

# Hariyo Ban Program



**USAID**  
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**WWF**



**CARE**



**FECOFUN**



**NTNC**

## Terms of Reference (ToR)

for

### **Consultancy for Technical Assistance for Environment Friendly Community Managed Small-Scale Construction Activities**

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#### **1. Introduction:**

The Hariyo Ban Program II is funded by USAID and implemented by a consortium of WWF, CARE, NTNC and FECOFUN with WWF as the lead partner. The goal of Hariyo Ban Program II is **increased ecological and community resilience in the Chitwan-Annapurna Landscape and the Terai Arc Landscape**. Bio-diversity conservation and Climate Change Adaptation are two key components of the Hariyo Ban Program. Gender equality and social inclusion (GESI), and governance are cross cutting theme of program. Work at the field level in the two landscapes is complemented by enabling policy support at the national level.

The Climate Change Adaptation (CCA) component works to reduce climate change vulnerability in CHAL and TAL (2.1.2 Number of LAPAs prepared and/or implemented). In order to achieve this objective, the program facilitates implementation of small-scale construction activities in the two landscapes (As listed in annex-1). The implementation of small-scale construction will support to reduce vulnerabilities due to climate induced disasters by supporting implementation of prioritized adaptation activities and enhance the capacity of poor and vulnerable households by increasing their adaptive capacity. The program due consider and promote Green Recovery and Reconstruction (GRR) principle, GESI considerations, child protection and other social considerations, including prohibition of child labor. This includes, but is not limited to, ensuring that women, poor, elderly, children, disabled and marginalized people will benefit from the construction, and help to reduce workloads or resolve problems they are facing.

Hariyo Ban II engages in a variety of types of small-scale construction in order to address specific program related needs. For example, in the biodiversity conservation component, solar power fences and stone walls are used to reduce human-wildlife conflict, enabling increased crop and livestock production and reducing human injuries/casualties, which in turn reduce retaliatory killing of wildlife species including elephant, rhinoceros, and tiger. Check-dams are constructed to reduce soil erosion, and to restore wetlands and grasslands in areas where drier conditions are resulting in loss of wetlands, or where high floods cut floodplain grasslands. Improved water supplies for wildlife help reduce human-wildlife conflict and are also promote adaptation to climate change in areas where natural water sources are drying up because of changing rainfall patterns and prolonged drought. The repair and upgrading of fire-line roads helps to combat

uncontrolled fires in forests and other habitats. The repair and upgrading of foot trails improve access by foot for ecotourism and access to markets, both of which improve local livelihoods. Biogas helps to reduce several drivers, including overharvesting of firewood, overgrazing, and overuse of other forest products through development of vegetable farming as an alternative livelihood.

Under the climate adaptation component, improved water supplies for people and livestock help improve livelihoods and human wellbeing and enable people to adapt to climate change. Repairing or opening new small-scale irrigation systems improves livelihoods through diversification and increased agricultural production and can build resilience to climate change. Other measures to adapt to climate change include building small-scale dykes and spurs to protect stream bank, reduce flooding in settlement/agricultural land, and check dams to treat gullies/torrents and landslides, and river embankments to reduce river bank cutting and siltation.

## 2. Objectives:

The objective of the consultancy is to provide technical assistance for the sound and environment friendly community managed small-scale construction activities.

## 3. Supervision and Coordination:

The consultant will report to the Focal Person (HBP) WWF Nepal, who will be regular point of contact and communication for all matters related to the scope of this ToR. In addition, the consultant will closely work with respective Field Offices from WWF Nepal and local implementing partners as deemed necessary. The consultant shall coordinate and consult with DSCO, and Sub watershed management committee, users committee etc. to collect their inputs and suggestions while completing the assigned tasks.

## 4. Activities/Methodology:

The consultant will undertake the following tasks for each small-scale construction project:

Name of Activities/Methodology	Contents	Remarks
<b>Feasibility study</b>	Undertake the feasibility study with the users' committee to evaluate and analyze the proposed scheme as per demand collection form, including collection of information to develop a site level EMMP <sup>1</sup> . And decide whether or not a scheme is feasible from an engineering point of view. Sharing the findings of feasibility study with the users.	Referring to Annex-3 of small-scale construction guideline of Hariyo Ban
<b>Detailed engineering survey</b>	An engineering survey is carried out in the area so that a working scheme can be designed.	Consider the environment friendly green practices/bioengineering measures during survey
<b>Design, quantity and cost estimation</b>	After completion of the engineering survey, a detailed work design, along with quantity and cost estimation.	Strictly follow Government of Nepal standards for

<sup>1</sup> Environmental Management and Mitigation Plan

		design standard specifications and also consider Hariyo Ban's environment friendly practices
<b>Preparation of site level EMMP</b>	Conduct and prepare the EMMP	Also consider the Hariyo Ban GRR principles <sup>2</sup> and GoN Environmental acts and regulations
<b>Capacity building orientation and training</b>	This would include initial orientation on user group mobilization, construction management, and imparting required skills for management, operation and maintenance of systems/structure.	Before construction, during construction and post construction as appropriate.
<b>Site lay out and Material quality assessment</b>	The users' committee is given technical advice on construction material quality. The consultancy should help the community to check the standards during or after purchase. Such orientation can be carried out in conjunction with site lay out.	In case of materials that should quarrying locally will not adversely affect environment and community.
<b>Supervision of the construction work along with users' committee</b>	Relevant experts from the engineering firm along with the users' committee supervise the construction work. Supervision ensures that the scheme is built according to the work design and specifications.	Follow construction management or calendar schedule included in Annex 4
<b>Work measurement and work completion report</b>	The engineering firm verifies whether the quality of completed work is satisfactory. When the construction work is completed and meets the quality requirements, the consultancy prepares a work completion report.	Follow construction management or calendar schedule included in Annex 4

## 5. Deliverables and Timeline:

The consultant will prepare a timeline for deliverables for each of the small-scale community managed infrastructure at the time of its design/planning. This timeline will have to be agreed by community user groups and the Hariyo Ban consortium partner responsible for that particular construction activity.

S.N	Deliverable	Due date of submission
1	<b>Feasibility study</b> (jointly with users committee and respective HB field staff):	Initiated 7 days after signing of agreement and completed by end of 3 March
2	<b>Sharing the finding of feasibility study</b> (With WWF Nepal, Hariyo Ban Program) in order to decide on final list of construction activities that are feasible technically and financially.	1 day (Before moving ahead with design process).

<sup>2</sup> The Hariyo Ban's GRR principles are given in annex 2

3	<b>Report on detail engineering design</b> (The report should contain (a) Design, quantity and cost estimation with due consideration to Green Recovery and Reconstruction (GRR) principles and approaches (b) Preparation of orientation materials for communities (c) Environment mitigation and monitoring plan)	45 days (April 2019) March– April: WWF Nepal will process agreements with user groups and fund transfer.
4.	Construction supervision (It should contain (a) Orientation to communities on user group mobilization, possible environmental impacts of the construction and the mitigation measures as well as orient on Green Construction /Reconstruction (b) material quality assessment and construction layout (c) training or capacity building in developing skills for management and maintenance of the scheme (d) Construction supervision and quality assurance of the work).	To be initiated from May 2019 onwards and expected to be complete by March 2020.
4	<b>Monthly progress report</b> of construction activities any quality issues during entire agreement period.	Last date of each month starting April 2017
5	<b>Report on completion of 80% of the construction activities</b> (this include material quality assessment, construction supervision, quality assurance, and work measurement, capacity building in developing skill for management or maintenance of each construction activity /scheme in line with environmental compliance and letter of certification on satisfactory completion of the construction).	May 2019 – Feb 2020
6	<b>Report on completion of all construction activities</b> with certification on satisfactory completion of the construction.	Feb – March 2020
7	<b>Submission of final financial report</b> along with time sheets of experts and all supporting documents.	March 2020

*(Note: The consultancy should contact and communicate with Center Office/Project Office of Hariyo Ban Program in **every field visit before at least a week**).*

In the second year of Hariyo Ban Program II, as per construction guideline, **Project identification; Feasibility Study including technical, social and environmental assessment; Detail survey, design, cost estimation and verification will be completed**. The tentative timeframe for this ToR is March 2019 to March 2020 which may be extended further depending upon the Annual Work Plan of subsequent years of the Hariyo Ban Program.

## 6. Roles & Responsibilities:

### 6.1 WWF Nepal, Hariyo Ban Program

- Support the consultants by providing financial resources, available information, coordination, feedbacks and suggestions.
- Review the proposal as per the terms and condition mention in ToR.
- Facilitate implementation, starting with the planning process.

- Coordinate with consulting engineering firm to prepare the necessary information to help the community come up with appropriate and viable options.
- Manage administrative arrangement and support the consultants in coordinating logistics if required.

## 6.2 Role of consultant

- Responsible for undertaking the feasibility study, detailed engineering survey, design, construction supervision, certification of completion of construction work and overall reporting.
- Provide necessary technical information to support the decision-making process.
- Provide technical views on feasibility from engineering and resource points of view and offer judgment before a decision is made.
- Prepare an environmental management and mitigation plan (EMMP) for each small-scale construction site, building capacity of the users' committee in user mobilization, overall management of the construction process, and regular repair and maintenance of the scheme after construction is completed. Ensure good coordination with WWF Nepal Team, local implementing partners, user groups as required.
- Accomplish all tasks within the given timeline and deliverables ensuring good quality work.

## 7. Location:

Identified project sites in TAL and CHAL areas under Hariyo Ban working sites. The consultant will have to provide direct assistance to the community groups and consortium partner staff at construction sites and must be prepared to travel extensively.

*(Note: Not all sites are accessible by road; some will involve walking to the site from the road head).*

## 8. Proposal submission details:

A hard copy of the technical proposal should be submitted in a sealed envelope, along with an application letter. A hard copy of the financial proposal should be submitted in a separate sealed envelope. Both envelopes should indicate the consultancy applied for, and be submitted together to the following address:

***WWF Nepal, Hariyo Ban Program***

### 8.1 Technical proposal

The technical proposal should outline the proposed approach including methodology and tools for the consultancy; timeline to accomplish proposed consultancy; the applicant team's expertise and experience to implement it; and the proposed role(s) of each team member. The proposal should include curriculum vitae of all proposed personnel for the consultancy. The proposal should include information on the technical and organizational competency of the applicant to undertake the consultancy successfully, including the applicant's profile and current portfolio, relevant experience, and list of clients specifying the work done for them.

In addition, the following organizational information should be provided:

- Organization Registration and latest renewal, if applicable
- Registration with Social Welfare Council (for I/NGO)
- PAN/VAT registration certificate
- Tax Exemption Certificate, if applicable
- Latest tax clearance certificate (for company)

## 8.2 Financial proposal

The financial cost proposal should include a detailed breakdown of the total budget proposal including: unit rate for the complete package (feasibility assessment to work completion report) for each type of infrastructure activity based on the district location (refer to Annex 1) and typical design mentioned in the guideline of small-scale construction of Hariyo Ban Program. Such rates should be inclusive all of the personnel cost, transportation, accommodation, communication, cost of renting equipment, stationeries and other associated costs as deemed necessary. The budget in NRs should be prepared for each district (refer to Table 1) including a summary (refer to Table 2).

**Table 1: Summary of Cost Proposal**

S.N	Description	Unit	No of Units	Rate (Average)	Amount
<b>1</b>	<b>Consultant Fee based on deliverable and timeframe</b>		55		
1.1	Check dams construction for improved watershed management and climate change adaptation	Sites	18		
1.2	Dykes construction for improved watershed management and climate change adaptation	Sites			
1.3	Water Supply Systems	Sites	4		
1.4	Improved Water Supplies (Water Holes/Ponds) For Wildlife	Sites	3		
1.5	River Embankment construction for improved watershed management and climate change adaptation	Sites	14		
1.6	Foot Trail construction for improved watershed management and ecotourism promotion	sites			
1.7	Irrigation system construction for improved watershed management and climate change adaptation	Sites	5		
1.8	Collection Center	Sites	11		
<b>2</b>	<b>Other Cost</b>				
2.1	Air Fare	LS			
2.2	Transportation in field	LS			

2.3	DSA and Accommodation	LS			
2.4	Local Transportation	LS			
<b>3</b>	<b>Field interaction Cost</b>	LS			
<b>4</b>	<b>Communication Cost</b>	LS			
<b>5</b>	Reports Documents Production cost	LS			
	<b>Sub Total</b>				
	VAT 13%	-			
	<b>Grand Total</b>	-			

**Note: cost proposal format is for reference only. The consultant can submit a flat rate per site, per type of construction activity inclusive of all associated costs.**

**Table 2: Project wise Cost Proposal Format**

S.N	Description	Unit	No of Units	Rate	Amount
<b>1</b>	<b>Consultant Fee based on deliverable and timeframe</b>				
<b>1.1</b>	<b>Feasibility study report</b>		55		
1.1.1	Check dams construction for improved watershed management and climate change adaptation	Sites	18		
1.1.2	Dykes construction for improved watershed management and climate change adaptation	Sites			
1.1.3	Water Supply Systems	Sites	4		
1.1.4	Improved Water Supplies (Water Holes/Ponds) For Wildlife	Sites	3		
1.1.5	River Embankment construction for improved watershed management and climate change adaptation	Sites	14		
1.1.6	Foot Trail construction for improved watershed management and ecotourism promotion	sites			
1.1.7	Irrigation system construction for improved watershed management and climate change adaptation	Sites	5		
			11		
<b>1.2</b>	<b>Design and cost estimate report</b>				
1.2.1	Check dams construction for improved watershed management and climate change adaptation	Sites			
1.2.2	Dykes construction for improved watershed management and climate change adaptation	Sites			
1.2.3	Water Supply Systems				
1.2.4	Improved Water Supplies (Water Holes/Ponds) For Wildlife	Sites			
1.2.5	River Embankment construction for improved watershed management and climate change adaptation				
1.2.6	Foot Trail construction for improved watershed management and ecotourism promotion				
1.2.7	Irrigation system construction for improved watershed management and climate change adaptation				
<b>1.3</b>	<b>Work completion report</b>				
1.3.1	Check dams construction for improved watershed management and climate change adaptation	Sites			
1.3.2	Dykes construction for improved watershed management and climate change adaptation	Sites			
1.3.3	Water Supply Systems				
1.3.4	Improved Water Supplies (Water Holes/Ponds) For Wildlife	Sites			

S.N	Description	Unit	No of Units	Rate	Amount
1.3.5	River Embankment construction for improved watershed management and climate change adaptation				
1.3.6	Foot Trail construction for improved watershed management and ecotourism promotion				
1.3.7	Irrigation system construction for improved watershed management and climate change adaptation				
	<b>Grand Total</b>				

**Note: cost proposal format is for reference only. The consultant can submit a flat rate per site, per type of construction activity inclusive of all associated costs.**

## 9. Mode of payment:

The mode of payment will be in reimbursement basis as follows after submission of required invoice and bills.

S.N	Timing of reimbursement	% of reimbursement	Remarks
1	After completion of feasibility report of all sites.	<b>60%</b> of cost for each site multiplied by the number of sites with feasibility study completed)	
2	Completion of detail design study	<b>20%</b> of cost for each site multiplied by the number of sites with completed detail design and cost estimate.	
3	Completion of construction work along with completion reports received.	<b>10%</b> of cost for each site multiplied by the number of sites with work completion report.	
4	Final report with certification	<b>10%</b> will be made based on the invoice of deliverables.	

All invoices and bills should be in the name of "**WWF Nepal/USAID/Hariyo Ban Program**". GoN taxation policy will be applied in all form of payment.

WWF Nepal will withhold and or make **reduction in the payment of consultancy fee if all terms and conditions, including specified deliverables, are not met in a satisfactory manner** in spite of providing suggestions to the consultant. WWF Nepal will inform the consultant about such issues in writing and give the consultant opportunity for clarification before making final decision.

## Annex 1: list of small-scale construction activities for Year 3 and 4 of Hariyo Ban Program II

Activity and purpose	Construction Description	Geographic Site (By rural municipality,	No of Sites
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		<b>municipality etc. including ward)</b>	
Check dams to reduce flooding or siltation, to improve water supplies	Built with earth, stones, gabions or concrete, including bioengineering	Parshuram municipality, ward-9,10 Puntura sub-watershed, Dadeldhura	4
Check dams to reduce flooding or siltation, to improve water supplies	Built with earth, stones, gabions or concrete, including bioengineering	Betkot municipality, ward- 1, 2, 10 Radha catchment, Kanchanpur	6
Construction check dam/siltation dam to retain sediments transported from upstream sites and estabilization of landslides through check dam construction under implementation of Lake cluster Pokhara valley management plan (LCPVMP) and Thuli Pokhari mgmt	Material support (gabionwire, earth, concrete and stone)	Pokhara Lekhnath Metropolitan City-18, 23, 24, 26, 30 &31, Pokhara, Kaski	1
Siltation dam/check dam construction support to trap the sediments transported by Adheri and Harpan stream under PES-Phewa	Material support (gabionwire, concrete and stone)	Pokhara Lekhnath Metropolitan City-18, 23 & 24, Pokhara, Kaski	1
Construction check dam/siltation dam/Embankment to retain sediments transported from upstream sites and estabilization of landslides through check dam construction under implementation of Lake cluster Pokhara valley management plan (LCPVMP)	Material support (gabionwire, earth, concrete and stone)	Pokhara Lekhnath Metropolitan City-13,18, 23, 24, 26, 30 &31, Pokhara, Kaski	
Check dams to reduce flooding or siltation, to improve water supplies	Built with earth, stones, gabions or concrete, including bioengineering	Parshuram municipality- Puntura Khola sub-watershed, Dadeldhura	4
Check dams to reduce flooding or siltation, to improve water supplies	Built with earth, stones, gabions or concrete, including bioengineering	Betkot municipality- Radha catchment, Kanchanpur	2
Drinking water source protection and drinking water supply for improved watershed management and climate change adaptation	Small water hole protection, drinking water supply, drinking watr tank construction	Parshuram municipality- 9 Puntura sub-watershed, Dadeldhura	2
Drinking water source protection and drinking water supply for improved watershed management and climate change adaptation	Small water hole protection, drinking water supply, drinking water tank construction	Parshuram municipality- Puntura Khola sub-watershed, Dadeldhura	1
Embankment protection to reduce flooding or siltation,	Built with earth, stones, gabions or concrete, including bioengineering	Parshuram municipality 9,10 Puntura sub-watershed, Dadeldhura	3
Embankment protection to reduce flooding or siltation,	Built with earth, stones, gabions or	Betkot municipality, ward- 1, 10 Radha	3

	concrete, including bioengineering	catchment, Kanchanpur	
Embankment protection to reduce flooding or siltation,	Built with earth, stones, gabions or concrete, including bioengineering	Parshuram municipality- Puntura Khola sub-watershed, Dadeldhura	2
Embankment protection to reduce flooding or siltation,	Built with earth, stones, gabions or concrete, including bioengineering	Betkot municipality-Radha catchment, Kanchanpur	2
Mound construction/improvement	Built with earth, stones, gabions or concrete, including bioengineering	KrCA, Khairapur, Bardia	4
Improved water Supplies for irrigation for people as part of adaptation activities	Built with earth, stones, gabions or concrete, including plantation	Parshuram municipality 10 Puntura sub-watershed, Dadeldhura	3
Improved water Supplies for irrigation for people as part of adaptation activities	Built with earth, stones, gabions or concrete, including plantation	Betkot municipality, ward- 1, 2 Radha catchments, Kanchanpur	2
Pond construction	Recharge pond construction and plantation around the pond, inlet and outlet	Parshuram municipality 9, 10 Puntura sub-watershed, Dadeldhura	3
Roofing material and plastic water storage tanks support for shelter house to protect community people from flood disaster (in collaboration with Raptisonary Rural Municipality)	Truss, CGI sheets, plastic water storage tanks and related accessories	Raptisonari Rural Municipality-5, Banke	1
Broom grass collection center maintenance support for the strengthening green enterprise	Material support (Iron pole, truss, stone, earth)	Devghat Rural Municipality-4, Aamdanda, Tanahun	1
Clay Jewelry Collection Center	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Bhanu Municipality-3, Dordortar, Tanahun	1
Milk Collection Center for strengthening coffee enterprise	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-1, Adhikaridanda, Kaski	1
Chiuri/bee Collection Center	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Rapti Municipality-13, Korak, Chitwan	1
Tea drying/collection Center	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-4, Bhadaure, Kaski	1
Broom grass collection center maintenance support for the strengthening green enterprise	Material support (Iron pole, truss, stone, earth)	Anbukhaireni Rural Municipality-4, Aamdanda, Tanahun	1

Latrine construction support for Clay Jewelry Collection Center	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Bhanu Municipality-3, Dordortar, Tanahun	1
Irrigation ponds for strengthening coffee enterprise	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-1, Adhikaridanda, Kaski	1
Irrigation ponds for strengthening coffee enterprise	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-1, Adhikaridanda, Kaski	1
Lapsi/Candy processing/production center for strengthening Lapsi enterprise	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-3, Laxmideurali, Kaski	1
Tea drying space management	Material support (Iron pole, truss, stone, concrete, sand, cement earth)	Annapurna Rural Municipality-4, Bhadaure, Kaski	1
		<b>Total Sites:</b>	<b>55</b>

## Annex 2: The Hariyo Ban's GRR principles

1. Ensure that building design and construction is environmentally sustainable, appropriate to the region, and will withstand future disasters.
2. Enforce environmental impact assessment/initial environmental examination regulations during reconstruction in order to avoid future disasters; and ensure enforcement.
3. Ensure that fuel wood collection complies with existing forest management plans and promote alternative energy and energy efficient technologies to reduce pressure on forests.
4. Recycle and reuse debris as much as possible and ensure that solid waste disposal during the reconstruction phase is managed using environmentally sound practices, including the introduction of new solid waste disposal systems.
5. Design water and sanitation interventions to reflect post-earthquake changes in water resources and future climate change scenarios and promote integrated water resource management (IWRM).
6. Conduct land use planning, including zoning, before finalizing the locations of resettlement areas to minimize risks from landslides and floods, and ensure adequate land and natural resources to meet community needs, while minimizing environmental impacts.
7. Ensure that reconstruction of roads and hydropower take the opportunity to build back safer and greener and take account of increasing climate variability.
8. Prioritize support for rapidly restoring livelihoods in order to take pressure off forests and biodiversity after the earthquake; in the longer term ensure livelihood restoration projects reflect principles of resilient development.
9. Build capacity for green recovery and reconstruction and ensure consultation/coordination with relevant stakeholders in recovery and reconstruction.
10. Take into account the specific rights, needs, and vulnerabilities of women and marginalized people in relation to natural resources during recovery, promote equitable access to recovery support, and strengthen community institutions and participation.