



Our Hope for Humankind

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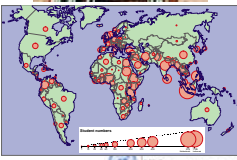


UNU-ITC School for Disaster Geo-Information Management

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ITC's mission



- Our aim is to provide **international postgraduate education** through knowledge exchange directed primarily at **capacity building and institutional development** for and in countries that are economically and technologically less developed (LCDs).
- Our knowledge field is centred on **geo-information science and earth observation**.
- Activities:
 - Education (DE, short, MSc)
 - Research (PhD, projects)
 - Projects

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United Nations University

- The United Nations University (UNU), an autonomous organ of the United Nations, is an international community of scholars engaged in research, postgraduate training and the dissemination of knowledge in furtherance of the purposes and principles of the Charter of the United Nations
- HQ in Tokyo
- 13 UN Centers
- Associated institutes





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RESEARCH AND TRAINING CENTRE PROGRAMME * ASSOCIATED INSTITUTION OPERATING UNIT & UNU LIAISON OFFICE

UNU-ITC School for Disaster Geo-Information Management

- Agreement signed in 2005. Formation of two schools:
 - UNU-ITC School on Land Administration
 - UNU-ITC School on Disaster Geo-Information Management
- The UNU-ITC DGIM School focuses within the wide field of disaster risk management, on those aspects that have an important spatial component, and those phases where spatial information has to be collected using remote sensing, and combined with other types of data using Geographic Information Systems



GIS phase	DM phase	Hazard	Region
Data collection	Prevention	Hydro-meteorological	Asia
Data management	Preparedness	Geological	Africa
Data analysis	Response	Environmental	Latin America
Data dissemination	Reconstruction	Anthropogenic	Eastern Europe

Stakeholders in GI4DM

- Individuals & communities
- Local authorities
- National government organizations (environment, planning, infrastructure..., legislation: DRM)
- National expert organisations (input providers, and technical expertise in base data generation, hazard mapping, risk assessment, early warning. SDI !!!)
- Disaster management organization (disaster preparedness, early warning, response).

Special role for:

- Universities (they create capacity for the other layers and work on DRM related topics)
- NGO's (because the government fails to do its task)
- Private companies and consultants (provide expertise but at a cost)
- International organizations (only to support the local actors)



UNU-ITC DGIM activities 2008

Category	Activity	Output
	<i>India, IIRS:</i> MSc and PG course on Geo-information for Disaster Management	MSc 5 PGD 5
	<i>India, CSSTEAP:</i> 4-week certificate course on Application of Space Technology for DM, with CSSTEAP	16
	<i>Indonesia, UGM:</i> MSc course on Geo-information for spatial planning and risk management	10
	<i>Mexico, UNAM:</i> 3-week certificate course on multi-hazard risk assessment	16
Joint educational programmes	<i>Bolivia, CLAS:</i> 3-week certificate course on disaster risk evaluation	11
	<i>Thailand, ADPC:</i> 2-week certificate course on GIS for disaster management	19
	<i>Kenya & Ethiopia:</i> 4-month certificate course on applications of earth observation and GIS in integrated water resources management	16

UNU-ITC DGIM activities 2008

Short courses and workshops	Africa, UNEDRA: network workshop	
	Asia: four short courses	100
	Latin America: one Central American university network workshop & short course	28
	Europe: seven workshops and courses	Approx. 300
Regular courses at ITC	MSc course Applied Earth Sciences, specialization geo-hazards	9
Fellowships	Fellowships awarded for MSc studies at ITC with specialization in geo-hazards	none
	Fellowships awarded for certificate courses	5
	Presentation of DGIM research activities at international conferences	10
	Visiting scientists	1
	Small research grants awards	5
	Ongoing PhD students at ITC	22
Research	Graduated PhD students	2
	Ongoing externally funded research projects	5
	Ongoing consulting projects	2
	Acquisition new projects	2
	ISI Journal Articles	10
	Other Refereed Journal Articles	1
	Book Chapters	10
Conference Proceedings (full papers)	7	
Scientific and Professional Publications	5	
Presentations	22	

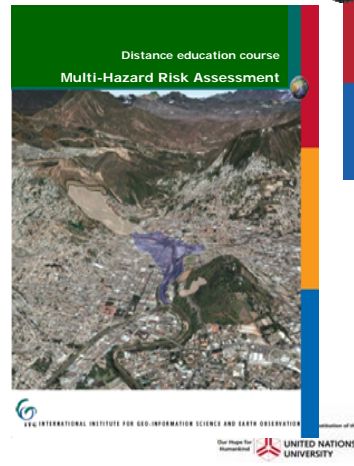
Support of University Networks

- **Africa**, with the development of the University Network for Disaster Risk Reduction in Africa (UNEDRA).
- **East Asia**, as a follow-up of existing activities, (CASITA), where the collaboration with the Asian Disaster Preparedness Center (ADPC), AIT, and several Universities and Institutes where JEP's are implemented or planned.
- **Latin America**, as a follow-up of the UNESCO RAPCA project, but also taking into account the current ITC collaboration in the region such as USS (Bolivia), UNAM (Mexico) and FAUSAC (Guatemala). RUNIRED, coordinated by CSUCA



DE course: Multi-hazard risk assessment

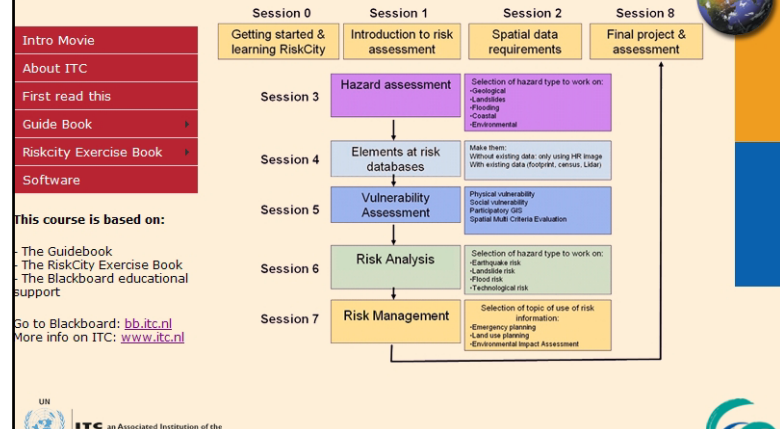
- Open source software
- Steep learning curve
- Continued learning
- Free access to training materials
- English, Spanish and Chinese
- Contents:
 - Hazard assessment
 - Elements at risk
 - Vulnerability
 - Risk assessment
 - Risk reduction planning



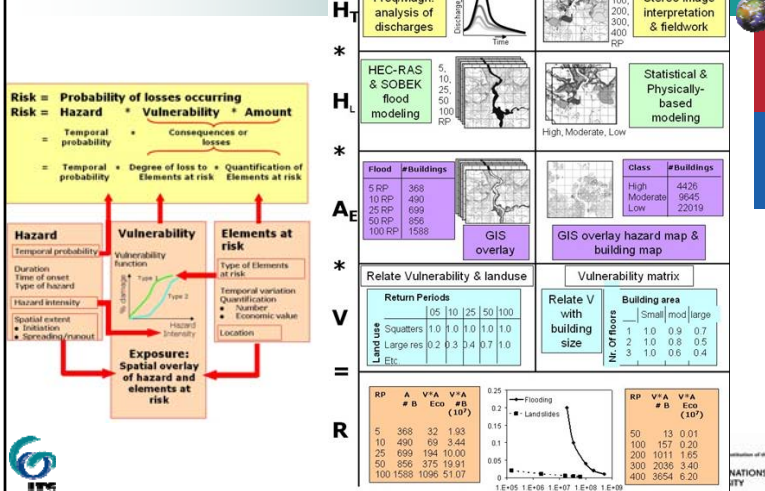
Distance education course

Multi-Hazard Risk Assessment

Version 2009

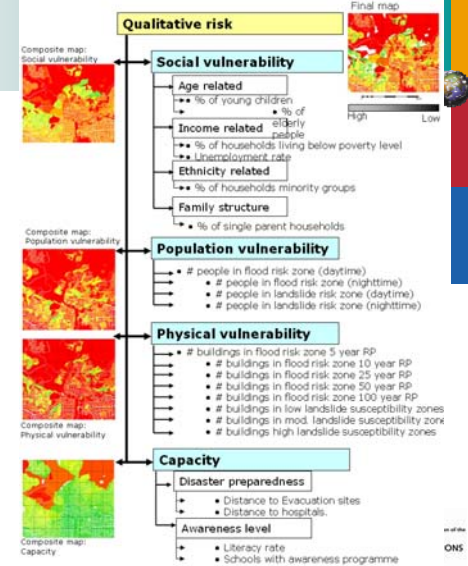


Multi-hazard Risk assessment



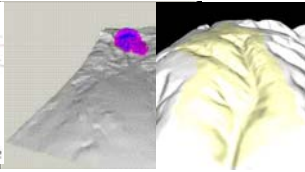
Qualitative risk assessment

- Spatial Multi Criteria Evaluation
- Decision tree
- Indicators
- Standardization
- Weighing



PhD research

- Landslide hazard and risk (8 PhDs)
- Earthquake hazard (4 PhDs)
- Flood vulnerability and risk (2 PhDs)
- Multi-hazard risk (3 PhDs)
- Desertification & erosion (4 PhDs)
- Technological risk & planning (2 PhDs)



Countries:
Cuba, Colombia, China,
Costa Rica, Croatia ,
Guatemala, India,
Mexico, Pakistan,
Thailand, Vietnam,

Projects

- International research project (EU FP6, FP7)
- Bilateral research projects (India, China, Pakistan)
- Contract education (e.g. China, Vietnam, SE Asia)
- Institutional development (e.g. Georgia, Vietnam, ADB)
- Methodology development (e.g. Mountain Risk, CAPRA Worldbank)

Link with the UNU Land Administration School

- Disaster prevention:
 - Cadastral & census information
 - land ownership is a major factor to be taken into account
- Disaster recovery:
 - Relocation planning
 - Loss of information

Opportunities with UN-SPIDER capacity building initiative

- Linked to the seminar we could have a working session of the Expert working group on curriculum development
- Integrate University network into UN-SPIDER initiative
- Develop structure for curricula
- Develop a course schedule
- Integrate existing course through a platform
- Review of existing materials
- Get support from UN-ISDR

Thank you

<http://www.itc.nl/unu/dgim/>