

Terms of reference (ToR) for the procurement of HARIT Application maintenance contract

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General information

a. Brief information on the project

The project – Soil Protection and Rehabilitation for Food Security in India (ProSoil) is part of the Global initiative ‘Special Initiative – One World No Hunger (SEWOH) by Federal Ministry of Economic Cooperation, Government of Germany (BMZ) and implemented by GIZ. ProSoil India, in strategic partnership with National Bank for Agriculture and Rural Development (NABARD); is implemented in the states of Madhya Pradesh and Maharashtra in collaboration with NGO partners. The objective of the project is to improve soil quality and promote sustainable agriculture practices. One of the key interventions under the project is to close the

urban-rural nutrient cycle and provide alternative to chemical fertilizers by encouraging use of organic manures like compost, PROM and TP produced from urban organic waste streams.

Under the Swachh Bharat Mission (SBM), various efforts and initiatives are being made. One of the component under the SBM is 'Municipal Solid Waste Management (MSWM) refers to a systematic process that comprises of waste segregation and storage at source, primary collection, secondary storage, transportation, secondary segregation, resource recovery, processing, treatment, and final disposal of solid waste. The Swachh Maharashtra Mission (SMM) also has initiated HARIT, an initiative to certify and market the products made from urban solid waste. GIZ has been supporting the Swachh Maharashtra Mission (SMM) in planning, scientific processing of waste and also developing and testing products like phosphate rich organic manure (PROM) and/or Terra Preta (TP) from urban organic waste. GIZ also commissioned a 'Waste to Energy Plant' in Nashik. The ProSoil project, furthers the efforts by promoting use of the products from urban solid waste as organic inputs in agriculture.

As part of the ongoing development program "Soil protection and rehabilitation for food security in India" conducted with the support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in India, various measures that aim to enhance agriculture and soil situation in Maharashtra are ongoing. To support this development program, complementary research activities are envisioned, with the aim to support local farmers in enhancing their agriculture practices with focus on improving soil health, to enhance fertilizer management and to apply more sustainable practices that allow to switch to soil amelioration instead of nutrient mining. To support the set targets, an increase in application of natural and organic fertilizer is envisioned. Various research has suggested that natural and organic fertilizers not only retain the fertility of soil for longer periods and reduces soil erosion; it also reduces the cost of production. However, the available organic matter (crop residue / cow dung etc.) locally is not enough to meet the nutrient requirements in the soil. The initiatives by the government towards better management of city waste, provides an opportunity to recover the organic input materials from municipal waste streams, thus closing the rural-urban nutrient cycle. This would likewise also address sanitation and waste management issues and decrease environmental and climate impacts due to uncontrolled waste disposal.

Various Urban Local Bodies (ULBs) have been directed by the Government to take initiatives around converting the urban waste into products that can be ploughed back to enhance soil fertility. GIZ – ProSoil project intends to develop business incentives for the ULBs to provide such organic compost for agricultural use. To compensate these efforts, GIZ proposed to develop Supply Chain Management system with latest IT technologies, to see expected results as:

1. Facilitate and encourage use of compost from organic urban waste in the agriculture sector. Bring organic compost as mainstream product at State level
2. Farmers, farmer institutions and institutional buyers interested to use organic soil enhancer will easily reach ULBs producing compost along with quality tags.
3. Connecting Users (farmers and FPOs) to the Producers of Urban Compost (ULBs)
4. Bringing transactional efficiency in the value chain of Urban Compost/Soil improvement products
5. Help ULBs to better manage stock, warehouse, ledgers, production and distribution

6. Managers and decision makers will have updated report on production (daily volume, quality) and sales of compost from the ULBs, in real time

The application based on blockchain for Compost Supply Chain has been developed (web and Mobile) and hosted at URL: <https://urncc.org/>

Mobile version is available on **Google Play Store**

b. Context

The objective of this consultancy assignment is to engage services of consulting company to support in maintenance of handed over HARIT Ticker Blockchain application to Urban Development Department, Government of Maharashtra for 1 year.

Description of Assignment:

The consultant will be responsible for following tasks:

- 1.1.1. Maintenance of HARIT Ticker for 1 year in UDD, SMM server
- 1.1.2. Bug Fixes as per requests in all 3 applications (web and Mobile)
- 1.1.3. Keep system up and running
- 1.1.4. Any new feature addition in the system if required
- 1.1.5. Any other support required to run system smoothly
- 1.1.6. Online support for any issue

c. The contractor shall provide the following service:

- 1.1. Maintenance of the application
- 1.2. Ensurity for applications up and running 24x7 for whole year
- 1.3. Closure report.

d. GIZ shall hire the contractor for the anticipated contract term, from **Sep/2020** to **Aug/2021**.

e. Selection Criteria

- 1.1. Organisation should have experience in Blockchain technology, minimum 2 years
- 1.2. Proposed staff should have experience in blockchain, minimum 2 years
- 1.3. Organisation should have experience in application maintenance, minimum 2 years
- 1.4. Organisation should have experience with GIZ or similar organisations and experience with coordination with Government institutions, minimum 2 years
- 1.5. Refer to Eligibility assessment and selection criteria sheets to provide complete and actualy information regarding, projects, company and proposed staff

Tender requirements

1. Qualifications of proposed staff

1.1 Expert 1: Project manager

1.1.1 General qualifications

Education: university qualification (first degree/master's) in Software Development/Computer/IT

Professional experience: minimum 5 years' experience in Project Management

1.1.2 Experience in the region/knowledge of the country India specially in State of Maharashtra for minimum 2 years

1.1.3 Language skills: business fluency in English

1.2 Expert 2: Blockchain developer

1.2.1 General qualifications

Education: university qualification (first degree/master's) in Software Development/Computer/IT

Professional experience: 2 years' experience in Blockchain

1.2.2 Experience in the region/knowledge of the country India, specially in state of Maharashtra

1.2.3 Language skills: business fluency in English

2. Appropriateness of proposed concept

2.1 Interpretation of objectives

The bidder need to describe if they have understood the requirements

2.2 Profile of the Bidder Strategy (Technical concept)

The bidder need to explain their profile in conjunction with requirements. How they are equipped to full the requirement such as past and current experiences, office setup, location, Human Resources on rolls and on panel and communication channels.

Certifications they have in line of services required and to set industry standards

2.3 Proposed concept (implementation plan)

The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender. Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible.

2.4 Work and Time Schedule

The bidder need to mention time schedules of major task to be performed and format of reporting. For Example-

Task	Frequency	First attempt
Load Testing		
System upgrade check		
Antivirus check		
Backup		
Daily log monitoring		

2.5 Coordination and communication

The bidder is required to explain its approach for coordination with the GIZ project. Other requirements to be taken care of are as below:

- The contractor is responsible for selecting, preparing, training and steering the experts assigned to perform the 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 (General Terms and Conditions of Contract (AVB) for supplying services and work 2018) of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018.

3. Specification of inputs

Fee days	Number of experts	Number of days per expert	Comments
• Preparation/debriefing	1	10	
• Implementation	2	355	

*Calculate your financial bid exactly in line with the quantitative requirements of the specification of inputs above. There is no contractual right to use up the full days/travel or workshops or budgets. The number of days/travel/workshops and the budgets will be contractually agreed as **maximum amounts**. The regulations on pricing are contained in the price sheet.*

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.