GUIDELINES ON SUSTAINABILITY SCIENCE IN RESEARCH AND EDUCATION for implementing the SDGs

The international UNESCO project “Broadening the Application of the Sustainability Science Approach” was initiated in October 2015 with the support of the Japanese Ministry of Education, Culture, Sports, Science and Technology (Japan/MEXT) to identify good practices and develop policy guidelines to help Member States harness the potential of sustainability science in their sustainable development strategies.

This project aims to help UNESCO Member States and other stakeholders introduce or reinforce a sustainability science approach into transdisciplinary research and education, to enable them to better respond to global challenges. The main output of the project is a set of policy guidelines on sustainability science, through three symposia to foster dialogue and collaboration among experts and policy-makers.

Based on the joint efforts of UNESCO’s Natural Sciences Sector, Social and Human Sciences Sector, Education Sector and Regional Science Bureau for Asia and the Pacific in Jakarta, the project benefits from the guidance of a multidisciplinary steering committee and a drafting sub-committee.

SUSTAINABILITY SCIENCE IS RESEARCH AND EDUCATION THAT RESULT IN NEW KNOWLEDGE, TECHNOLOGY, INNOVATION AND HOLISTIC UNDERSTANDING WHICH WILL ALLOW SOCIETIES TO BETTER ADDRESS GLOBAL AND LOCAL SUSTAINABILITY CHALLENGES
Mainstreaming Sustainability Science in Research

Foresee multi-stakeholder evaluation panels that will be able to both contribute to the scoping of a project and to assess the scientific value and relevance of the sustainability challenge tackled, and the qualifications of the academic and non-academic participants, and the proposed process for engaging them;

Use established and new types of indicators to assess and monitor the value, progress and outcome of Sustainability Science projects. They may differ from those used for standard academic research, for instance in terms of both processes and timeframes; also, different forms of publication of results might be included in the evaluation;

Assess different types of trade-offs associated with the implementation of a given approach to solve a particular problem, and how such implementation may affect different groups of stakeholders, including future generations.

Mainstreaming Sustainability Science in Higher Education

Sustainability Science also requires new approaches within higher education and, possibly, even a fundamental reconceptualization of teaching and learning. The trust of such a reconceptualization is very much in line with the aims of the “Third Mission” of higher education, which calls for an active partnership between institutions of higher education with society and the economy.

Strategic Funding for Sustainability Science

Sources of funding should be diversified to include international organizations, government departments, academies, other science-based bodies as well as other sectoral ministries, public and private foundations, and industries. For international cooperation, a stronger involvement of development agencies and development banks, both national and multilateral, could be promising, since Sustainability Science is focusing on problems in practical contexts. In addition, crowdfunding should be explored as a potential option for specific types of projects.

For further information on Sustainability Science Guidelines, please visit: 
https://en.unesco.org/sustainability-science