

Terms of Reference for Consultancy  
Payments for consultancy for development of the software components of  
InfoBhoomi  
AHEAD/RA3/RIC/SUSL/FOG/CON/3  
: in Designing Central Geo-Database for Geoinfor-Box: A Localized Spatial Data  
Infrastructure  
AHEAD/RA3/RIC/SUSL/FOG/CON/TOR 3-a

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 a 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 a 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 InfoBhoomi, 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 (InfoBhoomi) 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 for Bandarawela MC area.

### 4. SCOPE OF THE CONSULTANCY

Designing and implementation of Relational Spatial Database according to the ISO 19152 standards in order to execute the Land Administration functions within the Bandarawela Municipal area.

### 5. KEY TASKS AND RELATED ACTIVITIES

The main duties and responsibilities of the Consultant will be to:

<b>Key Task</b>	<b>Required Deliverable*</b>	<b>Time frame (after signing the contract)</b>
1. Identify the user-cases and functions associated with Land Administration (LA) of all the stakeholders within the Bandarawela Municipal area	A report on user-cases and land administration functions	At the end of 4 <sup>th</sup> week
2. Development and implementation of Relational Spatial Database, Tables and Views according to the given user-cases	Relational spatial database	At the end of 8 <sup>th</sup> week
3. Link the Relational Spatial Database, Tables and views with the attribute tables of the shape files already prepared	Shape files linked with relational spatial databases	At the end of 10th week

4. Development of Interfaces/Queries/Functions and APIs (Application Programming Interface) to execute the predefined functions associate with each of the participant organizations	Set of Interfaces/Queries/ Functions and APIs to execute the LA functions	At the end of 12 <sup>th</sup> week
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\* 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 be for 3 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 <sup>+</sup>	15%	End of the 4 <sup>th</sup> week
Submitting the deliverable related to key tasks1 and 2 <sup>+</sup>	25%	End of the 8 <sup>th</sup> week
Submitting the deliverable related to key task 3 and 4 <sup>+</sup>	60%	End of the 12 <sup>th</sup> week

<sup>+</sup>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 of designing spatial data management systems

#### 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 the Coordinator of the Project InfoBhoomi

#### 11. REQUIRED PROFESSIONAL COMPETENCIES

- ability to carry out the key tasks effectively and efficiently
- ability to interact with senior academic and administrative staff of 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.