United Nations Institute for Training and Research

Unitar Online Catalogue

Introduction to Geospatial Information technology for Disaster Risk Reduction

Type:	Course
Location:	Nay pi Taw, Myanmar
Date:	17 Oct 2016 to 21 Oct 2016
Duration:	5 Days
Programme Area:	Satellite Imagery and Analysis
Website:	http://www.unitar.org/unosat
Price:	$0.00
Event Focal Point Email:	unosat@unitar.org
Contact Number:	T +66 22 88 1563
Partnership:	Asian Disaster Preparedness Center (ADPC)

BACKGROUND

Geospatial Information Technology (GIT) can be a very useful tool for the whole disaster risk management cycle starting from the preparedness phase, mitigation to response, recovery and reconstruction. GIT has proven to be efficient for implementing coherent disaster risk reduction (DRR) activities at regional, national and local scales. Quantifying risk and expected future losses is a key step in any disaster risk reduction program. Also the outputs and scenarios of a

risk assessment contribute to structuring overall risk reduction policies and planning. Geospatial risk assessment can be performed with GIT tools and techniques which can quantify risk and identify the locations in need of risk reduction measures. The role of GIT doesn’t stop there; in the immediate aftermath of a disaster, satellite based rapid response analysis enables the emergency response agencies to respond in a better and coordinated way.

The overall aim of the course is to provide training participants with introductory concepts and geospatial methodologies for risk assessment and satellite based rapid response analysis & mapping in the immediate aftermath of a disaster.

LEARNING OBJECTIVES

The aim of this course is to provide participants with GIS and RS methodologies related to disaster risk reduction.

At the end of the course students should be able to:

- Define and describe basic concepts and terminology related to geospatial information technology
- Apply basic methods and functionalities for GIS analysis and mapping
- Identify, access, search, collect, organize and analyse geospatial data relevant to disaster risk reduction and emergency response
- Apply GIS methodologies and tools to perform disaster risk assessment
- Explain the advantages and limitations of using geospatial information in disaster risk reduction
- Prepare visualisation of geospatial information

CONTENT AND STRUCTURE

This is a full-time, face-to-face course with lectures and GIS lab exercises using local datasets and real case scenarios (80% lab exercises, 20% lectures and discussions). This course is divided into 5 Modules. Each module is structured into 4 sessions of 1.5 hour each. The average workload per day is likely to be around 6-7 hours.

METHODOLOGY

On the first day and second of the training participants will get familiar with concepts of geospatial information technology, learn to use ESRI ArcGIS software, Create geospatial data from scanned maps. Third day participants will learn to collect GIS datasets relevant for DRR from free data portals and also learn to collect data from field using smartphones. And the fourth day will start with an interactive session on disaster risk reduction. Final two sessions of the fourth day participants will perform seismic risk assessment. Also the case studies and success stories of DRR in the region will be presented to them. The fifth day participants will carry out individual project on thematic mapping and visualisation.

TARGETED AUDIENCE

Disaster Management Professionals working in governmental organizations who wish to strengthen their practical skills in GIS/RS applications for DRR. It is recommended that participants taking the course have a working knowledge of English including a basic knowledge on GIS and Remote Sensing technology.

Participants are recommended to attend a 4 hours long course “Getting Started with GIS” from ESRI –

http://training.esri.com/gateway/index.cfm?fa=catalog.webCourseDetail&c...

ADDITIONAL INFORMATION

Language:

English

Software:

GIS lab exercises will be based on ESRI ArcGIS editor 10.4 with extensions (spatial analyst), Google Earth and internet access.

Class Size:

The number of participants is limited to 15.

UNITAR Certificate:

Students will be awarded certificates from UNITAR on successful completion of the course.

Course Coordination:

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