WORLD CLIMATE RESEARCH PROGRAMME

“From Global to Coastal: Cultivating New Solutions and Partnerships for an Enhanced Ocean Observing System in a Decade of Accelerating Change”

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A new WCRP Strategic Plan for this decade

WCRP’s Mission (*purpose*) is to coordinate and facilitate international climate research to develop, share and apply the climate knowledge that contributes to societal well-being.

### Scientific Objectives

1. **Fundamental understanding of the climate system**
2. **Prediction of the near-term evolution of the climate system**
3. **Long-term response of the climate system**
4. **Bridging climate science and society**

- A hierarchy of simulation tools
- Sustained observations and reference data sets
- Need for open access
- High-end computing and data management

[www.wcrp-climate.org/wcrp-sp-overview](http://www.wcrp-climate.org/wcrp-sp-overview)
WCRP Structure and Science

Core Projects and Research Communities
- Climate and Cryosphere ( CliC )
- Global Energy and Water Exchanges ( GEWEX )
- Climate and Ocean Variability, Predictability and Change ( CLIVAR )
- Stratosphere Troposphere Processes And Their Role in Climate ( SPARC )
- Earth System Modelling and Observations ( ESMO )
- Regional Information for Society ( RIFS )

Ongoing Activities and Forums
- Fixed-term projects
- Conferences and workshops
- Reference datasets, evaluations and benchmarking
- Diversity and capacity building: ECRs, regions
- Rapid updates, syntheses, assessments, gap analysis
- Communications and outreach

Climate Information
Safe Landing Climates
Predicting Earth System Change
Climate Observations and Modelling
Cycles, Budgets and Stock take
Climate Intervention
Tipping Points
WCRP Lighthouse Activities
Major and new scientific approaches, technologies, and institutional frameworks required to meet society’s need for robust and actionable climate information

Explaining and Predicting Earth System Change

My Climate Risk

Safe Landing Climates

WCRP Academy

Digital Earths

https://www.wcrp-climate.org/lha-overview
Explaining and Predicting Earth System Change

Design and deliver an integrated capability for observing, explaining and providing early warnings of Earth System Change - multi-annual to decadal timescales.

New frameworks for assessing and explaining regional climate risk, so as to deliver climate information that is meaningful at local scales.

Digital, dynamic representation of the Earth system, blending models and observations to explore past present and future states.

My Climate Risk

Safe Landing Climates

WCRP Academy

Digital Earths

Routes to climate-safe landing 'spaces' for human and natural systems, multi-decadal to millennial timescales; connecting climate, Earth system, socio-economic sciences and pathways to SDGs.

Determine climate research education needs; build enabling mechanisms by working with WCRP core activities and education providers, incl. universities.

https://www.wcrp-climate.org/lha-overview
WCRP Open Science Conference 2023

Advancing climate science for a sustainable future

An opportunity to celebrate our achievements and launch the new WCRP and initiatives

Meet with us in remarkable Rwanda in 2023. We look forward to welcoming you, virtually or in-person, at the Kigali Convention Centre.

https://www.wcrp-climate.org/wcrp-osc23