The role of scientific and technical community in supporting the implementation of the Sendai Framework

Technical Workshop
Launch of Sendai Framework Monitoring System
December 6-8, Bonn, Germany

United Nations Office for Disaster Risk Reduction (**UNISDR**)

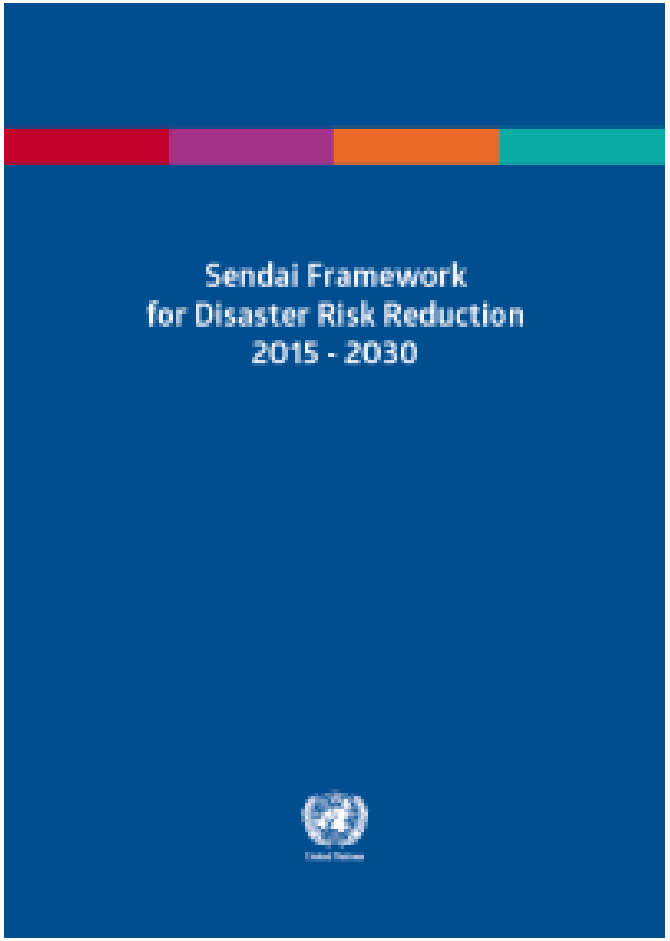
In support of the Sendai Framework
for Disaster Risk Reduction 2015 - 2030

Overview

- The Sendai Framework and Science and Technology
- The Science and Technology Roadmap to Support the Implementation of the Sendai Framework
- The STAG
- Outcomes of the Global Forum on Science and Technology for Disaster Resilience (Japan, November 2017)

The Sendai Framework and S&T

- It is a general framework, covering the different aspects of disaster risk reduction.
- The 4 priority areas do not include the terms ‘science ‘ nor ‘technology’.
- However, science is either mentioned or implicit in the whole document.



The Sendai Framework and S&T

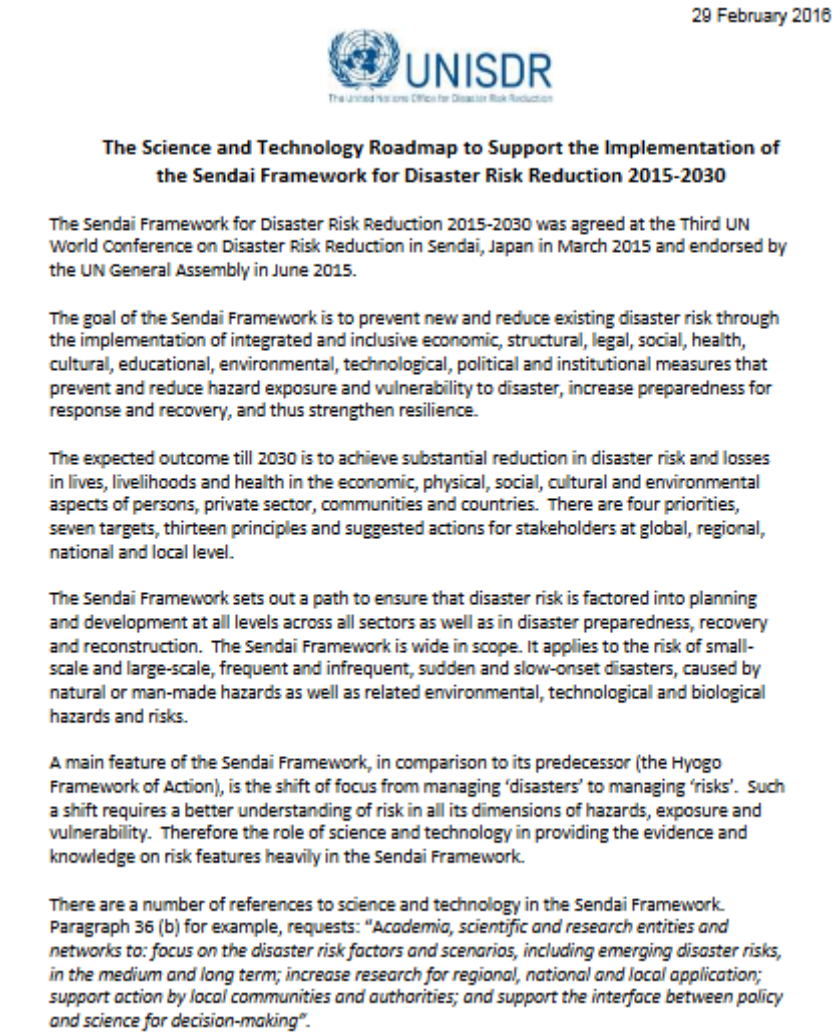
36 (b):“A*cademia, scientific and research entities and networks to: focus on the disaster risk factors and scenarios, including emerging disaster risks, in the medium and long term; increase research for regional, national and local application; support action by local communities and authorities; and support the interface between policy and science for decision-making”.*

The Sendai Framework and S&T

25 (g): *"Enhance the scientific and technical work on disaster risk reduction and its mobilization through the coordination of existing networks and scientific research institutions at all levels and all regions with the support of the UNISDR Scientific and Technical Advisory Group in order to: strengthen the evidence-base in support of the implementation of this framework; promote scientific research of disaster risk patterns, causes and effects; disseminate risk information with the best use of geospatial information technology; provide guidance on methodologies and standards for risk assessments, disaster risk modelling and the use of data; identify research and technology gaps and set recommendations for research priority areas in disaster risk reduction; promote and support the availability and application of science and technology to decision-making; contribute to the update of the 2009 UNISDR Terminology on Disaster Risk Reduction; use post-disaster reviews as opportunities to enhance learning and public policy; and disseminate studies".*

The Science &Technology Roadmap

- To support the implementation of the Sendai Framework, the S&T community met at the first UNISDR Science and Technology Conference in January 2016 in Geneva.
- The outcome of this conference is the Science and Technology Roadmap to support the implementation of the Sendai Framework.



29 February 2016

UNISDR

The United Nations Office for Disaster Risk Reduction

The Science and Technology Roadmap to Support the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030

The Sendai Framework for Disaster Risk Reduction 2015-2030 was agreed at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan in March 2015 and endorsed by the UN General Assembly in June 2015.

The goal of the Sendai Framework is to prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

The expected outcome till 2030 is to achieve substantial reduction in disaster risk and losses in lives, livelihoods and health in the economic, physical, social, cultural and environmental aspects of persons, private sector, communities and countries. There are four priorities, seven targets, thirteen principles and suggested actions for stakeholders at global, regional, national and local level.

The Sendai Framework sets out a path to ensure that disaster risk is factored into planning and development at all levels across all sectors as well as in disaster preparedness, recovery and reconstruction. The Sendai Framework is wide in scope. It applies to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or man-made hazards as well as related environmental, technological and biological hazards and risks.

A main feature of the Sendai Framework, in comparison to its predecessor (the Hyogo Framework of Action), is the shift of focus from managing 'disasters' to managing 'risks'. Such a shift requires a better understanding of risk in all its dimensions of hazards, exposure and vulnerability. Therefore the role of science and technology in providing the evidence and knowledge on risk features heavily in the Sendai Framework.

There are a number of references to science and technology in the Sendai Framework. Paragraph 36 (b) for example, requests: "*Academia, scientific and research entities and networks to: focus on the disaster risk factors and scenarios, including emerging disaster risks, in the medium and long term; increase research for regional, national and local application; support action by local communities and authorities; and support the interface between policy and science for decision-making*".

The Science &Technology Roadmap

- The Science and Technology Roadmap includes expected outcomes, actions, and deliverables under each of the four priority of actions of the Sendai Framework.
- The science and technology community can then link to and plan around the implementation of the Roadmap.
- Work plans for several of the deliverables (with responsibilities, outputs and a timeline) in the Roadmap can then be developed as appropriate. These can be developed on a needs basis with identified partners with the support of the UNISDR Science and Technology Advisory Group.

The Science &Technology Roadmap

Summary of the expected outcomes of the Science and Technology Road Map

Sendai Framework Priority for Action	Science and Technology Expected Outcomes
1. Understanding Disaster Risk	1.1 Assess and update the current state of data, scientific and local and indigenous knowledge and technical expertise availability on disaster risks reduction and fill the gaps with new knowledge. 1.2 Synthesize, produce and disseminate scientific evidence in a timely and accessible manner that responds to the knowledge needs of policy-makers and practitioners. 1.3 Ensure that scientific data and information support are used in monitoring and reviewing progress towards disaster risk reduction and resilience building. 1.4 Build capacity to ensure that all sectors and countries have access to, understand and can use scientific information for better informed decision-making
2. Strengthening Disaster Risk Governance to Manage Disaster Risk	2.1 Support a stronger involvement and use of science to inform policy- and decision-making within and across all sectors at all levels
3. Investing in Disaster Risk Reduction for Resilience	3.1 Provide scientific evidence to enable decision-making of policy options for investment and development planning
4. Enhancing Disaster Preparedness for Effective Response, and to "Build Back Better" in Recovery, Rehabilitation and Reconstruction	4.1 Identify and respond to the needs of policy- and decision-makers at all levels for scientific data and information to strengthen preparedness, response and to "Build Back Better" in Recovery, Rehabilitation and Reconstruction to reduce losses and impact on the most vulnerable communities and locations.

The STAG

- The UNISDR Science and Technology Advisory Group (STAG) includes 21 members representing different disciplines (agriculture, engineering, climate sciences, geosciences, health, social sciences), from the different regions of the world. Young scientists are also represented
- This group provides advice to UNISDR and supports the implementation of the S&T Roadmap.
- It also liaises with the different regional STAGs

Outcomes of the Global Forum on S&T for Disaster Resilience

- The Science and Technology community met in Tokyo, Japan to reaffirm its commitment to support the implementation of the Sendai Framework.
- The discussions were organised in working groups, one for each priority areas of the Sendai Framework, one focusing on National Platforms, one on interdisciplinarity and one on a Periodic Synthesis Reports.
- The Tokyo Statement 2017 summarises the outcomes of this meeting.

Outcomes of the Global Forum on S&T for Disaster Resilience

- **contribute to knowledge on disaster risk** - establish and use reliable scientific frameworks for evaluating disaster risk on a regular basis, as a function of the identification and assessment of hazards, vulnerability, and exposure including single and concatenated events.
- **contribute to strengthening disaster risk governance** - create and implement a systematic framework in which disaster risk assessment is used to make decisions for planning and development based on scientific evidence.
- **encourage investment in disaster risk reduction for resilience -** develop and implement tailor-made methods to assess disaster risks and share those among relevant Government agencies and key stakeholders.

Outcomes of the Global Forum on S&T for Disaster Resilience

- **promote "Build Back Better" in recovery, rehabilitation and reconstruction -** share common paradigms including "rebuilding livelihoods", "rebuilding economy" and "rebuilding regional communities".
- **promote and implement interdisciplinary and transdisciplinary collaboration -** develop innovative approaches and technologies for risk assessment from both interdisciplinary and transdisciplinary perspectives including the humanities and social sciences.
- **contribute to national platforms for more effective use of science and technology**
- **produce periodic synthesis reports on the state of S&T for risk-sensitive development and investment** .

Thank you

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