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## **CONSULTATIVE MEETING ON THE GEOPORTAL**

(Led by Antonio Rogmann, Center for Development Research (ZEF)  
University of Bonn, Germany)

Held on the 08th April 2010 at Alisa Hotel  
Accra – Ghana

**REPORT**

## **Minutes of the Geoportal Workshop Held on the 8<sup>th</sup> of April 2010 at Alisa Hotel, Accra, Ghana.**

### **Introduction**

The workshop started at approximately 9:23am. Prof. Karl Harmsen duly opened the workshop. He apologised for the late start of the program. He introduced Antonio Rogmann as the main resource person for the workshop.

Dr. Barnabas Amisigo gave a general introduction of the program, by way of a presentation. He emphasized the need for participants to adapt to the use of the geoportal once it become operational. He hoped that policy makers and heads of various Government departments will be able to make it to the workshop so they can assist their departments to contribute and properly use the geoportal.

### **Introduction to Geoportal**

Amisigo's presentation was followed by Antonio's. He gave a general overview of the portal, its features, benefits and human resource requirements. Below are the key points he made;

- In a workshop held in Accra in November 2008, participants identified the need to have access to good and quality data about the Volta basin for research. Good and quality data is essential for effective research and reliable policy formulation. It was realized at the workshop that data sharing among institutions/departments in the country was very poor, which must improve. Participants further noted that some institutions often have data that other institutions close to them are not aware of. The development of a geoportal for sharing data and informing others of what data exist (metadata) was, therefore, necessary.
- A geoportal was, thus, setup in Bonn, Germany and has been running for the past 18 months. Patronage has been high, with people in the US and other European countries downloading data. Data available via this geoportal were mainly gathered through the GLOWA Volta project.
- This geoportal is currently under reconstruction and redesign. Hope to finish this by close of May and possibly train national partners in Ghana in June. Training of partners in Burkina Faso will follow.
- The geoportal is to answer questions from data users such as: where is data available I need? What are the characteristics of available data in relation to my research, decision making or data processing purposes? What are ownership and access constraints? The geoportal already hosts both spatial and non-spatial (e.g. measurements, reports, surveys, etc) data and is dedicated to host heterogeneous data and data products of institutions which are going to use the Geoportal. The data is linked to metadata describing the data and data products in the Geoportal. A very important information included in the metadata are the access constraints of the data sets.

- Once complete, ownership of the geoportal will be transferred to the Volta Basin Authority (VBA) for hosting and coordination. Users will have the possibility to expand the geoportal by uploading data and metadata.
- The geoportal has many features. Below are key ones:
  - Catalogue service – will assist users to search for data using keywords, time periods and map-based bounding boxes within the metadatabase. Geographic references of search results will be shown on a map.
  - Portrayal Services – this service helps users to log onto several web servers and download/overlay layers of a certain area.
  - Administrative services – assist in protecting ownership of data. Using this service, one has the option to provide only metadata so people can contact him/her directly. One can also define a user group who use a certain data and give only those people the permission to download, etc.
- Benefits of using the geoportal are:
  - Better work performance based on more improved access to data
  - Reduction in loss of time used for looking for data
  - Improved data management at various institutions
  - Workflows in data distribution will be more economic
- Institutions to benefit are: those with data processing oriented workflows; those who work with spatial data; those who have lots of request for data;

### Questions/ Answers and Discussions

**Question** (Aboagye Mintah): How can we provide protection for organizations that wish to generate income from their data?

**Answer** – Such organizations have the option to keep the real data with them and only provide the metadata on the portal. Prices for data can be part of the metadata. By a contact information the purchaser is enabled to transact the deal with the data owner personally. Otherwise the data owner can give the purchaser the right to download data from the geoportal after paying. According to this the Geoportal can also be seen as a marketing platform for data products provided by non-commercial organizations.

**Question** (Mawuli Lumor) – Is it possible to restrict purchasers of certain data only to download the data without others having access?

**Answer** – Yes. This is completely managed by the Access Control List (ACL) schema which is part of the Geoportal. In order to improve the control of data distribution once a certain data is downloaded, a mail will be sent to the data owner, containing who downloaded, when, etc.

**Question** (Emmanuel Obuobie) – How can we control data distribution. E.g. if one purchase data from hydro, how can they (hydro) be sure it will not be given to a third party? Again, who will be giving permissions for data downloads, and how can it be managed?

**Answer** – Controlling data distribution to third parties will be difficult. People must be ethical enough not to breach agreements that make concerning data purchases.

Permissions to download datasets are managed by the data owner. The owner enters the metadata in the Geoportal and uploads the related dataset. Afterwards he defines in the Geoportal which user groups are allowed to download the data. He is also enabled to manage the users membership in user groups being allowed to download the data. The user requesting for restricted data has to be registered in the Geoportal first before being included in a user group by the administrator resp. the data owner. That means that the data owner has the full control over his data.

Karl Harmsen added that it is important for policy makers/politicians to make clear how data gathered with public funds should be treated.....whether it should be sold or given out for free.

**Question** (Kofi Nyarko) – After transferring ownership of the geoportal to VBA, can any organization (e.g. met services) adopt the same format, e.g. for linking up the headquarter with departments ?

**Answer** – Not for the moment, but many organizations can link up their own databases to the geoportal. For the installation of the system an own server is needed as well as personell for administration of the system and the databases. The Geoportal software is completely open source and therefore free and can be used by everyone without commercial intentions.

**Question** - What does “visibility of an institution” within the Geoportal mean?

**Answer** - By indexing and publishing of data in the Geoportal the web is used to improve the relevance of an institution for researchers and others. Furthermore pages will be part of the Geoportal where the institutions can introduce themselves and insert links to special datasets in the Geoportal or their own webpages.

**Question** – Are there rules how often data have to be actualized?

**Answer** - This depends on the type of data, the conditions of its generation and the requirements of the data producer and data user. That means there are not any rules fixed, but in principal to provide data as actual as possible is preferable.

**Comment:** Wilson Agyare said there should be a way of providing reports (e.g. annual report of certain departments) on the portal. Even if the full report is not provided, abstracts can be posted. Antonio said there’s already a facility like that, i.e. the geoportal will not host only geospatial data.

**Comment:** Ernest Kusi-Menka mentioned failed attempts in the past (e.g. NAFGIM under the GERMP project). He mentioned that many organizations are often unwilling to contribute their data. He suggested that there should be people specifically designated in the participating organizations to build metadata and post on the geoportal. In the absence of this, this geoportal effort may fail.

**Comment:** Barnabas Amisigo said that one way of going around this problem is to strengthen the VBA who may be able to assist in capacity building and find a way of “forcing” organizations to share their data.

**Comment:** Kofi Nyarko informed participants that VBA is in the process of coming out with a legislature that will spell out the use of cartographic data in the basin. This legislature may provide a clear policy on how data should be shared among institutions in the basin.

.....COFFEE BREAK.....

### **Summary of morning’s presentation**

For the benefit of those who came in late, Antonio gave a summary of the presentation he made earlier, after which discussions continued.

### **Contributions from institutions**

Discussions after the coffee break centred around contributions from participating institutions. Antonio brought up the task of building metadata. He showed a typical metadata file and also showed a form (in the geoportal) that one can use to create metadata. He noted the complications in metadata creation, especially if the source of the data is secondary (e.g from the internet). He asked participants to share/ describe possible challenges they may face if they have to create from scratch metadata of the datasets in their institutions.

Ernest Kusi-Menka said that for this to be sustainable, each participating institution must have people solely responsible for metadata creation and posting on the geoportal. He asked Antonio to explain the human resource and other requirements should an institution opt to participate.

Antonio explained that, regarding technology, an institution requires **an internet and a web browser**. With regard to human resource, he advised that **one person** should be responsible for collection of information for metadata creation and uploading. He/she must enforce data management standards (e.g. file naming, formats, etc) that will be agreed upon by all participating institutions. This same person can be the contact person for the organization, who will deal with the administrator at VBA. **One other person** (more qualified) must inspect the data and approve of its quality before it is uploaded.

In response, Amisigo, for instance, explained that the structure of Water Research Institute (WRI) is such that it will be difficult to get just one person creating all institute’s metadata. This is because WRI has about five (5) sections that work almost independently. Thus, in the case of WRI, they may require one person to be responsible for each section (i.e. five people). To this, many raised the question whether the institutes will have the money to employ new staff just for this work.

Kofi Nyarko suggested that, in such instances, National Service Persons (NSP), who are relatively cheaper could be used for such a task. Emmanuel Obuobie seconded this view. Gerald Forkuor and other participants (e.g. Mawuli Lumor), however, disagreed with this suggestion. They argued that people creating metadata need to have a good understanding of the data in order to create a reliable metadata. This, they thought, NSP do not have. In other words, NSP are not experienced enough for such a task. **It was clear that fulfilling the human resource requirement will be a**

**challenge for many institutions.** Other obstacles envisaged include poor quality of data, insufficient information in metadata, ownership conflict, etc

On the technology side, a participant complained about internet services at the various institutions (especially Government offices). He noted that internet service, which is a basic requirement, is poor in many offices. If this situation does not improve, it has the tendency to derail the whole process.

A participant complained about the unwillingness of researchers to contribute their findings. He advised that we need to share with each other what we've found so as not to re-invent the wheel.

Antonio said that, in order to get a better picture of the possible obstacles, he will send out questionnaires that he expects participants to finish in about 2-3 weeks and send back to him.

Wilson Agyare suggested that the Universities can be brought on board, especially abstracts of all thesis that are done at a certain dept.

Dr. Wellem Mensah said that his institution (HSD) is prepared to participate. He also stated that if it is going to be linked to VBA, then institutions will somehow be compelled to contribute data since Ghana has signed an international agreement to do so.

The meeting closed at approximately 12:45pm