

# WCRP Communication and Outreach Strategy

Roberta Boscolo, WCRP Communication Officer

JSC-34 May 2013, Brasilia, Brazil









## **Objectives**

- •Be a reliable source of science-based climate information for the past, present and future state of Earth's climate system
- •Attract the best minds from the international scientific community to continue providing global context and integrative framework for regional climate research and information
- Increase public awareness about importance of climate and environment for a sustainable future
- •Enhance the profile and the visibility of WCRP projects, activities and products
- •Support information exchange and dialogue between the WCRP Secretariat and the projects as well as assist WCRP and its projects in securing the necessary resources to fulfill their objectives









## Messages

- •WCRP leadership in research on climate prediction and predictability
- •Excellence and objectivity in climate science
- Major focus on actionable regional climate information
- •Observations, models and analysis are key to providing best science-based climate information
- •A world wide network of climate experts required to meet the Earth System challenges

### **Audiences**

- Scientists
- Media and the general public
- Sponsors
- Decision makers
- Students and Early CareerScientists
- Scientific assessments
- Global and regional environmental conventions









## **Communication Elements**

Publications
Website
E-Bulletins
Social media
Flyers and brochures
Networks and Mailing Lists











Roberta **Boscolo WCRP JPS** 



**Catherine Michaut WCRP** support Unit **Paris** 



**Carolin Arndt SPARC IPO** 



Jenny Baeseman Shannon Macken **Director CliC IPO GEWEX IPO** 



Heidi Isaksen **CliC IPO** 



Peter van Oevelen Eleanor Orourke, **Director GEWEX IPO** 



SHMI, CORDEX **Support unit** 



**Jennifer Riley CLIVAR** staff scientist



**Tim Waterfield CLIVAR** Web developer









- Monthly virtual meetings of Communication Team
- Share ideas, develop better communication among the Core Projects
- Build synergies for developing communication products and their dissemination
- Promote a more effective communication approach in all WCRP and Core Project sponsored activities
- •Develop strategy for engagement of greater community in implementing WCRP and Core Projects communication plan and priorities.



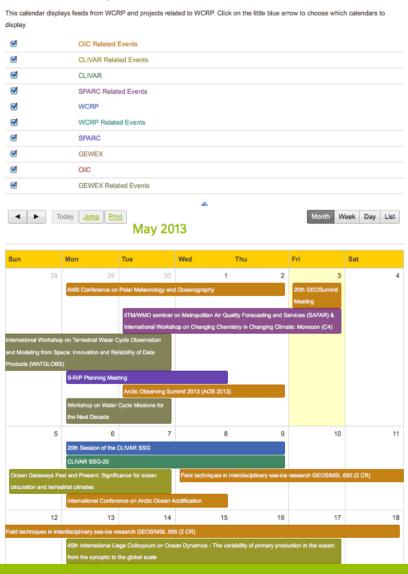






## Communication and Outreach: Implementation

#### WCRP Community Calendar



### **WCRP Community Calendar**

- CLIVAR, CLIC, GEWEX, SPARC
- Powered by Google calendars
- Easy to view formats
- Colour coded
- View by Month, week, day or list
- Search for events and meetings specific to projects









## Communication and

#### WCRP Community News

News from the World Climate Research Programme and its core projects, Climate and Cryosphere (CliC), Climate Variability and Predictability (CLIVAR), Global Energy and Water Exchanges Project (GEWEX), and Stratosphere-troposphere Processes And their Role in Climate (SPARC). News from WCRP activities such as the Coordinated Regional Climate Downscaling Experiment (CORDEX) are also included. Created by J. Baeseman, CliC Director

- 1. Science Update: The importance of time-varying forcing for QBO modulation of the atmsopheric 11-year solar cycle signal
- 2. Science Update: Validation of ozone data from the Superconducting Submillimieter-Wave Limb-Emission Sounder (SMILES)
- 3. Science Update: Combined SAGE II-GOMOS ozone profile data set 1984-2011 and trend analysis of the vertical distribution of
- 4. International workshop on sea ice concentration presentations available

The 2nd International workshop on sea ice concentration took place on February 18-19 2013 at the Danish Meteorological Institute in Copenhagen sponsored by the European Space Agency (ESA), WCRP Climate and Cryosphere (CliC) Project Office and the Danish Meteorological Institute. The workshop had 4 sessions presenting: user requirements to climate datasets, algorithms and tie-points, validation data and validation and algorithm intercomparison, including discussions on requirements for sea ice concentration and extent and the Sea Ice CCI (SICCI) project development of the methodology for the sea ice essential climate variable (ECV) production. Discussions also addressed how to establish a free and open common validation dataset, what such a dataset should consist of and how it should be organized. The organizing committee was Leif Toudal Pedersen, Danish Meteorological Institute, Georg Heygster, University of Bremen and Stein Sandven, Nansen Environmental Remote Sensing Center. The workshop participants where scientists developing and/or applying algorithms to derive sea ice concentration from satellite microwave radiometry

Download the workshop report, pdfs of presentations and more.

#### 5. SOOS Seeing Below the Ice Workshop Videos Available

Videos of plenary presentations and discussions from the Southern Ocean Observing System's Seeing Below the Ice Workshop, held from the 22-25 October, 2012 in Hobart, Australia, are now available. The goal of the workshop was to develop a strategy for sustained observations of the Antarctic sea-ice zone and observe environmental and ecosystem shifts caused by a warming global ocean, while drawing on the expertise of Arctic research, to shed light on a significant science blind spot - how quickly is the sub-ice ocean warming? Download the videos or pdfs here, or subscribe to the Cryosphere Podcast Series on iTunes and have them downloaded directly to your computer or mobile device. Special thanks to Molly Jia for editing the videos. SOOS is an endorsed CliC project and paid for video editing and hosting



#### 6. AWI-CliC Science Symposium Presentations, Videos and Podcasts Available

As part of the 9th Session of the CliC Scientific Steering Group, held 4-7 February 2013 at the Alfred Wegener Institute (AWI) in Potsdam, Germany, a joint Alfred Wegener Institute of Polar and Marine Research (AWI) / Climate and Cryosphere



### **WCRP Community News**

- Collection of news items from CLIVAR, CliC, GEWEX, SPARC and CORDEX
- Powered by Yahoo Pipes
- Displayed in each project webpage.



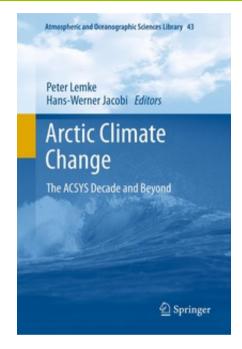








## Some Publications











### **GEWEX Assessments:**

- Global Data Sets
- Radiative Flux











## Some Publications



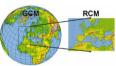
Providing global coordination of Regional Climate

Downscaling for improved regional climate change

adaptation and impact assessment

A Global Climate Model (GCM) can provide reliable prediction information on scales of around 1000km by the 1000km, covering what could be a vastly differing landance perform very moralization to fast coastal plants for for example) with varying potential for floods, droughts or other extreme climate events. Regional Climate Models (ECM), agricultural covers and other states and others at their boundaries by GCMs. and others are the moralization of the states supporting more detailed impact and adaptation assessment and planning, which is visit in many undersider sections of the success.

From the picture on the right you can see how although the GCM covers the whole globe the level of detail is relatively low whereas a RCM can provide much higher level of detail (or resolution) over a smaller region such as Europe or Africa.





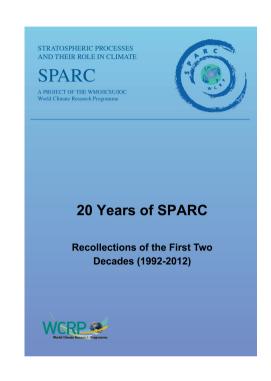
#### Why do we need Regional Climate Downscaling?

Slobal Climate Models (SCAI) provide us with projections of how the climate of the earth may change in the fuller. These results are the main motivation for international climate change mitigation efforts. However, the impacts of a changing climate, and the adaptation strategies required to it deal with them, will occur on more regional and national scales. This is, if where Regional Climate Downscaling (SCOI) has an important to lot poly by providing projections with much greater detail and more accurate representation of provided or terms energies.

#### at is CORDEX

The range of RCD techniques available, their mode of application, and the community using them are broad, varied, and rapidy growing. The World Climate Research Programme (WCRP) sponsored Coordinated Reional Climate Downscaling Experiment (CORDCN) aims to create a framework for revaluating and companing the range of dynamical and statistical RCD techniques in use around the word, recommending best practices whenever possible. It is further enviased that CORDCX will contribute significantly to the WMO (Slobal Framework for Climate Services, by providing climate predictions at the regional scale and through increasing scenes capacity in developing raisons. The CORDCX community presently supports research activities in a number of developing nations and provides opportunities for young scientists to further their orperience and knowledge base.

For more information go to http://wcrp-cordex.ipsl.jussieu.fr/





## **GEWEX Framework for Research 2013 and Beyond**









## New WCRP Webpage







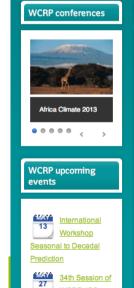
- Launched in March2013
- Resources

  Cryosphere and Climate

  Water, Energy and Climate

  Atmospheric Chemistry and Dynamics

  Cimate Projections: Past, Present and Future
- Developed based on Content Management System (CMS)



WCRP Director Discusses the Research, Modelling and Prediction Component of the GFCS 08.04.2013

WCRP News

Dr. Ghassem Asrar, Director of WCRP, has been interviewed by the International Innovation magazine on the strategic approach to developing science-based information on climate variability and change for decision makers. The Giobal Framework for Climate Services developed by WMO will ensure an integrated and holistic approach to climate information and knowledge delivery... read the article

WCRP Accomplishment Report Just Published 27.03.2013

The WCRP has recently published a new accomplishment report that captures the achievements made by WCRP and its Core Projects since the publication of the previous report in 2009 .... the document can be

Shifts in Climate Zones Accelerated by Global Warming 22.04.2013

Science Highlights

A recent study published in Nature Climate magazine suggests that the pace of shifting regional climate zones increases approximately linearly with the increasing global temperature. This implies that species will have increasingly less time to adapt to zone changes in the future, thus increading the risk of extintion... read the

Global Warming or Climate Variability? 19.04.2013

An interesting debate is currently taking place on whether the 2012 US Central Great Plains drought is linked to climate change or it is a result of natural climate variability. The debate sparked after the publication of the NOAA assessment report on the origin of such drought and involves several WCRP affiliated scientists... follow the

WMO Global Framework for Climate Services









 Allows a collaborative environment and a more flexible development process with Core Projects, and other potential partners.









## WCRP E-Zine



#### **Upcoming WCRP Conferences**

#### Africa Climate Conference

WCRP and the African Climate Policy Center will hold a major in Arusha, Tanzania, 15-18 October 2013. The main objective is to define and drive an African agenda for future climate research that will inform adaptation decisions. All interested researchers and pratictioners working on the African climate are invited to register and submit an abstract. Some financial support is available for participation of young scholars, especially from Africa. Deadline for abstract submission is 31st May 2013... for more information please visit the conference webpage

#### International Conference on Regional Climate - CORDEX 2013

WCRP in partnership with the <u>European Commission</u> and <u>IPCC</u> is organizing an international conference on regional climate with a particular emphasis on the <u>CORDEX</u> initiative. The conference will take place on 4-7 November 2013 in Brussels, Belgium. Some financial support is available for participation of young scholars, especially from developing and emerging economies. Deadline for abstract submission is 1st April 2013... for more information please visit the <u>conference webpage</u>

Conference for Latin America and the Caribbean: Developing, Linking and Applying Climate Knowledge The conference will take place on 17-21 March 2014 in Montevideo, Uruguay. The main goal is to identify ways to overcome limitations in the chain of knowledge connecting basic and applied climate science to informing policy and decision makers. This will imply building interdisciplinary capacity, fostering the

Quarterly WCRP News published only electronically.

Distribution list includes 2200 subscribers.









## WCRP E-bulletins



### CORDEX Newsletter 1 January 2013

Welcome to the first CORDEX newsletter. The <u>Coordinated Regional Climate Downscaling Experiment (CORDEX)</u> was launched by the World Climate Research Programme (WCRP) to create a framework for evaluating and comparing these various techniques that are in use all over the world.

In this edition of the newsletter you can find:

- News from the Arctic, North America, MED, South Asia and East Asia CORDEX groups (p2-4)
- Information on the new CORDEX website (p4)
- Details of the CORDEX Conference 2013 (p5)
- Contact information for CORDEX people (p6)

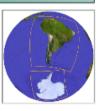
The bi-annual newsletter aims to connect the CORDEX groups across the world, to keep interested readers informed on current progress and activities, and act as a dissemination portal for preliminary results, best practice, useful information, and events of interest. We rely on the contributions of the CORDEX community to ensure the success of the newsletter; if you would like to contribute please contact Eleanor O'Rourke.

#### The CORDEX community









South America CORDEX

The CORDEX community has grown to now include 13 domains:

Arctic CORDEX

North America CORDEX

- EURO-CORDEX
   MED-CORDEX
  - ^
- Central Asia CORDEX
- South Asia CORDEX
  - CORDEX Antarctica

- - CORDEX Africa
  - MENA-CORDEX
    - DEX
- East Asia CORDEX
   Australasia CORDEX

In each newsletter an update of the activities in selected domains will be provided. It should be noted that some domains have only been recently initiated so their activities are slowly building when compared to the more



WCRP AFRICA NEWSLETTER



#### Welcome to the First WCRP Africa Newsletter

We are very pleased to introduce the first issue of the WCRP Africa Newsletter. The CLIVAR and GEWEX African Climate Panel, sponsored by the World Climate Research Programme (WCRP), decided to launch the Newsletter for the African climate research community to share new research results, funding, training opportunities and events, and events are programmatic news. We wish to make the newsletter relatively informal so that the content is not restricted to completed work, but also can include on-going and planned studies. The aim of such an informal publication is that the contributions will reach an international audience, both within and outside Africa, in a timely manner.

The Newsletter is intended to help generate ideas for new collaborative links by strengthening the network of scientists within Africa and by familiarizing scientists working outside Africa with the activities of African research groups. We anticipate that the projects and activities presented in the Newsletter will be of interest to the climate science community and funding agencies, as well as users of science-based climate information.

This first issue is dedicated to short notes from the fellows of the fellowship scheme of the DFID-Met Office Climate Science Research Partnership (CSRP) for Africa. We invited the CSRP fellows to contribute short articles outlining their mork, regardles whether they are just starting out or reaching completion, as an opportunity to publicize their work. The release of the first issue has been timed to coincide with the CLIVAR Exchanges Special Issue on Africa (Exchanges No. 60, September 2012 - <a href="https://dx.nd.gibbl.com/schanges">https://dx.nd.gibbl.com/schanges</a>) that gives an overview of ley on-poing Africa climate science coordinated research programs. The Newsletter will be produced quarterly and we welcome articles from individual scientists to share their own work as well as collections of articles from research groups or projects that wish to share with the community their activities. Please email the International CLIVAR Project Office ([cpo@finoc.ac.uk) if you are interested or would like more information.

## The fellowship scheme of the DFID-Met Office Climate Science Research Partnership for Africa

#### R.J. Graham

Met Office Hadley Centre, Exeter, UK

The papers collected in this newsletter summarise research being conducted by African climate scientists as part of the Climate Science Research Partnership (CSRP) between the Department for International Development (DFID) of the UK Government and the Met Office Hadley Centre (MOHC). The research is being done in close collaboration with the MOHC and is supported by a fellowship scheme coordinated as part of the CSRP programme.

The key aims of the CSRP are to advance understanding of African climate processes and their representation in climate models; to develop, with users, new climate monitoring and experimental monthly-to-decadal prediction products and to strengthen climate science in Africa. The reader is referred to Graham et al. 2012 and to <a href="https://www.metoffice.gov.uk/csrp">www.metoffice.gov.uk/csrp</a> for a summary of the programme and its results so far. By aligning the fellowship projects to the CSRP's research themes, the fellowship scheme is advancing the science objectives of the programme, enhancing the professional development of the fellows and increasing understanding between climate model developers at the MOHC and climate researchers and climate forecasters in Africa

Eleven fellowships were awarded following a call for applications in December 2010. Applicants were required to be resident African nationals and to conduct their fellowships at an African institute - either their home institute or as a visiting scientist at a hosting African institute. Three types of fellowship were offered: postdoctoral and postgraduate research fellowships, both of one year duration (four and five fellowships awarded, respectively), and applications project fellowships of 6 months duration (four awarded). A range of fellowships of 6 months duration (four awarded). A range of











## Projects E-bulletins





E III

#### **CLIVAR Bulletin February 2013**

#### **CLIVAR News and Announcements**

- 1. New Staff member
- 2. SSG New Members
- 3. SSG Tiger Teams
- 4. Follow us on Twitter and Facebook

#### Meetings and Workshops

- 1. US AMOC/UK Rapid International Meeting to be held in Baltimore, MD
- 2. SOOS Asian Workshop
- 3. International Workshop on Seasonal to Decadal Predictions
- 4. 4th WGNE Workshop on Systematic Errors in Weather and Climate Models
- 5. Ocean Gateways Past and Present: Significance for Ocean Circulation and Climate
- 6. WCRP Regional Workshop on Stratosphere-Troposphere Processes and their Role in

#### Publications

- 1. WGOMD has published the CORE release notes
- 2. WCRP Africa Newsletter

#### Other Announcements and Events

1. The CLIMDEX Project

For the latest vacancies related to CLIVAR science, please visit http://www.clivar.org/about/jobs.

CLIVAR News and Announcements

Uncoming Events



#### **Ice and Climate Newsletter Volume 16**

ISSN 1811-0843

27 March 2013

#### Highlights from this Issue

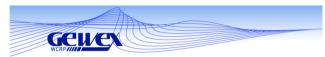
- 12 April Deadline for CliC Workshop Funding Requests
- Arctic Freshwater Initiative Meeting 18 April
- Report from Decadal Climate Projections Workshop
- 3rd issue of Southern Ocean Observing System (SOOS) Update
- CliC and IASC Sponsor Arctic Freshwater Budget Network
- Cryosphere Organizational Leaders Meeting Summary Available
- Upcoming Arctic Radiosonde Observations Data Assimilation Study Workshop
- Special Issue on "Earth Observation of the Cryosphere" now open

#### **Latest CliC News**

#### 12 April Deadline for CliC Workshop Funding Requests

CliC has a limited set of funds that can be used to help support international collaboration of cryosphere research. Generally this is in the form of workshop participant travel to help increase the representation from underdeveloped countries and early career researchers. Funds can also be requested to help support key participant travel to workshops that address the interactions of climate and cryosphere and closely align with CliC priorities. CliC can support sessions at large conferences if the session is used to initiate or aid in the development of a CliC activity or product, such as a special journal issue. Generally requests are in the range of 5,000 to 10,000 Euros. Funding for workshop expenses such as food, beverages, venue rental, office





#### **GEWEX Electronic Newsletter**

#### G-News | 3 May 2013

#### Contents

Announcements | Calls for Papers | Position and Scholarship Announcements | Data Sets | Upcoming Meetings

#### Announcements

#### Joint GLASS/GASS Experiment on Impact of Land-Atmosphere Feedbacks Launched

DICE, the diurnal land/atmosphere coupling experiment, has been launched as a joint GLASS/GASS venture. It is designed to make an assessment of the impact of land-smosphere feedbacks by first assessing the land and single-column atmosphere models separately, constrained by observational data, and then identifying changes due to outpling. Full details of the simulations and how to contribute can be found type.

#### April Issue of Future Earth Newsletter Out Now

Sign up for the Future Earth newsletter to get all the latest news on the new program. The April issue out now, and features the new Future Earth

#### Africa Climate Research Network

The CLIVAR-GEWEX Africa Climate Panel has launched a database that aims to strengthen the network of climate scientists in Africa and to serve as an effective way of communicating relevant news and opportunities. It will be used to distribute the WCRP Africa Newsletter, announcements of the Africa Climate Conference 2013 and other meetings, training opportunities, and more.

Join the network and create your profile with contact details and areas of expertise: http://www.clivar.org/africa/climate-research-network-signup.

Gordon Research Conference (GRC) on Radiation and Climate Colby Sawyer College, New London, New Hampshire, USA, 7-12 July 2013

Applications are now being accepted for the eighth blennial Gordon Research Conference (GRC) on Radiation and Climate. The GRC will be preceded by the second associated <u>Gordon Research Seminar (GRS)</u> for early career scientists on July 6-7, 2013. Together, the see meetings will robus upon cutting-dege research on outstanding issues in climate change, particularly those in which he interactions between radiation, clouds, and the climate system play a major role. The themse for the 2013 GRC is "Observing the interactions Among Radiation, Clouds, and the Climate System." For a list of season topics and speakers, and to register for the GRC, please with the webliet. Applications for the GRC must be submitted









## Social Media



Great outreach tools

WCRP news posted in the webpage feed automatically in facebook and Twitter

Need more active participants, and new ideas.











## **Two Major Thrusts:**

### Building Research Capacity in Developing Regions

- 1) to facilitate and coordinate climate research, modeling, analysis and prediction;
- 2) to assist the research community and institutions of higher learning in education
- 3) to provide greater opportunities for early career scientists, especially those from developing regions, and
- 4) strengthening connections between early career scientists in the developed world and those in the developing world

### Empower Next Generation of Climate Scientists









## WCRP Strategy for Education, Training and Capacity Development

### **Plans and Priorities:**

- Engaging regional experts in climate research, modeling analysis
- Promoting scientific exchange
- Train the Trainers
- Summer Schools
- Improve ECS presence (especially those from developing countries) in WCRP events
- Fellowships and Scholarships
- Mentoring Programs
- •Facilitate access to scientific Journals in developing countries









## Sponsored Students and Early Career Scientists in 2011-2013

	Africa	Americas	Asia	Europe	Oceania
ECS 2011	11	41	16	30	4
Students 2011	3	27	10	20	5
ECS 2012	6	23	10	20	2
Students 2012	1	5	5	2	3
ECS 2013	1	8	7	11	1
Students 2013	3	3	3	9	1









### Planned WCRP Conferences

- Africa Climate Conference, 15-18 October 2013 Arusha, TANZANIA
- Regional Climate Climate CORDEX, 4-7 November 2013, Brussels, BELGIUM
- Climate and Society for Latin America and the Caribbean, 17-21 March 2014, Montevideo, URUGUAY
- SPARC General Assembly, 12-17 January 2014, Queenstown, NEW ZEALAND
- MAIRS Open Science Conference, 7-10 April 2014, Beijing CHINA
- Climate Research and Earth Observation from Space, 13-17 October 2014, Darmstadt, GERMANY







## **CORDEX Regional Training Workshops**

25-26 March 2011, Trieste ITALY

22-23 September 2011, Jeju, S. KOREA

21-25 November 2011, Cape Town, S. AFRICA

20-24 February 2012, Trieste, ITALY

25-26 February 2012, Pune, INDIA

27-30 August 2013, Kathmandu NEPAL

11-13 September 2013, Lima, PERU









### **Sponsored Summer Schools: 2012**



Summer School 23-28 July 2012 Middle East Technical University, Ankara, Turkey

## EWACC 2012 BUILDING BRIDGES

ENERGY, WATER AND CLIMATE CHANGE - BUILDING BRIDGES BETWEEN EUROPE AND MIDDLE EAST/NORTH AFRICA (MENA)

10 -12 DECEMBER 2012 HILTON HOTEL NICOSIA. CYPRUS









### Summer Schools: 2013

## Davos Atmosphere and Cryosphere Assembly 2013: Air, Ice and Process Interactions, 8-12 July 2013, Davos SWITZERLAND

Co-sponsored by WCRP, WMO and IUGG

Michl Lehning, WSL Switzerland
Andrew Mackintosh, Antarctic Research Centre, New Zealand
Hans Volkert, DLR, Germany
Athena Coustenis, LESIA, France
Charles Fierz, WSL Switzerland
Stefan Bronnimann, Uni. Bern, Switzerland
Huw C. Davies, ETH Switzerland
Roger Barry, CLIVAR IPO, UK
Konrand Steffen, WSL Switzerland









## Summer Schools: 2013

## Summer School on Clouds and Climate, June 24 – July 5 2013, Les Houches FRANCE

Jointly organized by EUCLIPSE and WCRP and linked to the WCRP Grand Challenge

Pier Siebesma, KNMI, TU Delft The Netherlands Sandrine Bony, LMD, Paris France Bjorn Stevens, Max Plank Institute for Meteorology, Hamburg Germany









### **Summer Schools: 2014**

## Summer School on Attribution and Prediction of Extreme Events, July 2014, Trieste ITALY

## Jointly organized by CLIVAR and GEWEX and linked to the WCRP Grand Challenge

Francis Zwiers (co-Chair, CLIVAR), Pacific Climate Impacts Consortium, Canada Sonia Seneviratne (co-Chair, GEWEX), ETHZ, Switzerland Albert Klein Tank, KNMI, Netherlands Peter Stott, Hadley Center UK Met Office, UK Judith Perlwitz, NOAA, USA Philippe Naveau, CNRS-IPSL, France Xuebin Zhang, Environment Canada, Canada Lisa Alexander, University New South Wales, Australia Eric Gilleland, NCAR, USA Gabi Hegerl, University of Edinburgh, UK David Stephenson, University of Exeter, UK









## Building a Network of Young Scholars

- Create ECS Networks for each core Project, and CORDEX
- Involve and integrate the networks in WCRP activities
- Efficient use of social media for enhancing interaction and create community
- Facilitate participation of ECS networks in international research and provide opportunities to gain the additional skills needed to join the WCRP and other international research networks - e.g. IPY and the APECS (Association of Polar Early Career Scientists)









## Building a Network of Young Scholars

## CLIVAR EARLY CAREER SCIENTIST NETWORK DO YOU WORK IN OCEAN AND EARTH SCIENCE? ARE YOU INTERESTED IN BECOMING PART OF AN INTERNATIONAL RESEARCH NETWORK? **REGISTER NOW!**

### **CLIVAR** Initiative

- Job Listing
- Options to apply for travel expenses to attend WCRP/CLIVAR related meetings and workshops
- Information on applying for funding grants and fellowships
- Access to a global network of researchers
- Regular updates on meetings and workshops
- Opportunities to chair and run sessions at international meetings
- Provide input regarding the future direction of CLIVAR as a whole









## Communicating Lessons Learned

# THE OFFICIAL MAGAZINE OF THE OCEANOGRAPHY SOCIETY CCANOGRAPHY SOCIETY

## Using Scientific Meetings to Enhance the Development of Early Career Scientists

BY EDWARD R. URBAN IR. AND ROBERTA BOSCOLO

Early Release available at: http://www.tos.org/oceanography/archive/26-2 urban.pdf









## Early Career Scientists Network



**Extend the Early Career Scientists Networks**;

- **•CLIVAR**
- •SPARC
- •GEWEX
- ·CliC
- •CORDEX





