CLIVAR SSG - issues and outcomes

Carlos Ereño and Howard Cattle ICPO

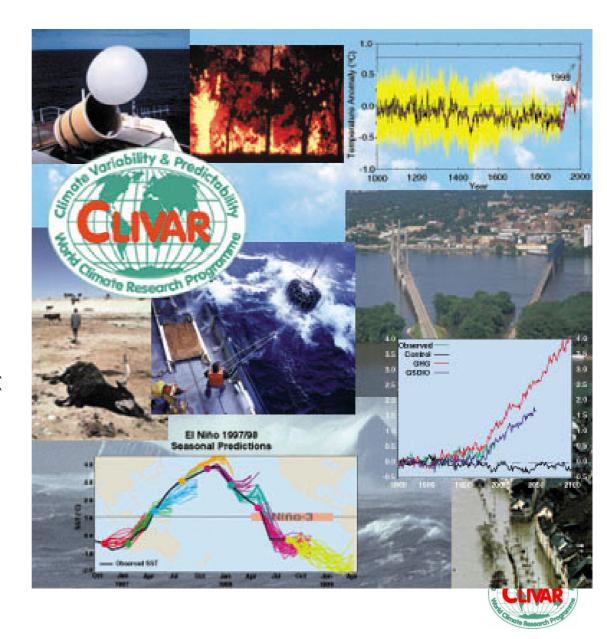




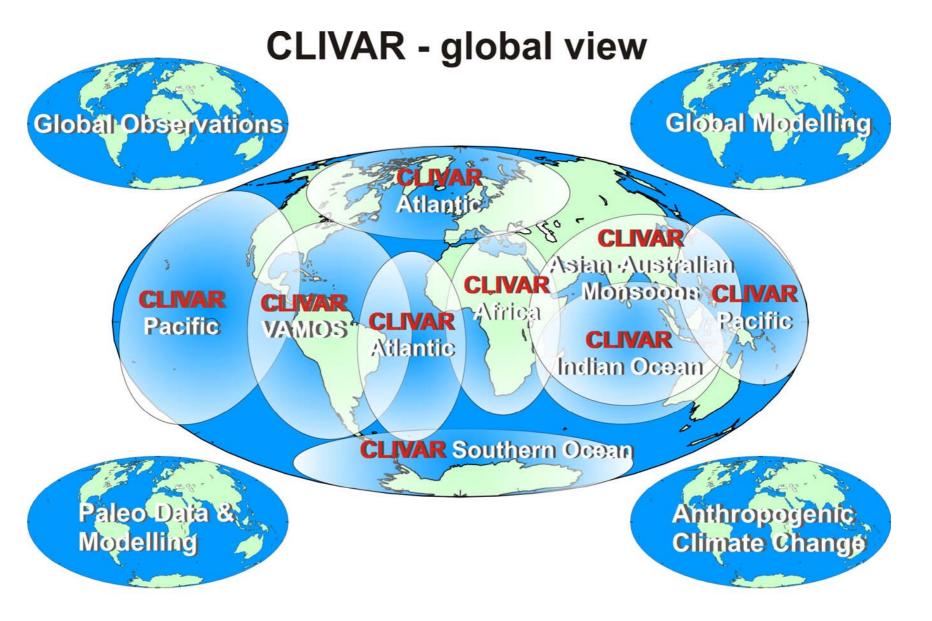
CLIVAR (Climate Variability and Predictability)

Mission

To facilitate observation, simulation and prediction of changes in the earth's climate system with a focus on oceanatmosphere interactions, enabling better understanding of climate variability, predictability and change, to the benefit of society and the environment in which we live.













CLIVAR Organization WCRP



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Scientific Steering Group

Crosscutting (global) Panels

Observations & Data

CLIVAR Synthesis & Observations Panel

PAGES/CLIVAR **Working Group**

CCI/CLIVAR Expert Team on Climate Change Detection

Modelling

Working Group on Seasonal to Interannual Prediction

JSC/CLIVAR **Working Group** on Coupled Modelling

WGCM/CLIVAR Working Group on **Ocean Model Development**

Regional or PRA¹ related Panels

Asian-Australian Monsoon Panel

Variability of the American Monsoon Systems (VAMOS)

Variability of the African **Climate System Panel**

Atlantic Implementation Panel

Pacific Implementation Panel

Principal Research Areas

CLIVAR/CIIC/SCAR Southern Ocean Imp. Panel

CLIVAR/GOOS Indian Ocean Implementation Panel



ICPO Staff



ICPO Secretariat is centred in Southampton, UK.



New Director, Bob Molinari, will join the ICPO from 1 Sep 2010



Nico Catalbiano Science Officer



Sandy Grapes Administrative Assistant



Anna Pirani Science Officer, located inTrieste, Italy



Carlos Ereno Science Officer, located in Buenos Aires, Argentina



Kate Stanfield Science Officer

New part-time member of staff (Xiaohui Tang, China)









CLIVAR SSG

J. Hurrell (co-chair) NCAR, USA

M. Visbeck (co-chair) IFM-GEOMAR, Germany

W Dong Beijing Normal University, China

K Drinkwater IMR Bergen, Norway

L. Goddard Earth Institute at Columbia, USA

S Gulev Russian Academy of Sciences, Moscow, Russian Federation

C. R. Mechoso University of California, USA

S Schubert NASA Goddard Space Center, USA

D Wang Chinese Academy of Sciences, Guangzhou, China

Ex Officio Members:

CLIVAR Panel and Working Group Chairs K Trenberth (Chair, GEWEX SSG)

SSG-16 Madrid, May 2009



SSG-17 Boulder, May 2010



CLIVAR SSG-16

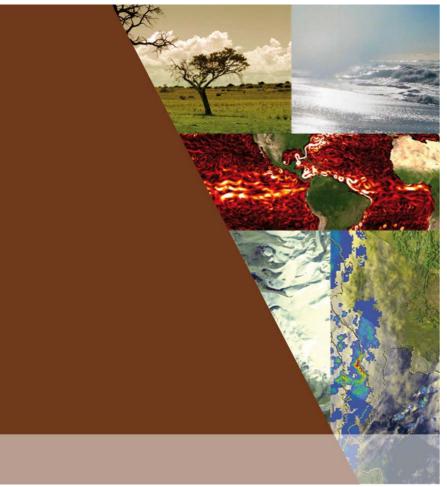
Focused on 2 areas:

- 1 Building consensus on the overall imperatives for CLIVAR science and their implementation over the next 5 years, for feed into the overall WCRP Implementation Plan 2010-2015
- 2 Assessing the progress of CLIVAR Panels and Working Groups in terms of advancing CLIVAR science









ICSU-WMO-IOC-IGFA Review of WCRP

Published in February 2009

Electronic version available at:

http://www.icsu.org/

Review of the World Climate Research Programme (WCRP)
Report from an ICSU-WMO-IOC-IGFA Review Panel











Imperatives: build consensus

CLIVAR SSG-16 (Madrid, 19-22 May 2009)

- Asked each panel/WG to identify:
- Imperatives over the coming years to 2013/15 and, perhaps, continuing over the next decade? Activities that "must" be continued and/or implemented because they are of the highest scientific importance with a high likelihood of success.
- What are the frontiers for the next decade and beyond?
- What key developments to enabling infrastructure necessary to deliver to the above.
- Document developed organized around
 - WCRP crosscutting topics (ACC, AC&C, decadal and seasonal prediction, sea level rise, monsoon and extremes) under WCRP
 - Additional focus on ocean observations, synthesis and modeling as particular CLIVAR contributions to overarching WCRPthemes.
- Outcomes factored into WCRP Implementation Plan







Major Publications



WCRP Implementation Plan and Accomplishment Report were Published in 2009.

WCRP IMPLEMENTATION PLAN 2010-2015

THE WORLD CLIMATE RESEARCH PROGRAMME ACHIEVEMENTS

Scientific Knowledge for Climate Adaptation, Mitigation and Risk Management





CLIVAR Imperatives

- Anthropogenic Climate Change
 - Long term change
 - Natural versus forced variability
 - Regional phenomena and impacts
 - Extremes
- Decadal Variability, Predictability and Prediction
 - Determination of predictability
 - Mechanisms of variability
 - Role of oceans
 - Adequacy of observing system
 - Initialization
 - Monsoons
 - Extremes drought
- Intraseasonal and Seasonal Predictability and Prediction
 - Role of land/ocean (GOALS)
 - Initialization
 - Monsoons, ISV/MJO





CLIVAR Imperatives

- Anthropogenic Climate Change
- Decadal Variability, Predictability and Prediction
- Intraseasonal and Seasonal Predictability and Prediction
- Improved Atmosphere and Ocean Components of ESMs
 - Ocean model development
 - Analysis and Evaluation
 - Process studies/"Climate Process Teams"
- Data Synthesis and Analysis
 - Ocean
 - Coupled Data Assimilation Systems (with WOAP)
- Ocean Observing System
 - Development and System Design
 - (Build LINKS WITH IGBP for Carbon, Biogeochemistry, Ecosystems)
- Capacity Building

"Tiger Teams" set up to develop way ahead, including timelines, drawn together in a summary document for SSG-17



CLIVAR SSG-17

(Ken Sperber attended on behalf of AAMP)

Meeting was focused around

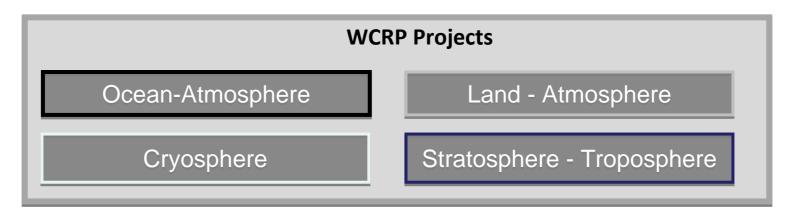
- Long term changes (presently being formulated) in the overall structure of WCRP
- 2. CLIVAR imperatives and their implementation
- Key progress by CLIVAR Panels and Working Groups (including how they contribute to the imperatives) and issues arising







JSC views on future structure for WCRP and its Projects post 2015



Modelling Council

Applications, Regions
Capacity Building / Outreach
GRAND CHALLENGES?

Global Data Council

Overall SSG view that CLIVAR could adapt to new structure with attention to issues like:

- Scope
- Structure (including SSG)
- Partnerships (WCRP, Global Change Programs)
- Interfaces (Regions, Applications)
- Deliverables (Data, Models, Information-Services)
 Feedback to be provided to JSC for WCRP







WCRP Open Science Conference, Denver, 24-28 Oct 2011

Climate Research in Service to Society

Monday: The Climate system components and

their interactions

Tuesday: Observation and analysis of the climate

system

Wednesday: Improving predictive capabilities

Thursday: Environmental assessments

Friday (early a.m.): Regional climate

Friday (late a.m.): Challenges and the future

www.wcrp-climate.org/conference2011/

Will provide one opportunity for community discussion of future structure of WCRP

WCRP OPEN SCIENCE CONFERENCE

CLIMATE RESEARCH IN SERVICE TO SOCIETY



24-28 October 2011, Denver, Colorado, USA



















CLIVAR imperatives

- Discussed in breakout groups in terms of their implementation
- Imperatives document to be further developed by new ICPO director and staff in consultation with Panels and Working Groups.
- Panels are/will be asked to report on their contributions to the imperatives.
- In response to the request from AAMP, the SSG encourages to seek to meet more frequently than at 18 month intervals.

Next SSG is expected to be at IOC, Paris, France, May 2011.





Particular issues for Panel consideration arising from SSG-17

- Overall WCRP effort on monsoons debated and need for overall coordination mechanism discussed – in particular AAMP is encouraged to develop its links with GEWEX AAM activities, particularly those under CEOP
- Panel asked to consider how it might contribute to the pan WCRP Conference
- All Panels and WGs encouraged to explore the writing of synthesis papers as input to IPCC AR5 and to coordinate analysis of CMIP-5 runs ("tiger team" activity)
- Review membership
 - Some members' terms now time expired, some others expire at end of 2010







Thank you







