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

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

	Project number/ cost centre:
niceSSM maintenance and technical support	**14.0156.1-005.00**

0.   List of abbreviations

AVB   General Terms and Conditions of Contract (AVB) for supplying services and work 2018

ToRs   Terms of reference

niceSSM   Network for Information on Climate Ex-change for Sustainable Soil Management

ICT   Information and Communication Technology

ProSoil   Soil Protection and Rehabilitation for Food Security in India

1. Context

a. Brief information on the project

The initiative "One World, No Hunger" has been initiated by the German Federal Ministry for Economic Cooperation and Development (BMZ) in 2014. It addresses a wide variety of topics in the field of agriculture, food and nutrition security and rural development. The global programme "Soil Protection and Rehabilitation for Food Security" has been commissioned under this initiative and is implemented in five countries: Benin, Burkina Faso, Ethiopia, Kenya and India.

In India, the "Soil Protection and Rehabilitation for Food Security in India (Pro SOIL)" is integrated into the Natural Resource Management Portfolio of GIZ. The project, "Pro SOIL" aims to implement sustainable approaches to the protection and rehabilitation of degraded soils, including soil fertility, in selected areas of India. In total, an area of 43.000 ha which has previously been under watershed development programmes is being covered in the five districts of Maharashtra (Ahmednagar, Amravati, Dhule, Jalna and Yavatmal) and two districts of Madhya Pradesh (Balaghat and Mandla). Three NGOs, BAIF Research Development Foundation, Watershed Organization Trust (WOTR) and Foundation for Ecological Security (FES) are building the capacities of smallholder farmers to protect and rehabilitate their soils and to invest in soil fertility management. The chemical soil properties are being tested and IT-based advisory services provided directly to farmers. These advisory services will include recommendations regarding the selection of crops and fertilizer recommendations, among others.

The steering of the project is jointly carried out by GIZ and the National Bank for Agriculture and Rural Development (NABARD) in India. The project furthermore aims to set up knowledge networks between science and practice to share good practices. Out of these dialogues, recommendations are to be generated on how to furthermore promote the stronger practice of soil protection, rehabilitation and soil fertility management.

NICE (https://nice.nicessm.org/) is a tablet and web based knowledge management system developed for the project CCKN-IA (Climate Change Knowledge Network for Indian Agriculture).

ProSoil has adopted NICE system as ICT tool in the project, for knowledge management purposes and as monitoring system. NICE has been developed and updated to version-2 in year 2016. For the adoption of NICE system in Pro-Soil, a 3rd version (November 2017 estimated) is proposed with additional features to focus majorly on monitoring activities.

The NICE online web platform allows various knowledge providers from various domains of agriculture science sharing knowledge in a decentralized way across a number of subject domains to address local needs. The system is iterative and allows a multimodal two-way communication, between the expert network and linked farmers to meet the specific needs on a real time basis. The NICE application is combined with a tablet application capacitating extension cadre to function as last mile technology interface with farmers. The project revitalizes existing extension system, capacities and monitoring systems for effective development, dissemination and facilitates farmer adoption on extreme weather events.

NICE is capable to handle multiple Indian languages for content creation for multiple domains and bridges the last mile through multiple modes, whether it is on tablets, through SMS, Web, social media communicators or / and facilitates interaction through human interfaces. It is able to aggregate information on weather, climate contextualized Agro-advisories, disaster relief and can be customized to any needs. In addition, it holds a monitoring and reporting function (Version-3), through which demand based dynamic reports can be generated.

Following a financial agreement, GIZ is in partnership with MANAGE (www.manage.gov.in) which is an Autonomous body under Government of India, Ministry of Agriculture, Department of Cooperation. MANAGE has hosted separate server in their premises to run niceSSM system.

b.   Objective

The objective of this consultancy assignment is to engage services of consulting company to maintain niceSSM application and provide dedicated assistant to work as Help Desk on remote working basis.

2.   Tasks to be performed by the contractor

2.1. Maintenance support to keep application updated and running uninterruptedly.

Responsible for following services:
1. Any bug fixes in all 3 applications (1 web and 2 Mobile)
2. Keep system up and running
3. Any new feature addition in the system if required
4. Any other support required to run system smoothly
5. Hosting copy of NICE application in MANAGE server (Developer has to update MANAGE server every time there is any change in main application, **refer to introduction section**)

2.2. Helpdesk for NICESSM system

Young and dynamic person to support in successful operation of the NICESSM system technically. Experts having experience on NICESSM system or similar applications will be preferred. The consultant will be responsible for following tasks:

Responsible for following services:
1. Help niceSSM users to resolve their issues on day to day basis
2. Testing of new features and system update
3. Bug reporting
4. Help in trainings and implementation
5. Follow up with users
6. Ensure timely data entry by CRPs
7. Ensure support provided by content team for content development and query resolution in required time
8. Data entry required for the system
9. Any other work related to NICESSM system development, testing or implementation
10. Any other task assigned by senior manager.
11. Ensure all training, demonstrations and activities are done using NICESSM system for pro-soil project
12. Help in enhancing NICESSM functionalities and visibility
     a.   Help in developing training materials for users

13. The contractor must ensure compliance with the local law and privacy formalities in the course of the service: While updating the code or debugging, the principles of general data protection law, such as purpose limitation, data economy and transparency must be considered... Contractor will consider, if legally required a description of the newly integrated process about the extent to which data is processed and what is done to protect the privacy need to be integrated in the data protection declaration
14. Personal data shall be hosted in a secure environment that prevents unauthorized access and an access and authorization concept that complies with the principle of data security must be in place

15. MANAGE is owner of the system and thus responsible for data processing, as per agreement between GIZ and MANAGE. Thus the contracting party is only subject to the direct instructions of MANAGE

16. MANAGE has provided a staging server for all testing and debugging which is separate from the Live server. Contractor gets authorization only for staging server. Live server updation will be under supervision of and needs authorization from MANAGE The contractor will report to IT Manager at MANAGE. The contractor requires permission from MANAGE for any change to carry out and will be authorized to access the server only by MANAGE Experts or consultants.

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

Milestone	Deadline/place/person responsible
Monthly bug update report	5th day of every Month/Maintenance Project Manager
Quarterly bug update report	10 of every quarter/Maintenance Project Manager
Bi-Weekly data update report	Every fortnight/niceSSM Assistant
Monthly social media report	5th day of every month/niceSSM Assistant

Period of assignment: From **20th Nov 2020** until **30th June 2022**.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 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 2).

The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

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.

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 2 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 2.

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

Project management of the contractor

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

Maintenance:

- How maintenance will be coordinated
- work flow
- details of allocated resource
- coordination strategy

Helpdesk:

- Detail of allocated resource
- List of deliverables
- Coordination strategy
- Brief quarterly or half-yearly reports on the implementation status of the project (5-7 pages)

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

Backstopping

The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the bid in accordance with section 5.4 of the AVB:

- CMMI Level 2 certification and ISO certfication
- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between GIZ and field staff
- Contractor's responsibility for seconded personnel
- Process-oriented technical-conceptual steering of the consultancy inputs
- Securing the administrative conclusion of the project
- Ensuring compliance with reporting requirements
- Providing specialist support for the on-site team by staff at company headquarters
- Sharing the lessons learned by the contractor and leveraging the value of lessons learned on site

4. Eligibility of the consulting firm

The eligibility of the consulting firm will be assessed on the following criteria:

- **Turnover and number of employees:** Average annual turnover of <u>100,000 Euro</u> for the last three financial years[1] with <u>minimum 10 employees</u> as at 31.12 of the previous year.

---

[1] Last but four financials can be included in case of invitation to tender held within six months of end of last financial year

- **Reference projects:** The Consulting firm submits reference projects with a minimum commission value of 25000 Euro. At least 2 references of projects completed in field of CRM, B2B, B2C or Knowledge Management and 2 references in developing applications in Open Source Technology or using Social Media in ICT.
- **Technical Experience:**
  o Minimum two years' experience in developing applications on Open Source Technology for Web and Mobile applications for development projects
  o Minimum two years' experience in developing Knowledge Management Systems for grass root level beneficiaries
  o Minimum One years' experience in Training and Capacity Building in Government sector in Agriculture field
  o ISO certification 9001 for Quality Management Systems and CMMI level 3 certification
  o Minimum two years' experience in working with Linux/Apache based server with non RDBMS system preferably MongoDB

5.   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
- Overall responsibility of maintenance and helpdesk responsibility (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

Qualifications of the team leader
- Education/training (2.1.1): General qualification ('Diploma'/Degree) in Computer Science
- Language (2.1.2): Good business language skills in English
- General professional experience (2.1.3): 10 years of professional experience in the IT sector
  Specific professional experience (2.1.4): 8 years experience in Open Source
- 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): 5 years of experience in projects in PAN India preferably in state of Madhya Pradesh and Maharashtra
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects such as GIZ

Web Application Expert (software Engineer)

Tasks of expert 1
- Maintaining niceSSM web application
- Bug and Issue resolution on web application
- Upgrading with updated technologies
- Monitoring the web application

Qualifications of expert 1
- Education/training (2.2.1): General qualification ('Diploma'/Degree) in Computer Science
- Language (2.2.2): Good business language skills in English

- General professional experience (2.2.3): 8 years experience in web applications development
- Specific professional experience (2.2.4): 4 years in Open Source application development
        4 years of professional experience in the software development/HTML/Web Application coding softwares
- Leadership/management experience (2.2.5): -Not Applicable-
- Regional experience (2.2.6): 2 year Pan India work experience
- Development Cooperation (DC) experience (2.2.7): 2 years of work experience in organisation such as GIZ
- Other (2.2.8): Should have experience in developing open source application for Knowledge Management Systems

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

Mobile Application Expert (software Engineer)

Tasks of expert 2
- Maintaining niceSSM mobile application
- Bug and Issue resolution on mobile application
- Upgrading with updated technologies
- Monitoring the mobile application

Qualifications of expert 2
- Education/training (2.3.1): General qualification ('Diploma'/Degree) in Computer Science
- Language (2.3.2): Good business language skills in English
- General professional experience (2.3.3): 8 years experience in Software development
- Specific professional experience (2.3.4): 4 years in Open Source and Android tool kit
        4 years of professional experience in JSON Parsing, Payment Gateway, Phonegap
        Knowledge of web services such as XML, JSON, REST
- Leadership/management experience (2.3.   5): -Not Applicable-
- Regional experience (2.3.6): 2 year Pan India work experience preferably in Madhya Pradesh and Maharashtra
- Development Cooperation (DC) experience (2.3.7): 2 years of work experience in organisation such as GIZ
- Other (2.3.8): Should have experience in developing/maintaining open source application for Mobile on Knowledge Management Systems

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

Network Engineer

Tasks of expert 3
- Maintaining niceSSM Live and Staging server hosted at MANAGE
- Keep monitoring the server, as per load balancing, downtime, maintenance etc
- Log the server activities
- Monthly report on server performance

Qualifications of expert 3
- Education/training (2.4.1): General qualification ('Diploma'/Degree) in Computer Science/HW/Networking
- Language (2.4.2): Good business language skills in English
- General professional experience (2.4.3): 8 years experience in IT/ICT Systems
- Specific professional experience (2.4.4): 4 years in maintaining Networks/IT Systems as Network administrator
    Min 2 years of professional experience in Linux/Apache server
- Leadership/management experience (2.4.5): -Not Applicable-
- Regional experience (2.4.6): 2 year Pan India work experience
- Development Cooperation (DC) experience (2.4.7): 2 years of work experience in organisation such as GIZ
- Other (2.4.8): Should have certification in CCNA/CCNP or similar
    Knowledge of Hardware firewall

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

niceSSM Assistant

Tasks of expert 4
- Support and co-operate Content team
- Support and co-operate Extension people
- Support and co-operate Farmer
- Provide support all other users of niceSSM

Qualifications of expert 4
- Education/training (2.5.1): General qualification ('Diploma'/Degree) in Computer Science
- Language (2.5.2): Good business language skills in English
- General professional experience (2.5.3): 5 years experience in Web/Mobile application support
- Specific professional experience (2.5.4): 4 years in providing support to manage Knowledge Management System based on Open Source
    2 years of professional experience in the Computer/IT sector
- Leadership/management experience (2.5.5): -Not Applicable-
- Regional experience (2.5.6): 2 year Pan India work experience preferably in Madhya Pradesh and Maharashtra
- Development Cooperation (DC) experience (2.5.7): 2 years of work experience in organisation such as GIZ
- Other (2.5.8): Certification in IT such as MCP/MCPS/ITIL/PMP/PRINCE2 is preferred

<u>Soft skills of team members</u>
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

6. Costing requirements

Assignment of personnel

Team leader: On-site assignment for 60 expert days

Expert 1(Web App Expert):   Assignment in country of assignment for 110 expert days
Expert 2(Mob App Expert):   Assignment in country of assignment for 110 expert days
Expert 3(Net Engg):   Assignment in country of assignment for 78 expert days
Expert 4(Assistant):   Assignment in country of assignment for 110 expert days

7. Inputs of GIZ or other actors

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

- ProSoil Project ICT Expert as contact person with the vendor

8. 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 15 pages (excluding CVs & other company documents to be submitted as per grid for assessing eligibility of firms).

The CVs of the personnel proposed in accordance with Chapter 5 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.