

Statement of Action:
Science Technology Academia Stakeholder Group
Prepared by
Asia Pacific Science Technology Advisory Group (AP-STAG)

We, the Science Technology Academia Stakeholder Group, renew our commitment to accelerate the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 to achieve the goals of sustainable development and the Paris Agreement for climate and disaster resilient development. We commit to develop and disseminate science, technology and innovation for risk reduction drawing on the fourteen actions and six cooperative mechanisms identified in the First and Second Asian Science and Technology Conference for Disaster Risk Reduction, held in 2016 and 2018, respectively. This Statement of Action is based on the discussions emerged from two Asia Pacific Science and Technology Conferences in 2020 (hosted by Government of Malaysia) and 2022 (hosted by Government of the Philippines) respectively. We also express our commitment to provide evidence-based research to inform the recovery process in the context and aftermath of COVID-19 to ensure long-term resilience.

Actions for Science and Technology-based Disaster Risk Reduction

Priority 1 – Understanding Disaster Risk

1. Enhance disaster loss and damage accounting, national and local disaster risk assessment, and communication of disaster risk, with specific focuses on the risks of urban and vulnerable communities.
2. Increase the use of space, disaster risk mapping, and the related data technologies to improve understanding of disaster risks at global, national, and local levels and strengthen the capacity required.
3. Strengthen regional exchange on disaster risk information and science in order to better understand complex disaster risks, including risks of transboundary, cascading, and compound disasters. Trans-disciplinary approaches are required to reflect the importance of social sciences, including economics, political science and psychology, and indigenous and local knowledge.
4. Develop a synthesis system under international cooperation to share integrated grassroots and scientific knowledge among a broad range of stakeholders and promote dialogue in the national platform.
5. Strengthen data sharing and knowledge management to better understand emerging climate risks, including exposure and vulnerability, public health threats, and risks of transboundary, cascading, biological, technological, environmental and NATECH disasters, through all-hazard approach and in response to the international calls of open science development.
6. Develop a clear system for science and technology advancement in the region to monitor science and technology progress.

Priority 2 –Disaster Risk Governance

7. Strengthen the science-policy-practice nexus at all levels (national, local, transboundary, and regional).
8. Develop interdisciplinary national science and technology plans to support the implementation of the Sendai Framework. This includes actions by academia/universities to develop their own disaster risk management plans.
9. Enhance collaboration between local governments, academia, and other partners to

promote local communities' knowledge and traditions and to sustain and replicate many good practices that exist locally for science-based decision making.

10. Enhance transdisciplinary engagement, between scientists, policy-makers, civil society and businesses at all levels, to strengthen science-based decision making, consider future risk, and promote local and traditional knowledge, including land-based solutions.
11. Advance science-based adaptive governance to foster decision making in the world of uncertainties.
12. Understand, analyze and localize science, engineering, technology and innovation (SETI) solutions.

Priority 3 – Invest in DRR for Resilience

13. Make DRR an area of focus within education, including networking between universities.
14. Ensure risk-sensitive investments through enhanced role of the science and technology community.
15. Develop young professionals in the field of multidisciplinary / cross-disciplinary and trans-disciplinary disaster risk reduction.
16. Enhance and showcase projects that promote science and technology-based DRR and encourage governmental and social investment in disaster risk reduction.
17. Increase investment in knowledge, education, research, innovation, technology transfers and the empowerment of youths and young professionals, to advance multidisciplinary / cross-disciplinary and trans-disciplinary disaster risk reduction and build resilience.
18. Develop and promote futures literacy as an essential skill.
19. Enhance science and technology capacities at the local level, especially linking the local governments and local academic institutions. This includes sustained investment in science and technology.

Priority 4 – Enhance Disaster Preparedness for Effective Response and to Build Back Better

20. Promote the role of multidisciplinary / cross-disciplinary and trans-disciplinary science and technology in effective pre-disaster planning, preparedness, response, rehabilitation, recovery, and reconstruction to build back better.
21. Develop an efficient and effective cooperation among the science community and business sector by utilizing the advancements of the fast-developing information and communication technology (ICT), including big data.
22. Research innovative and practical solutions to promote whole-of-society engagement.
23. Develop and disseminate information on multidisciplinary / cross-disciplinary and trans-disciplinary science, technology and innovations for effective pre-disaster planning, preparedness, response and to build back better in recovery, rehabilitation and reconstruction.