TCS, UNDRR

CJK Education and Training Institutes Online Workshop

“Tools and Technologies for Earthquake Risk Management: Sharing Experience from Northeast Asia”

Wednesday, 2 August 2023

14:00 – 17:25 KST

Online (Zoom)

Registration: https://undrr.zoom.us/webinar/register/WN_Vgeuc0dlQDKckii9NC3a3fw

Background:

Earthquake risk and disaster risk reduction in Northeast Asia and Asia Pacific

Asia Pacific is the world’s most seismically active region, located along the Pacific Ring of Fire. Over two thirds of earthquakes which occurred in 2022 took place in the region, affecting over 3.6 million people across Northeast, Southeast and Southern Asia. In Northeast Asia alone, economic losses from earthquakes exceeded USD 403 billion over the last 20 years, with over 60 million people affected.1 As the devastating earthquake which hit Türkiye and Syria in February 2023 tragically illustrates, earthquakes remain among the deadliest natural hazards and result in significant economic loss and major damage to infrastructure, livelihoods and health. It is therefore key for countries located in earthquake-prone regions to improve their understanding of risk and of solutions and to invest in disaster risk reduction measures, including infrastructure and technology-based tools for resilience in the context of seismic risk.

Northeast Asia Experience and Trilateral Cooperation on Disaster Management

Given advanced experience in earthquake risk reduction in Northeast Asian countries, the webinar aims to share the expertise and examples of effective practices from China, Japan and the Republic of Korea (ROK), including through application of technology, infrastructure resilience measures and sustainable and risk-informed recovery and build-back-better approaches.

The webinar is organized as part of the trilateral cooperation on disaster management and disaster risk reduction, building on the outcomes of the 5th Trilateral Ministerial Meeting on Disaster Management in 2017, the 2018 Trilateral Working-Level Consultation Meeting on Disaster Management among the relevant ministries from China, Japan and the ROK, and the 2019 Meeting of the designated Education

and Training Institutes on Disaster Management of the three countries\(^2\) which defined a series of joint activities between the three institutes to support experience sharing for capacity development on disaster risk reduction among the three countries as well as to provide training opportunities for developing countries.

**Session Objective:**

This session aims to:

a) Increase the understanding of existing tools, technologies and effective practices for risk reduction among countries prone to earthquakes, in relation to such areas as risk assessment, early warning, building and infrastructure resilience measures and sustainable recovery;

b) Share the experience of Northeast Asia countries in earthquake risk reduction with other countries exposed to seismic risks;

c) Promote collaboration for capacity development for earthquake risk reduction between Northeast Asia and other countries/regions.

**Expected outcomes:**

1. Participants learn about available tools and technologies for earthquake risk reduction;
2. Opportunities for collaboration for capacity development on earthquake prevention between Northeast Asia and other countries/regions discussed.

**Participants:**

Experts from China, Japan and the ROK from national level government, education and training institutes or any other resource persons recommended by the CJK education and training institutes. Government officials from Mongolia and other countries in Asia will be invited to attend.

**Targeted Audience:**

Government officials from China, Japan and the ROK, Mongolia and other countries in Asia prone to earthquakes.

**Date & Time:**

Wednesday, 2 August 2023
14:00 – 17:25 KST

\(^2\) The National Disaster Reduction Center of China (NDRCC) in China, the Asian Disaster Reduction Center (ADRC) in Japan, and the United Nations Office for Disaster Risk Reduction Office in Northeast Asia and Global Education and Training Institute (UNDRR ONEA& GETI) in the ROK
**Venue:** Online (Zoom)

**Workshop Language:** Chinese, Japanese, Korean, Mongolian and English, with simultaneous interpretation

**Organizers:**
- Trilateral Cooperation Secretariat (TCS)
- UN Office for Disaster Risk Reduction (UNDRR) Global Education and Training Institute (GETI) in collaboration with Incheon Metropolitan City and the Ministry of the Interior and Safety (MOIS) of the Republic of Korea
- Asian Disaster Reduction Center (ADRC)
- National Disaster Reduction Center of China (NDRCC)

**Provisional Agenda:**

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<td>14:20 – 14:30</td>
<td>Introduction to the webinar and speakers</td>
<td>• Introduction of contents of the session and of the speakers by TCS</td>
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<td>14:30 – 15:05</td>
<td>Experience from China</td>
<td>• Best practices, technologies and capacity development tools for earthquake risk reduction from China (30min)</td>
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<td>Experience from Japan</td>
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<td>15:40 – 16:15</td>
<td>Experience from the Republic of Korea</td>
<td>• Best practices, technologies and capacity development tools for earthquake risk reduction from ROK (30min)</td>
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<td>16:15 – 16:35</td>
<td>Moderated discussion: experience and capacity</td>
<td>• Experience of Mongolia (NEMA – 10min)</td>
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<td>• Other interventions from the floor (10min)</td>
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development needs for seismic risk management in the Asia Pacific region

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<th>Time</th>
<th>Event</th>
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| 16:35 – 17:15 | Opportunities and tools for capacity development tools for earthquake risk reduction in Northeast Asia | • NDRCC: capacity development tools for earthquake risk (10-12 min)  
• ADRC: capacity development tools for earthquake risk (10-12 min)  
• UNDRR ONEA & GETI: capacity development tools for earthquake risk (10-12 min) |
| 17:15 – 17:25 | Closing                                                             | • UNDRR ONEA&GETI & TCS closing remarks                                  |

Contacts:

**UNDRR ONEA & GETI**

Daria Mokhnacheva  
Programme Management Officer  
UNDRR ONEA & GETI  
E-mail: daria.mokhnacheva@un.org

**TCS**

Saeseung Kim  
Program Officer, Political Affairs  
Trilateral Cooperation Secretariat (TCS)  
E-mail: ss.kim@tcs-asia.org

About the organizers:

The **Trilateral Cooperation Secretariat (TCS)** is an international organization established with a vision to promote peace and common prosperity among the People’s Republic of China, Japan, and the Republic of Korea established in 2011 in Seoul, Republic of Korea. The objectives and functions of TCS are to provide support for trilateral consultative mechanisms, to explore and facilitate cooperative projects, to promote the understanding of trilateral cooperation, to network with other international organizations, and to conduct research.

The **United Nations Office for Disaster Risk Reduction (UNDRR) Office for Northeast Asia & Global Education and Training Institute (UNDRR ONEA & GETI)** was established in 2010 in Incheon, Republic of Korea, to develop a new cadre of professionals in disaster risk reduction and climate change adaptation to build disaster resilient societies. ONEA & GETI also hosts the Global Secretariat for the Making Cities Resilient 2030 (MCR2030). UNDRR Office for Northeast Asia (ONEA) supports five countries: Republic of Korea, China, Japan, Mongolia and DPR Korea specifically to reduce disaster loss and risk and to ensure Sendai Framework for Disaster Risk Reduction 2015-2030 implementation. The Global Education and
Training Institute (GETI) has a global mandate to provide capacity building support to mainstream disaster risk reduction and climate change adaptation into sustainable development; convene and support inter-city learning to strengthen resilience (Making Cities Resilient); and to provide capacity building and best practice sharing support to national training institutions working on resilience issues.

The **Asian Disaster Reduction Center** (ADRC) was established in Kobe, Hyogo prefecture, in 1998 with the mission of enhancing the disaster resilience of its member countries, building safe communities, and creating a society where sustainable development is attainable. ADRC works to build disaster-resilient communities and to establish networks among countries through personnel exchanges and a variety of other programs. With support by its 31 member countries, ADRC has been collecting information on systems, plans, and policy measures of individual countries’ disaster risk reduction as well as the situation of natural disasters. ADRC has also been collecting information from related materials, various countries/organizations and through Visiting Researchers (VRs) from the ADRC member countries and the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA). ADRC will continue collecting and sharing with member countries information on the following items, in particular: 1) Disaster management systems (legal and institutional frameworks, disaster management plans, and manuals), 2) Disaster response and recovery activities (emergency response activities in affected area/country), and 3) Natural disaster events (descriptions of natural disasters such as earthquakes, floods, cyclones, and so on, and the damages).

The **National Disaster Reduction Center of China** (NDRCC) was established in April 2002 and put into official operation in May 2003, inaugurated as “Satellite Application Center for Disaster Reduction of the Ministry of Civil Affairs” in 2009, and transferred to the Ministry of Emergency Management in April 2018. The mandate includes natural disaster risk monitoring and early warning, risk assessment, satellite emergency applications, data and information management, research on S&T and regulations and standards, international exchange and cooperation, etc., and the center fulfills the functions of the national center for integrated natural disaster risk monitoring and early warning and the space technology disaster reduction applications. NDRCC expects to have 135 authorized staff and now the full-time staff are 104 persons. There are 90 staff with master's degree or above, accounting for 87% (including 28 with doctoral degree); and 38 staff with senior professional and technical qualifications, accounting for 42%. NDRCC has developed the following eight capabilities:

1) “Space-air-ground” integrated natural disaster risk monitoring and early warning capabilities. NDRCC is dedicated to building an integrated natural disaster risk monitoring and early warning center; 2) Natural disaster information acquisition and analysis capabilities. NDRCC operates a six-level disaster reporting system at national, provincial, municipal, county, township and village levels, and timely acquires disaster information relying on 840,000 disaster informants nationwide; 3) Air-space integrated remote sensing monitoring and early warning capabilities; 4) Disaster risk and loss assessment capabilities; 5) Disaster reduction and relief policy research and standard-setting capabilities. NDRCC has participated in the preparation of natural disaster relief regulations, institutional reform opinions, national integrated disaster prevention and reduction plans, and talents development plans, etc., and works as the Secretariat of the National Committee for Standardization of Disaster Reduction and Relief, and the Secretariat of the Expert Committee of the National Committee for Disaster Reduction; 6) Disaster reduction and relief
publicity and education capabilities.; 7) Capabilities for international exchange and cooperation in disaster reduction and relief.; 8) Major S&T research and application capabilities.

As the national disaster prevention, reduction and relief decision support agency, NDRCC has provided vital technical and intellectual support for the formulation of natural disaster relief regulations, institutional reform recommendation, national integrated disaster prevention and reduction plans, and talents development plans based on the needs and requirements of enhancing national natural disaster risk governance capabilities. Disaster risk financing is one of the major measures for risk communication and risk transfer. Further research on the role and on-the-ground effectiveness of financial instruments and measures in promoting risk transfer in the post-epidemic era, will contribute to disaster reduction efforts, and is of great significance. Therefore, through the ADB TA project, we will draw on and refer to existing practices of international risk financing, and promote the integration and role of financial risk concepts, instruments, and practices in disaster reduction efforts in the context of domestic financial and insurance markets.