

Terms of reference

‘For development of Hydrological document by conducting assessment study on Hydrological, Geological and Environmental under SAS project’

About WaterAid India People’s Service Society, Palakkad

People’s Service Society, Palakkad (PSSP), is a registered Charitable Organization with Reg. No. 55/78. Since 1978, PSSP has been engaged in pursuing the integrated development of women, children, marginal farmers, scheduled castes, scheduled tribes, minorities and unemployed youth through informal education, capacity building, and empowerment.

Pioneer in the Formation of People’s Organizations: Since 1980 PSSP has pioneered into forming and empowering People’s Organizations at the grass root level as the real agent of social change and development. Thus we have organized 1755 Self-Help Groups of women, each group consisting of 10 to 20 families. The SHG members meet once in every week. These SHGs are networked into 185 Mahilasamajams. These Mahilasamajams are registered Societies and remain affiliated to PSSP. They are in turn networked into Panchayath–Level, Block–Level, District-Level Federations. They have their monthly meetings in the first, second and third weeks respectively. Likewise we have 720 Farmers’ groups as well as youth clubs and Children’s Clubs’ Networks. PSSP imparts continued training to the leaders of these organizations and they in turn render their service to these organizations. Besides, our animators and coordinators facilitate and monitor their activities. They also participate in the monthly meetings at the various levels.

Back ground and purpose

WAI has been implementing a project titled *‘Rapid Action to Enhance Sustainable Access to Safe Water in Nelamangala, Palakkad and Sricity (SAS in short)’* with support from PepsiCO Foundation. The project aims to reach 1,07,000 people directly with access to sustainable and safe water. The initiative also includes strengthening service delivery systems and capacity building of community institutions in the aforementioned areas.

Implementation of SAS project involves intensive community mobilisation and infrastructure building activities. Under the project, many technologies are being demonstrated for drinking water supply and water security. One of the objectives is to enable community members to collect data on water management conduct water budgeting for developing drinking water security plans at the watershed or basin level. As a prerequisite for conducting water budgeting and developing water security plans an assessment study to establish or take stock of the existing situation of Hydrological, Geological and Environmental has been proposed.

The present assignment involves review of literature, primary & secondary data collection, analysis and assess the Hydrological, Geological, Environmental, agricultural cropping pattern, Land use, well inventory, Surface water and groundwater utilization etc. on the ground and developing a Hydrological document. The initiative will be the basis for planning the water budgeting / development of water security plans at watershed / basin level. This study will also help to arrive at groundwater utilisation pattern by various sectors such as Agricultural, Industrial, drinking, domestic, livestock and other purposes eg. construction activities.

Objective of the contract

‘Development of Hydrological document by conducting assessment study on Hydrological, Geological, Environmental, agricultural cropping pattern, well inventory, Surface water and groundwater utilization etc. in the Sri City, Palakkad and Nelamangala SAS project area’.

Scope of assignment

For developing the document, primary and secondary data /information will be collected from sample villages in Sricity, Nelamangala and Palakkad area. During the process, consultation and interaction with key stakeholders such as, Central Groundwater Board – CGWB, State groundwater department, Agriculture, Horticulture, IMD, Irrigation, Panchayat Raj officials, PRI members and farming community.

The assignment will include field visits to sample villages for collecting well inventory data, Geological / Hydrological, Agricultural data and irrigation data including existing practices of water saving devices.

Tasks

- i. Literature review, secondary data collection and analysis Collection of land use maps, groundwater maps and remote sensing imagery on aquifer distribution and water tables .
- ii. Interaction with officials of Central Groundwater Board – CGWB, State groundwater department, Agriculture, Horticulture, IMD, Irrigation, Panchayat Raj officials, PRI members and farming community.
- iii. Field visit to sample visit to villages for collecting well inventory data, Geological / Hydrological, Agricultural data and irrigation data including existing practices of water saving devices.
- iv. Analysis of primary and secondary data/ information. Demarcating the Flood Modelling / Disaster prone zones.
- v. Groundwater modelling indicating flow directions, recharge potential areas and polluting /contaminating points.
- vi. Development of document.

Duration of the contract

The contract shall be for a period of 30 days starting from the date of signing of MoU.

Expected outputs/ deliverables

Document consisting of the following:

Physiography of the project villages

- ii. Drainage system of the project villages including flood risk modelling.
- iii. Soil types
- iv. Climatic conditions of the area
- v. Rainfall analysis for the past decade
- vi. Geology, Aquifers and ground water resources
- vii. Analysis of water levels
- viii. Land Use including Major crops with area
- ix. Existing irrigation system and area covered including canals and irrigation tanks.

- x. Census data of Total no.of bore wells/dug wells/ dug cum bore wells with pumping rates.
- xi. Existing practice of water saving devices

Timeline

Completion date	Deliverables
12 th Oct 2018	EOI and quotes from Consultants
17 th Oct 2018	Issue/Signing of the contract with the consultant
17 th – 23 rd Oct 18	Literature review, Secondary data collection and interaction with department officials.
23 rd – 30 th October 2018	Field visit –Primary data collection and assessment of well inventory data, Geological / Hydrological, Agricultural data and irrigation data including existing practices of water saving devices
31 st October – 10 th Nov 18	Compilation of secondary and primary data/ information and preparation of draft Hydrological Document.
12 th Nov 18	Submission of draft Document and presentation
17 th Nov 18	Final submission of Hydrological Document incorporating suggestions and comments.

Eligibility criteria

- i. Post Graduate in Geology/ Hydrogeology/ Environmental studies/ Geo-physics/water resources.
- ii. Work experience in different Geology/ Hydrogeology terrains, conducting Environmental studies, integrated water resources management and watershed.
- iii. Documentation experience in the past on hydrological and environmental aspects including Integrated Water Resource Management- IWRM.
- iv. Good documentation and writing skills
- v. Past experience in developing technical papers and technical notes

Contact

For submission of EOI , queries and clarifications. Please mail to this email i.d. psspngo@gmail.com