

**TERMS OF REFERENCE (TOR) FOR ICT EXPERT IN  
UTTARAKHAND CLIMATE RESPONSIVE RAIN FED FARMING PROJECT  
PROJECT NUMBER- P179357**

*Ref No. 04/11-12(5) /UCRRFP/2022-23*

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## **1. Project Overview**

Uttarakhand Climate Responsive Rain-fed Farming Project (UCRRFP) will be implemented by the Watershed Management Directorate, Uttarakhand. The project development objectives are to improve resilience of production system to make mountain farming GHG Emission competitive and profitable in selected micro-watersheds of Uttarakhand. UCRRFP is a six-year project to be operational from 2023 to 2029. The project cost is USD 138.39M (IBRD: USD 100M, State Govt. USD 32.82M & Beneficiary: USD 5.56M).

### **1.1 Project Description**

Uttarakhand being a hilly state agriculture is pre- dominantly rain-fed and remains vulnerable to moderate to extreme weather conditions. Sustaining increased agriculture outputs in a rapidly changing climate will require adaptation at a faster pace. Enhancing food security while reducing GHG Emissions from farming practices will require transition to production systems that are more productive, use input more efficiently, have greater stability in outputs and are resilient to short- and long-term climate variability.

Uttarakhand Climate Responsive Rainfed Farming Project (UCRRFP) will be implemented in 06 hilly districts and 02 plain districts of Uttarakhand covering about 1200 villages and comprising of 56 Micro watershed clusters.

### **1.2 Result Indicators**

The following Key Performance Indicators (KPI) are proposed for measuring the core outcomes of the project: -

- ◆ **KPI #1:** - Reduction in GHG emissions from representative cropped land parcels.
- ◆ **KPI #2:** - Increase in productivity of selected crops.
- ◆ **KPI #3:** - Increase in net income of sampled households adopting improved agricultural technology.

- ◆ **KPI #4:** - Increased water discharge in the identified spring- sheds.

### **1.3 Project Components**

#### **Component A- Participatory and Science based Planning (USD 20.91million)**

Given the science-based focus of the project the Project Management Unit (PMU) setup under the WMD will constitute a consortium that will engage researchers/scientist from leading institutes to handhold the project implementation. The project implementation at ground level would involve a community demand driven approach where in through participatory approach climate resilient Gram Panchayat Plans will be developed. This would involve community mobilization, sensitization and their awareness building to the climate change mitigation and adaptation strategies.

#### **Component B – Building Climate Resilient Watersheds and Production Systems (USD 76.64 million)**

To build the climate resilient watersheds with the support of participating communities, watershed and spring-shed management interventions shall be carried out. These initiatives would help in resolving the issues of availability of water for irrigation and other purposes which is critical for building the resilience of the marginal mountain farmers whose farming is totally rain-fed.

To increase the productivity the project will give both technical and farming inputs to the farmers in agriculture, horticulture, allied sectors and small ruminants. In the endeavor to make farmers climate resilient integrated farming systems shall be promoted, organic farming, integrated pest management, integrated nutrient management and protected farming systems shall be developed. In the process the project will support interventions that reduce GHG emissions from farming systems.

#### **Component C- Improving Income Resilience (USD 17.57 million)**

The projects priority is to increase the income resilience of the mountain communities for this effort shall be made to strengthen the Agri-marketing systems of the farmers by organizing them into farmers federations and by providing them value addition services, developing end to end supply chains and by making agro-logistics carbon neutral. The project shall support the

development of agri-enterprise hubs by setting up of Agri Business Growth centers in the remote areas.

With the objective of the ensuring inclusiveness and equity various non-farm based livelihood initiatives will be provided to the marginalized households in the project villages.

### **Component D –Knowledge, ICT and Project Management (USD 23.27 million)**

The project with the support of the consortia will set up a knowledge hub in the PMU. This knowledge hub will analyze, synthesize and document the various methods/ practices/approaches/strategies/required in the efficient use of the natural resources, GHG emission reduction, development of resilient integrated farming systems and marketing inputs. The project will work towards enhancing the staff's capacity at the WMD and inter- departmental levels to mainstream climate resilient approaches at the state level.

This component would also cover the institutional setup, coordination, monitoring and evaluation of the project and overall management of the project by the PMU.

### **NEED FOR CONSULTANCY SUPPORT**

1. In the UCRRFP an ICT-based integrated platform for Monitoring and Evaluation (M&E) of the project progress, Project Management Information System, Web-GIS, various utilities like capacity building, field data collection etc. is required. It is proposed to develop an Integrated ICT infrastructure to be a part of the project to support the result framework via real time monitoring and evaluation of all the project activities carried out under various components of the project.
2. The proposed ICT infrastructure would be state-of-the-art that integrates data from different sources, MIS System, mobile applications and other ICT tools included in the M&E system. Data submissions will be geo-tagged and time stamped, which will ensure real-time and evidence-based monitoring of all project activities. It will generate automated reports for all the PDO indicators, customized for each level of project administrators.

3. The ICT Expert shall manage ICT services, develop and implement ICT management systems, and provides information management tools and technology infrastructure in the PMU.
4. The ICT Expert will be responsible for reviewing and advising on how new technologies can enhance the efficiency of the PMU. It will be the responsibility of the ICT Expert also to promote a client-oriented approach.
5. The ICT Expert will work in close collaboration with all the teams in the PMU and staff for resolving complex ICT-related issues and liaise with Project offices.

## **SCOPE OF WORK**

1. The ICT Expert will be responsible to manage and design data warehouses, data lakes, various ICT Tools or data platforms concepts for ease in implementation & monitoring of the Project.
2. Ensure implementation of ICT strategies and introduction and implementation of new technologies.
3. Ensure development of information and document management system focusing on the achievement of the project PDO's.
4. Ensure facilitation of knowledge building and knowledge sharing in the PMU, by organizing trainings for the operations/projects staff on ICT issues.
5. Provide web management services, and creation and technical maintenance of the WMD websites and Intranet.
6. Manage WMD hardware and software packages, by provision of advice on maintenance of equipment and acquisition of hardware supplies and development of new software for high-impact results (e.g. MIS System, intranet, etc).
7. Other duties to be performed as per requirement of WMD

## **JOB DESCRIPTION**

**Location of Job:** PMU, UCRRFP, WMD, Dehradun, Uttarakhand.

**Reporting Line:** Project Director, UCRRFP, WMD.

## **WORK STATION**

The consultants would be based in the Watershed Management Directorate, Dehradun and would make field visits to all project area as needed.

## **OWNERSHIP**

Watershed Management Directorate of Uttarakhand will have ownership of the data/applications etc. The consultants will have no right of claim to the products developed and shall not replicate them without prior consent of WMD.

## **ESSENTIAL QUALIFICATION & WORK EXPERIENCE**

- Post Graduate in Electronics/Computer Science/IT/Information Systems/ICT infrastructure from any Govt. recognized university with at least 05 years of experience in managing ICT infrastructure at managerial/leadership position or Graduates (B.E./B.Tech etc.) in Electronics/Computer Science/IT/Information Systems/ICT infrastructure with experience of over 10 years in managing ICT infrastructure at managerial/leadership position will be considered.

## **DESIRABLE QUALIFICATIONS**

- Candidates having any other degree / diploma/ certificate course related to scope of work will be preferred.
- Experience of working in international organization or projects in related field will also be preferred

- Demonstrable knowledge and experience in managing and overhauling ICT infrastructure.
- Experience in managing ICT infrastructure of state or national level projects will be preferred.
- Must possess initiative and the ability to work independently as well as team.
- Good command over English language, written and spoken.
- Good communication and report writing skills are necessary.

### **REMUNERATION:**

Depending on qualification, experience and competency of the candidate, the salary is negotiable.

### **PERIOD OF SERVICE:**

The contract shall be initially for a period of minimum 1 (one) year with a provision of further extension on an annual basis up to the end of the project, subject to satisfactory performance as assessed by the Project Director, UCRRFP.

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