

CLIVAR Research Focus on Tropical Basin Interaction (TBI) Report

CLIVAR SSG Meeting, 10 March 2021

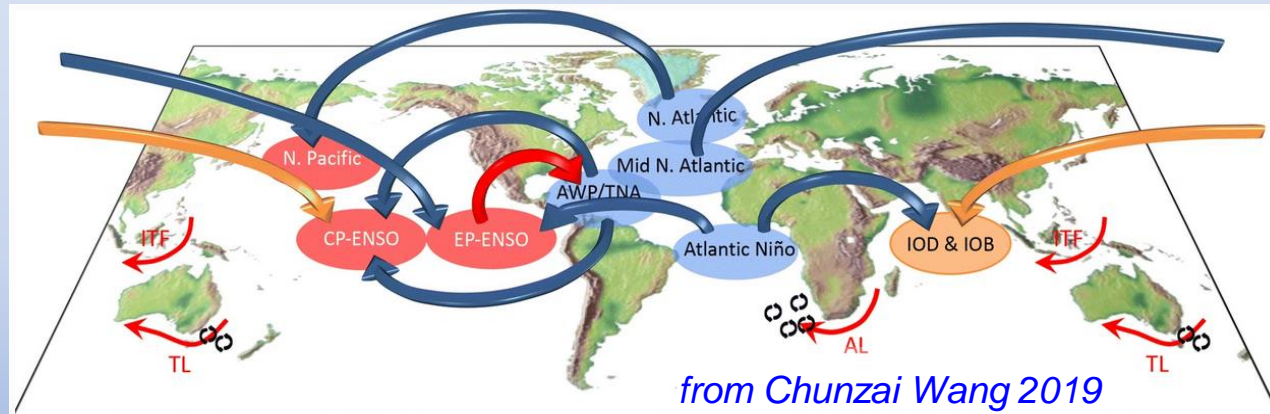
Ingo Richter¹ (co-chair), Noel Keenlyside² (co-chair), RF members

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Goals of RF TBI

- deeper understanding of the mechanisms of TBI, its preferred pathways, and its potential benefits for seasonal-to-decadadal prediction
- coordinated multi-model GCM experiments
- facilitate the use of paleo proxies
- workshops
- summer schools



Activities: March 2020 – February 2021

- regular online meetings of RF members
- 3 sessions on TBI at international conferences:
 - EGU 05/2020 (co-conveners: Keenlyside, Richter)
 - JpGU 07/2020 (conveners: Richter, Tokinaga, Taschetto, Keenlyside)
 - AGU 12/2020 (conveners: Richter, Keenlyside, Taschetto, Stuecker)
- research on TBI by RF members
- WCRP-CLIVAR Workshop on TBI held in February 2021

WCRP-CLIVAR Workshop on Climate Interactions among the Tropical Basins

- online-only format; plenary talks, e-posters, discussion groups
- first online-only workshop for CLIVAR
- co-sponsored by US CLIVAR, NOAA, NSF
- technical support from UCAR
- 3-day workshop with 3 sessions per day; 5-hour break
- ~ 200 registrants
- audience typical 100-120 for plenary talks
- working groups on day 3 to chart the way forward

Overall structure of the workshop (days 1+2)

- 4 plenary talks per day (30 min each)
- 2 poster sessions per day (1 hr each)
- Breakout group discussions (1hr)
- Plenary session at the end (30 min)

2 plenary talks (30 min each)

Poster session 1 (1 hr)

5-hr break

2 plenary talks (30 min each)

Poster session 2 (1 hr)

4 Breakout groups in parallel (1 hr)

Plenary session (30 min)

Overall structure of the workshop (day 3)

- Invitation only (to keep discussion groups at manageable size)
- 4 Working groups meet in parallel; discuss predetermined agenda items
- Plenary session at the end for summary and discussion
- Two time slots: same agenda but different participants
- Results will be merged after the meeting and made available to all participants

Quick intro (5 min); split into 4 groups

~2 hour discussion in groups

30 min break

4 groups reconvene
Summary and discussion (1 hr)

3.5 hr break

Repeat the above with different set of participants

Workshop – Outcomes

WG1 Coordinated GCM experiments

- discussed experiment designs
- plan for follow-up meeting to agree on set of experiments

WG2 Theoretical approaches and Intermediate Complexity Models (ICMs)

- plan for developing inter-basin ICM

WG3 Observations

- more interaction between ocean basin communities -> e.g. session at CLIVAR Multi-Region Panel Workshop in 2022

WG4 Paleo proxies

- more interaction among paleo proxy and climate modeling communities
- set up centralized information sources (more detailed meta data etc.)

Workshop – Feedback and Lessons Learned

- feedback
 - generally positive feedback from participants
 - some criticism of schedule
 - waiting for results from participant survey
- lessons learned
 - spread meeting over 5 days
 - longer poster sessions
 - short breaks between sections → opportunity for socializing
 - avoid Friday afternoon session (US time) → Saturday morning elsewhere
 - Slack channels can be a useful addition

Workshop – Ways Forward

- keep the working groups active
- summarize reports of WGs and formulate specific tasks
- meeting of WG1 to finalize GCM experiment design
- special issue in CLIVAR exchanges
 - summary of scientific outcomes
 - report on organization and logistics
 - ~ 10-12 poster presentations written up as short articles

What's next for TBI?

- parallel processing: RF members split along 4 WGs and conduct activities independently
- plenary meetings to coordinate WG activities
- potentially add a few members, particularly for strengthening paleo links
- initiate and oversee coordinated GCM experiments, hopefully in 2021
- organize some smaller meetings to follow up on workshop outcomes

TBI Timeline

