2014

Global Spatial Data Infrastructure Association (GSDI)

2014 GSDI Small Grants Program

Report

Title: Establishing standards-based web mapping and data access services using open source geospatial software technologies for CERSGIS – University of Ghana Legon

Submitted by:
Centre for Remote Sensing and Geographic Information Services (CERSGIS),
University of Ghana,
Legon

Title

Establishing standards-based web mapping and data access services using open source geospatial software technologies for CERSGIS – University of Ghana Legon

Focal Point Institution

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List of Collaborators

Institution	Contact Information
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II. National Information Technology Agency	Veronica Boateng Director IT Applications NITA

Summary of Deliverables as per Grant Proposal

Please find attached copies of all the generated documentation as highlighted below:

i. Data sharing and usage agreement
ii. Adopted metadata standards based on ISO standards
iii. File naming convention

Web-based spatial data portal with current in-house datasets

A Web-based SDI was also developed as a portal for all the available data sets. The portal was developed using open source geospatial technologies specifically geonode package made up of Geoserver, CSW metadata catalog, Django APIs, Javascript, PostGIS database engine.

As was the purpose of this project, to support the national implementation of a sustainable clearing house for geospatial datasets, reducing cost is a major factor for consideration hence all features used on this platform are strictly open source.

This means government can focus on capacity development and stakeholder consultations as the major cost elements involved in the deployment of the NSDI

The developed portal can later be accessed at: http://maps.cersgis.org/cersgeoportal

Workshop organized for stakeholders on implemented SDI

Although a typical technical workshop could not be organized as planned, the team participated in a number of GIS workshop organized with the same objective of building a critical mass and consolidating ideas for the establishment of a National Spatial Database Infrastructure.

This workshop brought together almost all stakeholders in the country who are in the position of supporting the effective implementation of such infrastructure.

Key among items discussed also includes the need for a vibrant and active geospatial community in Ghana. In this regard, GSDI will be required to support the activities of the geospatial community

Timeline of the Project

Activities		Month 1				Month 2				Month 3				Month 4			
1	Development of data sharing and usage agreement																
2	Development of metadata for datasets using ISO standards																
3	Develop file naming convention																
4	Spatial data processing																
5	Setup IT infrastructure for web-based portal																
6	Web portal development for SDI implementation																
7	Stakeholder workshop																
8	Writing and submission of final report																

Potential or Actual Follow-up Activities

Setting up of Open Source SDI technical working group

The participants of the workshop are to be constituted into a working group as each member possesses some technical abilities that will be needed during the national scale implementation.

Formation of Ghana Geospatial Community

For sustainability and relevance of the geospatial services in the country, a vibrant geospatial community constantly engaging themselves with issues pertaining to the industry is very important. We are hoping to develop an online forum to enable members interact, share knowledge and find opportunities.

Promotion and sensitization on Ghana Geospatial Community

Series of media publicity to create awareness and interest will be embarked upon. The team will also be present at a number of forums to showcase what's been achieved by the community and what members stand to benefit if they join.

All these are potential activities envisaged to be carried out. We hope however to enjoy some level of commitment and cooperation from key stakeholders both nationally and internationally.

Unanticipated obstacles you encountered

There were no unanticipated obstacles as research revealed most of such challenges beforehand. Based on this fact, the choice of collaborators or key stakeholders were strategically selected and kept at such low number, for the SDI to be established and gradually scale up.

Technical challenges were also anticipated although some were unforeseen, mainly the diversity of open source options to choose from and the level of complexity each presents.

Do you think you have reached your goal?

Yes the goal for this project has been achieved, however its only a start to achieving a broader objective of a more vibrant and coordinated geospatial community in the country which will make geospatial data and technical expertise easily accessible both in-country and outside.

The goal was to demonstrate the existence of some core technical expertise who can be relied upon given the necessary support to effectively implement a NSDI after the policy document have been accepted.