

Terms of Reference for Consultancy
Payments for consultancy for development of the software components of
InfoBhoomi
AHEAD/RA3/RIC/SUSL/FOG/CON/3

Designing Geo-Databases for Spatial Data Providers and develop a data sharing
platform (Technical and Policy wise)
AHEAD/RA3/RIC/SUSL/FOG/CON/TOR 3-b

Accelerating Higher Education Expansion and Development (AHEAD) Operation
Project RIC
InforBhoomi (Grant No: AHEAD/RIC/STEM/HEMS/No. 24)
Faculty of Geomatics- Sabaragamuwa University of Sri Lanka

1. BACKGROUND

The development of the higher education sector is of central importance to enable Sri Lanka to make the transition from a Lower-Middle Income Country (LMIC) to an Upper Middle-Income Country (UMIC). Recognizing this, the Government of Sri Lanka (GoSL) and the World Bank have agreed to support the higher education sector through a Bank funded Accelerating Higher Education Expansion and Development (AHEAD) operation.

2. THE OPERATION

Accelerating Higher Education Expansion and Development (AHEAD) operation is organized into two components. The first is a Program Component that supports the national Higher Education Development Program. The second is systems strengthening, capacity building and technical assistance component that will assist GoSL to strengthen the higher education sector and achieve the objectives of the AHEAD program component. This second will also cover monitoring and evaluation, policy analyses, program coordination and communication.

The implementing agency is the Ministry of Higher Education and Highways (MHEH). The University Grants Commission (UGC) will coordinate the activities of the universities. There will be an Operations Monitoring and Support Team (OMST) which will coordinate and support all AHEAD activities between the MHEH, UGC, and the universities.

AHEAD has three Results Areas:

Results Area 1: Increasing Enrollment in Priority Disciplines for Economic Development

Results Area 2: Improving the Quality of Higher Education

Results Area 3: Promoting Research, Development and Innovation

The project InforBhoomi, funded under AHEAD RIC grants, focuses on the development of localized Spatial Data Infrastructure (SDI) for supporting local governance processes. Local Government Authorities (LAs) are the primary tier of the governance system of Sri Lanka. LAs are responsible for administration and regulation of matters relating to public health, utility

services, thoroughfares, etc. Yet, efficient delivery of public services by LAs is hindered due to weak capacity and limited resource availability. National Policy on Local Government 1632/26, 2009 aims to facilitate the transformation of LAs to effectively lead local development contributing to achieving national goals. Local data management for evidence-based decision making is a core aspect of this transformation.

The Faculty of Geomatics, Sabaragamuwa University of Sri Lanka (SUSL) in this context, plans to design a localized Spatial Data Infrastructure (InforBhoomi) to integrate the local spatial databases into a single web-based environment and pilot it at the Municipality of Bandarawela. Reliable data from local level will flow as inputs, as a result of increased capacities of data suppliers facilitated by the project to ensure effectiveness of the new data management system. A knowledge-hub set up at the SUSL with the project commercial partner, will identify options for cost-effective data service provision and service provision based on business models to be considered by the municipality and related local service providers. The GeoinfoBox will facilitate necessary linkages for solution development for the local problems identified, their nature and extent based on accurate data. Existing socially/environmentally viable solutions developed by the private sector and by NGOs/CBOs, especially those options that have track records of being used successfully elsewhere including internationally. Strengthened local data availability will also trigger R&D.

3. THE OBJECTIVE OF THE CONSULTANCY

Development of localized Spatial Data Infrastructure (SDI) for Bandarawela MC area.

4. SCOPE OF THE CONSULTANCY

- Designing Spatial Database according to the ISO 19152 standards by identifying user-cases in relevant organizations.
- Preparing policies for data sharing and standardization
- Designing and delivering of SDI on WebGIS environment

5. KEY TASKS AND RELATED ACTIVITIES

The main duties and responsibilities of the Consultant in Designing Geo-Database will be to:

Key Task	Required Deliverable*	Time frame (after signing the contract)
1. Identify the spatial data types relevant to the local spatial data providers	Table of spatial data types	At the end of the 8 th week
2. Spatial data Standardization of the respective organizations	Standard data	At the end of the 10th week
3. Technical assist to derive MoUs with the respective organizations to integrate the spatial data of the relevant organization with the GeoinfoBox (WebGIS)	MoUs	At the end of 16 th week

4. Create and implementation of local relational spatial databases for the all the stakeholder organizations or upgrade their existing spatial databases (to satisfy ISO 19152 standard) enabling them to link with the GeoinfoBox (a WebGIS)	Relational Spatial Databases	At the end of the 20 th weeks
5. Collecting and feeding the spatial data into the local relational spatial database and updating the GeoinfoBox	Completed Relational Spatial Databases	At the end of the 24 th week
6. Develop a mechanism to update the local databases when GeoinfoBox is updated as executing the Land administration functions (LAF) associated with each identified local organizations	Updatable GeoinfoBox	At the end of the 24 th week
7. Design a WebGIS under interface to execute the functions associated with local Land Administration	WebGIS Interface with the ability to execute LA functions	At the end of the 28 th week
8. Granting level of access for different users	Completed WebGIS	At the end of the 32 nd week

* In addition to the above The consultant should submit all diagrams, flow charts, application architecture, algorithms & codes etc., with respect to the deliverable assigned to him/her through this TOR

6. DURATION OF THE ASSIGNMENT

The contract will run for 8 months from the date of signing the contract.

7. MODE OF PAYMENT

Based on	Share from the total amount	Time frame
Evaluation of the progress of key task ⁺	15%	End of the 8 th week
Submitting the deliverable related to key task 1 , 2 3, and 4 ⁺	25%	End of the 16 th week
Submitting the deliverable of key task 5, 6, 7, 8 and 9 ⁺	60%	End of the 32 nd week

⁺In order to make payments, all the deliverable must be up to the satisfactory level of the project coordinator and team members of the InfoBhoomi project

8. REQUIRED QUALIFICATIONS & EXPERIENCE

- Educational qualifications in the relevant area
- Over 10 years experience as an academic and/or professional in the relevant field preferably with some practical experience on designing geo-databases and data sharing mechanisms

9. METHOD OF APPOINTMENT

Interested candidates should send their EOI along with CVs to the OTS director

Selection will be made based on an evaluation of the candidate's expertise in the subject area

10. REPORTING THE DELIVERABLE

The consultant shall closely coordinate and report to Coordinator/ Project InforBhoomi

11. REQUIRED PROFESSIONAL COMPETENCIES

- ability to carry out the key tasks effectively and efficiently
- ability to interact with senior academic and administrative staff in the university
- ability to function effectively in a team environment inspiring trust and cooperation of other team members
- ability to work efficiently and to meet deadlines
- strong communication and negotiating skills, and good interpersonal relations
- ability to speak, read and write fluent English, and assist in the production of project reports in English.

12. OWNERSHIP OF THE ASSIGNMENT

This assignment is funded by the Ministry of Higher Education via AHEAD-OMST under the program component of AHEAD. As such, the University shall be the owner of the assignment and will reserves the Intellectual Property Rights for all deliverable of the assignment under the terms and conditions given in the IP policy of the University. The Consultant will have no right of claim to the assignment or its outputs once it is completed and no rights to use Data and Information gathered through the assignment for other purposes without written permission from the Vice Chancellor. Any Reports/ Data/ Information produced as a part of this assignment shall be handed over to the Client in soft and hard forms.

13 CONFIDENTIALITY

The consultant should strictly adhere to the Confidentiality of InfoBhoomi project details including but not limited to its designs, know-how, architecture, and any information related to the project and confidentiality of stakeholder information and data obtained during the assignment and not divulge the same either directly or indirectly to any person or party.