

Activity and movement of WCRP ” Climate and Cryosphere” (CliC)

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This presentation introduces WCRP core project "Climate and Cryosphere" (CliC).

WCRP Core Project: Climate and Cryosphere (CliC) strengthen discussions on the role of cryosphere in the Earth's Climate. "Cryosphere" covers sea ice, ice on lakes and rivers, snow, glaciers, ice caps and ice sheets, icebergs and frozen ground including permafrost. Arctic and Antarctic, high-elevation areas.

1. Role of cryosphere in the earth climate system
2. Global and regional climate indicators
3. Understanding of physic-chemical processes and indication in the earth system model
4. Improvement of cryospheric prediction in the climate change

WCRP has 7 Grand Challenge, and CliC is leading Melting Ice and Global Consequences. CliC determined Action Plan 2017-2021 and implements it, especially "Role in many socioeconomic issues such as water supply, transportation, food production, built infrastructure, tourism and recreation."

Currently, Polar Climate Predictability Initiative (PCPI) works for seasonal and long-term prediction of Arctic and high latitude cryosphere. PCPI has the direction of cooperation with stakeholder which FE is strongly endorsing. WMO/World Weather Research Programme (WWRP), Polar Prediction Project (PPP) are enhanced activities. YOPP (2017-2019) is on-going project, and MOSiC (2019-2020) is prepared for year-around project in the Arctic. These projects are aiming to connect natural science to socio, economic connections.

Keywords: Cryosphere, Climate, CliC



WCRP seven GCs:

- ✓ Melting Ice and Global Consequences
- ✓ Clouds, Circulation and Climate Sensitivity
- ✓ Carbon Feedbacks in the Climate System
- ✓ Understanding and Predicting Weather and Climate Extremes
- ✓ Water for the Food Baskets of the World
- ✓ Regional Sea-Level Change and Coastal Impacts
- ✓ Near-term Climate Prediction