



**THE FUTURE OF
GLOBAL
DISASTER
RISK REDUCTION**

Capacity Building for Urban Disaster Resilience

都市防災の担い手の育成

Miho OHARA ／大原美保

The University of Tokyo,
Associate Member of Science council of Japan
東京大学、日本学術会議連携会員

STRENGTHENING THE RESILIENCE of MEGACITIES THROUGH SCIENCE, TECHNOLOGY & INNOVATION

Expected Goal of Capacity Buildings for Urban Disaster Resilience

- ✓ Every individual must regard DRR their own responsibility. To achieve this, it is necessary to cultivate more people who possess a minimum level of disaster literacy.
- ✓ As the number of individuals who can evaluate DRR investments increases, social consensus on promoting such investments will be built, leading to practical implementation of DRR.
- ✓ For coping with the severe disaster risks that can cause catastrophic damage, developing leaders with demonstrating national-level leadership rooted in DRR is crucial.



Expected Goal of Capacity Buildings for Urban Disaster Resilience

提言

災害レジリエンスの強化による持続可能な
国際社会実現のための学術からの提言
一知の統合を実践するためのオンライン・
システムの構築とファシリテータの育成



令和2年（2020年）9月18日

日本学術会議

科学技術を活かした防災・減災政策の国際的展開に関する検討委員会

RECOMMENDATION

Building a sustainable global society by strengthening disaster resilience:

- Developing an "Online Synthesis System (OSS)"
- and fostering "Facilitators" to realize consilience -



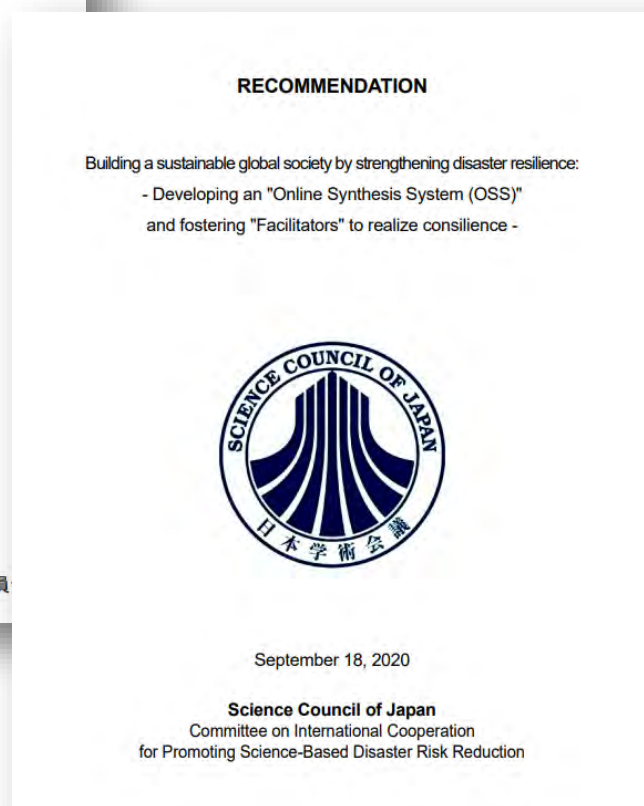
September 18, 2020

Science Council of Japan

Committee on International Cooperation
for Promoting Science-Based Disaster Risk Reduction



Expected Goal of Capacity Buildings for Urban Disaster Resilience



- ✓ **Facilitators are required to assist stakeholders** who effectively apply science and technology, protect their lives and assets, and continue their livelihoods and businesses.
- ✓ Therefore, **the scientific community should foster Facilitators** in collaboration with local universities, disaster research centers, and scientific institutions and in mutual cooperation with society.

Current Issues of Capacity Buildings for Urban Disaster Resilience

- ✓ As the timing of future disasters is unpredictable, quantifying the benefits of capacity building is difficult. This leads to less motivation of building capacity in the organizations and/or for individuals.
- ✓ Disasters change from physical phenomena social phenomena with time passage after their occurrence. Large-scale disasters can even escalate into political or diplomatic issues. Disaster education tends to focus heavily on hazard-related learning, such as earthquake mechanisms, while integrated education covering natural sciences, social sciences, and health sciences.
- ✓ Basically, it is difficult for people to imagine disaster situations without their own experience. However, it is essential to foster individuals who can realistically imagine disaster situations.



Recommendation: Promote Cross-disciplinary Education to Enhance the Full Imaginations of Disasters

- ✓ Policies are needed to cultivate human resources capable of understanding the overall picture of disasters. As unprecedented disaster risks continue to rise, education must go beyond conventional disaster-prevention learning and include cross-disciplinary subjects such as national and historical perspectives on DRR, as well as training in leadership and cooperation to guide the nation and local communities.
- ✓ Education should develop the ability to design countermeasures using a backcasting approach. Building an educational framework that enables learners to understand disasters from both short- and long-term perspectives is essential for nurturing future leaders in urban DRR.



Recommendation: Establish a Social System that Give Incentives to DRR Learning

- ✓ A social system should be established so that learning about DRR provides incentives for individuals and benefits society at large. Both governments and industries need phase-free systems in learning serves as an incentive in daily life and also proves useful during emergencies.
- ✓ Scientific community must build networks connecting certified DRR specialists and explore ways to enhance the activities by diverse actors (multi-sector stakeholders) who possess knowledge and experience of DRR.
- ✓ If the content of education varies by region or provider, it becomes difficult to effectively utilize trained personnel. Therefore, standardization of learning content is essential.

