

Concept paper

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Theme: Transdisciplinarity for Global Sustainability: Strategies for Research and Capacity Building

Developing appropriate responses to global environmental changes caused by human activities, such as anthropogenic climate change and biodiversity loss, is one of the most pressing challenges of the 21st century. Meeting this challenge requires a concerted effort through cooperation between scholars and experts from across the world. One initiative aiming to facilitate such cooperation is “Future Earth”. This ambitious international research initiative will be implemented over the next decade by international organizations including the International Council for Science (ICSU) and the International Social Science Council (ISSC), renowned academic councils. It is focused on integrated, transdisciplinary efforts to resolve these pressing global challenges and to build a sustainable future.

In order to play this role effectively, it is important for Future Earth to integrate and coordinate the contributions of various academic disciplines, applying a holistic approach which spans the natural sciences, social sciences and humanities. At the same time, it is essential to build links and interfaces between science, policy and society, and implement transdisciplinary approaches to translate research findings into policies and actions focused on resolving global challenges. However, with academic disciplines becoming more fragmented, there is a lack of clear policies on how to implement a transdisciplinary approach, and on how to apply it through education at various levels and capacity building initiatives for young researchers and other stakeholders.

Science Council of Japan (SCJ) will actively support the international Future Earth initiative, together with Japanese research institutions working in relevant fields, as well as the United Nations University, which is headquartered in Japan. SCJ also hopes to lead the efforts of Future Earth, for example by playing a role in its distributed permanent secretariat. Japan is also hosting the UNESCO World Conference on Education for Sustainable Development, in Nagoya this November, in the closing year of the Decade of Education for Sustainable Development (DESD). The conference will focus on developing policies for the future direction of education for sustainable development (ESD).

Researchers from inside and outside Japan who are active in fields related to global sustainability will be invited to this symposium. Discussions will be conducted in two sessions, with the results of each session combined in the spirit of integrating research through a transdisciplinary approach. The symposium will also develop proposals for education and capacity building to cultivate

transdisciplinary thinking. In this way, the objective of this symposium is to make significant contributions to the future implementation of the Future Earth initiative.

The first session will discuss how to achieve research integration for global sustainability, as well as the roles played by the natural sciences, social sciences and humanities. Discussions will also address how to build interfaces between science, policy and society, promoting cooperation among policymakers and a broad range of other stakeholders. The second session will discuss sustainability education at the elementary, secondary, and higher levels, and the participation by diverse stakeholders in Regional Centres of Expertise (RCE) and other efforts for the promotion of ESD. The symposium will also facilitate debates on connecting research integration to education and capacity building.