



### The Asian Disaster Preparedness Center (ADPC)

Established in 1986, ADPC is a leading regional resource center dedicated to disaster risk reduction. ADPC works with governments, NGOs and communities of the Asia and Pacific regions to strengthen their capacities in disaster preparedness, mitigation and response through professional training, technical assistance, regional program management, country project demonstration, information sharing and research. ([www.adpc.net](http://www.adpc.net))



### The International Institute for Geo-Information Science and Earth Observation, University of Twente (ITC)

Founded in 1950 and now a faculty of the University of Twente in the Netherlands, ITC provides international graduate and postgraduate education, research and project services in the field of geo-information science and earth observation. Since 2005, ITC is an associated institution of the United Nations University (UNU) in the fields of Land Administration and Disaster Risk Management. The main focus of UNU-ITC is to support networks of Universities and training institutes from developing-countries in capacity building for training and research in disaster risk management ([www.itc.nl/unu](http://www.itc.nl/unu)).



### The Asian Institute of Technology (AIT)

The Geoinformatics Center of the Asian Institute of Technology (AIT) in Thailand is a non-profit center for training and capacity building in Remote Sensing, GIS and GPS technologies established at AIT in 1995. The Center has under-taken a number of disaster and environment related projects in South and Southeast Asia, drawing participants from more than 25 countries within the Asia-Pacific region and to date more than 1,000 persons have been trained. ([www.geoinfo.ait.ac.th](http://www.geoinfo.ait.ac.th))



### UNITAR'S Operational Satellite Applications Program (UNITAR-UNOSAT)

UNOSAT is a technology-intensive program delivering imagery analysis and satellite solutions to relief and development organizations within and outside the UN system to help make a difference in critical areas such as humanitarian relief, human security, strategic territorial and development planning. UNOSAT develops applied research solutions keeping in sight the needs of the beneficiaries at the end of the process. UNOSAT's goal is to make satellite solutions and geographic information easily accessible to the UN family and to experts worldwide who work at reducing the impact of crises and disasters and help nations plan for sustainable development. ([www.unitar.org/unosat](http://www.unitar.org/unosat))

For more information, please visit [www.adpc.net?GIS4DRM-8](http://www.adpc.net?GIS4DRM-8)

### CONTACT INFORMATION FOR INQUIRIES AND APPLICATION:

#### Training Services Unit (TSU)

#### Asian Disaster Preparedness Center

979/66-70, 24th Floor SM Tower, Paholyothin Road, Samsen Nai, Phayathai, Bangkok, 10400 Thailand

Tel: +66 (02) 298 0681-92

Cell Phone: +66 (0)87 697 7535

Fax: +66 (02) 298 0012

Skype ID: ADPC\_Training

Email: [tsu@adpc.net](mailto:tsu@adpc.net)

URL: [www.adpc.net](http://www.adpc.net)

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# GIS4DRM-8

## The 8<sup>th</sup> International Training Course on GIS for Disaster Risk Management

07-18 May 2012, Bangkok, Thailand

Co-organized by:



**COURSE OVERVIEW:**

Rapid population growth and urbanization combined with extreme climatic events are causing a rapid increase in vulnerability of communities exposed to hazardous events. As a result, disasters are increasingly taking heavy toll of life and property. Unplanned growth both in urban and non-urban areas calls for an adequate preparation to reduce the impact of disasters. There is a great need to utilize disaster risk information in planning for effective coping mechanisms of disaster risk reduction.

Disaster risk information is spatial in nature and Geographic Information Systems (GIS) play an important role in disaster risk assessment and management. For this, there is a need to create awareness among the disaster management professionals regarding the importance of GIS.

The GIS4DRM course has been re-designed to cater the requirements of wide range of specialties and it is being jointly organized by the Asian Disaster Preparedness Center (ADPC), the Asian Institute of Technology (AIT), the Faculty of Geo-Information Science and Earth Observation of the University of Twente, the Netherlands (ITC), and the United Nations Institute for Training and Research's Operational Satellite Applications Program (UNITAR-UNOSAT), with its main aim to provide an overview of the use of spatial information in Disaster Risk Management. The course not only reveals what spatial data is and how it is collected, but also emphasize on the use of such spatial data during pre- and post-disaster management such as during early warning, hazard, vulnerability and risk assessment, damage assessment, as well as deciding appropriate risk reduction measures. The course aims at utilizing the scientific advancement in effective disaster risk reduction.

**OBJECTIVES**

Upon completion of the course, the participants will be able to:

- Describe and utilize spatial data, GIS and remote sensing in disaster risk assessment and management
- Utilize existing sources of historical disaster information and elements at risk data
- Apply GIS/remote sensing in hazard, vulnerability and risk assessment
- Employ risk information in emergency preparedness planning
- Visualize hazard and risk information
- Apply GIS/remote sensing to post-disaster damage assessment.

**COURSE CONTENTS**

The course is extended over 10 workdays structured around the following modules.

**MODULE 1: Core/Basic Information**

- Basic concepts and terminologies of disaster management
- Basic concepts of GIS and remote sensing
- Introduction to spatial information
- Handling spatial information (Introduction to ArcGIS)

**MODULE 2: Post-Disaster Impact and Damage Analysis**

- The use of satellite image for disaster relief and recovery
- Impact analysis and preliminary damage assessment
- Building damage assessment

**MODULE 3: Pre-Disaster Risk Assessment**

- Hazard assessment
- Elements at risk and vulnerability assessment
- Types and methods of risk assessment, risk evaluation, cost-benefit analysis

**MODULE 4: Risk Information for Risk Reduction Planning**

- Risk evaluation
- Visualization of risk information
- Risk information and spatial planning

**MODULE 5: Mini-Projects**

*Note: The curriculum shown is for guidance only and contents can be changed without prior notice.*

**EXPECTED PARTICIPANTS:**

The course is open to all participants who are working or will be working in the organizations where spatial information is used or considered to be used for the purpose of disaster risk assessment and management, disaster risk reduction or disaster management. There is no prerequisite GIS knowledge for participating in this course.

The course welcome participants from all geographic areas, however the class size is limited to 25 persons. ADPC accepts applications on a "first come, first served" basis provided the applicant meets the course requirement.

**COURSE FACULTY:**

The GIS4DRM will be facilitated by internationally experienced GIS practitioners and experts from ADPC, AIT, ITC, UNITAR-UNOSAT, and other partner organizations.

**COURSE POLICIES:****Language of Instruction**

All teaching and reference materials are in English. Participants must be fully conversant in English.

**Training Venue and Accommodation**

The training will be held in Bangkok, Thailand. Exact venue to be confirmed at a later date.

**Course Fee**

The standard course fee of US\$3,175 covers the course tuition, training materials, accommodation with breakfast, and meeting package. Participants will be responsible for their own travel expenses and arrangements, airport transfers, visa application, lunch and dinners, health/accident insurance, and other personal expenses.

**Logistics**

Participants are expected to arrive on 6th May 2012 and leave on 19th May 2012.

**Registration**

Interested persons can apply as individuals although preference will be given to those sponsored by the organizations. An application form is available on ADPC website at <http://www.adpc.net/training/download>.

Application form should be submitted to ADPC by 5<sup>th</sup> April 2012 through email, fax or postal mail. Pre-course information will be provided once you have been accepted for the course.

**Payment**

If you are selected to attend the course, the payment should be transferred to ADPC account through bank or International Demand Draft (DD) no later than 18<sup>th</sup> April 2012. Otherwise, your participation will be cancelled. Please note that personal checks are not accepted as a form of payment.

**Cancellation**

If you are unable to attend, a substitute applicant is welcome to attend in your place, provided the participation criteria described above have been met. Cancellation of attendance should be notified at least 3 weeks prior to course commencement; in which case, a full refund less 15% of course fee for banking charges and administrative costs will be made. No refunds are available for cancellation within 3 weeks prior to course commencement.

**TRAINING METHODOLOGY:**

Drawing upon the rich repository of knowledge and experience in the application of GIS in disaster management of ADPC, ITC, AIT, UNITAR-UNOSAT, and other partner organizations, the course is primarily designed to promote the understanding of the importance of data and GIS applications in the disaster risk assessment and disaster risk reduction. The course has a mixture of adult learning methodologies such as interactive lectures, discussion sessions and group exercises. A mini-project will additionally allow participants to practice GIS in their own situation for specific hazard type and disaster management phase. Participants can bring their own dataset to practice in the course, if they have any.