

Partnerships with multi-stakeholders and role of universities

A new approach for disaster risk management after COVID 19

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Session 1 (30 Sep): Understanding and addressing different types of disaster risks

- Focused on chemical, radiological, and CBRNe
- **Chemical** (Process safety management)
- **Nuclear** (Public awareness and public education for DRR – to communicate its risks to everyone, earthquake and nuclear plants)
- **CBRNe** (all agency approach, communications are important. No need to address all the hazards, but based on thorough assessment, hazards and risks need to be addressed in the local context)

The first session on youtube:
<https://www.youtube.com/watch?v=h0-j2GDhM7Q&feature=youtu.be>

APRU Multi-Hazards Webinar Series:
A new approach for disaster risk management after COVID 19
 organized by
 APRU MH program, University of Indonesia, and the CBRNe-Natech Asian Disaster Risk Initiative (CaADRI)



SESSION 1: <i>Understanding and addressing different types of hazard risks</i> September 30 (Wed) 9 am (Helsinki) / 1 pm (Jakarta) / 3 pm (Tokyo & Seoul) / 4 pm (Sydney) Registration for SESSION 1 https://zoom.us/join/register?jv=1&f=73PQ17-2oTm1z2MA	SESSION 2: <i>Strengthening disaster management strategies through multi-stakeholder partnerships</i> October 14 (Wed) Time: TBC Registration for SESSION 2: TBC	SESSION 3: <i>Developing innovative tools and approaches for disaster preparedness and response</i> October 28 (Wed) Time: TBC Registration for SESSION 3: TBC
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Further information on this webinar series: <https://apru.org/event/the-apru-multi-hazards-webinar-series-a-new-approach-for-disaster-risk-management-after-covid-19/>



Session 1: 30 Sep

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SESSION I: Understanding and addressing different types of hazard risks
September 30 (Wed) (2 hours): 8 am (Central Europe) / 1 pm (Jakarta) / 2 pm (Hong Kong) / 3 pm (Tokyo & Seoul) / 4 pm (Sydney)

This session invites speakers specializing in chemical, nuclear, and CBRNe hazards beyond natural hazards to learn about each disaster risk and how we could prepare for and enhance the current disaster risk reduction capacity taking into consideration an all-hazards approach.

Register here: <https://zoom.us/join/register?jv=1&f=73PQ17-2oTm1z2MA>

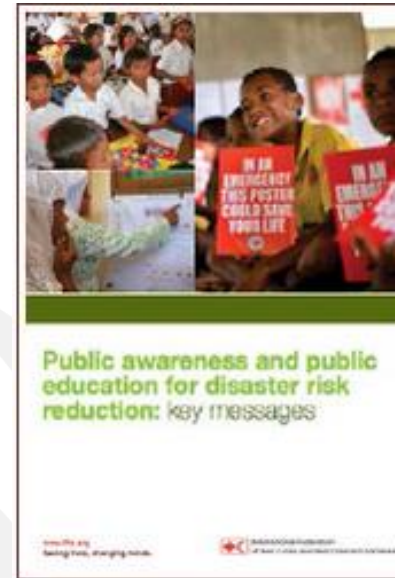
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Moderator  Takako Izumi Associate Professor, International Research Institute of Disaster Science, Tohoku University Director of APRU Multi-Hazards Program	 Fatma Lestari Professor, University of Indonesia	 Martin Krottmayr International Federation of Red Cross and Red Crescent Societies (IFRC)	 Jeff Walker Principal Advisor, JEG Consulting	 Andrin Raj Chairperson/Founder, CBRNe-Natech Asian Disaster Risk Initiative (CaADRI)
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Definition of hazards

- Sendai Framework for DRR: framework will apply to the risks caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks.
- Hazard definition and classification review: includes the list of 302 hazards with 8 categories which will be a baseline of knowledge on hazards that can be used to engage various stakeholders.
- IFRC public awareness and public education for DRR: Addressing the needs for all hazards household and family disaster planning. The priorities: earthquakes, floods, cyclones, wildfires, pandemics, and drought. Next group: storms, release of chemical, biological, radiological materials, landslides, tsunami, volcanic eruption, cold and heat waves, climate change
- Words into Action Guidelines: Implementation Guide for Man-made and Technological Hazards:
 - **Man-made**: induced by human activities
 - **Chemical, nuclear and radiological hazards**: originated from technological or industrial conditions, dangerous procedures, infrastructure failures or specific human activities



Words into Action Guidelines: Implementation Guide for Man-made and Technological Hazards

“The number and magnitude of man-made disasters has risen worldwide since the 1970s and they continue to increase in both frequency and impact on human wellbeing and national economies.”

“There is a need to address man-made hazards by strengthening national and local disaster management plans to include these hazards and by raising awareness of their risks and impacts”



Challenges of Higher Educational Institutions in Preparedness

Challenges and need for disaster risk management on campus

Why is it important for universities to consider the risks of both natural and man-made hazards?

*Universities normally keep **dangerous chemicals, discharge of gas, experiment waste liquid, high pressure gas, explosives, radiation, poisonous substances** etc. Once any accidents happen, the damage may reach outside of campus and it will threaten communities' safety.*

Major issues on campus

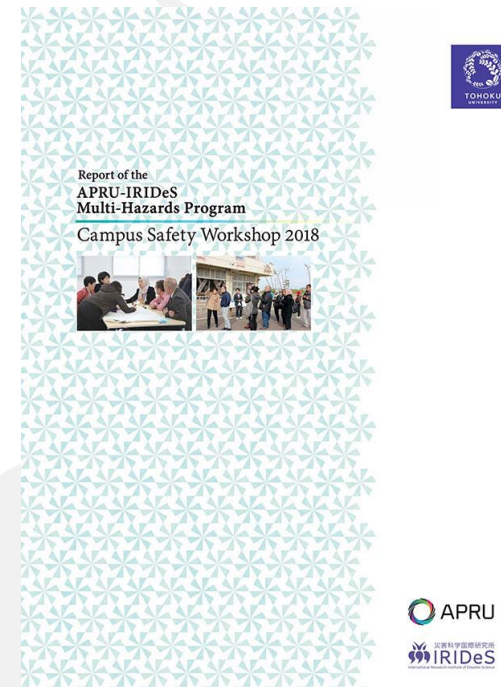
- The office in charge of natural *hazards* (*Office for promotion of disaster countermeasure*) man-made incidents (*Office for environmental conservation and research safety*) are different.
- Each department has their own manual/plan and hardly shared.
- The information on the incidents occurred in each department are not shared unless it is a serious incident.
- Once a serious incident happened, the chain of command is not clear.
- Manuals developed by each department has different contents, i.e., some more focus on preparedness/how to manage dangerous chemicals and not mention about how to respond when emergency happens.

Role of higher education in DRR: APRU Campus Safety Program

- APRU (Association of Pacific Rim Universities) comprises 56 member universities in the Pacific Rim where is a very disaster prone region.
- A campus safety is crucial as universities hold a larger number of students, faculty, staff than lower schools.

Preparedness checklist

1. Policy/governance
2. Risk management
3. Physical infrastructure
4. Awareness training/education
5. Physical/psychological aid
6. **Academic continuity**



<http://aprumh.irides.tohoku.ac.jp/app-def/S-102/apru/activities/campus-safety/campus-safety-workshop/2018-campus-safety-workshop>

Minimum preparedness checklist

Category	No.	Evaluation criteria
1 : Policy/governance	1.1	The university has a disaster emergency plan (communication, electricity backup, emergency structure) and BCP that target various types of hazards.
	1.2	Staff and faculty are familiar with the plan and understand how to act in case of emergencies. The plan needs to be simulated with the involvement of senior managers.
	1.3	The plan is reviewed and updated each year.
	1.4	The university sets up a disaster counter measure office once a disaster restrikes.
	1.5	A disaster emergency drill is conducted at least once a year.
	1.6	A safety confirmation plan of students, staff and faculty is put in place.
	1.7	The university has developed an evacuation plan to accommodate students and staff.
	1.8	The necessary support (both financial and technical) to strengthen the preparedness for future disasters and mitigate the risks such as development of a BCP is provided to departments and institutes under universities.
	1.9	An early warning is issued if necessary and possible.
2: Risk management	2.1	A risk assessment is conducted and updated regularly, at least annually.
	2.2	Mitigation/risk reduction/preparedness plan is developed.
	2.3	Based on the plan, mitigation measures are put in place.
	2.4	Emergency supplies (food, water, blanket etc) are always available.
	2.5	All the measures are regularly checked whether they are still effective or not.
	2.6	Signage boards to alert dangerous zones or ongoing construction works need to be set up.

3: Physical infrastructure	3.1	Buildings have earthquake resistance structure.
	3.2	Buildings are facilitated by drainage, electricity, fire alarm system, sprinkler and fire extinguisher etc.
	3.3	Maintenance work is periodically conducted in buildings.
	3.4	Building inspection takes place regularly.
	3.5	The critical information in case of emergencies such as evacuation routes and emergency assembly points are shared with students, faculty, and staff. Ideally, these facilities have the signage.
	3.6	IT recovery plan is developed. It is necessary for staff to be trained on cyber security.
	3.7	Technological tools such as satellite/mobile emergency phones, alarms, and drones are put in place. Staff needs to be trained on how to use these emergency tools regularly.
4: Awareness training/education	4.1	An orientation on a disaster emergency and preparedness plan is conducted to freshman students for various types of hazards.
	4.2	Special guidance to foreign student is available.
	4.3	Safety protocol for the students abroad is given prior to their departure.
	4.4	A disaster emergency drill is conducted under each department/institutions.
	4.5	Awareness raising program including understanding hazard-map and trainings for students, staff, faculty, DRR leader in campus such as on CPR is conducted.
	4.6	Information materials on the past disasters, emergency plan etc are distributed.
5: Physical/psychological aid	5.1	There is a hotline in place for students, staff, faculty when they need physical and psychosocial support during and after emergencies .
	5.2	There is a prior agreement with local government, organizations and other universities on collaboration on mutual support in case of emergencies including volunteer registration.
6: Academic continuity	6.1	A guideline that determine if, when, and for how long the university need to suspend classes and postpone or cancel events and research activities, and that explains their alternatives exists.
	6.2	Students, faculty, and staff are familiar with a different mode of education in case of emergencies.
	6.3	The trainings/information on various educational tools such as online lecturing are provided to faculty. A guideline and manual on different educational tools/modes is also available.
	6.4	There is immediate support to students and faculty for giving/receiving online classes such as stable internet access.
	6.5	The support to international students to ensure they can continue to make normal progress in a full course of study is provided.

The challenge is that most of traditional DRR networks do not have members from areas of different and broaden types of hazards such as societal, biological or technological. Inclusion of experts on these less traditional hazards can be crucial
(Hazard Definition and Classification Review, 2020)



- This webinar series to provide an opportunity to get to know the experts of different hazards, especially non traditional.
- CBRNe-Natech Asian Disaster Risk Initiative (developed after the discussion of APRU Multi-Hazards Campus Safety Workshop)

SESSION 3: Developing innovative tools and approaches for disaster preparedness and response

Wednesday 28 October

(led by CBRNe-Natech Asian Disaster Risk Initiative)

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Thank you for your attention.

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