LN:Rukh Bhyaguto; EN:Common Indian tree frog).

Birds
Casmerodius albus (EN:Great Egret; EN:Thuloseto Bakulla); Falcoutinnunculus (LN:Baaj; EN:Common Kestrel); Halcyon pileata (LN:Fisto; EN:Yellow-cheeked Tit); Vanellus indicus (LN:huttititau; EN:Red-watteled lapwing); Treron pompadora (LN:Haleso; EN:Pompadour Green Pigeon); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Lokharke; EN:Squirrel); Felis viverrina (LN:Malaha biralo; EN:Fishing cat); Sus scrofa. (LN:Badel; EN:Wild Boar); Semnopithecus hector (LN:Dedu; EN:Terai grey langur).

Invasive alien species
Parthenium hysterophorus (LN:Gajar jhar; EN:Famine weed); Ipomoea carnea (LN:Besara m; EN: Pink morning glory); Ageratina adenophora (LN:Lahare banmara ; EN:Crofton weed); Ageratum conyzoides (LN:Nilo gande; EN:Cheek weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar).

Endemic plant/animal
None.

3. Socio-Economy at Basin
Nearby settlement
Laxmipur; 50 m from lake.

Land use
Agriculture (99%); Barrenland (1%).

Demography
Population:15,401; Male:7262; Female:8139; HHs:2760; Ethnicity: Brahmin/Chhetri (31.04%); Janajati (51.9%); Dalit (16.9%); Other (0.16%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Livestock at basin
>2500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services
Provisional services
Fodder; Medicinal plants.

Cultural services
Aesthetic; Religious; Educational.

5. Restoration/Management
Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information
Few visitors; Few good hotels in lake site; Motarable road to Laxmipur; Good hotel and transportation services from Laxmipur; Moderate ourism potential.

7. Lake condition
Degrading.
1. General Feature

Conservation status None.


Geographical position Tarai.

Administrative feature FWDR; Kanchanpur district; Beldandi Municipality; Ward no. 4; Plot.

Boundary Core Area: Beldandi to Dhakeni road in south; Paddy field in other directions.

Basin Area: Beldandi to Dhakeni road in south; Beldandi Bazar in east; Dhakicha-Beldandi Nahar and Plot-Beldandi Bazaar trail in north.

Management responsibility Hunayanath Krisak Samuha, Plot.

Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7 ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area Core Area: 5.8513 ha; Avg. Length: 150 m; Avg. Width: 30 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 2.5–1.5 m; Basin Area: 150 ha.

Water Volume Peak Period: 11,250,000 ltr; Dry period: 3,750,000 ltr; Inlet: None; Outlet: 

Water quality Physiochemical parameter: Temp.: 35.5°C, pH: 7.6; DO: 3.55 mg/l; Transparency: 0.6 m.

Soil feature Grey color; Sandy loam texture.

Shocks/vulnerability Water volume decreasing.

Major aquatic plants Core Area: Pistia stratiotes (LN: Kumbhika; EN: Water Lettuce; HT: Ff); Typha angustifolia (LN: Pater; HT: E m; LU: Fd); Eichhornia crassipes (LN: Jal Kumbhi; EN: Water Hyacinth); Typha angustifolia (LN: Pater;
Major plants in basin

*Bombox ceiba* (LN: Simal; HT: Tr; LU: Tm); *Syzygium cumini* (LN: Jamun; HT: Tr; LU: Tm); *Eucalyptus alba* (LN: Masala; HT: Tr; LU: Tm); *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Tm); *Phramitis vallatoria* (LN: Narkat; HT: Sh; LU: Orn); *Trewia nudiflora* (LN: Vellar; HT: Tr; LU: Fd).

Fish

*Cetanoharyngodon idella* (LN: Grass Carp; LU: Meat); *Labeo rohita* (LN: Rohu; LU: Meat); *Hypophthalmichthys nobilis* (EN: Bighead Carp; LU: Meat); *Hypophthalmichthys molitrix* (LN: Silver Carp; LU: Meat); *Clarias batrachus* (LN: Mangur; LU: Meat); *Cirrhinus mrigala* (LN: Naini; LU: Meat); *Catla catla* (LN: Vyakur; LU: Meat); *Puntios sarona* (LN: Kande; LU: Meat).

Herpetofauna

*Bufo stomaticus* (LN: Khatkhyarri Meghoba; EN: Assam Toad); *Kaloula taprobanica* (LN: Bhyaguto; EN: Sri Lanka Bullfrog); *Hardella thurjii* (LN: Kachhuwa; EN: Easten Crowned River Turtle); *Euphlyctis cyanophlyctis* (LN: Tiktike Paha; EN: Skittering Frog); *Kachuga kachuga* (LN: Kachhuwa; EN: Painted Roffed Turtle); *Melanochelys trijuga* (LN: Padani Kachhuwa; EN: Eastern Black Turtle); *Chitra indica* (LN: Badahar; EN: Narrow-headed Softshell Turtle); *Rhamphotyphlops braminus* (LN: Teliya Sanp; EN: Common Blind Snake); *Enhydris sieboldii* (LN: Machhagidhi; EN: Siebold’s Smooth Water Snake).

Birds

*Amaurornis phoenicurus* (EN: Sim Kukhura; EN: White-breasted Waterhen); *Dendrocygna javanica* (LN: Silsile; EN: Lesser whistling Duck); *Metopidius indicus* (LN: Lama Aunle; EN: Bronze-winged Jacana); *Phalacrocercus niger* (LN: Sano Jalewa; EN: Little Cormorent); *Bubulcus ibis* (EN: Bastu Bakulla; EN: Cattle Egret); *Halcyon smyrnensis* (LN: Setokanthe Matikorer; EN: White-throated Kingfisher); *Merops philippinus* (LN: Nilpuchhre Murali Chara; EN: Blue-tailed Bee-eater); *Coracias bengalensis* (LN: Theuwa; EN: Indian Roller).

Mammals

*Lepus nigricollis* (LN: Ban Kharayo; EN: Indian Hare); *Callosciurus pygerythrus* (LN: Pahadi Ban Lokharke; EN: Irrawaddy Squirrel); *Vandeleuria oleracea* (LN: Lampuchhre Rukh Muso; EN: Asiatic Long-tailed Climbing Mouse); *Hystrix indica* (LN: Jure Dumsi; EN: Indian Crested porcupine); *Canis aureus* (LN: Shyal; EN: Golden Jackal).

Invasive alien species

*Ipomoea carnea* (LN: Besara m; EN: Shrubby Morning Gory); *Eichhornia crassipes* (LN: Jal Kumbhi; EN: Water Hyacinth); *Oxalis latifolia* (LN: Chari Amilo; EN: Purple Wood Sorrel); *Pistia stratiotes* (LN: Kumbhika; EN: Water Lettuce).

Endemic plant/animal

None.

3. Socio-Economy at Basin

**Nearby settlement**

*Plot*; lake at the centre of village; Main Trail: Daiji- Beldandi road; 1km from lake and motorable road upto lake.

**Land use**

Forestland (5%); Agriculture (80%); Settlement (10%); Others (5%).

**Demography**

Population: 17,570; Male: 8,236; Female: 9,334; HHs: 3,022; Ethnicity: Brahmin/Chhetri (55.64%); Janajati (27.71%); Dalit (16.14%); Other (0.51%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.
Wetlands dependent community: None.
Livestock at basin: >100.
Traditional production system: Fish Farming of *Trapa sps* (LN: Panisingada; EN: Water Chestnut).
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: None.
Cultural services: Scenic; Educational.

5. Restoration/Management
Structural management: None.
Non-structural management: Cleaning per year; Wipeout of water hyacinth.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
>500 visitors/yr; Few good hotels in Beldandi Bazar; Motorable road to lake; Transportation services to Beldandi Bazar and private transportation prefer to 1-2 km; Fishing potential high. Needs promotional activities.

7. Lake condition
Degrading.
4.9.16 Mudka Lake

1. General Feature

Conservation status: None.
Geographical position: Terai.
Administrative feature: FWDR; Kanchanpur district; Jhalari Municipality; Ward-11; Baijanath Mandir.
Boundary: Core Area: Forest in all directions. Basin Area: Forest in all directions.
Management responsibility: Baijanath Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature: Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area: Core Area: 0.7 ha; Avg. Length: 200 m; Avg. Width: 200 m; Avg. Depth: 3 m; Max–Min Surface Water Level: NA; Basin Area: 17.7 ha.
Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 24°C; pH: 5.9; Electric conductivity: N.A. Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants: Core Area: Typha angustifolia (LN: Pater; HT: Hr; LU: None) Nymphaea stellata (LN: Nilkamal; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).
Major plants in basin: Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Tm); Shorea robusta (LN: Sal; HT: Tr; LU: Fur, fuel); Synzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adena cordifolia (LN: Asna; HT: Tr; LU: Tm).
Fish

*Cetanoharyngodon idella* (LN:Carp; LU:Meat); *Labeo rohita* (LN:Rohu; LU:Meat); *Hypophthalmichthys nobilis* (LN:Carp; LU:Meat)

Herpetofauna

*Bufo melanostictus* (LN:Khasre bhyaguto; EN:Black-spined toad); *Calotes versicolor* (LN:Cheparo; EN:Garden Lizard); *Python morulus* (LN:Ajingar; EN:Asiatic Rock Python); *Ptyas mucosa* (LN:Dhaman; EN:Ratsnake).

Birds

*Casmerodius albus* (EN:Great Egret; EN:Thuloseto Bakulla); *Halcyon pileata* (LN:Fisto; EN:Yellow-cheeked Tit); *Falcotinnunculus* (LN:Baaj; EN:Common Kestrel); *Vanellusindicus* (LN:huutititau; EN:Red-matteled lapwing); *Treron pompadora* (LN:Haleso; EN:Pompadour Green Pigeon); *Turoides striata* (LN: Bhyakur; EN:Jungle Babbler).

Mammals

*Macaca mulatta* (LN:Bandar; EN:Rhesus Monkey); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennanti* (LN:Squirrel); *Vulpesbengalensis* (LN:Fushre fauro; EN:Bengal Fox)

Invasive alien species

*Mikania micrantha* (LN:Lahare Banmara; EN:Bitter Vine); *Eupatorium sps* (LN:Banmara; EN:Thorughwort).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

*Jhalari*; 4 km from lake; Main Trail:Mudka-Jhalari; 4 km from lake to the main trail.

Land use

Forestland (99%); Grassland (1%).

Demography

Population:24347; Male:11407; Female:12940; HHs:4782; Ethnicity: Brahmin/Chhetri (64.08%); Janajati (20.07%); Dalit (15.49%); Other (0.35%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Livestock at basin

>800.

Traditional production system

None

Traditional water use practices

None.

Cultural record

Religious site; *Baijanath Mandir*.

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Medicinal plants.

Cultural services

Aesthetic; Religious; Educational.

5. Restoration/Management

Structural management

None.

Non-structural management

None.

Conservation plan

None.

Monitoring plan

None.

6. Tourism information

>1,000 visitors/yr; Motarable road to Mudka Lake; Transportation services from Daijee Chowk; Tourism potential high. Needs promotional activities.

7. Lake condition

Degrading.
1. General Feature

Conservation status None.
Geographical position Tarai.
Administrative feature FWDR; Kanchanpur district; Punarbas Municipality; Ward no.9; Dhakka.
Boundary Core Area: Human settlement in west; Paddy field in other directions.
Basin Area: Dhakka to Bhakunda trail in west and east; Belauri to Dhangadi road in south; Dhakka to Motipur road in north.
Management responsibility Punarbas Municipality.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 3 ha; Avg. Length: 70 m; Avg. Width: 70 m; Avg. Depth: 1.5 m; Max–Min Surface Water Level: 2-1 m; Basin Area: 50 ha.
Water Volume Peak Period: 9,800,000 ltr; Dry period: 600,000 ltr; Inlet: None; Outlet: None.
Water quality Physiochemical parameter: Temp.: 27.3°C, pH: 8.4; DO: 4.5 mg/l; Transparency: 0.3 m.
Soil feature Red color; Clay loam.
Shocks/vulnerability Water Hycianth.
Major aquatic plants Core Area: None.
Major plants in basin Dalbergiasisoo (LN: Sisoo; HT: Tr; LU: Tm); Zizyphus rugosa (LN: Rukh; HT: Tr; LU: Tm).
Bayar; HT:Tr; LU:Med, Fruit), Saccharum spontanum (LN:Kans; HT:Grass; LU:Fd); Saccharum bengalensis (LN:Worila; HT:Grass, LU:Fd); Imperata cylindrica (LN:Suru; HT:Grass; LU:Fd); Melia azedarach (LN:Bhakenu; HT:Tr; LU:Fd); Eucalyptus alba (LN:Masala; HT:Tr; LU:Tm); Calotropis gigantea (LN:Anka; Tr:Shrub; LU:Med).

Fish Cetanoharyngodon idella (LN: Grass Carp; LU:Meat); Labeorohita (LN:Rohu; LU:Meat); Hypopthalmichthys snomen (EN:Bighead Carp; LU:Meat); Hypopthalmichthys molitrix (LN:Silver Carp; LU:Meat); Cirrhinus mrigala (LN:Naini; LU:Meat).

Herpetofauna Kaloula tapobanica (LN:Byaguyo; EN:Srilanka Bullfrog); Euphlyctis cyanophlyctis (LN:Tik-tike Paha; EN:Skittering Frog); Naja naja (LN:Kachhuwa; EN: Indian Roofed Turtle); Amphiesma platyceps (LN:GomanSanp; EN:Cobra); Boiga forsteni (LN:Lohagin; EN:Forsten’s Cat Snake); Amphiesma stolatum (LN:Harara; EN:Buff-striped Keelback); Enhydris enhydris (LN:PaniSarpa; EN:Common Smooth Watersnake).

Birds Metopidius indicus (LN:Lama Aunle; EN:Bronze-winged Jacana); Phalacrocorax capensis (LN:ThuloMatikore; EN:Strok-billed Kingfisher); Bubulcus ibis (LN:BastuBakulla; EN:Cattle Egret); Mesophoyx intermedius (LN:MajhauaSetoBakulla; EN:Intermediate Egret); Centropus sinensis (LN:GoneSanp; EN:Greater Coucal); Pavocristatus (LN:Majur; EN:Indian Peafowl); Gallus gallus (LN:Luiche; EN:Red Jungle Fowl).

Mammals Lepus nigricollis (LN:Ban Kharayo; EN:Indian Hare); Funambulus pennant (LN:PanchDarkeLokhare; EN:Northern Palm Squirrel); Millardi amelia (LN:MakhamaliMuso; EN:Common Soft-furred Rat); Bandicota indica (LN:ThuloDhandeMuso; EN:Greater Bandicoot-rat); Hystrix indica (LN:Jure Dumsi, EN:Indian Crested Porcupine); Canis aureus (LN:Shyal; EN; Golden Jackle).

Invasive alien species Ageratum conyzoides (LN:Gandhe; EN:Billy Goat Weed).
Endemic plant/animal None.

3. Socio-Economy at Basin

Nearby settlement Dhakka Gaon; 50m from lake; Main Trail: Belauri to Dhangadi; 1km from lake.

Land use Forestland (5%); Agriculture (80%); Settlement (10%); Others (5%).

Demography Population: 15,401; Male: 7,262; Female: 8,139; HHs: 2,760; Ethnicity: Brahmin/Chhetri (24.10%); Janajati (58.50%); Dalit (16.82%); Other (0.58%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership State.

Wetlands dependent community Tharu.

Livestock at basin >500.

Traditional production system Fish farming and irrigation.

Traditional water use practices None.

Cultural record None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish, recreation.
Cultural services: None.

5. Restoration/Management
Structural management: Maintaining depth by taking out excess deposited soil.
Non-structural management: None.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
No visitors; Few good hotels in Belauri Bazar; Motorable road to New Dhakka; Transportation services from Mahendrangar to Belauri Bazar and Belauri Bazar to Dhangadi; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status None.
Geographical position Terai Range.
Administrative feature FWDR; Kanchanpur district; Daijee V.D.Cs; Ward no. 9; Jhalari; Municipality; Sisaiya.
Boundary Core Area:Forest in all directions.
Basin Area:Forest in all directions.
Management responsibility Sisaiya Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max.Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area:0.9 ha; Avg. Length:200 m; Avg. Width:130 m; Avg. Depth:3 m; Max–Min Surface Water Level:NA; Basin Area:25.5 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp:24°C, pH:5.8; Transparency:0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area:Sphagnum nepalensis (LN:Jhyau; HT:E m; LU:none).
Major plants in basin Acacia catechu (LN:Khayar; HT:Tr; LU:Tm, Med); Dalbergia sisoo (LN:Sisoo; HT:Tr; LU:Fuel) Shorea robusta (LN:Sal; HT:Tr; LU:Tm); Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adina cardifolia (LN:Asna, saanjh; HT:Tr; LU:Tm).
Fish Cetanoharyngodon idella (LN:Carp; LU:Meat)
Herpetofauna Bufo melanostictus (LN:Khasre bhyaguto; EN:Black-spined toad); Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Hoplobatrachus
**Birds**

*Casmerodius albus* (EN: Great Egret; EN: Thuloseto Bakulla); *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit); *Vanellus indicus* (LN: huttittita; EN: Red-watteled lapwing); *Falco tinunculus* (LN: Baaj; EN: Common Kestrel)

**Mammals**

*Felis bengalensis* (LN: Charibagh; EN: Leopard Cat); *Macaca mulatta* (LN: Bandar; EN: Rhesus Monkey); *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat); *Funambulus pennantii* (LN: Lokharke; EN: Squirrel); *Felis viverrina* (LN: Malaha biralo; EN: Fishing cat); *Sus scrofa* (LN: Badel; EN: Wild Boar); *Axis axis* (LN: Chittal; EN: spotted deer); *Vulpes bengalensis* (LN: Fushre fauro; EN: Bengal Fox); *Semnopithecus hector* (LN: Dedu; EN: Terai grey langur)

**Invasive alien species**

*Lantana camara* (LN: Maleria; EN: Tickberry); *Eupatorium sps* (LN: Banmara; EN: Thorughwort), *Parthenium hysterophorus* (LN: Gajar jhar; EN: Famine weed); *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory); *Ageratum conyzoides* (LN: Nilo gande; EN: Cheek weed).

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

*Sisaiya Gaun*; 1 km from lake; Main Trail: Kaluwapur-Sisaiya road; 1 km from lake to the main trail.

**Land use**

Agriculture (92%); Grassland (2%).

**Demography**

Population: 24,347; Male: 11,407; Female: 12,940; HHs: 4,782; Ethnicity: Brahmin/Chhetri (51.56%); Janajati (38.4%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

None.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

** Provisional services**

Fodder; Timber.

** Cultural services**

None

### 5. Restoration/Management

** Structural management**

None.

** Non-structural management**

None.

** Conservation plan**

None.

** Monitoring plan**

None.

### 6. Tourism information

No visitors; No tourism potential.

### 7. Lake condition

Degrading.
1. General Feature

Conservation status
None

Geographical coordination

Geographical position
Terai Range.

Administrative feature
FWDR; Kanchanpur district; Daijee V.D.Cs; Ward-9; Jhalari Municipality, Sisaiya.

Boundary
Core Area: Forest in all directions.
Basin Area: Forest in all directions

Management responsibility
Sisaiya Conservation Committee with the representation of DDC.

Wetlands type
Fresh water/natural; Lacustrine; Seasonal.

2. Ecological Feature

Climatic feature
Avg. Max Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area:1.1 ha; Avg. Length:200 m; Avg. Width:130 m; Avg. Depth:4 m; Max–Min Surface Water Level:NA; Basin Area:25.5 ha.

Water Volume
NA.

Water quality
Physicochemical parameter: NA.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: *Typha angustifolia* (LN:Pater; HT: Hr; LU: None) *Nymphaea stellata* (LN:Nilkamal; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT:E m; LU: None).

Major plants in basin
*Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med); *Dalbergia sisoo* (LN: Sisoo; HT: Tr; LU: Fuel); *Shorea robusta* (LN: Sal; HT: Tr; LU: Tm); *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Tm, Fr); *Oroxylum indicum* (LN: Tatelo; HT: Tr; LU: Med)

Fish
*Cetanoharyngodon idella* (LN: Carp; LU: Meat); *Hypophthalmichthys nobilis* (LN: Carp; LU: Meat).
**Herpetofauna**

- *Bufo melanostictus* (LN: Khasre bhyaguto; EN: Black-spined toad);  
- *Calotes versicolor* (LN: Cheparo; EN: Garden Lizard);  
- *Hoplobatrachus crassus* (LN: Sirke Paha; EN: Jerdon’s bull frog);  
- *Amolops marmoratus* (LN: Tite Paha);  
- *Polypedetes maculates* (LN: Rukh Bhyaguto; EN: Common Indian tree frog)

**Birds**

- *Casmerodius albus* (EN: Great Egret; EN: Thuloseto Bakulla);  
- *Halcyon pileata* (LN: Fisto; EN: Yellow-cheeked Tit);  
- *Vanellus indicus* (LN: huttititau; EN: Red-watteled lapwing);  

**Mammals**

- *Felis bengalensis* (LN: Charibagh; EN: Leopard Cat);  
- *Macaca mulatta* (LN: Bandar; EN: Rhesus Monkey);  
- *Felis chaus* (LN: Ban Biralo; EN: Jungle Cat);  
- *Funambulus pennantii* (LN: Lokharke; EN: Squirrel);  
- *Felis viverrina* (LN: Malaha biralo; EN: Fishing cat);  
- *Sus scrofa* (LN: Badel; EN: Wild Boar);  
- *Axis axis* (LN: Chittal; EN: spotted deer).

**Invasive alien species**

- *Lantana camara* (LN: Maleria; EN: Tickberry);  
- *Eupatorium sps* (LN: Banmara; EN: Thoroughwort);  
- *Parthenium hysterophorus* (LN: Gajar jhar; EN: Famine weed);  
- *Ipomoea carnea* (LN: Besara m; EN: Pink morning glory);  
- *Ageratina adenophora* (LN: Lahare banmara; EN: Crofton weed);  
- *Xanthium strumarium* (LN: Bhede kuro; EN: Cockle bur sheep bar);  
- *Ageratum conyzoides* (LN: Nilo gande; EN: Cheek weed).

**Endemic plant/animal**

None

**3. Socio-Economy at Basin**

**Nearby settlement**

*Sisaiya Gaun*; 1 km from lake; Main Trail: Kaluwapur-Sisaiya road Pokhari; 1 km from lake.

**Land use**

Agriculture (92%); Grassland (2%).

**Demography**

Population: 24,347; Male: 11,407; Female: 12,940; HHs: 4,782; Ethnicity: Brahmin/Chhetri (51.56%); Janajati (38.4%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

None.

**Traditional production system**

None.

**Traditional water use practices**

None.

**Cultural record**

None.

**Genesis/origin of lake**

None.

**4. Ecosystem Goods/Services**

**Provisional services**

Fodder; Timber

**Cultural services**

None.

**5. Restoration/Management**

**Structural management**

None.

**Non-structural management**

None.

**Conservation plan**

None.

**Monitoring plan**

None.

**6. Tourism information**

No visitors.

**7. Lake condition**

Degrading.
4.9.20 Newland Lake

1. General Feature

Conservation status: None.
Geographical position: Siwalik/Churiya Range.
Administrative feature: FWDR; Kanchanpur district; Krishnapur Municipality; Ward-1; Aishworya Community Forest.

Boundary
Core Area: Forest in all directions.
Basin Area: Forest in all directions.

Management responsibility: Aishworya Conservation Committee with the representation of DDC.
Wetlands type: Fresh water/natural; Lacustrine; Seasonal

2. Ecological Feature

Climatic feature: Avg. Max Temp: 30.5°C (Jun/July); Avg. Min Temp: 17.5°C (Dec); Rainfall: 1422.7 mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 0.8 ha; Avg. Length: 500 m; Avg. Width: 130 m; Avg. Depth: 3 m; Max–Min Surface Water Level: NA; Basin Area: 18.7 ha.

Water Volume: NA.
Water quality: Physicochemical parameter: Temp.: 24°C, pH: 6; Transparency: 0.5 m.
Soil feature: Grey color; Sandy loam texture.
Shocks/vulnerability: Water volume decreasing.
Major aquatic plants
Core Area: Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none)
Major plants in basin: Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Fuel); Adina cardifolia (LN: Asna, saanjh; HT: Tr; LU: Tm)

Fish: None

Herpetofauna: Bufo melanostictus (LN: Khasre bhyaguto; EN: Black-spined toad); Calotes versicolor (LN: Cheparo; EN: Garden Lizard)

Birds: Falcotinnunculus (LN: Baj; EN: Common Kestrel); Treron pompadora (LN: Haleso; EN: Pompadour Green Pigeon)
Mammals

Macaca mulatta (LN: Bandar; EN: Rhesus Monkey); Felis chaus (LN: Ban Biralo; EN: Jungle Cat); Funambulus pennanti (LN: Lokharke; EN: Squirrel); Felis viverrina (LN: Malaha biralo; EN: Fishing cat)

Invasive alien species

Lantana camara (LN: Maleria; EN: Tickberry); Ipomoea carnea (LN: Besara m; EN: Pink morning glory)

Endemic plant/animal

None

3. Socio-Economy at Basin

Nearby settlement

Krishnapur Gaun; 3 km from lake; Main Trail: Banka Chowk-Krishnapur Gaun; 3 km from lake.

Land use

Agriculture (97%); Grassland (3%).

Demography

Population: 36,706; Male: 17,552; Female: 19,154; HHs: 6,723; Ethnicity: Brahmin/Chhetri (52.15%); Janajati (43.12%); Dalit (3.72%); Other (1%). Major Religion: Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership

State.

Wetlands dependent community

None.

Livestock at basin

None

Traditional production system

None

Traditional water use practices

None

Cultural record

None

Genesis/origin of lake

None.

4. Ecosystem Goods/Services

Provisional services

Fodder; Timber

Cultural services

None

5. Restoration/Management

Structural management

None

Non-structural management

None

Conservation plan

None

Monitoring plan

None.

6. Tourism information

No visitors.

7. Lake condition

Degrading.
4.9.21 Peli Lake

Wetland code:
Toposheet no: 2880 02A
Date of inventory: May 23, 2016

1. General Feature

Conservation status
None.

Geographical coordination
Lat:28.941945237°N; Lon:80.275970807°E; Alt:201 masl.

Geographical position
Terai Range.

Administrative feature
FWDR; Kanchanpur district; Daijee V.D.Cs; Ward no. 1; Daijee.

Boundary
Core Area: Forest in east and north directions and settlements in west and south direction.
Basin Area: Forest in all directions.

Management responsibility
Daijee Conservation Committee with the representation of DDC.

Wetlands type
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature
Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area
Core Area: 3.4 ha; Avg. Length: 400 m; Avg. Width: 150 m; Avg. Depth:3 m; Max–Min Surface Water Level: NA–6.5 m; Basin Area: 79.3 ha.

Water Volume
NA.

Water quality
Physicochemical parameter: Temp.: 24°C, pH: 6; Transparency: 0.5 m.

Soil feature
Grey color; Sandy loam texture.

Shocks/vulnerability
Water volume decreasing.

Major aquatic plants
Core Area: Typha angustifolia (LN: Pater; HT: Hr; LU: None) Nymphaea stellata (LN: Nilkamal; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: None).

Major plants in basin
Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Fuel) Shorea robusta (LN: Sal; HT: Tr; LU: Tm); Synzigium cumini (LN: Jamun; HT: Tr; LU: Tm, Fr); Adina cardifolia (LN: Asna, saanjh; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr, LU: Med, Fruit).

Fish
Cetanoharyngodon idella (LN: Carp; LU: Meat); Labeo rohita (LN: Rohu;
Herpetofauna

*Bufo melanostictus* (LN:Khasre bhaguto; EN:Black-spined toad); *Calotes versicolor* (LN:Cheparo; EN:Garden Lizard); *Hoplobatrachus crassus* (LN:Sirke Paha; EN:Jerdon’s bull frog); *Amolops marmoratus* (LN:Tite Paha); *Varanus bengalensis* (LN:Bhainse; EN:Monitor lizard); *Polypedtes maculates* (LN:Rukh Bhaguto; EN:Common Indian tree frog); *Python morulus* (LN:Ajingar; EN:Asiatic Rock Python); *Ptyas mucosa* (LN:Dhaman; EN:Ratsnake).

**Birds**

*Halcyon pileata* (LN:Fisto; EN:Yellow-cheeked Tit); *Vanelus indicus* (LN:Huttititau; EN:Red-watteled lapwing); *Falco tinunculus* (LN:Baaj; EN:Common Kestrel); *Treron pompadora* (LN:Haleso; EN:Pompadour Green Pigeon)

**Mammals**

*Felis bengalensis* (LN:Charibagh; EN:Leopard Cat); *Macaca mulatta* (LN:Bandar; EN:Rhesus Monkey); *Felis chaus* (LN:Ban Biralo; EN:Jungle Cat); *Funambulus pennanti* (LN:Lokharke; EN:Squirrel); *Felis viverrina* (LN:Malaha biralo; EN:Fishing cat); *Sus scrofa* (LN:Badel; EN:Wild Boar).

**Invasive alien species**

*Lantana camara* (LN:Maleria; EN:Tickberry); *Eupatorium sp* (LN:Banmara; EN:Thorughwort), *Parthenium hysterophorus* (LN:Gajar jhar; EN:Famine weed); *Ipomoea carnea* (LN:Besara m; EN:Pink morning glory).

**Endemic plant/animal**

None

### 3. Socio-Economy at Basin

**Nearby settlement**

*Daijee Chowk*; 50 m from lake; Main Trail: Mahendra Highway-Daijee; 50 m from lake.

**Land use**

Agriculture (44%); Forest (55%); Grassland (1%).

**Demography**

Population: 27481; Male: 12985; Female: 14496; HHs: 5091; Ethnicity: Brahmin/Chhetri (51.57%); Janajati (38.43%); Dalit (5%); Other (5%). Major Religion: Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

None.

**Livestock at basin**

>2000

**Traditional production system**

None

**Traditional water use practices**

None

**Cultural record**

None

**Genesis/origin of lake**

None.

### 4. Ecosystem Goods/Services

**Provisional services**

Fodder; Medicinal plants; Timber

**Cultural services**

None

### 5. Restoration/Management

**Structural management**

None

**Non-structural management**

None

**Conservation plan**

None

**Monitoring plan**

None.

### 6. Tourism information

Few small hotels near lake; Road adjoining the lake; Few visitors; Low tourism Potential.

### 7. Lake condition

Degrading.
1. General Feature

Conservation status  
None.

Geographical coordination  
Lat:28.72559° N; Lon:80.41042° E; Alt:165 masl.

Geographical position  
Tarai.

Administrative feature  
FWDR; Kanchanpur district; Shankarpur VDC; Ward no.1; Kanjagaon.

Boundary  
Core Area:Trail in south and farmland in other directions.
Basin Area:Kanjigaon- Dhangadi trail in south; Kanjigaon trail in east; Kanjigaon ward 2- ward1 trail in west; Field trail in north.

Management responsibility  
Shankarpur VDC.

Wetlands type  
Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature  
Avg. Max.Temp:30.5° C (Jun/July); Avg. Min:17.5° C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area  
Core Area:0.9862 ha; Avg. Length:100 m; Avg. Width:30 m; Avg. Depth:1.5 m; Max–Min Surface Water Level:2-1 m; Basin Area:100 ha.

Water Volume  
Peak Period:6600000 ltr; Dry period:2100000 ltr; Inlet:None; Outlet:

Water quality  
Physiochemical parameter:Temp.:29.5°C, pH:7.9; DO:4.2mg/l; Transparency:0.4 m.

Soil feature  
Grey color; Sandy Clay loam.

Shocks/vulnerability  
Water Volume decrease.

Major aquatic plants  
Core Area:None.

Major plants in basin  
Shorea robusta (LN: sal; HT:Tr; LU:Tml); Saccharum spontanin (LN:Kans; HT:Grass; LU:Fd); Imperata cylindrica (LN:Siru; HT:Grass; LU:Fd); Eucalyptus alba (LN:Masala; HT:Tr; LU:Tm); Zizyphus rugosa
(LN:Rukh Bayar; HT:Tr; LU:Med, Fruit), *Bombox ceiba* (LN:Simal; HT:Tr; LU:Tm).

**Fish**

*Clarias batrachus* (LN:Magur; LU:Meat); *Labeorohita* (LN:Rohu; LU:Meat), *Cirrhinus caringius* (LN:Naini; LU:Meat); *Catla catla* (LN:Vykur; LU:Meat); *Puntius sarona* (LN:Kande; LU:Meat); *Puntiosticto* (LN:Bhite; LU:Meat).

**Herpetofauna**

*Microhyla oranata* (LN:Byang; EN:Oranate Rice Frog); *Bufostomaticus* (LN:Khakhariy Magoba; EN:Assam Toad); *Kaloulatнопробаника* (LN:Byagyo; EN:Srilanka Bullfrog); *Euphlyctiscyanophlyctis* (LN:Tik-tike Paha; EN:Skittering Frog); *Sphaerothecabreviceps* (LN:Rane Bhyaguto; EN:Indian Burrowing Frog); *Melanochelystrijuga* (LN:Kachhuwa; EN:Eastern Black Turtle); *Pangshuratactum* (LN:Kachhuwa; EN:Indian Roofed Turtle); *Xenoctrophispiscator* (LN:Pani Sarpa; EN:Chequered Keelback Water snake); *Amphiesma stolatum* (LN:Harara; EN:Buff-stripped Keelback).

**Birds**

*Metopidius indicus* (LN:Lama Aunle; EN:Bronze-winged Jacana); *Haliaeetus leucoryphus* (LN:Boksi Cheel; EN:Assam’s Fish Eagle); *Cerylerudis* (LN:Chhibre Matkore; EN:Pied Kingfisher); *Amaurornis phoenicurus* (LN:Sim Kukhura; EN:White-breasted Waterhen); *Bubulcus ibis* (LN:Kastu Bakulla; EN:Cattle Egret); *Halcyon capensis* (LN:Thulo Matkore; EN:Strok-billed Kingfisher); *Pavocristatus* (LN:Majur; EN:Indian Peafowl); *Gallus gallus* (LN:Luiche; EN:Red Jungle Fowl).

**Mammals**

*Lepus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulus pennant* (LN:Panch Darke Lokharke; EN:Northern Palm Squirrel); *Millardiameltata* (LN:Makhamali Muso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:Thulo Dhande Muso; EN:Greater Bandicoot Rat); *Hystricindica* (LN:Jure Dumsi; EN:Indian Crested Porcupine) *Felis bengalensis* (LN:Chari Bagh; EN:Leopard Cat); *Canis aureus* (LN:Shyal; EN:Golden Jackle); *Macacamulatta* (LN:Rato Bandar; EN:Rhesus Monkey); *Boselaphustragocamelus* (LN:Nil Gai; EN:Blue Bull); *Axis axis* (LN:Chital; EN:Spotted Deer); *Sus scrofa* (LN:Bandel; EN:Wild Boar).

**Invasive alien species**

*Ipomoea carnea* (LN:Besara m; EN:Shrubby Morning Glory).

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

Kanjigaon; 50m from lake; Main Trail:Kanjigaon to Dhangadi foot trail; 50m from lake.

**Land use**

Forestland (30%); Agriculture (60%); Settlement (5%); Others (5%).

**Demography**

Population:7251; Male:3549; Female:3702; HHS:1,065; Ethnicity: Brahmin/Chhetri (5.92%); Janajati (91.67%); Dalit (1.83%); Other (0.58%). Major Religion:Hinduism (CBS 2012).

**Jurisdiction/ownership**

State.

**Wetlands dependent community**

Tharu.

**Livestock at basin**

>1000.
Traditional production system: Irrigation.
Traditional water use practices: None.
Cultural record: None.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish, Irrigation.
Cultural services: None.

5. Restoration/Management
Structural management: None.
Non-structural management: None.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
No visitors; Few good hotels in Belauri Bazar; Motarable road to Belauri Baza and Belauri Bazar to Dhangadi; Transportation services from Mahendrangar to Belauri Bazar or Dhangadi to Belauri Bazar; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status None.


Geographical position Terai Range.

Administrative feature FWDR; Kanchanpur district; Daijee V.D.Cs; Ward no. 9; Sisaiya.

Boundary Core Area: Forest in all directions.

Basin Area: Forest and agricultural land

Management responsibility Sisaiya Conservation Committee with the representation of DDC.

Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp:30.5°C (Jun/July); Avg. Min:17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).

Area Core Area: 2.4 ha; Avg. Length: 600 m; Avg. Width: 130 m; Avg. Depth: 3 m; Max–Min Surface Water Level: NA; Basin Area: 26.8 ha.

Water Volume NA.

Water quality Physicochemical parameter: Temp.: 23°C, pH: 5.9; Transparency: 0.5 m.

Soil feature Grey color; Sandy loam texture.

Shocks/vulnerability Water volume decreasing.

Major aquatic plants Core Area: *Nymphaea stellata* (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); *Sphagnum nepalensis* (LN: Jhyau; HT: E m; LU: none).

Major plants in basin *Acacia catechu* (LN: Khayar; HT: Tr; LU: Tm, Med); *Dalbergia sissoo* (LN: Sisoo; HT: Tr; LU: Fuel); *Shorea robusta* (LN: Sal; HT: Tr; LU: Tm); *Synzigium cumini* (LN: Jamun; HT: Tr; LU: Tm, Fr); *Adina cardifolia* (LN: Asna, saanjh; HT: Tr; LU: Tm).

Fish *Cetanoharyngodon idella* (LN: Carp; LU: Meat); *Labeo rohita* (LN: Rohu; LU: Meat); *Hypophthalmichthys nobilis* (LN: Carp; LU: Meat); *Mylopharyngodon piceus* (LN: Kalocarp; LU: Meat); *Clarias batrachus* (LN: Mungri; LU: Meat).

Herpetofauna *Bufo melanostictus* (LN: Khasre bhyaguto; EN: Black-spined toad);
Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Varanus bengalensis (LN:Bhainse; EN:Monitor lizard); Polypedtes maculates (LN:Rukh Bhyaguto; EN:Common Indian tree frog); Lissemys punctata andersoni webb (LN:Putali kachuwa; EN:North Indian flapshell turtle); Python morulus (LN:Ajingar; EN:Asiatic Rock Python)

Birds
Vanellusindicus (LN:huttittitau; EN:Red-watteled lapwing); Falco tinnunculus (LN:Baaj; EN:Common Kestrel); Treron pompadora (LN:Haleso; EN:Pompadour Green Pigeon); Turdoides striata (LN:Bhyakur; EN:Jungle Babbler).

Mammals
Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennanti (LN:Lokharke; EN:Squirrel); Felis viverrina (LN:Malaha biralo; EN:Fishing cat); Sus scrofa. (LN:Badel; EN:Wild Boar); Axis axis (LN:Chittal; EN:spotted deer); Boselaphus tragocamelus (LN:Nilgai; EN:Bluebull). Vulpes bengalensis (LN:Fushre fauro; EN:Bengal Fox)

Invasive alien species
Lantana camara (LN:Maleria; EN:Tickberry); Eupatorium sps (LN:Banmara; EN:Thorughwort), Parthenium hysterophorus (LN:Gajar jhar; EN:Famine weed); Ipomoea carnea (LN:Besara m; EN: Pink morning glory); Ageratina adenophora (LN:Lahare banmara ; EN:Crofton weed); Xanthium strumarium (LN:Bhede kuro; EN:Cockle bur sheep bar)

Endemic plant/animal
None

3. Socio-Economy at Basin

Nearby settlement
Sisaiya Gaun; 1 km from lake; Main Trail: Kaluwapur-Sisaiya-Brindaban Forest; 1 km from lake.

Land use
Forest (81%); Grassland (9%); Shrubland (10%).

Demography
Population: 24,347; Male: 11407; Female: 12940; HHs: 4782; Ethnicity: Brahmin/Chhetri (64.08%); Janajati (20.07%); Dalit (15.49%); Other (0.35%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>1000

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.

4. Ecosystem Goods/Services

Provisional services
Fodder; Timber.

Cultural services
None

5. Restoration/Management

Structural management
None.

Non-structural management
None.

Conservation plan
None.

Monitoring plan
None.

6. Tourism information

No visitors.

7. Lake condition

Degrading.
4.9.24 Puraina Tal (b)

**Wetland code:**
- Toposheet no: 2880 06A
- Date of inventory: July 01, 2016

### 1. General Feature

**Conservation status**
- None.

**Geographical coordination**

**Geographical position**
- Tarai.

**Administrative feature**
- FWDR; Kanchanpur district; Belauri Municipality; Ward no. 8; Burakot.

**Boundary**
- **Core Area:** Farmland in south, forest in all directions.
- **Basin Area:** Gaudi gaon and Beldandichouk in south; Gaudi to Maghgaon trail, and Shukla Phanta Wildlife Reserve boundary in east and north.

**Management responsibility**
- Belauri Municipality.

**Wetlands type**
- Fresh water/natural; Lacustrine; Permanent.

### 2. Ecological Feature

**Climatic feature**
- Avg. Max Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7 ml/yr. (www.beautifulfarwestnepal.blogspot.com).

**Area**
- **Core Area:** 23 ha; Avg. Length: 180 m; Avg. Width: 110 m; Avg. Depth: 2 m; Max–Min Surface Water Level: 3.5–0.5 m; **Basin Area:** 60 ha.

**Water Volume**
- Peak Period: 69,300,000 ltr; Dry period: 1,800,000 ltr; Inlet: None; Outlet:

**Water quality**
- Physicochemical parameter: Temp.: 28.4°C, pH: 7.9; DO: 3.9 mg/l; Transparency: 0.5 m.

**Soil feature**
- Black color; Sandy loam texture.

**Shocks/vulnerability**
- Flooding, Invasion of Weed and water volume decreasing.

**Major plants in basin**
- *Shorea robusta* (LN: sal; HT: Tr; LU: Tml); *Saccharum spontaneum*
(LN:Kans; HT:Grass; LU:Fd); *Imperata cylindrica* (LN:Siru; HT:Grass; LU:Fd); *Eucalyptus alba* (LN:Masala; HT:Tr; LU:Tm); *Zizyphus rugosa* (LN:Rukh Bayar; HT:Tr; LU:Med, Fruit); *Bombox ceiba* (LN:Simal; HT:Tr; LU:Tm).

**Fish**

*Clarias batrachus* (LN:Mangur; LU:Meat); *Labeorohita* (LN:Rohu; LU:Meat), *Cirrhinus mrigala* (LN:Naini; LU:Meat), *Catla catla* (LN:Vyakur; LU:Meat); *Puntios sarona* (LN:Kande; LU:Meat); *Puntiosticto* (LN:Bhite; LU:Meat).

**Herpetofauna**

*Crocodilus palustris* (LN:MagarGohi; EN:Magger Crocodile); *Microhyla ornata* (LN:Byang; EN:Ornate Rice Frog); *Bufo stomaticus* (LN:KhatkyarriMagoba; EN:Assam Toad); *Kaloula tapaneca* (LN:Byaguyo; EN:Srilanka Bullfrog); *Euphlyctis cyanophlyctis* (LN:Tik-tike Paha; EN:Skittering Frog); *Sphaerotheca breviceps* (LN:Ranebyaguto; EN:Indian Burrowing Frog); *Melanochelys trinilis* (LN:Kachhuwa; EN:Eastern Black Turtle); *Pangshura taka* (LN:Kachhuwa; EN:Indian Roofed Turtle); *Xenochrophis piscator* (LN:PaniSarpa; EN:ChequeredKeelbackWatersnake); *Amphiesma stolatum* (LN:Harara; EN:Buff-stripped Keelback).

**Birds**

*Metopidius indicus* (LN:Lama Aunle; EN:Bronze-winged Jacana); *Halieaeus leucocephalus* (LN:BoksiCheel; EN:Pallas’s Fish Eagle); *Ceryle rudis* (LN:ChbirbireMatikore; EN:Pied Kingfisher); *Amaurornis phoenicurus* (LN:SimKukhura; EN:White-breasted Waterhen); *Bubulcus ibis* (LN:BastuBakulla; EN:Cattle Egret); *Halcyon capensis* (LN:ThuloMatikore; EN:Strok-billed Kingfisher); *Pavo cristatus* (LN:Majur; EN:Indian Peafowl); *Gallus gallus* (LN:Luiche; EN:Red Jungle Fowl).

**Mammals**

*Lepus nigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulus pennant* (LN:PanchDarkeLokharke; EN:Northern Palm Squirrel); *Millardia melampus* (LN:MakhamaliMuso; EN:Common Soft-furred Rat); *Bandicota indica* (LN:ThuloDhandeMuso; EN:Greater Bandicoot); *Hystrix indica* (LN:Jure Dumsi; EN:Indian Crested Porcupine); *Felis bengalensis* (LN:Char Bagh; EN:Leopard Cat); *Canis aureus* (LN:Shyal; EN:Golden Jackle); *Macaca mulatta* (LN:Rato Bandar; EN:Rhesus Monkey); *Boselaphus tragocamelus* (LN:Nil Gai; EN:Blue Bull); *Axis axis* (LN:Chital; EN:Spotted Deer); *Sus scrofa* (LN:Bandel; EN:Wild Boar).

**Invasive alien species**

*Ipomoea carnea* (LN:Besara m; EN:Shrubby Morning Glory).

**Endemic plant/animal**

None.

### 3. Socio-Economy at Basin

**Nearby settlement**

Burakot; 50m from lake; Main Trail:Belauri to Khajuriya; 150m from lake.

**Land use**

Forestland (10%); Agriculture (75%); Settlement (10%); Others (5%).

**Demography**

Population:13,727; Male:6,461; Female:7,266; HHs:2,175; Ethnicity: Brahmin/Chhetri (32.35%); Janajati (57.91%); Dalit (9.58%); Other (0.16%). Major Religion:Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership: State.
Wetlands dependent community: None.
Livestock at basin: >500.
Traditional production system: None.
Traditional water use practices: None.
Cultural record: Durga Temple.
Genesis/origin of lake: None.

4. Ecosystem Goods/Services
Provisional services: Fish and Irrigation.
Cultural services: None.

5. Restoration/Management
Structural management: None.
Non-structural management: None.
Conservation plan: None.
Monitoring plan: None.

6. Tourism information
>200 visitors/year; Few good hotels in Belauri Bazar which is 1km from lake; Motorable road to Burakott; Transportation services from Kaluwapur to Belauri Bazar; Needs promotional activities.

7. Lake condition
Degrading.
1. General Feature

Conservation status None; Transboundary Lake.
Geographical position Terai Range.
Administrative feature FWDR; Kanchanpur district; Punarbas Municipality; Ward-1; Punarbas.
Boundary Core Area: Forest in east, Agricultural Land in North, Grassland of India in west and south direction.
Basin Area: Forest in all directions.
Management responsibility Pyara Conservation Committee with the representation of DDC.
Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max Temp: 30.5°C (Jun/July); Avg. Min Temp: 17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
Area Core Area: 0.8 ha; Avg. Length: 800 m; Avg. Width: 80 m; Avg. Depth: 4 m; Max–Min Surface Water Level: NA; Basin Area: 32.3 ha.
Water Volume NA.
Water quality Physicochemical parameter: Temp.: 24°C, pH: 5.7; Transparency: 0.5 m.
Soil feature Grey color; Sandy loam texture.
Shocks/vulnerability Water volume decreasing.
Major aquatic plants Core Area: Hydrilla sps (LN: Panijhyau; HT: S m; LU: None); Azolla sps (LN: Panijhyau; HT: Ff; LU: None); Typha angustifolia (LN: Pater; HT: Hr; LU: None); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none).
Major plants in basin Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo
Shorea robusta (LN:Sal; HT:Tr; LU:Tm); Synzigium cumini (LN:Jamun; HT:Tr; LU:Tm, Fr); Adina cordifolia (LN:Asna, saanjh; HT:Tr; LU:Tm); Emblica officinalis (LN:Amala; HT:Tr; LU:Med, Fruit); Oroxyllum indicum (LN:Tatelo; HT:Tr; LU:Med).

Fish
Cetanoharyngodon idella (LN:Carp; LU:Meat); Labeo rohita (LN:Rohu; LU:Meat); Hypophthalmichthys nobilis (LN:Carp; LU:Meat).

Herpetofauna
Bungarus sps (LN:Karet; EN:Common Krait); Bufo melanostictus (LN:Khasre bhyaguto; EN:Black-spined toad); Calotes versicolor (LN:Cheparo; EN:Garden Lizard); Hoplobatrachus crassus (LN:Sirke Paha; EN:Jerdon’s bull frog); Amolops marmoratus (LN:Tite Paha); Varanus bengalensis (LN:Bhainse; EN:Monitor lizard).

Birds
Eudynamys scolopacea (LN:Koili; EN:Asian Koel); Psittacula sps (LN:Suga; EN:Parrot); Eupupa epops (LN:Fapre; EN:Hoopoe); Francolinus francolinus (LN:Kalotitra; EN:Black Francolin); Gallusgallus (LN:Bankkhura; EN:Red Jungle fowl); Casmerodius albus (EN:Great Egret; EN:Thuloseto Bakulla); Halcyon pileata (EN:Fisto; EN:Yellow-cheeked Tit); Vanellusindicus (EN:huttititau; EN:Red-watteled lapwing); Falcotinnunculus (EN:Baaj; EN:Common Kestrel).

Mammals
Herpestes sps (LN:Nyarimusa ; EN:Mongoose); Canis aurens (LN:Syal; EN:Golden jackal Felis bengalensis (LN:Charibagh; EN:Leopard Cat); Lutra lutra (LN:Oont; EN:Common Otter); Macaca mulatta (LN:Bandar; EN:Rhesus Monkey); Felis chaus (LN:Ban Biralo; EN:Jungle Cat); Funambulus pennantii (LN:Lokharke; EN:Squirrel); Felis viverrina (LN:Malaha biralo; EN:Fishing cat); Sus scrofa (LN:Badel; EN:Wild Boar).

Invasive alien species
Mikania micrantha (EN:Bitter Vien); Eupatorium (LN:Banmara; EN:Thorughwort); Eichhornia crasippes (LN:Jalkhumbi; EN:Water hyacinth).

Endemic plant/animal
None

3. Socio-Economy at Basin

Nearby settlement
Tribhuvan Basti; 1 km from lake; Main Trail:Belauri road; 10 km from lake.

Land use
Forestland (6%); Agriculture (57%); Shrubland (36%); Grassland (1%).

Demography
Population:14,168; Male:6,482; Female:7,686; HHs:2,724; Ethnicity: Brahmin/Chhetri (53.21%); Janajati (44.34%); Dalit (2.22%); Other (0.22%). Major Religion:Hinduism/Buddhism (CBS 2012).

Jurisdiction/ownership
State.

Wetlands dependent community
None.

Livestock at basin
>500.

Traditional production system
None.

Traditional water use practices
None.

Cultural record
None.

Genesis/origin of lake
None.
4. Ecosystem Goods/Services

Provisional services  Fodder; Timber; Medicinal.
Cultural services  None

5. Restoration/Management

Structural management  None.
Non-structural management  None.
Conservation plan  None
Monitoring plan  None.

6. Tourism information

local visitor; Few hotels and road to Tribhuvan basti; Moderate tourism potential; Needs promotional activities.

7. Lake condition  Degrading.
4.9.26 Shova Tal

**1. General Feature**

Conservation status: None.


Geographical position: Tarai.

Administrative feature: FWDR; Kanchanpur district; BelauriMunicipality; Ward no.7; Chandpur.

Boundary

- **Core Area**: Paddy field in east and south, Sal forest in west, Human settlement and paddy field in north.
- **Basin Area**: Jai to Balami trail in west, Dungagaon in east, Kurkaiyagaon in south, Chandpur to Ramnagar road in north.

Management responsibility: Shova Tal Machha Palan Samitee.

Wetlands type: Fresh water/natural; Lacustrine; Permanent.

**2. Ecological Feature**

Climatic feature: Avg. Max:Temp:30.5 °C (Jun/July); Avg. Min:17.5 °C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area: Core Area:25 ha; Avg. Length:190 m; Avg. Width:70 m; Avg. Depth:2 m; Max–Min Surface Water Level:3-1 m; Basin Area:250 ha.

Water Volume: Peak Period:39,900,000 ltr; Dry period:60,000,000 ltr; Inlet:None; Outlet:None.

Water quality: Physiochemical parameter:Temp.:30.2 °C, pH:7.6; DO:3.5 mg/l; Transparency:0.4 m.

Soil feature: Red color; Clay loam.

Shocks/vulnerability: WaterHyacinth.
Major aquatic plants

Core Area: None.

Major plants in basin

Shorea robusta (LN: Sal; HT: Tr; LU: Tml); Saccharum spontanim (LN: Kans; HT: Grass; LU: Fd); Imperata cylindrica (LN: Siru; HT: Grass; LU: Fd); Eucalyptus alba (LN: Masala; HT: Tr; LU: Tm); Zizyphus rugosa (LN: Rukh Bayar; HT: Tr; LU: Med, Fruit); Bombox ceiba (LN: Simal; HT: Tr; LU: Tm).

Fish

Clarias batrachus (LN: Mangur; LU: Meat); Labeorohita (LN: Rohu; LU: Meat); Cirrhinus mrigala (LN: Naini; LU: Meat); Catla (LN: Vyakur; LU: Meat); Puntius sarana (LN: Kande; LU: Meat); Puntiosticto (LN: Bhit; LU: Meat).

Herpetofauna

Microhyla oranata (LN: Byang; EN: Oranate Rice Frog); Bufostomaticus (LN: Khatkhyari Magoba; EN: Assam Toad); Kaloula taprobana (LN: Byag); Euphlyctis cyanophlyctis (LN: Tik-tike Paha; EN: Skittering Frog); Sphaerothera cabrevics (LN: Rane Bhyaguto; EN: Indian Burrowing Frog); Melanochelys trigona (LN: Kachhuwa; EN: Eastern Black Turtle); Pangshura tatactum (LN: Kachhuwa; EN: Indian Roofed Turtle); Xenochrophis piscator (LN: Pani Sarpa; EN: Chequered Keelback Water snake); Amphibias stolatum (LN: Harara; EN: Buff-stripped Keelback).

Birds

Metopidius indicus (LN: Lama Aunle; EN: Bronze-winged Jacana); Haliaetus leucoryphus (LN: Boksi Cheel; EN: Pallas's Fish Eagle); Ceryle rudis (LN: Chhirbire Matikore; EN: Pied Kingfisher); Amaurornis phoenicurus (LN: Sim Kukhura; EN: White-breasted Water hen); Bufulicus ibis (LN: Bastu Bakulla; EN: Cattle Egreat); Halcyon capensis (LN: Thulo Matikore; EN: Stork-billed Kingfisher); Pavo cristatus (LN: Majur; EN: Indian Peafowl); Gallus gallus (LN: Luiche; EN: Red Jungle Fowl).

Mammals

Lepus nigricollis (LN: Ban Kharayo; EN: Indian Hare); Funambulus pennant (LN: Panch Darke Lokharke; EN: Northern Palm Squirrel); Millardia melantada (LN: Makhamali Muso; EN: Common Soft-furred Rat); Bandicota indica (LN: Thulo Dhande Muso; EN: Greater Bandicoot); Hystrix indica (LN: Jure Dumsi; EN: Indian Crested Porcupine); Felis bengalensis (LN: Charhi Bagh; EN: Leopard Cat); Canis aureus (LN: Shyal; EN: Golden Jackle); Macaca mulatta (LN: Rato Bandar; EN: Rhesus Monkey); Boselaphus tragocamelus (LN: Nil Gai; EN: Blue Bull); Axis axis (LN: Chital; EN: Spotted Deer); Sus scrofa (LN: Bandel; EN: Wild Boar).

Invasive alien species

Ipomoea carnea (LN: Besara m; EN: Shrubby Morning Glory; Major aquatic plants)

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

Chandpur; 50 m from lake; Main Trail: Kaluwapurto Belauri Bazar; 0.5km from lake.

Land use

Forestland (60%); Agriculture (30%); Settlement (5%); Others (5%).

Demography

Population: 21,387; Male: 10,223; Female: 11,164; HHs: 3,554; Ethnicity: Brahmin/Chhetri (29.49%); Janajati (65.89%); Dalit
Jurisdiction/ownership  State.
Wetlands dependent community  Tharu.
Livestock at basin  >2000.
Traditional production system  Fish farming and irrigation.
Traditional water use practices  None.
Cultural record  None.
Genesis/origin of lake  None.

4. Ecosystem Goods/Services
Provisional services  Fish, recreation.
Cultural services  None.

5. Restoration/Management
Structural management  Boring by GTZ.
Non-structural management  Restriction of livestock but not hard implementation.
Conservation plan  None.
Monitoring plan  None.

6. Tourism information
>1000 visitors (internal tourist)/year; Few good hotels in Belauri Bazar or Kaluwapur; Motarable road to Belauri Bazar; Transportation services from Mahendrangar to Belauri Bazar; Needs promotional activities.

7. Lake condition  Degrading.
1. General Feature

Conservation status None.

Geographical coordination Lat:29.01629° N; Lon:80.24412° E; Alt:380 masl.

Geographical position Churiya hills.

Administrative feature FWDR; Kanchanpur district; Betkot Municipality; Ward no. 6; Siddha Sarobar.

Boundary Core Area: Forest in all directions.

Basin Area: Chure Chaunkham forest in east; Chunepani forest in west; Shikharpani forest in north and Ganesh community forest in south.

Management responsibility Siddha Sarobar Bramhakunda paryatakiya chhetra dharmic ban samrakshansamuha, Betkot.

Wetlands type Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature

Climatic feature Avg. Max: Temp: 30.5°C (Jun/July); Avg. Min: 17.5°C (Dec); Rainfall: 1422.7ml/yr. (www.beautifulfarwestnepal.blogspot.com).

Area Core Area: 21.059 ha; Avg. Length: 100 m; Avg. Width: 50 m; Avg. Depth: 5 m; Max–Min Surface Water Level: 7–3 m; Basin Area: 20 ha.

Water Volume Peak Period: 35,000,000 ltr; Dry period: 10,800,000 ltr; Inlet: Chaukhamkhola and Chunepanikhola; Outlet: Banda Talnikaskhola.

Water quality Physiochemical parameter: Temp.: 30.6°C, pH: 8; DO: 3.13; Transparency: 0.9 m.

Soil feature Black color; Sandy loam texture.

Shocks/vulnerability Water volume decreasing.
Major aquatic plants

Core Area: *Pistiastratiotes* (LN:Kumbhika; EN:Water Lettuce; HT:FF); *Typhaangustifolia* (LN:Pater; HT:E m; LU:Fd).

Major plants in basin

*Shorearobusta* (LN:sal; HT:Tr; LU:Tml); *Syzygiumcumini* (LN:jamun; HT:TR; LU:Tm, Md); *Terminaliaalata* (LN:Asna; HT:Tr; LU:Tm); *Semecarpusanacardium* (LN:Bhalayo; HT:Sh; LU:Me); *Mallotusphilippensis* (LN:Sindhure; HT:Tr; LU:Fd); *Osbeckiastellate* (LN:Asare; HT:Sh, LU:Md, Leaf); *Dioscoreabulbifera* (LN:Githa; HT:Cl; LU:Fd, fruit); *Cassia fistula* (LN:Rajbriksa; HT:Tr; LU:Med, pod); *Bauhinia vahlili* (LN:Bhorla; HT:Cl, LU:Bed.).

Fish

None.

Herpetofauna

*Microhylaoranata* (LN:Byang; EN:Oranate Rice Frog); *Bufostomaticus* (LN:KhatkhyarriMagoba; EN:Assam Toad); *Kaloulataprobanaica* (LN:Byaguyo; EN:Srilanka Bullfrog); *Euphylctiscyanophlyctis* (LN:Tik-tike Paha; EN:Skittering Frog); *Sphaerothecabrevicpes* (LN:RaneBhyaguto; EN:Indian Burrowing Frog); *Melanochelystrijuga* (LN:Kachhuwa; EN; Eastern Black Turtle); *Pangshuratactus* (LN:Kachhuwa; EN:Indian Roofed Turtle); *Xenochrophispiscator* (LN:PaniSarpa; EN:ChequeredKeelbackWatersnake); *Amphiesma stolatum* (LN:Harara; EN:Buff-stripped Keelback).

Birds

*Haliaeetusleucoryphus* (LN:BoksiCheel; EN:Pallas’s Fish Eagle); *Cerylerudis* (LN:ChhirbireMatikore; EN:Pied Kingfisher); *Amaurornisphoenicurus* (LN:SimKukhura; EN:White-breasted Waterhen); *Bubulcus ibis* (LN:BastuBakulla; EN:Cattle Egreat); *Halcyon capensis* (LN:ThuloMatikore; EN:Strok-billed Kingfisher); *Pavocristatus* (LN:Majur; EN:Indian Peafowl); *Gallus gallus* (LN:Luiche; EN:Red Jungle Fowl).

Mammals

*Lepusnigricollis* (LN:Ban Kharayo; EN:Indian Hare); *Funambulus pennant* (LN:PanchDarkeLokharke; EN:Northern Palm Squirrel); *Milliardmeltada* (LN:MakhamaliMuso; EN:Common Soft-furred Rat); *Bandicotaindica* (LN:ThuloDhandeMuso; EN:Greater Bandicoot-rat); *Hystrixindica* (LN:Jure Dumsi, EN:Indian Crested Porcupine) *Felisbengalensis* (LN:Chari Bagh; EN:Leopard Cat); *Canisaureus* (LN:Shyal; EN; Golden Jackle); *Macacamulatta* (LN:Rato Bandar; EN:Rhesus Monkey); *Boselaphustragocamelus* (LN:Nil Gai; EN:Blue Bull); *Axis axis* (LN:Chital; EN:Spotted Deer); *Sus scrofa* (LN:Bandel; EN:Wild Boar).

Invasive alien species

*Ipomoea carnea* (LN:Besara m; EN:Shrubby Morning Glory).

Endemic plant/animal

None.

3. Socio-Economy at Basin

Nearby settlement

*Muchhepani*; 3km from lake; Main Trail:Daiji (Kanchanpur) to Jogbudha (Dadeldhura); 250m from lake and Daiji to SidhhaSarobar Banda Tal; Road:very close (10m).

Land use

Forestland (90%); Grassland (5%); Others (5%).

Demography

Population:21,998; Male:10,507; Female:11,491; HHs:4,128; Ethnicity: Brahmin/Chhetri (68.46%); Janajati (19.81%); Dalit (10.91%); Other (0.82%). Major Religion:Hinduism/Buddhism (CBS 2012).
Jurisdiction/ownership  State.
Wetlands dependent community  None.
Livestock at basin  >2500.
Traditional production system  None.
Traditional water use practices  Religious/ritual pond.
Cultural record  Religious site; Shiva Mandir at the western part at lake.
Genesis/origin of lake  None.

4. Ecosystem Goods/Services
Provisional services  Fodder; Medicinal plants, Timber.
Cultural services  Aesthetic; Religious (Mela at Ramanwami and Shivaratri).

5. Restoration/Management
Structural management  Dam at outlet and inlet; Support by Soil Conservation Kanchanpur (2073 BS: 30 Gabbin nets for dam) and Soil Conservation Division Dhangadhi (2072 BS; 30 Gabbin nets for dam). Source: Secretary of Management committee.
Non-structural management  Formal restriction of livestocks; Swimming and fishing.
Conservation plan  5 years planning (by the Siddha Sarobar Bhramhakunda Paryatika Dharmic Ban Samrakshan Samuha, Betkot).
Monitoring plan  None.

6. Tourism information  >2,500 visitors/yr (average); Good Hotels in Mahendranagar; Motarable road from Dajitio Mathillo Gauji; Tourism potential high. Needs promotional activities.

7. Lake condition  Degrading.
4.9.28 Sundeu Lake

1. General Feature
   - Conservation status: None
   - Geographical position: Terai Range.
   - Administrative feature: FWDR; Kanchanpur district; Jhalari Municipality; Ward no. 4; Sundeu.
   - Boundary: Core Area: Forest in all directions.
   - Basin Area: Forest in all directions.
   - Management responsibility: None
   - Wetlands type: Fresh water/natural; Lacustrine; Permanent.

2. Ecological Feature
   - Climatic feature: Avg. Max Temp: 30.5°C (Jun/July); Avg. Min Temp: 17.5°C (Dec); Rainfall: 1422.7mm/yr. (www.beautifulfarwestnepal.blogspot.com).
   - Area: Core Area: 0.8 ha; Avg. Length: 400 m; Avg. Width: 200 m; Avg. Depth: 5 m; Max–Min Surface Water Level: NA; Basin Area: 11.1 ha.
   - Water Volume: NA.
   - Water quality: Physicochemical parameter: Temp.: 24°C, pH: 6.0; Electric conductivity: N.A. Transparency: 0.5 m.
   - Soil feature: Grey color; Sandy loam texture.
   - Shocks/vulnerability: Water volume decreasing.
   - Major aquatic plants: Core Area: Nymphaea stellata (LN: Nilkamal; EN: Blue lotus; HT: Ff; LU: Orn); Sphagnum nepalensis (LN: Jhyau; HT: E m; LU: none).
   - Major plants in basin: Acacia catechu (LN: Khayar; HT: Tr; LU: Tm, Med); Dalbergia sisoo (LN: Sisoo; HT: Tr; LU: Fuel) Shorea robusta (LN: Sal; HT: Tr; LU: Tm); Emblica officinalis (LN: Amala; HT: Tr, LU: Med, Fruit).
   - Fish: Cetanoharyngodon idella (LN: Carp; LU: Meat); Carassius carassius (LN: Ratomacha; LU: Meat).
**Calotes versicolor** (LN:Cheparo; EN:Garden Lizard)  **Varanus bengalensis** (LN:Bhainse; EN:Monitor lizard)  **Polypedtes maculates** (LN:Rukh Bhyaguto; EN:Common Indian tree frog)

**Birds**

**Casmerodius albus** (EN:Great Egret; EN:Thuloseto Bakulla);  **Halcyon pileata** (LN:Fisto; EN:Yellow-cheeked Tit);  **Vanellus indicus** (LN:Huttititau; EN:Red-watteled lapwing);  **Falcotinnunculus** (LN:Baaj; EN:Common Kestrel);  **Treron pompadora** (LN:Haleso; EN:Pompadour Green Pigeon).

**Mammals**

**Felis bengalensis** (LN:Charibagh; EN:Leopard Cat);  **Lutra lutra** (LN:Oont; EN:Common Otter);  **Macaca mulatta** (LN:Bandar; EN:Rhesus Monkey);  **Felis chaus** (LN:Ban Biralo; EN:Jungle Cat);  **Funambulus pennanti** (LN:Lokharke; EN:Squirrel);  **Felis viverrina** (LN:Malaha biralo; EN:Fishing cat);  **Sus scrofa** (LN:Badel; EN:Wild Boar)

**Invasive alien species**

**Lantana camara** (LN:Maleria; EN:Tickberry);  **Eupatorium sps** (LN:Banmara; EN:Thorughwort),  **Parthenium hysterophorus** (LN:Gajar jhar; EN:Famine weed);  **Ipomoea carnea** (LN:Besara m; EN:Pink morning glory);  **Ageratina adenophora** (LN:Lahare banmara; EN:Crofton weed)

**Endemic plant/animal**

None

3. Socio-Economy at Basin

**Nearby settlement**  **Sisaiya Gaun**; 15 km from lake; Main Trail:Mahendra highway; 15 km from lake.

**Land use**  Forestland (100%).

**Demography**

Population:24,347;  Male:11407;  Female:12940;  HHs:4782;  Ethnicity:Brahmin/Chhetri (64.08%);  Janajati (20.07%);  Dalit (15.49%);  Other (0.35%).  Major Religion:Hinduism/Buddhism (CBS 2012).

**Jurisdiction/ownership**  State.

**Wetlands dependent community**  None.

**Livestock at basin**  None.

**Traditional production system**  None.

**Traditional water use practices**  None.

**Cultural record**  None.

**Genesis/origin of lake**  None.

4. Ecosystem Goods/Services

**Provisional services**  Fodder; Timber.

**Cultural services**  Religious

5. Restoration/Management

**Structural management**  None

**Non-structural management**  None

**Conservation plan**  None

**Monitoring plan**  None.

6. Tourism information

No visitors, No hotels at the lake site; No tourism potential

7. Lake condition

Degrading.
REFERENCES


Bajracharya, SR; Maharjan, SB; Shrestha, F; Bajracharya, OR; Baidya, S (2014) *Glacier Status in Nepal and Decadal Change From 1980 to 2010 Based On Landsat Data*. Kathmandu: ICIMOD


and Soil Conservation, Government of Nepal.


### ANNEXES

#### ANNEX 1:

**CONVENTIONS NEPAL OBLIGED TO WETLANDS AND LAKE CONSERVATION**

<table>
<thead>
<tr>
<th>Convention</th>
<th>Entry</th>
<th>Major Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nation Convention to Combat Desertification in those Countries Experiencing Serious Drought or Desertification (UNCDD) Particularly in Africa - 1994</td>
<td>13 Jan. 1997</td>
<td>Combating desertification and mitigation of the effects of drought by adopting an integrated approach to address the physical, biological, and socioeconomic aspects of the process of desertification and drought.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integration of strategies for poverty eradication, and preparation and implementation of the National Action Program.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Controlling illegal traffic in hazardous wastes.</td>
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<td></td>
<td></td>
<td>Adoption of measures, procedure, and standards to minimize use of ozone depleting substances.</td>
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<tr>
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<td></td>
<td>Initiation and cooperation to carry out research and scientific assessment on process that may affect the ozone layer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Precautionary measures to anticipate, prevent, or minimize the causes of the climate change.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formulation of national policies and corresponding measures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion, cooperation, and facilitation in research and public awareness on climate change and its effects.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preparation and implementation of national strategies, plans or programs for the conservation and sustainable use of biodiversity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conservation in in-and-ex-situ conditions, and promotion of biotechnology and genetic research.</td>
</tr>
<tr>
<td>Agreement on the Network of Aquaculture Centers in Asia and the Pacific - 1988</td>
<td>4-Jan-90</td>
<td>Expansion of aquaculture development through multidisciplinary research on selected aqua-farming system and transfer of technology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establishment of a regional information system, and training and upgrade core personnel for national aquaculture planning, research, training, extension, and development.</td>
</tr>
<tr>
<td>Convention of Wetlands of International Importance Especially as Waterfowl habitat (also called Ramsar Convention) - 1971</td>
<td>17 Apr. 1988</td>
<td>Designation of wetlands of national and international importance, and conservation, management, and wise use of migratory stock of waterfowl and their habitats.</td>
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<tr>
<td>Convention for the Protection of the World Cultural and Natural Heritages (CPCWN) - 1972</td>
<td>20 Sep. 1978</td>
<td>Adoption of effective measures for the protection of cultural and natural heritage through national and international cooperation.</td>
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<tr>
<td></td>
<td></td>
<td>Regulation on trade, import, and export of species listed in the Appendices.</td>
</tr>
<tr>
<td>Plant Protection Agreement for Southeast Asia and the Pacific (as amended) - 1956</td>
<td>12-Aug-65</td>
<td>Prevention of natural ecosystem and introduction of pests of plants and plant products, and promotion of measures for their control during import and export.</td>
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ANNEX 2:
MAJOR ACTS RELATED TO FORESTS AND BIODIVERSITY ALSO ALLIGN TO WETLANDS CONVENTIONS IN NEPAL

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<tr>
<th>1. Major Acts</th>
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<tr>
<td>Ancient Monument Protection Act, 1956</td>
<td>Industrial Enterprises Act (1992)</td>
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<td>Plant Protection Act (1973)</td>
<td>Tourism Act (1977)</td>
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<td>Tourism Act (1977)</td>
<td>Soil and Water Conservation Act 1982</td>
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<td>2. Major Regulations</td>
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<td>Buffer Zone Regulations (1996)</td>
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<td>3. Major Guidelines</td>
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### ANNEX 3:
### DISTRIBUTION OF LAKES IN DIFFERENT ZONES OF NEPAL

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<th>Ecological Zone</th>
<th>Phytogeographical Regions</th>
<th>Western (&lt; 83000'E)</th>
<th>Central (83000'E-86030'E)</th>
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Sources: Survey Department, 2007/Topographical Sheets, 1992 & 2001/field verification
## ANNEX 4:
### TOOL SHEET: INVENTORY OF THE HIMALAYAN LAKES OF NEPAL

### Date of inventory

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<td>Compiler's name:</td>
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<th>Natural heritage</th>
<th>Religious site</th>
<th>Protected area</th>
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<th>1.2 Geographical coordination</th>
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<td>Altitude (masl)</td>
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<th>1.3 Geographical position (mark with √)</th>
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<td>Ward number (s)</td>
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<thead>
<tr>
<th>1.5 Boundary (Villages, forestland, road etc like structures which surround lake)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributes</td>
</tr>
<tr>
<td>Core water body boundary</td>
</tr>
<tr>
<td>Basin boundary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.6 Management responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
</tr>
<tr>
<td>Government (specify)</td>
</tr>
<tr>
<td>Private (specify)</td>
</tr>
<tr>
<td>Community (specify)</td>
</tr>
<tr>
<td>Others (specify)</td>
</tr>
</tbody>
</table>
### 1.7 Lake classification

<table>
<thead>
<tr>
<th>Type</th>
<th>Sub-type</th>
<th>Sub type II</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water/natural</td>
<td>Riverine</td>
<td>Perennial (specify):</td>
<td>Temporary (specify):</td>
</tr>
<tr>
<td></td>
<td>Lacustrine</td>
<td>Permanent (specify):</td>
<td>Seasonal (specify):</td>
</tr>
<tr>
<td></td>
<td>Palustrine</td>
<td>Emergent (specify):</td>
<td>Forest (specify):</td>
</tr>
<tr>
<td>Man-made</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aquaculture (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agriculture (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban/ industrial (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water storage area (specify):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1.8 Climatic Feature

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Avg. Maximum</th>
<th>Avg. Minimum</th>
<th>Source and year of record</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Month</td>
<td>Value</td>
<td>Month</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainfall (mm/yr.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. Ecological Feature

#### 2.1 Physical Structure

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Core area</th>
<th>Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (ha)</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Average length (m)</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Average width (m)</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Maximum depth (m)</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Maximum/minimum surface water level (m)</td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

#### 2.2 Hydrological feature

### Water volume

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Peak period</th>
<th>Dry period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water volume (m³)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Water inflow/outflow

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Name</th>
<th>Discharge rate (m³/second)</th>
<th>Source and year of record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outflow</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Water quality (Physico-chemical characters)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Unit</th>
<th>Value</th>
<th>Source and year of record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ph</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric conductivity</td>
<td>μS/cm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissolved oxygen</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical oxygen demand</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological oxygen demand</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total dissolved solid</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total suspended solid</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrients (NO₃, NH₄, K, Ca, Mg,Na, CO₃, HCO₃, dissolved Silica)</td>
<td>Mg/L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Shocks & vulnerability i.e., natural disaster/flood/landslide/GLOF (time series events if available)

### 2.4 Soil feature

#### Soil color (mark with √)

<table>
<thead>
<tr>
<th>Dark</th>
<th>Red</th>
<th>Grey</th>
<th>White</th>
<th>Others</th>
</tr>
</thead>
</table>

#### Soil texture (mark with √)

| Boulders | Rocky sand | Sand | Loamy sand | Sandy loam | Sandy silt loam | Silt loam | Clay loam | Sandy clay loam | Silty clay loam | Sandy clay | Silty clay | Clay | Peat |
|----------|-------------|------|-------------|------------|-----------------|---------|---------|-----------------|----------------|------------|---------|-------|------|------|

### 2.5 Biological feature (Use separate sheet if needed)

#### Macro-biota (common plants & animals including IUCN red List, CITES and government protected species)

##### A. Major aquatic plants in core area (Ff=Free floating, Sm=sub-merged and Em=emergent)

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Local use</th>
<th>Habitat type (mark with √)</th>
<th>Threat/conservation status</th>
</tr>
</thead>
</table>

*Source:*

##### B. Major Plants of Basin Area (Habit type: Tree, Herb, Shrub, Climber and Epiphyte)

<table>
<thead>
<tr>
<th>Local Name</th>
<th>Scientific Name</th>
<th>Local use</th>
<th>Habit type</th>
<th>Threat/conservation status</th>
</tr>
</thead>
</table>

*Source:*

##### C. Fish species

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Number per catch</th>
<th>Local use</th>
<th>Threat/ conservation status</th>
<th>Remarks (Resident/migratory/introduced sps.)</th>
</tr>
</thead>
</table>

*Source:*

##### D. Herpetofauna in aquatic & basin area

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Observed number</th>
<th>Local use</th>
<th>Threat/conservation status</th>
</tr>
</thead>
</table>

*Source:*
### E. Birds in aquatic & basin area

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Observed number</th>
<th>Local use</th>
<th>Threat/conservation status</th>
<th>Remarks (resident/migratory)</th>
</tr>
</thead>
</table>

*Source:*

### F. Mammals in aquatic & basin area

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Observed number</th>
<th>Local use</th>
<th>Threat/conservation status</th>
</tr>
</thead>
</table>

*Source:*

### 2.6 Invasive alien plants and animal species in core and basin area

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Coverage (%)</th>
<th>Local use</th>
<th>Plant or animal</th>
<th>Mark With √</th>
<th>Year of appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Core</td>
<td>Basin</td>
</tr>
</tbody>
</table>

*Source:*

### 2.7 Endemic plant & animap species in core and basin area

<table>
<thead>
<tr>
<th>Local name</th>
<th>Scientific name</th>
<th>Mark with √</th>
<th>Remark (status, use, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Plant</td>
<td>Animal</td>
</tr>
</tbody>
</table>

*Source:*

### 3. Socio-economic feature in basin

#### 3.1 Nearby settlement to lake

- Name & distance (Km) to the nearest settlement
- Name of the main road/trail linking wetland site

#### 3.2 Land Use Pattern

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Coverage (%)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrubland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grassland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source:*
### 3.3 Demography

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Brief description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (in number)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total household (in number)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caste/ethnic group (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Brahmin/Chettri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Janajati</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Dalit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Others (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Major religion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:**

### 3.4 Jurisdiction/land ownership (mark with √)

<table>
<thead>
<tr>
<th>State</th>
<th>Gazetted Trust</th>
<th>Corporate</th>
<th>Private</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:**

### 3.5 Lake dependent communities

<table>
<thead>
<tr>
<th>Community name</th>
<th>Population &amp; (hhs) number</th>
<th>Distance to site (m/Km)</th>
<th>Literacy (%)</th>
<th>Occupation</th>
<th>Wetland Dependency (month/yr)</th>
<th>Annual income (Rs/HH)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:**

### 3.6 Livestock in lake basin

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Total number</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock (Cattle, buffalo, sheep, goat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:**

### 3.7 Traditional production system

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice fields (estimate area in Ha)</td>
<td></td>
</tr>
<tr>
<td>Traditional fishery (type, beneficiary HH)</td>
<td></td>
</tr>
<tr>
<td>Major NTFPs type</td>
<td></td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
</tr>
</tbody>
</table>

**Source:**

### 3.8 Traditional water use techniques & practices

<table>
<thead>
<tr>
<th>Attributes</th>
<th>No.</th>
<th>Brief description (status and use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water mill (Ghatta)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation system (Rajkulo, FMIS/Agency managed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community pond</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious/ritual pond</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Well and kuwa
Spring and stone spout (other traditional taps)
Traditional navigation (wooden/bamboo boats)

Source:

### 3.9 Cultural record

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleontological record</td>
<td></td>
</tr>
<tr>
<td>Archaeological record</td>
<td></td>
</tr>
<tr>
<td>Religious site record</td>
<td></td>
</tr>
<tr>
<td>Cultural landscape/religious belief and myth</td>
<td></td>
</tr>
<tr>
<td>Others (oral tradition/Arts/music/song/dance/painting/literature/drama)</td>
<td></td>
</tr>
</tbody>
</table>

Source:

### 3.9 Describe Genesis/origin of lake if known (use separate sheet if needed)

### 4. Ecosystem goods & services of lake

#### 4.1 Provisional Services

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Brief description of services</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking water supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigating water supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic water supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial water supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel wood supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fodder/forager/grass supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food (plants and animals)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydropower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and extraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicraft material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genetic material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4.2 Cultural services

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetic and scenic service</td>
<td></td>
</tr>
<tr>
<td>Religious/spiritual service</td>
<td></td>
</tr>
<tr>
<td>Historic site</td>
<td></td>
</tr>
</tbody>
</table>
Recreational/tourism
Educational resource services
Festivals/hat bazzar/mela

5. Restoration/Management responses

**Structural management responses (mark with √)**

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any sewerage systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any wastewater treatment systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildup of dikes/dams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afforestation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Non-structural management responses (mark with √)**

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any informal rules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any formal rules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any economic incentives like subsidies/taxes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Conservation and monitoring plan (mark with √)**

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Yes</th>
<th>No</th>
<th>If yes, list them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any conservation plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any monitoring plan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Tourism potential

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Of visitors per year</td>
<td></td>
</tr>
<tr>
<td>Infrastructure facilities (hotels, capacity, communication and transport, health facilities etc)</td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
</tr>
<tr>
<td>Any options for tourism promotion</td>
<td></td>
</tr>
</tbody>
</table>

7. Lake condition (mark with √)

<table>
<thead>
<tr>
<th>Good</th>
<th>Degraded</th>
<th>Degraded</th>
</tr>
</thead>
</table>
## ANNEX 5:
### STEERING COMMITTEE OF EXPERTS

<table>
<thead>
<tr>
<th>SN</th>
<th>Name</th>
<th>Address</th>
<th>Contact No</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof. Dr. Madan Koirala</td>
<td>Department of Environmental Science, Tribhuvan University</td>
<td>9849259938</td>
<td><a href="mailto:madankoirala@gmail.com">madankoirala@gmail.com</a></td>
</tr>
<tr>
<td>2</td>
<td>Prof. Dr. Mohan Siwakoti</td>
<td>Central Department of Botany, Tribhuvan University</td>
<td>9849245299</td>
<td><a href="mailto:mohansiwakoti@live.com">mohansiwakoti@live.com</a></td>
</tr>
<tr>
<td>3</td>
<td>Krishna Ghimire</td>
<td>National Lake Conservation Development</td>
<td>9851232144</td>
<td><a href="mailto:Kp_ghimire15@yahoo.com">Kp_ghimire15@yahoo.com</a></td>
</tr>
<tr>
<td>4</td>
<td>Dr. BN Oli</td>
<td>Ministry of Environment, Science and Technology</td>
<td>9851150761</td>
<td><a href="mailto:bn_oli@yahoo.com">bn_oli@yahoo.com</a></td>
</tr>
<tr>
<td>5</td>
<td>Prof. Dr. Tara Nidhi Bhattarai</td>
<td>Trichandra Campus/TU</td>
<td>9851107328</td>
<td><a href="mailto:tnbhattarai@wlink.com.np">tnbhattarai@wlink.com.np</a></td>
</tr>
<tr>
<td>6</td>
<td>Dr. Prakash Raut</td>
<td>Nepal Academy for Science and Technology</td>
<td>9841286237</td>
<td><a href="mailto:Rautp2001@yahoo.com">Rautp2001@yahoo.com</a></td>
</tr>
<tr>
<td>7</td>
<td>Dr. Naresh Subedi</td>
<td>National Trust for Nature Conservation</td>
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<td>9</td>
<td>Kumar Khatri</td>
<td>The Mountain Institute (Nepal)</td>
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<td>Gopal Sherchan</td>
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ANNEX 6:
ARCHIVE OF SCE MEETING (ABOVE) & CAPACITY BUILDING TO IMPLEMENT INVENTORY TOOL (BELOW) PHOTO

ACTIVITY 7 SCE MEETING TO REVIEW PROJECT

Building capacity for scientific field inventory of wetlands May 18-19; 2016
ANNEX 7:
PHOTO HIGHLIGHT OF SOME LAKES INVENTORIED
## ANNEX 8:
### ASSESSMENT MATRIX FOR LAKE CONDITION

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Rank</th>
<th>Band assessment</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>1. Change in physical structure</td>
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<tr>
<td>i. Change in area</td>
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<tr>
<td>ii. Water volume</td>
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<tr>
<td>2. Change in water quality</td>
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<td>3. Change in species composition and abundance of plankton</td>
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<td>4. Change in abundance of major species of plants</td>
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<tr>
<td>5. Change in abundance of major species of animals</td>
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</tr>
<tr>
<td>i. Fishes</td>
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<tr>
<td>ii. Herpeto-fauna</td>
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<tr>
<td>iii. Birds</td>
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<tr>
<td>iv. Mammals</td>
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<tr>
<td>6. Disappearance/reappearance of species</td>
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<td>7. Change in abundance of problematic IAS</td>
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<td>8. Change in plant biomass</td>
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<td>9. Change in 5 major resource use values/availability of resources</td>
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<td>10. Change in 5 major economically, nutritionally and culturally important plant and animal species</td>
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<td>11. Change in cultural values</td>
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<td>12. Change in traditional water use techniques and practices</td>
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<td>13. Assessment of threats</td>
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<tr>
<td>i. Proximate threats</td>
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<td>ii. Climate change</td>
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<td>14. Change in governance</td>
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<tr>
<td>i. Policy</td>
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<td>ii. Institution</td>
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<td>iii. Participation</td>
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<td>iv. Technology</td>
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<td>v. Information</td>
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<td>vi. Finance</td>
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