



Terms of Reference
to
Water Quality Monitoring and Assessment for selected Wetlands in Lower Narayani River Basin

1. Introduction

WWF is the world's leading independent conservation organization originated in Switzerland in 1961 and currently running in more than 100 countries across 6 continents. WWF initiated work in Nepal with a rhino conservation program in Chitwan in 1967 while the WWF Nepal set up its office formally on 19 May 1993. Currently, WWF Nepal works in five thematic areas- Wildlife, Freshwater, Climate and Energy, Forests, and Governance. WWF Nepal's focus has progressed from its localized efforts in conservation of a single species in the 1960s, to integrated conservation and development approach in 1990s, to a new horizon of landscape-level conservation encompassing national, regional, and global scales of complexity since the early 2000s.

WWF Nepal, in close collaboration with the Department of National Parks and Wildlife Conservation (DNPWC), Department of Forests and Soil Conservation (DoFSC) has been working on wetlands protection, restoration and management since last two decades. Wetlands are incredibly important ecosystems that provide critical ecological functions, such as water purification, carbon sequestration, flood regulations, and habitat for a diverse range of flora and fauna. They are particularly valuable for migratory birds, acting as a crucial stopover point on long journeys. Wetlands also provide important recreational and economic opportunities. However, wetlands are under immense pressures from human activities, including development, agriculture, and pollution. As a result, preserving and restoring wetlands is essential for maintaining the health of the planet and the species that rely on them.

Regular water quality monitoring is important to understand and maintain the health of the wetlands. In this context, WWF Nepal is planning to conduct water quality assessment of the selected wetlands¹ in Lower Narayani River Basin. This assessment will establish a baseline status of the selected wetlands by documenting key water quality parameters and hydrological indicators, including changes in wetland surface area, duration of inundation, and other relevant wetland characteristics. The findings will support the development of strategies for the conservation, restoration, and sustainable management of wetlands, watersheds, and the broader Narayani River Basin ecosystem.

2. Objective

The main objective is to conduct water quality monitoring and assessment for selected wetlands in Lower Narayani River Basin.

The Specific objectives are:

- To examine the basic water quality parameters using the tools provided by WWF Nepal in the wetlands constructed/restored in the Lower Narayani River Basin
- To prepare a rapid community-based wetland health monitoring template to be used by the local people engaged in wetland monitoring.
- To roll out rapid community-based wetland health monitoring template and capacitate local people on regular wetland health monitoring.

¹ Wetlands list in the Annex 2

- To prepare a comprehensive report based on the water quality test data and recommend appropriate conservation measures.

3. Scope of work

The scope of work to conduct the assignment consists of follows:

a. Deskwork/Literature review:

- Desk review of literature on water quality test in Lower Narayani, the impact of effluents, and status of wetlands around the lower Narayani River basin.

b. Rapid Community-based Wetland Health Monitoring Template:

- Prepare a simplified community-based wetland health monitoring template/ datasheet to be used by the local people/ citizen scientists for regular water quality monitoring throughout the year.

c. Fieldwork:

- Roll out and provide a basic training on using community-based wetland health monitoring template/ datasheet in the wetland cluster areas (Mrigakunja BZUC, Patihani BZUC, Lamichaur BZUC and Gaidakot) to the selected citizen scientists (to be nominated by WWF Nepal). Conduct a pre-and-post test through structures questionnaire to check the aptitude of the trainees.
- Test the water quality and assess the health of the selected wetlands (Annex 2) as per the agreed methodology.
- *In-situ* water quality test will be done through the tool kit provided by WWF Nepal with assistance from the trained citizen scientists (local community in each cluster). The available kits and parameters to be tested in field area are listed below:

Instruments	Parameters
Multiparameter Hi9829 Hanna	pH, turbidity, conductivity, chloride, nitrate, ammonium and temperature
DO/BOD meter	Dissolved Oxygen and Biochemical Chemical Oxygen Demand
Hi 97707c Hanna	Nitrite
Hi 97717c Hanna	Phosphate
Hi977735c Hanna	Hardness

- Additional hydrological and wetland indicators/parameters will also be assessed during the field.

- d. Report writing:** A comprehensive report along with recommendations will be prepared and shared including all the supporting documents such as community-based wetland health monitoring template/ datasheet, water quality test data, training/meeting minutes, pre and post questionnaires with results, photos/videos and datasheets. The report will also include comparison with the data from water quality test conducted in 2023, using the same tool kits. WWF Nepal will make available of the 2023 data.

4. Time Frame

The task will start immediately after signing the agreement. The consultancy is expected to last approximately 1.5 months from the date of signing the contract.

S. N	Description	Timeline
1	Desk work and coordination with WWF Nepal	Week 1
2	Preparation of community-based wetland health monitoring template/ datasheet	Weeks 1-2
3	Roll out community-based wetland health monitoring template/ datasheet and <i>in-situ</i> water quality test	Weeks 3-4

4	Draft Report preparation and review from WWF Nepal	Week 4-5
5	Final report (with all supporting documents)	Week 6

5. Qualification

Interested PAN/VAT registered individuals or firms with wetland and water quality test expertise and strong analytical skills.

6. Coordination and reporting

The consultancy team will work in close coordination with the Freshwater Program Team of WWF Nepal.

7. Expected Outputs

- Water quality of selected wetlands assessed.
- Appropriate actions recommended for wetlands protection, restoration and management.
- Community-based Wetland Health Monitoring Template/ Datasheet prepared.
- Local people capacitated on using the prepared template.

8. Deliverables

- Final comprehensive report

9. Proposal submission details

Interested PAN/VAT registered individuals or firms are requested to submit technical and financial proposals providing a detail breakdown of total budget in Nepali rupees, electronically to: proposals-freshwater@wwfnepal.org. Please mention email subject as - “Wetland Assessment- Narayani River Basin” and submit the proposal by **17th March 2026**. The proposal must include:

For organizations:

- Signed cover letter
- Technical proposal
- Financial proposal
- CVs of team members
- Organization registration certificate
- PAN/VAT registration certificate
- Tax clearance for 2081-82

For individuals:

- Signed cover letter
- Technical proposal
- Financial proposal
- CV of Individual
- PAN Registration
- Citizenship/National Identity Card/Passport

Only selected applicants for further consideration will be contacted.

10. Mode of Payment

The payment will be made as per WWF Nepal norms and upon submissions of satisfactory deliverables. Note that payments are subject to tax deduction as per prevailing government rules.

Annex 1: Budget template *

S.N.	Description	Unit	Qty.	Rate	Amount (NPR)
1	Fee (1.1+1.2+1.3+....VAT)				XXXX
1.1	Team Leader-Name	Days			XXXX
1.2	Team Assistant-Name	Days			XXXX
1.3					XXXX
	VAT 13% on Fee				XXXX
2	Other Expense (2.1+2.2+VAT)				XXXXX
2.1	Visit Cost				XXXXX
2.1.1	Transportation	Days			XXXX
2.1.2	Food and Accommodation	Person Days			XXXX
2.1.3					
2.2	Orientation cum Training to citizen scientist				XXXXX
2.2.1	Food and Snacks	Person			XXXX
2.2.2	Stationaries	No			XXXX
	VAT 13% on Other Expense				XXXX
	GRAND TOTAL (1+2)				XXXX

**Note: please add/edit rows as required*

Annex 2: List of wetlands

SN	Wetland Name	Cluster Name	Lat.	Long.
1	Tikauli- I	Mrigakunja BZUC	27.632397	84.477101
2	Tikauli-III	Mrigakunja BZUC	27.632395	84.476061
3	Aamsoti Ghol	Mrigakunja BZUC	27.624079	84.462031
4	Sorahahazari Lake	Mrigakunja BZUC	27.621262	84.457689
5	Atharahazari Lake	Mrigakunja BZUC	27.616668	84.448667
6	Nahar Phutey	Mrigakunja BZUC	27.628460	84.476547
7	Pidal Ghol	Mrigakunja BZUC	27.621467	84.463256
8	Kamal Lake	Patihani BZUC	27.577167	84.385130
9	Shramik Lake	Patihani BZUC	27.571173	84.382040
10	Bageshwori Lake	Patihani BZUC	27.573532	84.383920
11	Gaida Tal	Patihani BZUC	27.572029	84.390000
12	Budaulikuna - Shree Shanti	Lamichaur BZUC	27.642697	84.141937
13	Bhutaha ghol - Namuna CF	Lamichaur BZUC	27.613003	84.156255
14	Kawatis – Namuna CF	Lamichaur BZUC	27.620465	84.166708
15	Birala Dhap	Lamichaur BZUC	27.657661	84.177927
16	Raj Ratna	Lamichaur BZUC	27.651907	84.161953
17	Sunchuri ghol – Krishnasaar	Lamichaur BZUC	27.608574	84.136187
18	Sansari	Gaidakot	27.705540	84.283706
19	Dhoba Lake	Gaidakot	27.715178	84.374075
20	Bhedabari	Gaidakot	27.703029	84.308259
21	Bhedabari – II	Gaidakot	27.701559	84.308123
22	Mayur Kuna	Gaidakot	27.696205	84.228472
23	Shree Badh – Deurali	Gaidakot	27.711354	84.296386