

Terms of reference (ToRs) for the procurement of services

GIS mapping of watersheds promoted by NABARD

Project number/
cost centre: 18.2052.1.001.00

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0. List of abbreviations

AVBAVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2018
BIRD	Bankers Institute of Rural Development
BMZ	Federal Ministry for Economic Cooperation and Development
BMU	Federal Ministry of the Environment, Nature Conservation and Nuclear Safety
BMWi	Federal Ministry for Economic Affairs and Energy
C-SASA	Capacity enhancement for Sustainable Agriculture and Sustainable Aquaculture
FPO	Farmers Producer Organization
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
NABARD	National Bank for Agriculture and Rural Development
NRM	Natural Resource Management
TAG	Technical Assessment Grid
ToRs	Terms of reference
WASCA	Water Security and Climate Adaptation in Rural Areas

1. Context

About GIZ

For over 60 years, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has been working jointly with partners in India for sustainable economic, ecological, and social development.

The thematic areas of GIZ in India are:

- Energy
- Environment, Climate Change and Biodiversity
- Sustainable Urban and Industrial Development
- Sustainable Economic Development

The Federal Ministry for Economic Cooperation and Development (BMZ), the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) as well as the Federal Ministry for Economic Affairs and Energy (BMWi) are the main commissioning parties of GIZ in India. Other clients include Indian public sector clients, the European Union and foundations.

The Government of India has launched numerous important initiatives to address the country's economic, environmental and social challenges, and GIZ is contributing to some of the most significant ones.

Brief information on the project on C-SASA project

GIZ and NABARD has agreed to implement a project on Capacity enhancement for Sustainable Agriculture and Sustainable Aquaculture (C-SASA). The project has two major components under GIZ- TC support are the following.

a) Technical support for GIS mapping of NRM projects and support existing NABARD's portfolios on Sustainable Agriculture and Sustainable Aquaculture

GIZ, with its strong technical experience and role in this field, will support the development and deployment of a GIS based Decision Support System to map and analyse these projects, suggest suitable intervention to strengthen capacity building (head office, ROs and partners) and help mainstream this into NABARD. For ground testing and rolling this out at a certain scale, this shall focus on two mutually agreed states, where alignment with the Sustainable Agriculture and Sustainable Aquaculture impacts, as per the BMZ commission, can also be demonstrated.

The use of digital approaches (GIS, remote sensing etc.) will enhance scientific analyses, closing the field gaps and delays due to Covid 19 pandemic and create localized capacities for NABARD and stakeholders for planning and implementing this mandate.

b) Support NABARD in enabling effective FPO ecosystems

With the government putting an ambitious target of establishing 10,000 new FPOs and about 7,000 existing ones, the FPOs are being seen as game changers and a pathway to achieve the goal of doubling of farmers' incomes.

At the same time, there is an urgent need to train and strengthen the huge number of key functionaries of the 10,000 FPOs targeted by Government of India and given as a mandate to NABARD. This can be achieved through quality capacity building of promoting institutions in key aspects such as - assessment of CB needs, strengthening institutional and governance aspects, business planning, marketing, input business, compliances etc. Since the last 10 years, GIZ (through a number of allied projects) has been working with NABARD (and BIRD), Ministry of Agriculture and Farmers' Welfare and various state governments for promotion and capacity building of FPO stakeholders. Recently, in collaboration with NABARD and BIRD, GIZ has developed an FPO CB Tool Kit of 13 different tools to support promoting organizations to build up the capacities of FPOs.

The watershed projects of NABARD have significantly helped in augmentation of surface and ground water resources, enhanced cropping intensity/ crop productivity. NABARD has 2542 watershed projects which were implemented across 26 States covering more than 5 lakh households and 1.9 million ha area. In many watershed areas, community institutions including Farmers Producer Organizations (FPOs) have been promoted in order to promote collectivization and marketing of farmers produce.

It is well recognised that applications of GIS and remote sensing are important for decision-making on planning and management of natural resources management, agriculture and rural development programmes. Among these 2542 watersheds, around 629 watershed projects has so far been mapped using GIS application, which has been uploaded on Bhuvan portal. This can be further improved with additional data layers for better reporting and planning.

Under this project with NABARD, GIZ would support its partner NABARD for mapping the remaining watersheds and other NRM projects/interventions for agricultural planning and decision making.

For this, NABARD would provide relevant information such as name of villages, block, district, state, status (ongoing, closed, completed), implementing agency-NGO, whether FPOs promoted etc. while GIZ through the consulting agency would develop the digital GIS mapping of the watersheds, incorporate the same in a compatible form in BHUVAN platform and provide training and capacity building to NABARD officers.

2: Tasks to be performed by the contractor

A. The main objectives of the assignment are:

1. To carry out GIS mapping of all watershed projects supported by NABARD
2. To provide resource person support and technical backstopping for capacity development of NABARD and BIRD officers on the GIS mapping process
3. To synthesize the spatial outputs related to watershed projects for facilitating further decision making

B. Expected Outputs from the assignment:

1. GIS enabled digital database developed for 2542 NABARD supported watershed projects
2. The key cadre of NABARD and BIRD are acquainted with GIS mapping process and are able to handle the digital data repository of watershed projects
3. Ready to use GIS outputs compatible with BHUVAN NABARD available for integration
4. Synthesis report of key outputs of the GIS mapping exercise

C. Scope of Work

Following scope of action will be required to achieve the objectives and desired outputs

1. Inception workshop for finalizing scope of work
2. Finalisation of the outline of the expected outputs in consultation with GIZ and NABARD
3. Preparing the inventory of information required from NABARD
4. Aggregation and processing of required information available through open sources
5. Fetching information from NABARD from State Regional Offices
6. Incorporation of information received from NABARD in the GIS data repository
7. Geo-Spatial processing and synthetization of data repository for related output generation
8. Customization of outputs in consideration of compatibility with BHUVAN NABARD
9. Finalisation of the Geo-Spatial enabled outputs
10. Preparation of a synthesis report covering description about methodology, final outputs, key results and further course of action
11. Periodic consultation with GIZ, NABARD and other key stakeholders for input seeking and also updating about the work done so far
12. Provide resource person support for capacity development measures planned by GIZ and NABARD
13. Two workshops are conducted for the handover process of the assignment as well as training and capacity building of NABARD and BIRD officers for mainstreaming the GIS mapping process

D. Milestone and Timeline

Certain milestones, as laid out in the table below, are to be achieved by certain timeline during the contract term

Milestone	Deadline/place/person responsible
Inception workshop with NABARD and discussion on the expected outputs	November 2020
Preparing the inventory of information required	November 2020
Gathering and incorporation of relevant information from NABARD	December 2020
Aggregation and processing of required information	December 2020
Geo-Spatial processing and synthetization of data	Jan-March 2021
Customization of outputs to BHUVAN	March-April 2021
Finalisation of the Geo-Spatial enabled outputs	April – May 2021
Workshops-I for the handover process	June 2021
Workshops-II for the handover process	July 2021

E. Major Deliverables

1. GIS enabled digital database for 2542 NABARD watershed projects
2. Ready to use GIS outputs compatible with BHUVAN NABARD
3. Synthesis report of key outputs of the GIS mapping exercise
4. Conducting workshop acquainted with GIS mapping process and are able to handle the digital data repository of watershed projects

Period of assignment: From 15th November,2020 until 31st August 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 (1 position)

Tasks of the team leader

- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ and others involved in the assignment
- 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/ international short-term experts
- Regular reporting of tasks to GIZ in accordance with deadlines/milestones
- Technical lead for designing & customising tools, develop formats, data aggregation and processing for assessment/mapping of GIS based watersheds
- Ensure resource person support and technical backstopping for capacity development of NABARD and BIRD officers on the GIS mapping process
- Ensure that the outputs and reports listed are delivered in desired quality and timeline
- 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. Knowledge of other regional language is an added advantage
- General professional experience (2.1.3): 8-10 years of professional experience on planning, agriculture and NRM. Knowledge of NABARD and its watershed activities can be very helpful.
- Specific professional experience (2.1.4): 5 years in watershed mapping, NRM planning using modern technologies/software, training and capacity building for mainstreaming GIS application and 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 level

Remote Sensing and Geographical Information System Expert –(10 positions)

Tasks

- Use RS & GIS for digital mapping of NABARD watershed projects
- Develop a GIS data repository for data collection for mapping of the watersheds
- Collect relevant data and maps from NABARD ROs (with support from GIZ) for GIS mapping of the relevant watersheds
- Collection, aggregations and processing of information available through open sources for mapping of all relevant watersheds
- Ensure compatibility of the GIS output with BHUVAN portal

- Ensure technical backstopping for capacity development of NABARD and BIRD officers on the GIS mapping process
- Outputs and reports listed are delivered in desired quality and timeline
- Technical backstopping support for assessment and planning teams

Qualifications required

- Qualifications (2.2.1): Postgraduate with professional experience on planning, on agriculture / natural resource management / rural development
- Language (2.2.2): English, Hindi and other regional languages is advantage
- General professional experience (2.2.3): Minimum 2-5 years of experience in GIS mapping of Rural Development, Agriculture and NRM sector projects
- Specific professional experience (2.2.4): Minimum 2 years of using Geo-Informatic Tools in area of watershed mapping and water related sector
- Regional experience (2.1.6): 2 years of experience at regional level

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 75,000 Euros
4. The agency should have minimum 15 employees as on 31.12.2019
5. The agency must have handled at least 2 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. Minimum 3 years of experience and technical expertise using Geo-Informatic Tools in for rural development & agriculture, NRM
7. Minimum 3 years of technical knowledge, skills and extensive work experience for GIS mapping large number of watersheds in India
8. Minimum 3 years of experience in training relevant stakeholders on Geo-Informatic Tools and GIS mapping of watersheds and its planning
9. Minimum 3 years of 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 National and international organisation

5. Costing requirements

Assignment of personnel

- | | |
|---------------------|--|
| 1 Team leader: | Assignment in country of assignment for 120 expert days |
| 10 RS & GIS Expert: | Assignment in country of assignment for 1200 expert days i.e. 120 mandays for each GIS Data Expert |

Total proposed person days: 1320 days

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 states as stipulated in Chapter 0 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

Kindly note that travel cost may be clearly outlined for visiting various NABARD Regional Office (20-25 Regional Offices) at the state level and its Head office, Mumbai may be required for collection of relevant data, maps and other information. Around 40-50 travel mandays would be required.

Workshops, training and study trips

- The agency is required to participate in virtual inception workshop with GIZ and NABARD and may have to travel to its respective offices in Delhi and Mumbai based on the requirement for discussion/meetings.
- The agency is required to conduct/coordinate 2 workshops towards the end of the assignment for the handover process as mentioned in the scope of the work. The place of the workshop would be decided later. The agency however is only required to propose expenses of the trainers/facilitators for facilitating these workshops and may quote cost relating to air/local travel, per-diem and stay cost only. The other cost like training venue, participants travel and stay cost etc would be taken care by GIZ
- The agency would have to get the data and maps of all the NABARD watershed projects from the head office/regional offices of NABARD

6. Inputs of GIZ or other actors

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

- Introduce the agency to the NABARD Head Office, Regional Offices, BIRD etc. at the start of the project to ensure smoother communication and data collection.
- Will help coordinate for the conduct of virtual inception workshop with agency, GIZ and NABARD
- Suggest agency for periodic conduct of joint review of the work done so far

- Suggest additional participants for any meetings, trainings, and workshops
- Any technical support required for the success of this initiative
- Informing ROs for data and map collection by the agency
- Conducting workshop arrangements for the handover process
- Liaisoning with NABARD HO, RO and BIRD

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).**

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 three 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 mapping these watersheds and training based on the requirements of NABARD
- 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.

Note:

If restrictions are introduced to combat coronavirus/COVID-19 (restrictions on air travel and travel in general, entry restrictions, quarantine measures, etc.), GIZ and the contractor are obliged to make adjustments to their contractual services to reflect the changed circumstances on the basis of good faith; this may involve changes to the service delivery period, the services to be delivered and, if necessary, to the remuneration.