

# Terms of reference (ToRs) for the procurement of services below the EU threshold

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**Preparation of CWRM plans using Hydrological & Geo-informatics Tools for Maharashtra State**

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Project number/ cost centre:  
14.0156.01 -005.00

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## 0. List of abbreviations

AVBAVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2018
ToRs	Terms of reference
TAG	Technical Assessment Grid
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
WASCA	Water Security and Climate Adaptation in Rural Areas
MoRD, Gol	Ministry of Rural Development (MoRD), Government of India
MoJS	Ministry of Jal Shakti (MoJS)
NWM	National Water Mission
PMKSY	Pradhan Mantri Krishi Sinchai Yojana
GP	Gram Panchayat
IWRM	Integrated Water Resource Management
INRM	Integrated Natural Resources management
MGNREGA-EB	Environmental Benefits through Mahatma Gandhi National Rural Employment Guarantee Act

## 1. Context

### ProSoil:

Within the Special Initiative One World-No Hunger of the German Government, the project “Soil Protection and Rehabilitation for Food Security” (ProSoil) aims to promote sustainable approaches on soil protection and rehabilitation in 5 districts of Maharashtra (Ahmednagar, Dhulia, Jalna, Yavatmal and Amarawati) & 2 districts of Madhya Pradesh (Mandla and Balagat).

The core of the approach in India is improving the soil fertility for achieving higher crop yield, by addressing the challenges of climate change and land degradation as well. The project is a cooperation with NABARD as political partner and MoA&FW as strategic partner.

### ProSoil Sub Component WASCA

ProSoil Sub Component WASCA (Water Security and Climate Adaptation) aims to improve water resource management with respect to water security and climate adaptation. Objective of WASCA is that Water resource management is enhanced through an integrated approach at national, state and local level with regards to water security and climate adaptation in rural areas.

Composite Water Resource Management (CWRM) framework is developed for localising WASCA initiatives through CWRM is explained through five sections i.e. 1. Interpreting the Areas of Interest (Aoi), 2. Capacity development and institutional mechanism, 3. Preparation of Composite Water Resource Management Plan (CWRMP), 4. Implementation mechanisms and 5. “E-Jal for enhancing water security”. Timeframe for implementing each section would be parallel and contributing to each other in nature to achieve the desired project outcomes

ProSoil-WASCA aims for Making the Soil-Water Nexus Work in the pilot one districts of Maharashtra for:

- Environmental resources such as water and soil are interdependent, and their **integrated management** is required for **sustainable development**.
- **Integrated Water Resource Management (IWRM)** planning at a local **hydrological unit/ sub-catchment level (sub-basin)** enables coordinated development and management of water, land and related resources with the scope for addressing climate vulnerability.
- **Sub-catchment (Sub-basin)** as unit of intervention enhances scope for conservation, conjunctive use and management of ground water and surface water resources and administratively could be aligned with district boundary.

An agency is required to facilitate preparation of CWRM plans using Hydrological & Geo-informatics Tools for Ahmednagar<sup>1</sup> district of Maharashtra State. *CWRM framework is enclosed for reference as annexures 1.*

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<sup>1</sup> *Vulnerability ranking is done based on the recommendation of scoping study conducted. And, Ahmednagar district coming prospecting pilot district for CWRM Planning. The approval of the pilot district is under process at state government level. If there will be any change in for pilot district, that will be replaced during debriefing/ inception phase.*

## 2. Tasks to be performed by the contractor

### A. The main objectives of the assignment are:

The agency is responsible for providing the following services:

- To develop CWRM plans at village/ Gram Panchayat (GP) and district/catchment level CWRM plans using Hydrological & Geo-informatics Tools
- To localize Hydrological & Geo-informatics Tools based CWRM planning at District/ Catchment level
- Capacity development of district/ block level partners and stakeholders for CWRM plan preparation using Hydrological & Geo-informatics Tools

### Scope

1. Conducting assessment on Non-spatial, spatial and temporal aspects using suggestive framework & formats of the Ahmednagar district.
2. Aggregating non-spatial, spatial and temporal information from primary and secondary sources
3. Synthesizing the assessment outputs for driving thrust areas for CWRM using suggestive framework & formats.
4. Conducting participatory planning exercises using suggestive framework/ formats and guidelines
5. Preparation of Composite Water Resource Management Plan (CWRMP) using suggestive framework/ formats and guidelines:
  - Preparation of action plan for smallest unit (e.g. GP/ micro/ sub-watershed)
  - Synthesizing the water management plans at district level/ sub-catchment and finalizing the implementation plan
  - Preparing a convergence plan at district level for proposed actions and resource pooling
6. Sustainable Livelihood Development (SLD) and Water security plan (WSP) based on cadastral level mapping for pilot demonstration areas i.e. one block of the Ahmednagar District
  - i. To develop farming sectors based sustainable livelihood plan
  - ii. To address availability of water and expenditure on the provision of water for agriculture.
  - iii. To predict futuristic scenario with climate change analysis in the districts
7. Capacity development of concerned stakeholders using guidebook for CWRM plan preparation using Hydrological & Geo-informatic Tools
8. Liaison and networking with district and state officials for developing convergence approach among concerned departments for CWRM plan preparation.

### Deliverables

1. CWRM plan documents for village/GP and consolidated at district/catchment/ sub-basin level:
  - a) Geographical Information System (GIS) based repository of IWRM plan documents
  - b) Compilation of non-spatial, spatial and temporal datasets
  - c) GIS Outputs of assessment exercises at village/GP and district/catchment level

- d) Inventory of gap areas identified
2. Sustainable Livelihood Development and Water security plans for pilot demonstration areas based on cadastral level mapping.
3. A cadre of 50 implementation level planners promoted in project areas
4. Validated & state owned CWRM plan readily available for implementation

Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term, and at particular locations:

**Period of assignment: From 15th October,2020 until 30<sup>th</sup> May 2021.**

S.N.	Milestone	Timeline
1	<b>Inception Meeting and Report</b>	15 days of contract
2	<b>Sustainable Livelihood Development (SLD) and Water security plans (WSP) for pilot demonstration areas using CWRM framework</b>	
2.1	Capacity development of concerned stakeholders using guidebook for SLD &WSP plan preparation using Geo-informatic Tools ( <i>Enabling for coordinating planning process</i> )	15 <sup>th</sup> November, 2020
2.2	Compiled assessment outputs on Non-spatial, spatial and temporal aspects for driving thrust areas	15 <sup>th</sup> December, 2020
2.3	Conducting participatory planning exercises using suggestive framework/ formats and guidelines	31 <sup>st</sup> December, 2020
2.4	Sustainable Livelihood Development and Water security plans at village/GP level	15 <sup>th</sup> January, 2021
2.5	Validated & state-owned Sustainable Livelihood Development and Water security plans planning ready for implementation	20 <sup>th</sup> January, 2021
2.6	Capacity development of concerned stakeholders using guidebook for SLD &WSP plan preparation using Geo-informatic Tools ( <i>Enabling for coordinating implementation process of SLD &amp; WSP plans</i> )	31 <sup>st</sup> January, 2021
3	<b>Composite Water Resource Management Plan (CWRMP) for the district</b>	
3.1	Capacity development of concerned stakeholders using guidebook for CWRM plan preparation using Geo-informatic Tools at district/block and demonstration locations ( <i>Enabling for coordinating planning process</i> )	31 <sup>st</sup> December
3.2	Compiled assessment outputs on Non-spatial, spatial and temporal aspects for driving thrust areas for CWRM	28 <sup>th</sup> Feb,2021
3.3	Conducting participatory planning exercises using suggestive framework/ formats and guidelines	31 <sup>st</sup> March, 2021
3.4	CWRM plans at village/GP and consolidation at district/catchment/sub-basin level IWRM plans	15 <sup>th</sup> April, 2021
3.5	Validated & state owned CWRM planning for implementation	31 <sup>st</sup> April, 2021
3.6	Capacity development of concerned stakeholders using guidebook for CWRM plan preparation using Geo-informatic Tools at district/block and demonstration locations ( <i>Enabling for coordinating planning process</i> )	15 <sup>th</sup> May, 2021
4	Final Report and data handover	25 <sup>th</sup> May, 2021

### 3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 0 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

#### Technical-methodological concept

**Strategy:** The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 0). (Point 1.1.- TAG)

The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them. (Point 1.2 – TAG)

The bidder is required to present and explain its approach to **steering** the measures with the project partners and its contribution to the results-based monitoring system. (Point 1.3 - TAG)

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter 0 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 0. (Point 1.4 - TAG)

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (**learning and innovation**). (Point 1.5 - TAG)

#### Project management of the contractor (Point 1.6 - TAG)

The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor is responsible for selecting, preparing, training and steering the experts (international and national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.

The contractor reports regularly to GIZ in accordance with the AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018

### 4. Personnel concept and Required Qualification

#### 4.1 Personnel Concept

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 8), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

## **Team leader**

### Tasks of the team leader cum IWRM Expert

- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Personnel management, in particular identifying the need for short-term assignments within the available budget, as well as planning and steering assignments and supporting local and international short-term experts
- Regular reporting in accordance with deadlines
- Technical lead for designing & customising tools for assessment of water scenarios
- Customising the planning tools for climate resilient IWRM planning
- Coordinating the assessment and planning aspects of the assignment
- Technical backstopping support for assessment and planning teams

### Qualifications of the team leader

- Education/training (2.1.1): Postgraduate with professional experience on planning, on agriculture / natural resource management / rural Development
- Language (2.1.2): Good business language skills in Hindi (regional language) and English
- General professional experience (2.1.3): 8-10 years of professional experience on planning, agriculture and NRM
- Specific professional experience (2.1.4): 5 years in participatory NRM planning using modern technologies, policy advocacy at national level for mainstreaming learning
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 2 years of experience at national & regional level

### *Other positions stipulated by GIZ*

## **Expert 1: Remote Sensing and Geographical Information System**

### Tasks of expert 1

- Customize geo-informatics-based solutions for assessment for CWRM planning
- Synchronise the tools developed by technical team
- Coordinate with CWRM Expert for finalisation of assessment and planning aspects
- Handholding support to assessment and planning teams
- Conducting training on geo-informatic tools (NRM)
- Deriving essential inputs based on results of IWRM planning for development of "Digital Decision Support System for IWRM"

### Qualifications of expert 1

- Qualifications (2.2.1): Postgraduate in Geo- Informatics
- Language (2.2.2): English, Hindi and other regional languages is advantage
- General professional experience (2.2.3): Minimum 5 years of experience in Rural Development & Agriculture sectors
- Specific professional experience (2.2.4): Minimum 3 years of using Geo-Informatic Tools in area of water sector
- Project management experience (2.2.5): Minimum 3 years to lead a project of similar kind and scope
- Regional experience (2.2.6): Minimum 1 years of experience working in the State of Maharashtra.

## **Expert 2: Agriculture and Surface Water**

### Tasks of expert 2

- Designing & customising tools for assessment of water scenarios
- Customising the planning tools for climate resilient CWRM Planning
- Coordinate with CWRM planning Expert for developing assessment and planning modules
- Assist CWRM planning Expert for incorporating water engineering and CCA aspects
- Conducting training on sustainable Livelihood Development and Water security plan
- Coordinate with the state and district basin teams for practicing the tools developed

### Qualifications of expert 2

- Qualifications (2.3.1): MSc/MTech in Agricultural Science/Engineering
- Language (2.3.2): English and Hindi
- General professional experience (2.3.3): Minimum 10 years of experience in agriculture and water conservation
- Specific professional experience (2.3.4): Minimum 10 years of in command area development for agriculture and extension services
- Regional experience (2.3.6): Minimum five years of experience working in the State of Maharashtra.

## **Expert 3: CWRM Planning**

### Tasks of expert

- Facilitating the district/basin teams in the state for assessment of water scenarios
- Coordinating the CWRM planning exercise in select project locations in the district
- Handholding support to assessment and planning teams in select project locations
- Analyse and synthesize the outcomes of the assessment and planning exercises and extract key results
- Coordination with national and district/basin teams for field visits and expert inputs

### Qualifications of experts

- Qualifications (2.4.1): Postgraduate & and technical qualification on RS &GIS
- Language (2.4.2): English and Regional languages
- General professional experience (2.4.3): Minimum 5 years of experience in application of RS & GIS for spatial analysis and data visualisation and communication
- Specific professional experience (2.4.4): Minimum 3 years of using Geo-informatic tools for on agriculture / natural resource management / rural Development planning

## **Expert 4: CWRM Planning**

### Tasks of expert

- Facilitating the district/basin teams in the state for assessment of water scenarios
- Coordinating the CWRM planning exercise in select project locations in the district
- Handholding support to assessment and planning teams in select project locations
- Analyse and synthesize the outcomes of the assessment and planning exercises and extract key results
- Coordination with national and district/basin teams for field visits and expert inputs

### Qualifications of experts

- Qualifications (2.5.1): Postgraduate & and technical qualification on RS &GIS
- Language (2.5.2): English and Regional languages
- General professional experience (2.5.3): Minimum 5 years of experience in application of RS & GIS for spatial analysis and data visualisation and communication
- Specific professional experience (2.5.4): Minimum 3 years of using Geo-informatic tools for on agriculture / natural resource management / rural Development planning



## **Expert 5: CWRM Planning**

### Tasks of expert

- Facilitating the district/basin teams in the state for assessment of water scenarios
- Coordinating the CWRM planning exercise in select project locations in the district
- Handholding support to assessment and planning teams in select project locations
- Analyse and synthesize the outcomes of the assessment and planning exercises and extract key results
- Coordination with national and district/basin teams for field visits and expert inputs

### Qualifications of experts

- Qualifications (2.6.1): Postgraduate & and technical qualification on RS &GIS
- Language (2.6.2): English and Regional languages
- General professional experience (2.6.3): Minimum 5 years of experience in application of RS & GIS for spatial analysis and data visualisation and communication
- Specific professional experience (2.6.4): Minimum 3 years of using Geo-informatic tools for on agriculture / natural resource management / rural Development planning

### Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

## **4.2 Required Qualification/experience for the consulting agency**

The agency and / or consortium must have the following administrative and financial requirements for conducting the assignment

1. Be a registered as national organization or entity
2. In case of bidding consortia: Declaration by consortium
3. Average annual turnover for the last three financial years should be at least 1,00,000 Euros
4. The agency should have minimum 15 employees as on 31st December 2019
5. The agency must have handled at least 3 projects on RS & GIS based services in rural development and agriculture sector and 2 reference projects in India in the last three years with minimum commission value of Euro 25,000.

The agency and / or consortium must have the following administrative and financial requirements for conducting the assignment

6. Relevant experience and technical expertise using Geo-Informatic Tools in for rural development & agriculture
7. Relevant technical knowledge, skills and extensive work experience for soil and water conservation and other climate resilience measures.
8. Capability of training relevant stakeholders on Geo-Informatic Tools for natural resource management
9. Experience in providing consulting services / implementation and excellent track record of completion of tasks according to timelines

The agency and / or consortium should have other (non-evaluated) administrative and financial requirements for conducting the assignment

10. Good knowledge and rapport with local communities
11. Experience in providing consulting services / implementation and excellent track record of completion of tasks according to timelines,
12. Excellent reporting and writing skills (English, Hindi)
13. Well qualified and experienced key professional staff
14. Experience in managing projects with international organisation

## **5. Costing requirements**

### **Assignment of personnel**

Team leader: On-site assignment for 70 expert days

- Expert 1: Assignment in country of assignment for 140 expert days  
Expert 2: Assignment in country of assignment for 140 expert days  
Expert 3: Assignment in country of assignment for 140 expert days  
Expert 4: Assignment in country of assignment for 140 expert days  
Expert 5: Assignment in country of assignment for 140 expert days

**Total proposed person days: 770**

### **Travel**

The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance in the State of Maharashtra as stipulated in Chapter 0 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

### **Workshops, training and study trips**

- The agency is required to proposed training event for promoting the cadre of planners as per ToR part B (scope of work). The agency is required to proposed training related expenses.
- In addition, the agency is also required to facilitate, coordinate and participate need based workshop, and study trips planned by GIZ and government partners. The agency is not required to proposed workshop and study trips related expenses.

## **6. Inputs of GIZ or other actors**

6.1 GIZ and/or other actors are expected to make the following available:

- Introduce the agency to the state administration at the start of the project.
- Suggest additional participants for any meetings, trainings, and workshops
- Any technical support required for the success of this initiative
- Support in the field visit of the participants
- Planning framework & formats for preparation of CWRM plan using Hydrological & Geo-informatic Tools
- Guidebook for Capacity development of engaged technical expert & cadre of implementation level planners using Hydrological & Geo-informatic Tools

## **7. Requirements on the format of the bid**

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

**The complete bid shall not exceed 30 pages** (excluding CVs & other supporting company documents; as mentioned in grid for assessing eligibility of firms & TOR).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs can also be submitted in English (language). If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.

### **Structure of the Proposal**

- The proposal should contain a very brief company profile followed by a detailed approach and methodology to execute the project. The proposal should also contain the project timeline highlighting milestones and deliverables. Please elaborate the roles and responsibilities of the different team members in the proposal;
- The entire proposal including approach and methodology proposed, CVs etc., needs to be in English.
- **The CVs need to be in uniform format with a maximum of 3 pages;**
- **The length of technical proposal should not exceed 25 pages;**
- The template for financial quotes has been attached with the tender documents. The potential bidders are advised to follow the attached budget template;
- Strategy for backstopping-services and Ad-hoc activities need to be specified. Back stoppers and Ad-hoc support providers have to be listed and need to be available during the contract duration;
- The agency is expected to be flexible in their approach when it comes to successfully implementing these pilots for community nutrition gardens depending upon the requirements of the government officials;
- The agency must outline the perceived risks associated with the different tasks under the defined scope of work. How does the agency propose to mitigate these risks? How does the agency ensure the quality of deliverables (for all processes, indicators and project steps);
- While the key activities envisaged (as discussed above), the agency is also encouraged to suggest additional activities or even propose alternate approaches, which may help achieve the same end objective.

## **8. Annexes**

Annexure 1 - CWRM Framework as developed by WASCA