

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

Ref No. 03/11-12(5) /UCRRFP/2022-23

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. WMD has huge IT infrastructure and its maintenance will require, an MIS Expert who will be responsible for professional management and maintenance of all IT infrastructure. IT infrastructure that can be maintained and troubleshooted at the PMU level includes:

1.1 Networking

- LAN with Bus Topology.
- Wi-fi Network, LAN, WAN .
- Unified Threat Management (UTM).
- Internet Leased Line.
- NAS (03) Servers.

1.2 WMD Official Website

- Development & Maintenance of the official website

(wmduk.gov.in).

1.3 Computer Hardware

- Desktop PC, Laptops, Workstation, Switches/Routers, Plotter printers and Audio Video Communication device
- Blade Servers.

1.4 Software

- Windows Operating System: Win 7/8/10/11 in all Desktop, Laptop, workstations.
 - Server Operating System: Window Server 2012 Enterprise Edition/ Window Server 2008 Enterprise Edition/Window Server 2019 Enterprise Edition.
 - Database Server: Microsoft SQL Server 2008 / Microsoft SQL Server 2012/Microsoft SQL Server 2019.
 - Database Server .
 - Microsoft Visual Studio 2008/2012.
 - Apache Tomcat Server and other applications as well.
2. The scope of the position includes contributing towards the development of a robust project MIS system and its regular maintenance & development.
 3. MIS Expert will have to ensure seamless connectivity at all times through the System Administrator and any IT related issues of the system users will have to be resolved expeditiously.
 4. MIS Expert would also manage security administration activities for IT infrastructure. The position also encompasses creating and generating accurate and timely MIS reports and training & capacity building of the project staff on MIS.

SCOPE OF WORK

- Design, develop and deploy efficient project MIS applications, project website and management of the project database.
- Design and develop and IT based systems/tools for real time progress monitoring.
- The project MIS should be capable of providing a quick analysis of project progress, and trends against key indicators.
- The project MIS should have modules for data collection, editing, analysis of physical & financial activities.
- To provide periodic (monthly, quarterly, bi-annual and annual) quantitative and qualitative reports for monitoring & evaluation.
- To identify the requirement for the development and implementation of MIS via coordination with different agencies involved in the projects.
- Assist in the development of ICT tools for monitoring and implementation of project activities.
- To provide IT support in projects in the form of IT Management and development of software, web portal.
- To support the maintenance of IT infrastructure in PMU.
- Support in works related to online grievance redressal system.
- Assist in plans for procuring hardware/software and another IT equipment's.
- Providing other programming/data analysis support as necessary in the field offices and PMU.
- Deploy the infrastructure and programs for fast and effective communication, will keep equipment's in his custody and will check for maintenance if required, also will ensure the availability of services for audio/video conferences for meetings/ presentations.
- Need to identify the Software and Hardware needs and suggestions for future requirements.
- To support and establish system, servers, switches, routers, LAN-WAN and firewall.

- MIS Expert would be responsible for LAN and WAN This includes wireless networks, cloud storage, and other systems of data storage and communication etc.
- To Maintain Interconnected network components, enable network operations, Management, and communication between internal and external systems.
- To Maintain the network consistency of internet connectivity, network enablement, firewalls and security, as well as hardware like routers, switches, and cables.
- To Provide training on MIS and ICT Tools for project monitoring and implementation to project officials as when required.
- 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 QUALIFICATIONS

- B.Tech (CSE) /M.Sc (Computer Science)/MCA.
- At least 10 years' experience in a lead IT Specialist role, working on complex projects developing and delivering custom application

development solutions for the Project and experience in Open Source and Microsoft Technologies i.e. PHP/ASP/ASP.net/VB.Net/C#/Windows Server Technologies, SQL server, MySQL.

- At least five years' experience of working in externally funded projects.

DESIRABLE QUALIFICATIONS

- Ability to handle Web Server, Database Server, ADS Server, programming and having a good knowledge of network equipment.
- Candidates having M.Tech (CSE)/Ph.D in Computer Science Engineering will be preferred.
- Relevant training in MIS/GIS will be preferred.
- Certificate/Diploma in Computer Hardware & Networking will be preferred.

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.
