



**Food and Agriculture
Organization of the
United Nations**



Regional Conference

**“Strengthening resilient food and agriculture systems –
Implementing the Sendai Framework for DRR in the Agriculture Sector in Asia and the Pacific”**

15 - 16 March 2018, Ha Noi, Viet Nam

Session Concept Note

Session	Parallel Session S5 – Science and Technology
Title	<i>Bridging Gaps in Science, Policy and Practice for a Resilient Food and Agriculture Systems</i>
Date and Time	Friday, 16 th March 2018 10.30 – 13.00 hours
Venue	TBC
Organizers	CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) Contact: Leo Sebastian, CCAFS Southeast Asia (l.sebastian@irri.org) FAO RAP: Contact:
Background	<p>The role of science and technology (S&T) in providing evidence for policy is gaining prominence. This has become urgent with growing demand for multidisciplinary inquiry to address complex and interrelated problems of climate change, disasters, and sustainable developmenti. Consultations on the 2030 sustainable development agenda, climate change, and disaster risk reduction (DRR) agreements have seen the global science community, governments, and international agencies call for a better mobilization of S&T to support resilience effortsii.</p> <p>The Sendai Framework recognizes the cross-cutting nature of DRR policy and calls on a range of stakeholders to help governments. Factors contributing to national capacity building include promotion of research, increase technology transfer mechanisms, open data; communication of usable evidence and user’s needs, education and training, as well as international cooperation. As identified, the main difficulties with existing delivery are gaps in knowledge, lack of coordination, and a gap in capacity to use scientific evidence for policy-making (Calkins 2015).</p> <p>A global S&T Roadmap to implement the Sendai Framework for DRRiii was developed with the facilitation of the UN Office for DRR (UNISDR). The roadmap calls for S&T actions in response to the four Priorities for Action of the Sendai Framework, namely: 1) Understanding risk; 2) Strengthening risk governance; 3) Investing in DRR for</p>

resilience and 4) Strengthening preparedness for effective response and better recovery. A summary of these actions is provided in Annex 1.

In Asia-Pacific region, the 1st Asian S&T Conference for DRR in the form of a Science-Policy Dialogue held in August 2016 has resulted in a statement of six voluntary actions to promote research and higher education on multi-disciplinary DRR; ensure that research, policies, and application are integrated across disciplines and contribute to policy-making and capacity building; develop and coordinate standardized open source information data, analysis procedures, and guidelines; and, raise awareness and increase funding for applied and basic integrated research on disaster risksiv. The 2nd Asian S&T Conference for DRR to continue the Science-Policy Dialogue will take place on 17-18 April 2018.

S&T play a crucial role in food and agriculture systems – for intensification, increased productivity, post-harvest management, new products, etc. With the agriculture sectors contributing 26% of total climate-related disaster losses, technology development and pilot of disaster and climate resilient practices (such as drought-tolerant seeds, conservation agriculture in dryland areas, etc.) are on the rise. Yet, awareness of these technologies and practices is still limited, let alone application that is challenged by many factors such as lack of resources by farmers, particularly smallholders to access and capacity to apply, amongst others.

This session will facilitate deliberations on how S&T can better support DRR and resilience building in the agriculture sectors, across the four priorities for action set out in the Sendai Framework for DRR. Of critical importance are issues such as maximizing S&T advances in assessing vulnerability and risk, strengthening forecast and early warning that reach the last mile to trigger early actions and improve evidence to make the business case for investments in DRR and CCA.

The following overarching questions serve as guide for interventions and deliberations during the session:

- What role has S&T played in reducing risks and strengthening the resilience of food and agriculture systems and dependent livelihoods in Asia and the Pacific?
- What can be learned from the successful cases (and ineffective cases) in applying S&T for disaster and climate resilience in agriculture sectors (including the four sub-sectors)?
- What are the success factors and causes of failures?
- What are the key policies, technical know-how requirements and collaborative structures and processes needed for S&T to play its role effectively? How to develop collaboration and partnership with the S&T institutions in light of the Sendai Framework, the Paris Agreement, and the 2030 Agenda?

Specifically, the following issues emerge as critical for resilient food and agriculture:

- How to bridge the last mile to enable advance/hi-tech S&T (i.e. climate and disaster risk information, early warning, new technologies) to reach and support at-risk resource-poor, smallholder farmers?

	<ul style="list-style-type: none"> • How can we make a business case for more investment in technologies for improving resilience to disasters and climate change? Noting that this is still mainly perceived as a humanitarian concern (focus on saving lives and livelihoods in disasters) rather than an agriculture and food systems concern, and the benefits of resilience investments take time to be realized. What would encourage private investments in the resilience of food and agriculture systems? • How can we ensure that S&T builds on local knowledge and practices that have proven resilient and sustainable? How can initiatives such as the Globally Important Agricultural Heritage Systems (GIAHS)^v get consideration in the S&T work for a more effective DRR/CCA measure?
Session objectives	<p>The session aims to:</p> <ul style="list-style-type: none"> • Share successful (and ineffective cases) experiences in applying S&T in DRR and CCA in the agriculture sectors; • Deliberate on priority actions for S&T to effectively play its role in addressing specific challenges facing the agriculture sector, as called for in the Sendai Framework, the Paris Agreement, and the SDGs • To facilitate partnerships and collaboration in bridging the gaps in applying Science, Policy, and Practice.
Expected outcomes	<ul style="list-style-type: none"> • Dissemination of documented lessons from successful (and also ineffective) experiences in applying S&T in DRR and CCA in the agriculture sector; • Identification of the challenges and opportunities in bridging gaps in Science, Policy, and Practice for more effective investments and resilience building efforts; • A shared understanding of the priority actions needed for S&T to play an effective role in the implementation of the Sendai Framework in the agriculture sector.
Session format	<p>The session could be a combination of a panel discussion and plenary and/or group discussion. The indicative schedule is below:</p> <p>10.30 – 10.35 Introduction by the Chair</p> <p>10.35 – 10.50 Keynote address</p> <p>10.50 – 11.50 Panel discussion, moderated by the Chair</p> <p>11.50 – 12.50 Plenary and/or 4 roundtable discussions to identifying priority actions for S&T play its role in strengthening resilient food and agriculture systems in Asia</p> <p>12.50 – 13.00 Wrap up by the Chair</p>

Participants who would like to contribute papers and/or speak as a panelist at this session,

Please [click here for contribution](#) and send the information of your contribution to kaustubh.devale@fao.org and agrisendai2018@gmail.com

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	<p>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.</p> <p>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.</p> <p>1.3 Ensure that scientific data and information support are used in monitoring and reviewing progress towards disaster risk reduction and resilience building.</p> <p>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</p>
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.

ⁱ Hellmuth et al 2011², ODI and CDKN 2014³ and ICSU 2014⁴

ⁱⁱ Calkins 2015

ⁱⁱⁱ http://www.unisdr.org/files/49240_49240finaloutcomedocument1statedcdrr.pdf

^{iv} <https://www.preventionweb.net/events/view/55879>

^v www.fao.org/giahs/en/