Gravitazz Institute

For disaster reduction and emergency management

Training Outline:

Use of GIS Technology for Emergency Preparedness and Response

In order to understand disaster risk, especially in large or remote areas, there is a need to visualize and assess vulnerability, as well as to monitor change through indicators, which implies acquiring timely, up-to-date and consistent data. In light of ongoing efforts towards preparedness, it has been demonstrated that technology can improve disaster risk management and climate change adaptation, therefore contributing to the targets and expected outcome of the Sendai Framework for Disaster Risk Reduction (DRR) and other post-2015 frameworks such as the Sustainable Development Goals (SDGs). Earth observation technology, through the use of Geographical Information Systems (GIS) in particular, is currently the most reliable tool for disaster risk planning in the African continent. This training is designed to enable participants to learn more about tools for disaster observation, forecasting, statistical modeling, hazard mapping and analysis, database management, and how these help in elaborating and coordinating national and local DRR plans.

Target Audience: This training is meant for practitioners, decision and policy makers working in the disaster risk management/climate change adaptation/meteorology sectors and specifically those tasked with planning and disaster risk reduction. This includes individuals working with government institutions, NGOs the UN, intergovernmental bodies and the private sector. Students and young professionals who would like to increase their knowledge in the field are also welcome.

Duration: 3 days
Language: English

PLEASE NOTE:
This course can be customized for your institution upon request.

About this Course

With constant improvements made in satellite technology and geographic information systems (GIS), sufficient efforts must be carried out by African DRR practitioners and national disaster management agencies to invest in risk-focused planning and to actively use existing technologies. This course will raise the participants' awareness on this fact by focusing on contributions of the scientific community to DRR through the use of GIS. The course will discuss how to make use of these tools to inform decisions throughout the disaster risk management cycle.

Expected Outcomes

As a result of this course, it is expected that the participants will have gained both a theoretical and practical understanding of existing GIS techniques applied to the DRM cycle, focusing on drought and flood risks. They will become familiar with processing and analyzing spatial data and able to use it as evidence when elaborating DRR plans and strategies.

Proposed Content

NOTE: *This content is subject to change and can be customized for your institution upon request.*

Session 1: Introduction to GIS

- Key concepts and definitions
- Challenges and Opportunities for the use of GIS and new technologies in the African continent

Session 2: The different applications of GIS

- The use of GIS throughout the DRM cycle (pre-, mid- and post-disaster phases)
- The use of GIS for climate change adaptation and meteorological forecasting
- The use of GIS for development planning

Session 3: Techniques for spatial data collection, analysis and management

- Data requirements
- Data gathering, processing, analysis and management
- Statistical modeling techniques
- Use of online portals and other existing tools

Session 4: Using GIS to conduct disaster risk assessments for improved planning

- Planning and conducting drought risk assessments with the use of GIS
- Planning and conducting flood risk assessments with the use of GIS
- Participatory methods for GIS (risk mapping, historical knowledge)

Session 5: Disaster risk-focused planning

- Improving collaboration and information-sharing between climate scientists and DRR experts for informed decision-making
- Implementation of DRR plans and strategies based on GIS data

Session 6: Practical Sessions/Site visit

Training fee

The **course fee of $800 per participant** covers the course tuition, training materials, two break refreshments, lunch, and study visits. A **discount of $150** will be applied should an organization decide to cover venue and catering costs for the 5 days of the trainings.

All participants will additionally cater for their travel expenses, accommodation, visa application, insurance, and other personal expenses. Accommodation and shuttle services can be arranged upon request. Gravitazz will also provide invitation letters for the trainings should it be necessary.

Payment Information

Payment should be transferred to Gravitazz Institute bank account (See details below) 15 days before commencement of training. Please send proof of payment to info@gravitazzcontinental.com

Account Holder: GRAVITAZZ CONSULTING PTY LTD
Bank: FIRST NATIONAL BANK (FNB)
Account Number: 62598532862
Branch Name: GREENSTONE
Branch Code: 201510
* **Swift Code** (for international payments): FIRNZAJJ