



## Concept Note and Programme

### Workshop on ICT for Disaster Risk Management for Indonesian City Governments 5-9 July 2021

9:00AM (Amsterdam), 2:00 PM (Jakarta/Bangkok) / 4:00PM (Seoul)

#### Background

Asia and the Pacific is among the world's most disaster-impacted regions and the number of disasters caused by the natural hazards in the region has increased drastically in recent years. According to UNDRR's Global Assessment on Risk 2019, the risk is systemic and crises are cascading. Information and Communication Technologies (ICTs) have tremendous potential in disaster risk management due to their ability to instantly and continuously facilitate the rapid flow of information in real-time. The use of ICTs during all phases of disaster risk management presents substantial opportunities to reduce disaster risks, enhance resilience, and facilitate inclusive preparedness and response.

Local government, being first responder and the one responsible for community development, has a critical role to play in managing disaster risks, protecting citizens, and achieving community resilience. Recognizing the important role of the local government in disaster risk management, APCICT/ESCAP, in partnership with CityNet, will co-organize a virtual workshop on ICT for Disaster Risk Management for Indonesian City Governments, to be held during 5-9 July 2021 with the aim to equip local government officials with the essential knowledge and skills to understand the overall framework of disaster risk management and the practical use of ICTs in disaster mitigation and preventions, preparedness, response and recovery at the local level.

#### Objective:

By the end of the training, participants will:

- Be familiar with DRM and its associated terminologies, including the linkages between the Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals;
- Understand risk management planning and local government functions;
- Be able to identify the data necessary for DRM, such as remote sensing data, digital elevation data, thematic data, historical disaster data and be aware of the freely available satellite-based resources and products for emergency mapping;
- Understand steps for risk assessment and visualization of risks in an urban area;
- Applications of ICTs for Disaster Mitigation & Prevention, Disaster Preparedness, Disaster Response, and Disaster Recovery;
- Mainstreaming risk reduction in local governments activities.

**Resource Persons**

Prof. Cees van Westen, Department of Earth System Analysis (ITC), University of Twente

Prof. Richard Sliuzas, Department of Urban and Regional Planning and Geo-Information Management, (ITC), University of Twente

Dr. Manzul Hazarika, Geoinformatics Center, Asian Institute of Technology

Mr. Syams Nashrullah, Geoinformatics Center, Asian Institute of Technology

**Participant profile**

The training is open to 25-30 local government officials from departments responsible for disaster management, urban planning, and other concerned agencies working on disaster risk reduction.

The participants are expected to provide inputs on the thematic areas of the Module and assessment on capacity development for disaster risk management.

**Modality**

The virtual meeting will be organized in 5 daily sessions of 3 hours via Zoom and materials will be stored in the CANVAS platform.

**Contacts**

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## Workshop on ICT for Disaster Risk Management for Indonesian City Governments

### Programme

| Day            | Time (Jakarta)                      | Session   | Topic  | Lecturer   | Description  |  |
|----------------|-------------------------------------|---|--|--|--|--|
| 1              | 1:45-2:00 PM                        |   | Virtual training room opens for access to participants   |  |  |  |
|                |                                     |   | Housekeeping announcements   |  |  |  |
|                | 2:00-2:20 PM                        | Inaugural Session   | Opening Remarks:   |  |  |  |
|                |                                     |   | <ul style="list-style-type: none"> <li>Mr. Geunhyeong Yim, CEO, CityNet</li> <li>Mr. Kiyong Ko, Director, APCICT/ESCAP</li> <li>Mr. Jehak JANG, Ambassador for International Relations of Incheon</li> <li>Mr. I Gusti Ngurah Jaya Negar, Mayor of Denpasar (TBC)</li> </ul> |  |  |  |
|                | 2:20 –5:00 PM                       | 1   | Course Introduction  | Manzul Hazarika  | Objectives, target audience and course contents.   |  |
|                |                                     |   | 30 min   |  |  |  |
|                |                                     | 2   | Risk management planning and local government functions  | Richard Sliuzas  | Short lecture and exercise on discussing DRM functions that local governments perform and the role of ICT in these |  |
|                |                                     | 35 min  |  |  |  |  |
| BREAK – 15 min |                                     |   |  |  |  |  |
| 3              | Group discussion by individual city | Syams Nashrullah  | Discuss the important DRM issues in their city   |  |  |  |
|                | 30 + 30 = 60 min                    |   |  |  |  |  |
| 4              | ICT for Disaster Risk Management    | Manzul Hazarika   | Interactive presentation.  |  |  |  |
|                | 30 min                              |   |  |  |  |  |
| 2              | 2:00-5:00 PM                        | 1   | Introduction to Smart Disaster Management and Operating System   | Mr. Jongsik Park   | ICT Applications/ Examples   |  |
|                |                                     |   | 25 min   |  |  |  |
|                | 2                                   | Applications of Remote Sensing and Thematic Data in DRM and Urban Space | Manzul Hazarika  | Interactive presentation and discussion on data requirements for local governments |  |  |
|                | 35 min                              |   |  |  |  |  |

|   |                 |                |  |                             |  |
|---|-----------------|----------------|--|-----------------------------|--|
|   |                 | 3              | Presentations from participants<br>20 min                                      | To be discussed/<br>decided | Participants   |
|   |                 | BREAK – 15 min |  |                             |  |
|   |                 | 4              | Group Exercise<br>60 min   | Syams<br>Nashrullah         | Web-search for<br>relevant data-<br>sources.   |
|   |                 | 5              | Digital Elevation<br>Model and<br>Applications<br>25 min                       | Manzul Hazarika             | ICT Applications/<br>Examples  |
| 3 | 2:00-5:00<br>PM | 1              | Introduction to risk<br>assessment<br>20 min                                   | Cees van Westen             | Interactive<br>presentation  |
|   |                 | 2              | Risk Types and<br>methods of risk<br>assessment<br>30 min                      | Cees van Westen             | Look at different<br>methods for risk<br>assessment and<br>see in which case<br>which method is<br>used.                     |
|   |                 | 3              | Presentations from<br>participants<br>20 min                                   | To be discussed/<br>decided | Participants   |
|   |                 | BREAK – 15 min |  |                             |  |
|   |                 | 4              | Assignment on the<br>use of risk<br>information from<br>the internet<br>45 min | Cees van Westen             | Demonstration and<br>exercise on InaRisk.  |
|   |                 | 5              | Decision Support<br>Tools for risk<br>assessment<br>20 min                     | Cees van Westen             | Interactive<br>presentation  |
|   |                 | 6              | Tutorial on<br>Changing Risk<br>analysis for<br>decision making<br>30 min      | Cees van Westen             | Exploring an on-line<br>handbook is to<br>support the<br>generation and<br>application of<br>hazard and risk<br>information. |
| 4 | 2:00-5:00<br>PM | 1              | ICT for Disaster<br>Preparedness<br>35 min                                     | Manzul Hazarika             | ICT Applications/<br>Examples  |

|   |              |                |  |                         |  |  |
|---|--------------|----------------|--|-------------------------|--|--|
|   |              | 2              | Demonstration of a DSS for disaster management<br><br>15 min           | Manzul Hazarika         | Web-based demonstration  |  |
|   |              | 3              | Presentations from participants<br><br>20 min                          | To be discussed/decided | Participants   |  |
|   |              | BREAK – 15 min |  |                         |  |  |
|   |              | 4              | Disaster Response<br><br>35 min  | Manzul Hazarika         | ICT Applications/Examples  |  |
|   |              | 5              | Demonstration of Sentinel Asia System<br><br>20 min                    | Manzul Hazarika         | Web-based demonstration  |  |
|   |              | 6              | Disaster Recovery<br><br>20 min  | Syams Nashrullah        | ICT Applications/Examples  |  |
|   |              | 7              | Demonstration of a platform from Central Sulawesi<br><br>20 min        | Syams Nashrullah        | Web-based demonstration  |  |
| 5 | 2:00-5:00 PM | 1              | Mainstreaming risk reduction in local governments bodies<br><br>30 min | Richard Sliuzas         | Short lecture based on work of Wamsler   |  |
|   |              | 2              | Presentations from participants<br><br>30 min                          | To be discussed/decided | Participants   |  |
|   |              | BREAK – 15 min |  |                         |  |  |
|   |              | 3              | Opportunities and barriers to mainstreaming.<br><br>60 min             | Richard Sliuzas         | Group based discussion on opportunities and barriers, and possible mainstreaming strategies also reflecting on Incheon Smart City case |  |

|  |  |   |   |                 |   |
|--|--|---|---|-----------------|---|
|  |  | 4 | Concluding session<br>20 min            | Cees van Westen | Reflections on the course and way forward including other training possibilities. |
|  |  | 5 | End of workshop questionnaire<br>20 min | APCICT/CITYNET  | Getting on-line feedbacks from participants                                       |