Workshop on Resilient Infrastructure for Effective Early Warning Dissemination

10 – 12 September 2025

Sendai, Japan

**Draft Agenda**

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| **DAY 1:**  |
| 09h30-10h15 | **Welcome Remarks and Introduction to IRIDES and WBF*** Professor Yuichi ONO, International Research Institute of Disaster Science (IRIDeS), Tohoku University and Founder, World Bosai Forum Foundation

**Opening Remarks and Introduction to ITU and activities*** Dr Atsuko Okuda, ITU regional Director for Asia and the Pacific
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| 10h15-10h45 | **Group Photo** **Break** |
| 10h45-12h30 | **Session 1**:  **Towards a Resilient National ICT infrastructure**Involving examples and case studies, the session would provide a understanding of the key considerations and evaluation criteria on Digital infrastructure resilience.**Speakers:*** Professor Shunichi Koshimura, IRIDeS, Tohoku Universit, Real-time tsunami inundation forecast system
* Aamir Riaz, ITU (Resilience Study insights and framework of evaluation)
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| 12h30-14h00 | **Lunch Break** |
| 14h00-16h15 | **Session 2:**  **Leveraging digital networks and innovations for Early Warning dissemination**With a focus on innovative use of technological solutions to support the work of pillar 3 of the EW4A initiative, the session would highlight the role of digital advancements for effective early warning dissemination and communication. **Speakers:*** Fire and Disaster Management Agency of Japan （30 min）
* EW information dissemination and communication, Pillar 3 of EW4ALL initiative, Aamir Riaz, ITU
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| **DAY 2:**  |
| 09h00-10h30 | **Session 3**: **Lowering the Disaster Risk profile** This session explores strategies to reduce the overall disaster risk profile of communities and infrastructure by enhancing preparedness, improving early warning systems, and implementing proactive mitigation measures. **Speakers**:* Ministry of Internal Affairs and Communications of Japan "Mobile network system for securing communications during disasters (case study of the Noto Earthquake)" (45 min)
* Professor Hiroki Nishiyama, Tohoku "Smartphone Relay's Efforts to Date and Implementation in Society" (20+ min)
* Professor Fumiyuki Adachi from Tohoku University “Previous efforts on multi-layered networks with enhanced disaster resistance and resilient mobile communications.” (20+ min)
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| 10h30-11h00 | **Break** |
| 11h00 -13h00 | **Session 4**: Group Exercise Identifying key risk drivers in their regions and proposing mitigation strategies.This interactive session will engage participants in analyzing critical risk factors that hinder effective early warning dissemination in the Asia-Pacific (ASP) region. Groups will collaborate to identify vulnerabilities and propose practical mitigation strategies to strengthen Digital infrastructure resilience.**Facilitator**: Aamir Riaz**Task: Discuss and list major risks affecting EWS infrastructure (30 mins)**1. Physical Vulnerabilities
	* Fragile communication towers, power grid failures, undersea cable damage.
2. Technological Gaps
	* Outdated warning systems, lack of multi-channel dissemination, poor interoperability.
3. Socioeconomic Barriers
	* Low literacy rates, marginalized groups with limited access to warnings.
4. Governance & Institutional Challenges
	* Weak enforcement of building codes, siloed disaster agencies, funding shortages.
5. Climate Change Impacts
	* Increasing frequency/intensity of disasters overwhelming existing systems.

**Use the Presentation templates to report back (25 mins)****Task 2 Mitigation Strategies: Groups develop solutions for their identified risks. (30 mins)** **Examples:**

| Risk Driver | Potential Mitigation Strategy |
| --- | --- |
| Power grid failures | Backup solar-powered alert systems; decentralized energy microgrids. |
| Outdated technology | Upgrade to AI-based threat detection; integrate mobile CB/ LB-SMS alerts. |
| Marginalized access | Community-led sirens; radio broadcasts in local languages. |
| Siloed agencies | Establish cross-sectoral EWS task forces; standardized protocols. |
| Climate adaptation | Dynamic risk mapping; adaptive infrastructure design (e.g., elevated sensors). |

**Use the Presentation templates to report back (30 mins)** |
| 13h00-14h00 | **Break** |
| 14h00 - End | **Visit to NICT – go by subway** |
| **DAY 3:** |
| 0900-early afternoon | 9:00 Closing at the IRIDeS, Tohoku University9:30 Get on the rented bus 10:00 NTT DoCoMo11:00 Move to the Arahama area near the coast12:00 Lunch in Arahama13:00 Sendai City's offering presentation14:00 Visit Ruins of the Great East Japan Earthquake: Sendai Arahama Elementary School  ([**https://www.city.sendai.jp/kankyo/shisetsu/documents/guide.pdf**](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.city.sendai.jp%2Fkankyo%2Fshisetsu%2Fdocuments%2Fguide.pdf&data=05%7C02%7Caamir.riaz%40itu.int%7C36f55048e88b4336d98d08dd8084657d%7C23e464d704e64b87913c24bd89219fd3%7C0%7C0%7C638808030115959903%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=lg2%2F7Bv9VIIroYI0jDjqgYWN6Tt%2BAHqJgUyLcpavm8s%3D&reserved=0))15:30 Bus to the Sendai Station16:00 Adjourn at the Sendai Station |