

## **Terms of Reference (ToR) for consultancy services for Impact Study of Integrated Crop & Water Management Program of IWRMP**

### **1. Background**

Irrigation and Water Resource Management Project (IWRMP) is being implemented by the Government of Nepal since 2008 and will continue until June 2018 with the financial assistance of the World Bank. The overall development objective of this project is to improve irrigated agricultural productivity and management of selected irrigation schemes and enhance institutional capacity for integrated water resources management. Basically IWRMP has two projects: (i) Original scope (IWRMP OS) (December 2007 to June 2016) and (ii) IWRMP additional financing (IWRMP AF) (July 2014 to June 2018). The project is comprised of four components: (A) Irrigation Infrastructure Development and Improvement, (B) Irrigation Management Transfer, (C) Institutional and Policy Support for Improved Water Management and (D) Integrated Crop and Water Management. Out of the four components of the project, the components A and B are being implemented by the Department of Irrigation, the Water and Energy Commission Secretariat (WECS) is implementing agency of the component C while the component D is jointly implemented by the Department of Agriculture and the Department of Irrigation.

The objective of the component D (Integrated Crop and Water Management: ICWMP) is to increase production, productivity and profitability of agriculture and related production activities in the schemes selected under the project. The component integrates the irrigation system rehabilitation and improved irrigation service provided through Components A and B with agricultural production activities. At present, ICWMP has been implemented in irrigation sub-projects (ISP) rehabilitated/developed under Component A as well as agency managed irrigation systems selected for Component B. The project is being implemented in 44 districts that includes all 9 districts of the far western development region (Kailali, Kanchanpur, Dadeldhura, Doti, Baitadi, Achaam, Bajhang, Bajura and Darchula), 15 districts of the mid-western development region (Banke, Bardiya, Dang, Salyan, Surkhet, Kalikot, Mugu, Humla, Jumla, Jajarkot, Dolpa, Rolpa, Dailekh, Pyuthan and Rukum) and 16 districts of the western development regions

(Nawalparasi, Rupandehi, Syangja, Tanahu, Kaski, Myagdi, Baglung, Parbat, Gorkha, Manang, Mustang, Lamjung, Kapilvastu, Gulmi, Argakhachi and Palpa) and Bara and Parsa districts of the central development region and Jhapa and Sunsari of the eastern development region. ICWMP has been implemented through respective District Agriculture Development Office.

The expected outputs of this component are higher productivity in agriculture and related production activities; increase in cropping intensity; and diversification into vegetables and other high-value crops. Overall, the component would seek to provide a package of appropriate agronomic and water management practices and investment support as appropriate.

Although the internal reporting system of the project shows positive outcomes of the project interventions, the Project requires independent and unbiased assessment report of the Project from the external organization. Thus it is intended to involve a competent consulting firm to conduct impact study of the Project's Key Indicators. Accordingly, this term of reference (TOR) has been prepared to indicate the objective(s), scope of the assignment, time schedule and other necessary details.

## **2. Objectives**

The main objective of this consulting service is to assess the impact of the ICWMP with respect to the indicators set in the result framework of the project. The study will also figure out the shortcomings in project activities and outputs, if any, and suggest appropriate measures to make the project more focused and output oriented.

## **3. Scope of the work and detail tasks**

To complete the assignment, the Consultant shall work closely with the project. The major activities of the assignment may include:

- Measure the level of productivity of major crops (paddy, wheat, maize, potato and vegetables)
- Measure the cropping intensity of ISP

- Assess the technology adoption rate by the farmers in the subproject areas that has been disseminated till now by the project
- Assess the current level of seed replacement rate of major crops (rice, maize and wheat)
- Assess the impact of farm machineries provided by the project under the investment support grant
- Assess the socioeconomic status improvements of the farmers by the project interventions.
- Recommend the innovative project interventions/modality for similar type of future project in irrigated agriculture.

The Consultant shall propose a detail methodology to complete the assignment. However, the study should cover (i) at least 50% of the project districts (project districts=44) representing all ecological zones and development regions and (ii) at least one ISP from each selected districts (selected districts= at least 22) (the detail list of the ISPs will be provided by the Project). The sample ISPs should be randomly selected from the lists of the ISPs provided by the IWRMP representing ISPs of component A (OS and AF as well as surface scheme and ground water scheme) and Component B (OS and AF) based on systematic criteria acceptable to the IWRMP. The project expects a detailed assessment report of each of the selected ISP in addition to overall report highlighting the major interventions undertaken; their impacts in terms of (i) change in the area, production and productivity of major crops, (ii) change in the cropping pattern and diversification of crops, (iii) improvement in the seed replacement rate of paddy, wheat and maize, (iv) technology adoption by the farmers, (v) agriculture mechanization and (v) socioeconomic status improvements of the farmers and lessons learned together with future suggestions if any. The project expects in-depth analysis of how changes occur rather than just what changes occur.

#### **4. Team composition & qualification requirements for the key experts**

The consultancy service is expected from Consulting Firms which shall have at least 5 years of experience. The Consulting Firms shall provide team of following human resources and their academic and experience requirement is enumerated as follows:

**i) Team Leader**

Team Leader will be recruited for 4.5 months. S/he shall have at least Master Degree in agriculture or rural development or economics or related subject and at least 10 years of general experience is preferable.

**ii) Agri-economist**

The Agri-economist will be recruited for 3 months. S/he shall have at least Master Degree in agri-economics or related field and must have at least 5 years of experience in related field.

**iii) Agriculturist**

The Agriculturist will be recruited for 3 months. S/he shall have at least Master Degree in agriculture or related field and must have 5 year experience in related field.

**5. Reporting requirements and time schedule for deliverables**

The Consulting Firm shall be recruited for 4.5 months. The consultant shall submit reports to the project in following manner.

- **Inception Report:** The Consultant shall submit two copies of Inception Report to the project within one week after the date of contract agreement. The inception report will immediately be followed by inception workshop (around 30 participants from different organizations).
- **Monthly report:** Monthly progress report shall be submitted on regular basis until final report is submitted.
- **Draft Report:** The Consultant shall submit two copies of Draft Report to the project within two weeks prior to the submission deadline. Consultant shall organize validation workshop before one week prior to submission deadline of final report amongst 30 participants from different organizations.
- **Final Report:** The consultant shall submit four copies of Final Report in English language to the project within 4.5 months with incorporation of all the comments and suggestions raised during validation workshop. In addition, the project will send draft report to 2 to 3 experts to review the document before final approval. The honorarium for

reviewer should be made by the consulting firm. The Consultant is also requested to submit electronic copy of all reports (inception, draft and final reports).

#### **6. Client's input and counterpart personnel**

The project shall provide relevant reports and documents to the consultant on return basis, and facilitate coordination between the consultants and concerned stakeholders/institutions as and when necessary. The project will not provide any logistic support to the Consultant during execution of consultancy service. The Consultant is requested to propose cost for necessary logistics support. Mr. Prakash Raj Bista, Senior Agriculture Officer will act as professional and support counterpart personnel to the consultant for any necessary assistance.

#### **7. Selection Criteria**

The consulting firm will be selected based on "Selection based on the Quality-and Cost-Based Selection (QCBS)" in accordance to "GUIDELINES SELECTION AND EMPLOYMENT OF CONSULTANTS UNDER IBRD LOANS AND IDA CREDITS & GRANTS BY WORLD BANK BORROWERS, January 2011".