



CALL FOR PAPERS

Global Assessment Report on Disaster Risk Reduction 2022

Abstract: Chapter Number 10 / Subchapter Number 10,1-10.5

Theme/title of proposed paper	<i>Consilience toward building a sustainable, resilient, global society: Developing an "Online Synthesis System (OSS)" and training "facilitators"</i>
Name and title of author/ and organizational affiliation/website	<i>KOIKE Toshio, HAYASHI Haruo and TAKARA Kaoru, Council Members and Members, Science Council of Japan, Cabinet Office of Japan</i>
Recent publications and/or recent experience (≤ 10 years)	<ul style="list-style-type: none"> ● <i>"Building Resilience to Disasters", a joint statement by G8 summit countries and academies of relevant countries (May 2012): it urged summit countries' leaders to reduce disaster risks through incorporating resilience strategies into their national plans and development assistance plans.</i> ● <i>SCJ organized the Tokyo Conference on International Study for Disaster Risk Reduction and Resilience in January 2015 and announced the contents of discussions to the international community through the "Tokyo Statement" and "Tokyo Action Agenda", which would lead to reflect the importance of science and technology in the SFDRR 2015-2030.</i> ● <i>Proposal "Promotion of International Research on DRR and Reduction of Disaster Risks - Towards Materializing SFDRR and the Tokyo Statement -": To materialize the results of the Tokyo Conference and the Third UN World Conference on DRR, this proposal articulated the actions each countries should tackle with in cooperation with each other to reduce</i>



	<p><i>disaster risks using science and technology as well as the entities who have the responsibilities to implement them.</i></p> <ul style="list-style-type: none">● <i>G-Science Academies Joint Statement, "Strengthening disaster resilience to support sustainable development" (April 2016): Actions towards materializing the SFDRR have been proposed with an understanding that it is time to take actions based on global frameworks such as SFDRR, the SDGs and the Paris Agreement on Climate Change, and strengthening disaster resilience disasters is the pre-condition to support sustainable development.</i>● <i>G-Science Academies Joint Statement, "Cultural heritage: Building resilience to natural disasters" (May 2017): Concrete measures have been proposed to integrate protection of cultural heritage with existing disaster reduction policies.</i>● <i>IAP statement "Science and Technology for Disaster Risk Reduction" (November 2017): Cooperative international actions have been proposed toward building a more resilient society to disasters.</i>● <i>Tokyo Resilience Forum (November 2017): "Tokyo Statement 2017" proposed to produce, in cooperation with all stakeholders, guidelines on national DRR platforms with contribution of science and technology as well as periodic synthesis reports.</i>● <i>Toshio Koike, Haruo Hayashi, Kenji Satake, Kenichi Tsukahara, Akiyuki Kawasaki, Yusuke Amano, Kaoru Takara, Setsuko Saya, Naohiro Nishiguchi, Satoru Nishikawa, Keiko Tamura, Kenzo Hiroki, Rajib Shaw and Tetsuya Ikeda, Role Played by Science and Technology in Disaster Risk Reduction: From Framework Planning to Implementation, Journal of Disaster Research, 13(7), pp. 1222-1232, 2018.11.</i>
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<p>Purpose of the study and research problem investigated</p>	<p><i>"The Sendai Framework for Disaster Risk Reduction 2015-2030" was adopted in March 2015 as international guidelines for disaster risk reduction (DRR). In September of the same year, "Transforming our world: the 2030 Agenda for Sustainable Development" (hereinafter called SDGs) was also adopted, and it has been discussed to promote them in an integrated manner.</i></p> <p><i>The Science Council of Japan (SCJ) convened two international conferences, issuing a proposal and two international statements, and in November 2017 it concluded the roles to be played by science and technology and concrete guidelines toward achievement of sustainable development through establishment of a resilient society, which can minimize the effects caused by disasters, overcome damages and ensure recovery. To this end, SCJ proposes means how to establish necessary functions and promote science internationally with focus on the collaboration between DRR and Environment/Development.</i></p>
<p>Basic design of the study</p>	<p><i>Even though DRR is not explicitly stated in the 17 goals of the SDGs, disaster resilience and sustainable development are closely and structurally related through risk. Recent trend of international discussions clearly indicates that strengthening disaster resilience is a major premise for sustainable development, and integration of both initiatives should be promoted. To promote these discussions and lead them to concrete decision making, it is necessary to promote "consilience" that circulates knowledge by integrating "cognizing science" and "design science" and forming a network with social actors through social expectations research, as SCJ proposes. This approach is in line with the basic principles of Future Earth, which promotes interdisciplinary research and transdisciplinary research where the scientist community and society work together.</i></p>



	<p><i>"Consilience" in DRR and Environment/Development should be conducted in a comprehensive manner "on site" where various problems occur. The term "on site" as used herein covers a variety of targets with different scales. As explicitly defined in the Hyogo Framework for Action (HFA) and the Sendai Framework, a nation has the primary responsibility for DRR. Likewise, considering how localized disaster risks can be, responsibilities for DRR lies in a wide variety of actors ranging from local governments, companies, organizations to communities and residents. Therefore, every target that each actor from resident to a nation tackles with should be recognized as "on site". Considering the issues such as climate change, tsunami propagation, impacts to supply chain network, and disaster immigrants, the scale of "on site" goes beyond a nation and expands to a region and the world.</i></p>
Major findings or trends found or expected as result of the analysis	<p><i>To promote risk-informed sustainable development, it is essential to construct an ecosystem for the unification of knowledge, or consilience in DRR and Environment/Development. This consilience can only be realized through understanding the unique nature of global issues and the positions of stakeholders. This, in turn, leads to the possibility of designing and sharing an ideal form of disaster risk reduction to support societies. To promote consilience, we propose to develop an "Online Synthesis System (OSS)", and to train "facilitators." OSS is a web-based data platform on DRR/Sustainable development using users' native language. Facilitator, or field catalysts, who will convene and moderate meetings, lead problem-solving, and provide professional advice.</i></p>
Summary of paper conclusions (maximum 300 words)	<p><i>With understanding that strengthening disaster resilience is a major premise for achieving the goals of sustainable development, it is necessary to promote to develop integrated scenarios for DRR and Environment/Development and conduct concrete measures</i></p>



	<p><i>based on them in cooperation with a variety of actors. Therefore, we recommend the following actions:</i></p> <p><i>The scientist community should develop Online Synthesis System for the promotion of DRR and Sustainable Development (OSS).</i></p> <p><i>The scientist community should cultivate facilitators.</i></p> <p><i>On-site stakeholders should develop integrated scenarios for DRR and Environment/Development and conduct concrete measures based on them towards enhancement of disaster resilience and achievement of the SDGs in cooperation with facilitators and utilizing OSS effectively.</i></p> <p><i>International scientific organizations, UN/international agencies and international aid agencies should support each country and region to develop OSS, facilitators and integrated scenarios and take actions.</i></p>
<p>Describe modality of research and specify key references and data sources</p>	<p><i>The Science Council of Japan (SCJ) was established in January 1949 as a "special organization" under the jurisdiction of the Prime Minister, operating independently of the government, for the purpose of promoting and enhancing the field of science, and having science reflected in and permeated into administration, industries and people's lives. It represents Japan's scientists both domestically and internationally with the firm belief that science is the foundation upon which a civilized nation is built.</i></p> <p><i>Following are its two functions:</i></p> <ol style="list-style-type: none"><i>1. To deliberate on important issues concerning science and help solve such issues</i><i>2. To make coordination among scientific studies to achieve higher efficiency</i> <p><i>With a focus on the following four activities, SCJ is extremely active in its deliberations, helping to improve and develop science in Japan, and strengthening the inseparable alliance with the Council</i></p>



	<p><i>for Science and Technology Policy, which is the command center for Japan's science and technology policies.</i></p> <ul style="list-style-type: none">● <i>Policy recommendations to the government and public</i>● <i>International activities</i>● <i>Promotion of scientific literacy</i>● <i>Establishment of networks among scientists</i>
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