

**HIRING AGENCY FOR PROVIDING FIELD WORK SERVICES**  
**FOR EXECUTION OF PROJECT RELATED TO PRECISE WATER REQUIREMENT & SITE-SPECIFIC**  
**NUTRIENT MANAGEMENT WORK AT RAJASTHAN**

**SCOPE OF WORK**

1. The scope of work for **Community-Based AI Solution for Precise Water Requirement & Site-Specific Nutrient Management** focuses on leveraging artificial intelligence to optimize water usage and nutrient application in agriculture. This initiative aims to develop a data-driven system that enables farmers to make informed decisions based on real-time environmental and soil conditions. By integrating AI with remote sensing, IoT devices, and predictive analytics, the solution will provide precise recommendations for irrigation and nutrient management, ensuring sustainable farming practices. Additionally, the project emphasizes a community-driven approach, facilitating knowledge-sharing and collaboration among farmers, agronomists, and policymakers to enhance productivity while conserving natural resources.
2. Rajasthan, being one of the driest states in India, faces significant challenges in water management and soil nutrient optimization due to its arid climate and diverse agro-ecological conditions. To address these challenges, a **Community-Based AI Solution** is being proposed to enable **precise water requirement assessment** and **site-specific nutrient management** for farmers. By integrating machine learning algorithms with traditional farming practices, the initiative aims to **enhance water-use efficiency, improve crop productivity, and promote sustainable agriculture**. Community participation will be a key aspect, ensuring localized adaptation, ease of use, and scalability of the solution across various districts in Rajasthan.
3. This project also include the deployment of field workers in Rajasthan for data collection , which is a crucial step in optimizing agricultural productivity and resource efficiency. Field workers will be strategically deployed across key agricultural zones to gather real-time data on soil health, crop conditions, weather patterns, and farmer inputs. Using AI-integrated tools such as IoT sensors, mobile applications, and remote sensing, they will collect and feed critical data into the AI system, enabling accurate, site-specific recommendations for irrigation and nutrient application. Additionally, these workers will engage with local farming communities to raise awareness, provide training, and ensure the seamless adoption of AI-driven decision-making.
4. **Mandatory:**
  - 4.1 To provide 22 numbers of field staff to work with the farmers of Rajasthan at village level as listed in the Table of ANNEXURE - VIII. The number of field staff required may vary depending on the project's needs, with adjustments made on a pro-rata basis as necessary.
  - 4.2 The role/responsibility of the field staff are:
    - 4.2.1 Day to day assistance to the designated farmers in operating the mobile advisory app for irrigation and nutrition management, as is the case.
    - 4.2.2 Basic input data of the farmer, season-wise crops, irrigation method, sowing time, nutrient status, and geotagging of fields.
    - 4.2.3 Training to farmer's time-to-time
  - 4.3 The required qualification of these field staff should be MSC Agriculture or equivalent with minimum 3 years' experience in relevant domain (Testimonials of the field staff to be provided).
  - 4.4 All Government Regulatory norms for such contract employment to be complied.
  - 4.5 The tenure of contract for these field staff is one year and would expire on expiry of the contract with the successful bidder.
  - 4.6 All allowances including mobile phone bills, travel, TA/DA, etc. for these field staff to

be borne by the successful bidder.

4.7 To organize training programs for all the farmers in groups at least four times:

4.7.1 Orientation at the initiation of the program

4.7.2 Seasonal at the onset of each season (Kharif, Rabi, Zayad)

4.8 Agronomy and irrigation/nutrient related Consultancy service to be provided to develop the Advisory Mobile App as depicted in Annexure-IX.

**5. Optional for C-DAC**

5.1 Provision of a small office space with furniture, electricity and Wi-Fi service to set up a Project Management Unit (PMU) at Jaipur for 3 nos. of C-DAC engineers.

**6. Information related to the Work**

6.1 The list of farmers and the farm fields for the particular block/cluster will be communicated to the vendor on placement of order to the successful bidder.

6.2 Three (3) crop seasons, i.e., Kharif, Rabi & Zayad to be covered.

6.3 The main crops for Kharif season are Bajara, Maize, Sorghum, Cotton, Ground nut, Cluster bean, Green Gram, Soybean, etc.

6.4 Main crops for Rabi are Wheat, Barley, Gram, Mustard, cumin, coriander, Isabgol, etc.

6.5 The vegetable crops will be Tomato, Chilli, Brinjal, cucurbits, Cole crops, Potato, Pea, Okra, etc.

6.6 The fruit orchards will be Pomegranate, Citrus, Guava, Aonla, Ber, Date palm etc.

6.7 The above-mentioned crop list is indicative only and there may also be other crops that are not listed on the list.

6.8 All these crops are grown using different irrigation methods, e.g., sprinklers, drip irrigation, and any other irrigation systems.