

# 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?
  - .....
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](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 2<sup>nd</sup> 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).*