

SOLAS JAPAN activity

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To achieve quantitative understanding of the key biogeochemical-physical interactions between the ocean and the atmosphere, and of how this coupled system affects and is affected by climate and environmental change, the Surface Ocean-Lower Atmosphere Study (SOLAS) was established to provide international science coordination and capacity building in 2004. The new SOLAS science plan forms a solid basis to continue the operation of international SOLAS for the period 2015-2025, under Future Earth, the World Climate Research Programme (WCRP), the sponsorship of the Scientific Committee on Oceanic Research (SCOR). Some of uncertainties in projecting future global environmental trends are attributable to an insufficient understanding of the physical and biogeochemical interactions between the ocean and atmosphere. Additionally, progress in SOLAS science is needed to assess the impact of anthropogenic emissions on future climate and ecosystem services, as well as the environmental consequences of policy options. In order to address these issues, the SOLAS science mission will be organised around five core themes:

Core Theme 1: Greenhouse gases and the oceans

Core Theme 2: Air-sea interface and fluxes of mass and energy

Core Theme 3: Atmospheric deposition and ocean biogeochemistry

Core Theme 4: Interconnections between aerosols, clouds, and marine ecosystems

Core Theme 5: Ocean biogeochemical control on atmospheric chemistry

In addition, the study of these themes will be integrated to understand key environments, such as upwelling systems, the polar oceans, and coastal waters, as well as to evaluate the environmental efficacy and impacts of geoengineering proposals, policy decisions, and societal developments.

In order to respond to these SOLAS activity in Japan, the committee of SOLAS-JAPAN is renewing in 2018 and planning to coordinate national projects and opportunity for exchanging information within national and inter-national community. SOLAS-JAPAN committee is planning to hold SOLAS-Open Science Conference in Sapporo Japan in April 2019.

Reference : Brévière, E. and the SOLAS Scientific Steering Committee (eds.) (2016): SOLAS 2015-2025: Science Plan and Organisation. SOLAS International Project Office, GEOMAR Helmholtz Centre for Ocean Research Kiel, Kiel, 76 pp.

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