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Presented by:	SCAR
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## **Mapping SCAR affiliated research to the CEP's Climate Change Response Work Programme (CCRWP)**

**Attachments:**

Atcm40\_att041\_e.pdf: Attachment A - Mapping SCAR research to the CEPs Climate Change Response Work Programme.



# Mapping SCAR affiliated research to the CEP's Climate Change Response Work Programme (CCRWP)

## *Information Paper submitted by SCAR*

### Summary

In response to a request from the Committee at CEP XIX, SCAR conducted a review of recent, current and developing research of relevance to the CEPs Climate Change Response Work Programme (CCRWP) over the 2016-17 intersessional period. Eighteen SCAR affiliated and subsidiary groups provided information on research that is aligned with the climate change related issues identified in the CCRWP. All main elements of the CCRWP were covered by SCAR affiliated research, ranging across most disciplines, including the physical, biological and social sciences. This overlap suggests that there is significant potential for SCAR groups to contribute substantially to key areas outlined in the CCRWP. Clear and timely communication between the CEP and SCAR on the priorities and objectives of the CCRWP will maximise the likelihood of this potential being realised to the fullest extent possible.

### Background

1. In response to a recommendation from the 2010 Antarctic Treaty Meeting of Experts, the Committee established an ICG on climate change at CEP XVI.
2. A draft Climate Change Response Work Program (CCRWP) was presented to the Committee by Norway and the UK in 2015 (WP37 ATCMXXXVIII/CEPXVIII). The Committee agreed to implement the CCRWP as a matter of priority and the Antarctic Treaty Consultative Parties subsequently endorsed the CCRWP by means of Resolution (ATCM XXXVIII Resolution (4) 2015)
3. At CEPXIX, in response to a request by the Committee, SCAR agreed to map SCAR affiliated research to the key issues identified in the CCRWP, and bring this to the Committee at CEPXX in 2017.
4. While SCAR rarely funds research directly, its role in coordinating and facilitating international Antarctic science means that through its affiliated and subsidiary bodies, it has knowledge of, and access to, a wide range of Antarctic research across all disciplines.

### Mapping SCAR affiliated research to the CCRWP

5. Requests for information on research that was directly related to the CCRWP were sent out to Chief Officers (or equivalent) of all SCAR subsidiary groups, including the SCAR affiliated groups Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) and the Southern Ocean Observing System (SOOS).
6. Information on relevant research, often very detailed, was received from the following groups:
  - i. Antarctic Climate Change in the 21<sup>st</sup> Century (AntClim21) Scientific Research Programme (SRP)
  - ii. Antarctic Nearshore and Terrestrial Observing System Expert Group (ANTOS-EG)
  - iii. Antarctic Thresholds – Ecosystem Resilience and Adaptation (AnT-ERA) SRP
  - iv. Antarctic Sea-ice Processes and Climate Expert Group (ASPeCt-EG)
  - v. Biogeochemical Exchange Processes at the Sea-Ice Interfaces Action Group (BEPSII-AG)
  - vi. Birds and Marine Mammals Expert Group (BAMM-EG)
  - vii. The CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP)

- viii. History Expert Group (History-EG)
- ix. Humanities and Social Sciences Expert Group (HASS-EG)
- x. Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED)
- xi. International Partnerships in Ice Core Science Expert Group (IPICS-EG)
- xii. Ocean Acidification Expert Group
- xiii. Past Antarctic Ice Sheet Dynamics (PAIS) SRP
- xiv. Remote Sensing Action Group (Remote Sensing AG)
- xv. Solid Earth Response and influence on Cryosphere Evolution (SERCE) SRP
- xvi. Southern Ocean Observing System (SOOS)
- xvii. Standing Committee on the Antarctic Treaty System (SCATS)
- xviii. State of the Antarctic Ecosystem (AntEco) SRP

## Results

7. The information provided took a number of forms, and has been consolidated in the table provided as Attachment A.
8. SCAR affiliated research covers all the key issues of the CCRWP and is truly interdisciplinary, including the physical, biological and social sciences.
9. Given the overlap between SCAR affiliated research and the CCRWP, it is clear that SCAR groups are well placed to contribute to the CCRWP. Clear and timely communication between the CEP and SCAR on the priorities and objectives of the CCRWP will maximise the likelihood of this potential being realised to the fullest extent possible.
10. There is often overlap between SCAR affiliated research and that carried out by National Programs, and while some of this research is captured in Attachment A, SCAR encourages the Committee to seek information from National Programs to complement and build on the information in Attachment A.

## Additional information

11. If more information is required, contact names for the relevant groups can be accessed via the SCAR website ([www.scar.org](http://www.scar.org)). Direct enquiries for more information can also be made through the SCAR Secretariat.
12. In responding, the Past Antarctic Ice Sheet Dynamics Scientific Research Programme noted that environmental protection should also take into consideration future sea level rise by estimating Antarctic ice sheet sensitivity to a warming climate (a main PAIS focus), and further noted that this was not currently included in the CCRWP.
13. Results from the recently completed Monaco Assessment (see WP013) were not included in Attachment A, but have relevance to several key issues in the CCRWP and should be considered in the implementation of the Work Plan.
14. SCAR meetings, including the 2017 XII SCAR Biology Symposium<sup>1</sup>, the Past Antarctic Ice Sheet Dynamics (PAIS) Conference 2017<sup>2</sup> and the 2018 XXXV SCAR Meetings and Open Science

<sup>1</sup> XII SCAR Biology Symposium. 10-14 July 2017, Brussels, Belgium. <http://www.scarbiodiversity2017.org/>

<sup>2</sup> Past Antarctic Ice Sheet Dynamics (PAIS) Conference 2017. 10-15 September 2017, Trieste, Italy. <http://pais-conference-2017.inogs.it/>

Conference<sup>3</sup> not only provide an opportunity for the dissemination of climate change related research but also provide the opportunity for CEP representatives to promote important issues, including those related to the CCRWP.

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<sup>3</sup> The XXXV SCAR Meetings and Open Science Conference. 15-27 June 2018, Davos, Switzerland. The Open Science Conference will cover both polar regions, being organized jointly with the International Arctic Science Committee (IASC). <http://www.polar2018.org/>