

46th Session of the WCRP Joint Scientific Committee (JSC)

Date: 12-16 May 2025

Version 1

Update report for the WCRP Joint Scientific Committee

Safe Landing Climates

1. High-level publications *(in particular strategic publications/assessments that are direct outcomes of your activity)*

- *Uncertain Pathways to a Future Safe Climate - Commentary - Sherwood et al., Earth's Future, 6 June 2024. <https://doi.org/10.1029/2023EF004297>*

2. Capacity Building/Education and Training Highlights

- *Seasonal school planned for 2026 on the topic of cascading shocks (with RiskKAN)*
- *Seasonal school planned for 2027 (TBD) on the topic of conducting integrated natural and social scientific research into climate change (contact: Lisa Miller)*

3. Linkages with other Core Projects, Lighthouse Activities, Academy etc.

- *The Transient Climate Response to cumulative carbon Emissions (TCRE) Assessment will be joint with ESMO.*
- *Representatives from several LHAs have participated in the SLC Workshop on Cascading Shocks.*
- *Representatives from other LHAs (e.g., My Climate Risk) are involved in the tipping assessment paper.*
- *A COP 30 exhibition project is underway with MCR; a support person has been recruited, and fundraising and planning are ongoing.*
- *Potential partnership with EPESC on common areas of interest (e.g., high impact extremes, cascading shocks)*
- *Potential partnership with WCRP Academy on 2026 summer school*
- *Additional links being explored: CliC and CLIVAR (sea level), GEWEX (water availability), etc.*
- *A joint webinar (possibly a series) will be planned with the Research on Climate Intervention Lighthouse Activity.*

4. Partnerships with entities outside of WCRP

- *Partnerships with S&P Global on workshops, webinars, papers*
- *Partnership with TIPMIP and CMIP on WhatIfMIP activity*
- *A summer school in 2026 is planned with RiskKAN*
- *Potential partnership with WMO Global Heat Health Information Network - Technical Support Unit*

- Co-organizing Global Tipping Conference 2025 in Exeter; Organized a workshop at that conference on TipMIP and WhatifMIP.

5. Future Science Directions for JSC consideration (e.g., new groups, activities)

- Climate economics—initial activities have generated strong interest
- Climate and Health is being explored

6. New Activities (e.g., structural changes to your activity, plans for databases and other products not covered in the above)

- Climate and Health
- An activity that was planned on connecting across the IAM-GCM-impact hierarchy has evolved into activities on coupled physical, economic, and financial impact modeling

7. General (Highlight any other outcomes, etc., that you wish to make the JSC and other WCRP activities aware of (in particular regionally focussed activities we could use in any highlights brochure). Are there particular challenges faced in the last year that the JSC should be aware of?

- ‘High-impact climate events, tipping points, and irreversible regional impacts assessment’ - This is underway, with lead authors appointed, an outline developed, and a writing meeting scheduled for 5-8 May 2025 in New York (NASA GISS). <https://www.wcrp-climate.org/slc-activities/tpa>
- Webinar series on Tipping Points continues: <https://tippingpointsseries.confetti.events>. 8 webinars in 2024; the series continued in 2025.
- ‘Transient Climate Response to Emissions (TCRE) and Zero Emissions Commitment (ZEC) assessment’ - This is underway. Building on the Workshop in January 2024, an online workshop was held in December 2024. Weekly online meetings have been held throughout February to develop section-level content and author teams per section. A half-day workshop and session will be held at the European Geosciences Union General Assembly in April 2025. <https://www.wcrp-climate.org/slc-activities/tcre>
- The [WhatifMIP initiative](#) is advancing and is now part of the TIPMIP effort to ensure that it is strategically placed and to minimize any duplication of work.
- [Workshop on High-Risk Cascading Shocks](#). Geneva, Switzerland. 18-20 November 2024. Well attended, created new links to other disciplines; Report in preparation. Paper planned.
- [Keynote Address - Climate and Economic Modeling: Lessons from 60 Country Climate and Development Reports and Key Knowledge Gaps](#). 20 November 2024.
- [Coupled Physical, Economic, and Financial Impact Modelling Workshop](#). Geneva, Switzerland. 20-22 November 2024. Ongoing collaboration with S&P Global. Report in preparation. Paper planned. There will potentially be a follow-up workshop in early 2026.
- A session at the Sustainability Research and Innovation (SRI) 2025 Congress (16-19 June; <https://sricongress.org/>) on “Identifying holistic pathways to minimize the impacts of climate change.”
- SLC has a large affiliate network that has been engaged in some activities. Challenge: engaging all affiliate members.
- SLC SSG has issued an open call in 2025 to increase diversity and expertise in the SSG.