

Discussion on Mapping ARP onto the new WCRP Structure

Time: 21:00 – 22: 00 PM GMT+8, 29 October 2020

Participants: Regina R. Rodrigues (Presenter), Susan Bates, Greg Foltz, Franck Eitel Ghomsi, Jeff Knight, Ingo Richter, Paquita Zuidema (co-chair), Jing Li (ICPO, notes taker)

Part I: Regina's presentation on WCRP Lighthouse Activities and implementation plan

1. The past and future of WCRP
2. [WCRP Strategic Plan 2019-2028](#)
3. Vision and Mission of WCRP
 - **Vision:** A world that uses sound, relevant, and timely climate science to ensure a more resilient present and sustainable future for humankind.
 - **Mission:** The World Climate Research Programme (WCRP) coordinates and facilitates international climate research to develop, share, and apply the climate knowledge that contributes to societal well-being.
4. Implementation priorities:
 - (1) Foster and deliver the scientific advances and future technologies required to
 - advance understanding of the multi-scale dynamics of earth's climate system';
 - quantify climate risk and opportunities;
 - (2) Develop new institutional and scientific approaches required to
 - Co-produce cross-disciplinary regional to local climate information for decision support and adaptation
 - Inform and evaluate mitigation strategies
5. Future structure
 - Core projects are doing self-assessment to better align with the
 - Two new homes: 1) Earth System Modelling and Observational Capacities; 2) Regional Climate Information for Societies;
 - 5 Lighthouse Activities (LHAs): 1) Explaining and Predicting Earth System Changes; 2) My climate risk; 3) Safe Landing Climates; 4) WCRP Academy; 5) Digital Earth. The names of the LHAs are provisional names. 2-page short summary is available for each LHA (<https://www.wcrp-climate.org/wcrp-ip-la>);
 - IPO to continue WCRP communities and LHAs;
 - Grand challenges will sunset
6. High-level science questions: Panels can help contribute to the high-level science questions, e.g.
 - How to improve climate modelling and process understanding?
 - How can we improve climate prediction?
 - What is the impact of different forcing?
 - How can we better understand climate sensitivity?
 - What opportunities do new technologies provide?
 - What can we expect in regional climate hotspots?
 - What will be the impact of Geoengineering?
 - How will climate extremes occur in the future?
 - How will reservoirs change in the future?
 - What is the interaction between climate and development trend?
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7. Transition Timelines:
 - JSC41B: WCRP extraordinary session in late 2020;
 - JSC-42: new homes in place; LHAs initiated; old elements phase out (2021);

- 2021-2022: GC sunsetting
 - JSC-43: New WCRP structure in place; implementation plan written and continuously updated (2022).
8. Mapping CLIVAR-ARP onto the new WCRP Structure:
- **How do current and planned panel activities map onto the new WCRP LHAs?** (i.e. Giving examples of current and planned activities that might connect with each LHA and explain the connection; Suggest new panel activities or cross-panel activities to make the panel more directly relevant to any of these LHAs; Suggest activities relevant to your panel interests which the LHAs might consider including in their science plan);
 - **Do you envisage a strong connection between your panel and either of the two new core projects in WCRP?** (i.e. by moving your panel into the new core project; by making your panel joint between the new core projects; by holding joint activities; or other suggestions) – **ARP will contribute to, but not move the panel into the new ‘homes’.**
 - **Does your panel have additional suggestions for restructuring CLIVAR?** (i.e. to fill existing gaps; to encourage scientific collaboration across panels; to encourage joint focus on specific problems).
9. Some useful information from WCRP:
- Our climate future of WCRP: <https://www.wcrp-climate.org/wcrp-ip-overview>
 - WCRP High-level Science Questions and Flagship Workshop Report: https://www.wcrp-climate.org/WCRP-publications/2020/0220-WCRP_Hamburg_Workshop_Report.pdf

Actions 1: Regina will circulate her presentation and relevant documents to ARP members after the telecon and Jing will put them together on [Google Drive](#)

Part II: Discussions

The Atlantic Region Panel Deconstruct what ARP have done or what potentially ARP can do to fulfil the potential gaps of WCRP.

- The **AMOC activities** to be implemented by ARP will fit into the LHA on ‘Explaining and Predicting Earth System Changes’ (Eleanor to detail it);
- **Link more closely with society** (e.g. via the cooperation with NGOs such as The Nature Conservancy on the application of coastal resilient tools). Society being able to say something for the next 5-10 years, rather than looking only 50-100 years down the road (Susan);
- **Connect to AtlantOS;**
- **Western boundary current (e.g. the Gulf Stream)** on how changes alone are expected and passed effect the east sea bordering, which may bring more certainty around prediction;
- **Regional distribution of Sea Level Rise** on the eastern sea bordering;
- **Link between high latitude and main oceans.** More interaction with Arctic. NCAR has done researches on atmospheric rivers’ impacts on Arctic sea ice (Susan). Atmospheric communities show strong interest in air exchange between Arctic and mid-latitude (Paquita). Sabrina may give ocean connections, as they think that ocean is the forcing of the atmospheric changes in the northern high-latitude. There is HiLAT-RASM project (<https://www.hilat.org/>) focusing Earth System Modeling at High Latitudes (Wilbert Weijer is the PI for HiLAT with Co-PIs Phil Rasch at PNNL and

Wieslaw Maslowski at Naval Postgrad School). We can also link to the **new CLIVAR Research Foci on Tropical Basin Interaction (TBI)** (via Ingo) which was proposed by ARP, as well as to **encompass the whole Atlantic basin** (i.e. from Arctic to tropical Atlantic to the southern Atlantic);

- **Link modelling and observation:** According to Jing, four scenarios for the 'Model-Data home' have been proposed by WCRP, and now asking for comments to the document by 30 October 2020. During the 2nd SSG telecon on WCRP implementation, it was suggested to promote model-observation linkage by strengthening the interaction between OMDP and region panels of CLIVAR. ARP may think about what can be shared by integrating modeling and observation in the Atlantic region;
- **Enhance the connection to the Caribbean.** May consider to have new ARP members from Caribbean region and think about some activities there (Paquita and Eleanor).

Action 2: *Jing will resent the link for the [Questionnaire on Google Drive](#) after the telecon.*

Action 3: *To develop a draft answer to the questionnaire by Nov. 12 and circulate it to ARP members for comments; and then to submit the questionnaire by Nov. 17 to CLIVAR SSG (Core group for mapping exercise: Regina (lead), Susan, Franck, Maria, Greg, Paquita and Sabrina).*