Overview of **Academy Module** on "ICT for Disaster Risk Management" (PART-I)

Manzul Kumar Hazarika, Ph.D.

Director, Geoinformatics Center
Asian Institute of Technology
manzul@ait.asia

UNITED NATIONS
ESCAP / **APCICT**
Economic and Social Commission for Asia and the Pacific

Brief Introduction – AIT & ITC

The Asian Institute of Technology (AIT) is an international postgraduate institution, focusing on engineering, environment, and management studies.

- AIT ranks 19th in World in SDG-1 (No Poverty)
- 30 academic programs
- 22,789 alumni from 101 countries

To develop capacity, particularly in less developed countries, and to utilize geospatial solutions to deal with national and global problems.

- Large alumni network
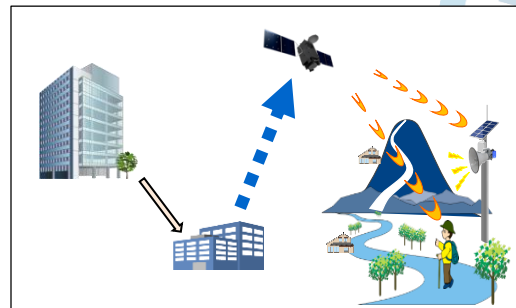- M.Sc., Ph.D., online
- Development related

Motivation for Developing the Module

- <u>According to IPCC</u>, disasters caused by hydro-meteorological hazards are on rise, which constitute major portion of the annual disaster events globally;

- Data shows that <u>economic damage</u> is also on rise, due to rapid economic growth;

- Disaster Risk Management (DRM) is key to achieving sustainable <u>social and economic development</u>;

- Advances in Information and communication technologies (ICTs) offer tremendous potentials in DRM with its ability to <u>collect, analyze and share</u> data and information instantly.

Objective and Audience

Objective of the Module:

- To introduce the basic <u>concepts of DRM and the applications of ICTs</u> in disaster mitigation and prevention, preparedness, response, and recovery.

Target Audience:

- The target audiences of this module are <u>policymakers and civil servants</u> at the national and local government levels who are responsible for or engaged in DRM activities.

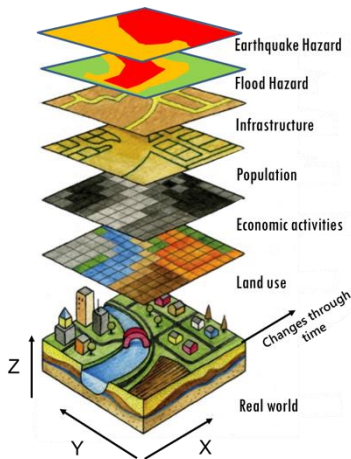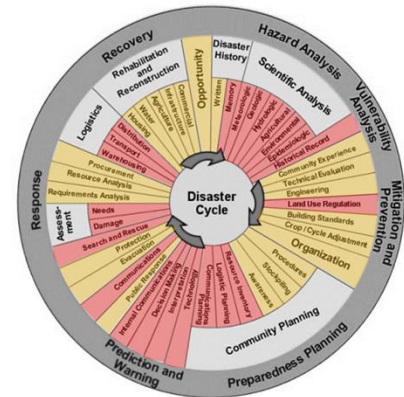# Expert Group Meeting

- An Expert Group Meeting (EGM) was organized during <u>26-27 August 2019</u> in UN Conference Center in Bangkok, Thailand;

- Nearly <u>30 experts</u> from academia, government agencies and UN organizations participated in the EGM;

- The <u>main objective</u> of the EGM was to to solicit comments and feedback on the draft version of module to ensure quality and relevance to the target audience;

Module Overview

Chapter-1: Introduction to Disaster Risk Management

Learning Outcomes: Be familiar with DRM and its associated terminologies, including the linkages between the Sendai Framework for DRR and the SDGs;
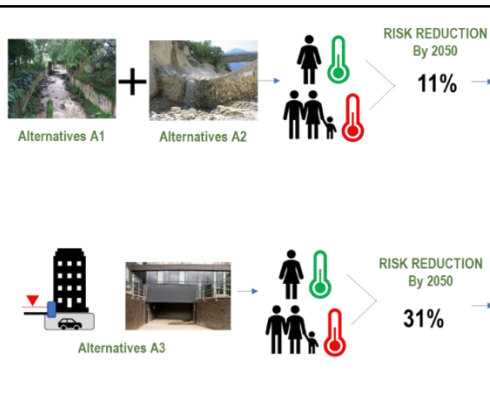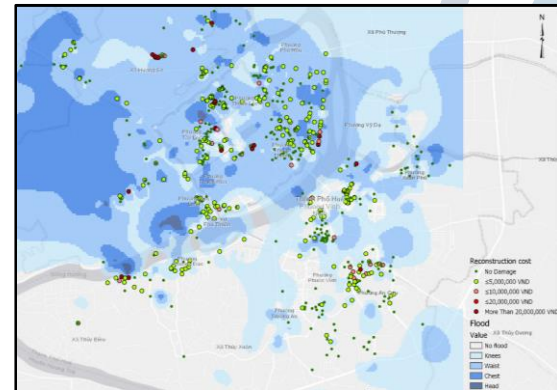

Chapter-2: Data Necessary for Disaster Risk Management

Learning Outcomes: Be able to identify the data necessary for DRM, such as remote sensing data, digital elevation data, thematic data and historical disaster data;

Module Overview

Chapter-3: ICT for Risk Assessment and Risk Visualization

Learning Outcomes: Appreciate the ways in which ICTs can be used in disaster risk assessment, analysis and visualization, and know the basic steps for conducting risk assessment;
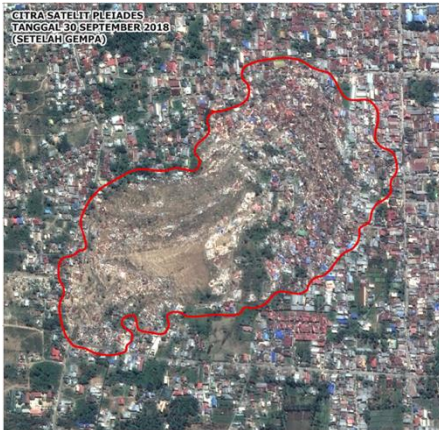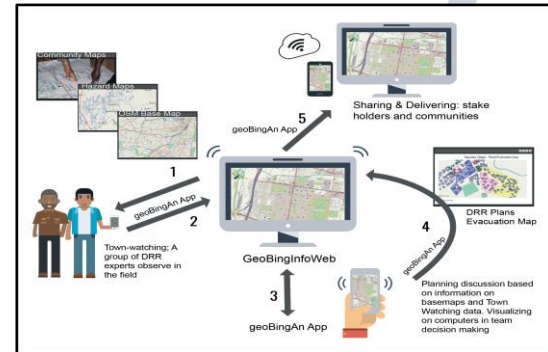

Chapter-4: ICT for Mitigation and Prevention

Learning Outcomes: Understand how risk information can be used for selecting appropriate disaster risk mitigation and prevention measures at various levels (regional, national, local), and for making decisions by considering likely future risk scenarios;

Module Overview

Chapter-5: ICT for Disaster Preparedness

Learning Outcomes: Appreciate the ways in which ICTs can be used for community-based preparedness planning, alerting and evacuating, shelter planning, establishing an early warning system, and impact-based forecasting.
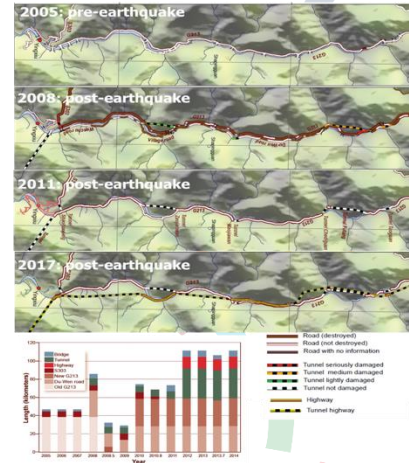

Chapter-6: ICT for Disaster Response and Relief

Learning Outcomes: Be aware of the freely available satellite-based resources and products for emergency mapping, mobile apps for reporting disaster incidents, and robots for search and rescue operations.
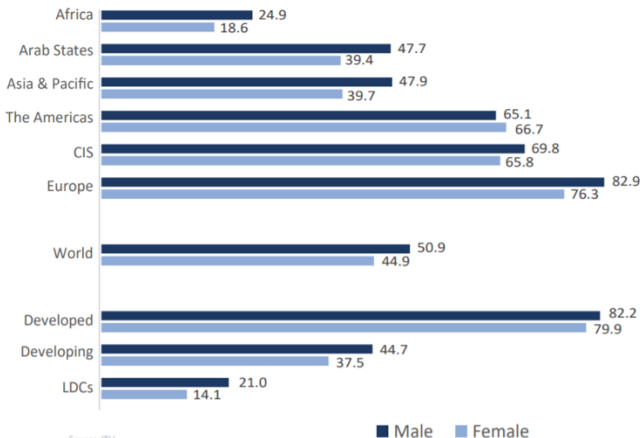
Module Overview

Chapter-7: ICT for Disaster Recovery

Learning Outcomes: Know the ways in which ICTs can be used to support disaster recovery, including post-disaster building damage assessment and post-disaster recovery monitoring.

Chapter-8: The Role of ICT in Addressing Issues Related to Gender and DRM

Learning Outcomes: Recognize the role of ICTs in addressing issues related to gender inequality in DRM.

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Policy Considerations

Chap 1. Risk Assessment and Visualization
- Communicating with communities at risk
- Increasing ICT accessibility
- Advancing information accessibility

Chap 2. Mitigation and Prevention
- Incorporate ICT for DRM as part of sustainable development efforts
- Provide an enabling policy environment
- Promote risk-informed policies and investments

Chap 3. Preparedness
- Unlocking the potential of Regional cooperation
- Capitalization on new technologies
- Strengthening Early Warning Systems (EWS)
- Encouraging standardization

Chap 4. Response and Relief
- Improving communication and ICT infrastructure
- Engage network operators in disaster response
- Unlock the potential of regional cooperation

Chap 5. Recovery
- Strengthen capacity building in the use of ICT for disaster recovery
- Capitalize on new technologies

Chap 6. ICT, Gender and DRR
- Incorporate gender-sensitive practices
- Make collection and analysis of sex-disaggregated data mandatory
- Promote ICTs and ICT-enabled services for women's empowerment

THANK YOU