

***Advanced Training on Spatial Data Management – University of West Indies***

***Trinidad and Tobago – February 18-23, 2013***

In collaboration with the University of the West Indies (UWI), Trinidad and Tobago, the Global Facility for Disaster Reduction and Recovery (GFDRR) and the World Bank’s Latin America and Caribbean Region Disaster Risk Management and Urban Development (LCSDU) Unit, an Advanced Spatial Data Management Training will take place from February 18th to the 23rd, 2013 at Department of Geomatics and Land Engineering at the St. Augustine campus. The one-week training will provide an in-depth understanding of spatial data management and aims to foster knowledge and technical skills to effectively use national and regional data management practices. This will help in integrating the GeoNode platform to manage, share, and increase the use of geospatial data to improve decision-making processes for disaster risk reduction measures in the Caribbean.

The Advanced Training is designed to meet the capacity needs for two main user groups – spatial data managers and information technology specialists/software developers – in order to improve implementation and use of GeoNode, an open-source geospatial data management platform. During the week-long training, two distinct programs will be offered for these specific user groups: a) spatial data managers and b) IT specialists/software developers.

**A.) Advanced GeoNode Training for Spatial Data Managers (AGTDM)**

**Description**: the AGTDM will focus on advanced theory and practice of GeoNode platform to enhance GIS data use. The training is structured on the following components of spatial data management:

* Common GIS analysis and practices;
* Advanced GeoNode configuration & use;
* Using Open Source desktop GIS (QGIS);
* Integrating GeoNode into existing GIS workflow;
* Data quality control (QA/QC);
* Spatial data infrastructure;
* OSM mapping concept, tools, and fieldwork for collecting exposure data;
* Advanced map projection system;
* Advanced metadata concept;
* Advanced cartography.

**Participant profile**: Experience in using GeoNode and fluent in GIS software (e.g. ArcGIS, qGIS) and spatial data management applications such as mapping, land-use planning, physical development or similar activity related to disaster risk management.

**Preparation**: Selected participants are expected to:

1. Bring country specific spatial data that will be put on the GeoNode (ie. Shape files, GeoTIFF, etc.);
2. This data will be used during practice sessions in using GeoNode to create maps and learn ways of sharing data and require metadata;
3. Review and comment on training materials sent before arrival.
4. **Advanced GeoNode Training for Software Developers (AGTSD)**

**Description**: The Advanced Training for Software Developers will focus on advanced theory and practice of the GeoNode software development. This includes relevant programming language to create applications to customize GeoNode functionalities to enhance GIS data use and analysis. Trainees will gain hands-on experience in software development by working on their respective GeoNode. This will include the following components and dependencies of the GeoNode:

* Ubuntu, Linux and basic commands;
* Python development;
* Advanced GeoServer;
* Advanced Postgres/ PostGIS;
* Django development

**Participant profile**: experience in software development activities with competency in programming

languages such as python, django, etc., and experience in deploying web-based platforms (e.g. GeoNode).

**Preparation**: With the guidance of the trainer, each of the trainees will work on project concept to develop practical and usable software tools that extend GeoNode functionalities. Each participant should:

1. Bring concepts and ideas on how the GeoNode should be customize and extended to be developed throughout the training;
2. If applicable, bring a copy (image file) of existing GeoNode that has been deployed (i.e. SLING);
3. Review and comment on training materials sent before arrival;
4. Participate in version 2.0 GeoNode Beta testing (expected to be first week of February).

**Upon returning to their respective countries**, it is expected that each participant will implement the skills and technical capacity gained to improve spatial data management practices and to implement GeoNode customizations during the training and effectively helping to maximize national and regional spatial data-sharing and management. It is expected that as a result of the training:

* Trainees will be able to independently do their own administration, maintenance, and update of their GeoNode installations;
* Trainees will lead the technical launch and presentation of respective data-sharing and management platforms;
* Trainees from both trainings (AGTSD and AGTDM) are working in collaboration to envision and develop geo-processing related extensions for their open-source data management platforms;
* Cadre of trainers is established that is able to support technical discussions and trainings on relevant technologies and data-management platforms;
* Defined community of practice amongst participants in the Caribbean, including technical discussions and best practices are documented;
* Spatial data infrastructure (SDI) rollout and community-mapping strategy is developed for each country/agency;
* Trainee will be able to conduct data management training to GIS users and spatial data managers.