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The Climate Services Partnership (CSP) is a platform for knowledge sharing and collaboration to advance climate service capabilities worldwide. CSP members are climate information users, providers, donors, and researchers; though they represent diverse interests, all are actively engaged with climate services through their own programs and activities. Partners collaborate to develop and improve climate services; they also learn from each other by sharing resources and experiences. The CSP creates a venue to generate new knowledge, establish best practices, and promote a resilient, sustainable, and climate-smart future. More information is also available on our website: www.climate-services.org.

The CSP newsletter is a quarterly publication meant to keep all informed of the latest updates of the partnership community. We rely on you for news of your activities, upcoming events, and recent publications. Please send all material for the next newsletter to Lisette Braman at lisette@iri.columbia.edu by **December 15, 2014**.

Editorial board: Lisette Braman (IRI), Cathy Vaughan (IRI), Steve Zebiak (IRI)

learning about stakeholder engagement an editorial from the csp secretariat

It's now recognized that climate services require effective means of engaging stakeholders, the ultimate beneficiaries of those services. The engagement process is important for many reasons, including building awareness and demand; understanding user needs, interests, and constraints; the co-production of tools and information; and the evaluation and improvement of services. To date, models for this type of engagement are varied across different settings and objectives, and finding the most successful models is still a learning process.

As part of this process, I'd like to share a few reflections on a relevant experience with stakeholder engagement in Jamaica, building on their recently initiated national agricultural climate services program, introduced at ICCS3 last year. For me, the outputs are interesting in terms of context and process; I hope they will offer some food for thought for the wider community as well.

In 2013, an agricultural climate services initiative was launched in Jamaica following a national consultation process. As part of this initiative, an interagency working group on agriculture and climate was established, involving the Jamaica Meteorological Service, the Rural Agriculture and Development Authority, and the agricultural development NGO ACDI-VOCA. The working group has been active for over a year and has made strides in piloting new climate and agricultural information products and training agricultural extension officers and farmer groups.

This working group recently began a process to engage the broader community of active stakeholders, and to identify additional needs and opportunities to expand or improve agricultural climate services.

The aims of this process were not unique, but the approach was, by engaging an international internship program, with students from University of the West Indies, University of Miami, Universidad de la República (Uruguay), University of Arizona and Columbia. Together with working group members, students helped design the stakeholder engagement program, sending teams of interns into the field to conduct semi-structured consultations with (29) targeted organizations and (72) representative farmers. As part of this process, students developed and tested consultation tools and approaches, collected information, analyzed results, and drew salient conclusions.

This process produced a number of interesting findings, including a few specific to the context of the outreach:

- For many agricultural stakeholders, the greatest climate-related concerns have to do with extreme events, followed by short-term weather and climate
- While stakeholders view the lack of resources as a key constraint to the use of climate services, the possibility

to realign existing resources to accommodate (and benefit from) climate services is increasingly recognized.

- There is a widely recognized need to demonstrate the value of climate services - including their economic value - as a means to secure sustained support for such services.
- Among smallholder farmers, there is limited awareness of climate services; while they consider drought a primary concern, they do not see seasonal or longerterm climate forecast information as believable.
- · Efforts to communicate information to farmers must recognize challenges associated with the lack of Internet access.

These and other findings provide important direction for the further development of climate services in Jamaica. Perhaps more significant, however, are findings regarding the process employed to reach these conclusions.

First, the partnership model allowed knowledge sharing and pooling of resources among several universities in guiding and supporting the internships. Students found the experience personally and professionally rewarding. They gained knowledge about climate services, but also experience in research methodologies, tools and resources, in the end recognizing potential to further develop and improve on these. Moreover, this program gave voice to a great many stakeholder groups that have something to offer, and much to gain from the development of user-focused climate services in their own settings.

In this sense, this type of program had a variety of benefits for education and training of students who will enable tomorrow's climate services; for building the knowledge base of climate services; and for increasing the reach and value of climate services.

We could promote similar programs elsewhere. We could go further, and seek to engage a broader network of academic institutions/programs to co-develop a climate services practicum/internship program. They might further collaborate to explore, pilot, assess and continually develop shared tools and resources to support the programs. And even more could be done, for example, to link such learning resources with programs for climate services implementation at national and global scales.

The partners in the Jamaica program will be planning how they can follow up and improve on this initial effort. But we are anxious to hear ideas, suggestions, and expressions of interest from the broader CSP community regarding a larger effort we might mount. To all interested in this idea, please weigh in!

Stephen E Zebeak





updates from the csp

Fourth International Conference on Climate Services

The fourth International Conference on Climate Services, to be held December 10-12 in Montevideo, Uruguay, is hosted by the Uruguayan Ministry of Livestock, Agriculture and Fisheries, with support from the World Bank and the Climate Change Agriculture & Food Security theme of the Consultative Group on International Agricultural Research. The conference will explore the theme of decision support systems (DSS) and engage a range of topics including health, water, disasters, grassland management, and the evaluation of climate services. This year, the CSP secretariat has issued an open call for abstracts, inviting submissions from climate information users, providers, and researchers on topics related to:

- Climate-informed decision support systems, particularly those that engage sectors such as disasters, health, agriculture and energy
- Evaluation of climate services and/or the performance of DSS
- Identifying & understanding user needs for information and the design of DSS
- Ethical considerations around climate-informed decision systems

Abstracts for posters focused on decisions support systems will also be accepted. Please submit abstracts by email to cvaughan@iri.columbia.edu no later that **October 15** to be considered for inclusion in the conference.

For the conference agenda, details and registration, please visit: http://www.climate-services.org/iccs/iccs-4/home

CSP Early Career Professional Network

The ECPN held two virtual meet & greet events in the last quarter. The first featured Marisol Osman, of the Centro de Investigaciones del Mar y la Atmósfera at the University of Buenos Aires, and Shelly-Ann Cox, of the Caribbean Institute for Meteorology and Hydrology (CIMH). The second, led by Delphine Blumereau, discussed activities of the CliMates Network. More information on these and future virtual meet & greet events, see the ECPN webpage here.

Please also stay in touch with the network through the <u>Linked In network</u>, and in-person at informal meetings at the European Conference on Applied Climatology and the International Conference on Climate Services.

partner updates

GFCS: Strengthening climate services in Small Island Developing States, Latin America and the Sahel

Global Framework for Climate Services. A new GFCS partnership for strengthening weather and climate services in Small Island Developing States (SIDS) in the Caribbean, South Pacific, Indian Ocean and other regions was launched at the Third International Conference on SIDS. One of the main objectives of the partnership is to enhance the capacity of SIDS to cope with weather, climate, and water-related extreme events.

On 12-13 August, a national consultation was held in Dominica to identify gaps and needs and to establish the internal coordination mechanisms needed to ensure effective implementation of the Framework at national level. The consultation was organized by the Ministry of Health of Dominica, in collaboration with the Department of Meteorological Services of Dominica and the World Meteorological Organization (WMO) to advance the development and use of climate services in climate sensitive sectors with a special focus on health.

In addition, a regional workshop aimed at strengthening the provision of climate services (including seasonal outlooks and El Niño forecasts) and the tailoring of these products to user needs took place in San José, Costa Rica (28-30 July). The consultation helped to facilitate the identification of priorities for the implementation of the GFCS in the Latin America region.

As part of the new initiative to implement GFCS in the Sahel, a regional coordinator has been deployed to Dakar at the FAO regional office. The new initiative in the Sahel is led by GFCS, the Norwegian Refugee Council and the Food and Agriculture Organization of the UN. For further updates please visit: http://www.gfcs-climate.org/

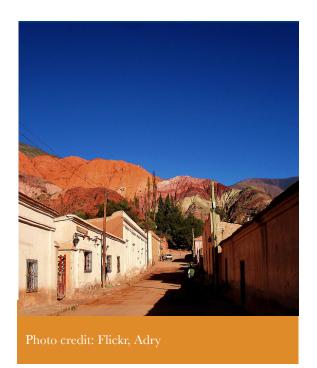
IC3 participates in health and climate initiatives Catalan Institute for Climate Sciences (IC3). On August 27-29, IC3 researcher Rachel Lowe attended the firstever global conference on health and climate at the World Health Organization (WHO), Geneva. The conference aimed to provide guidance to health, environment, energy and development ministers of member states, senior civil servants, technical experts, other UN agencies, NGOs, chief executives from health authorities, and relevant private sector entities by creating a spring-board for action in addressing the impacts of climate change on health, with the potential to improve the lives of millions. The conference delegates worked toward common objectives to empower the health and sustainable development communities, to enhance resilience and protect health from climate change, identify the health benefits associated with reducing greenhouse gas emissions and other climate pollutants, and support healthpromoting climate change policies.

On September 15, Dr. Lowe participated in a workshop convened by the White House Office of Science and Technology Policy (OSTP) entitled, "Integration Prediction and Forecasting Models for Decision-Making: Dengue Epidemic Predictions." The workshop is the second in a series convened by OSTP in support of the Predict the Next Pandemic (PtNP) Initiative, launched by John Holdren in 2013. The workshop brought together federal and non-federal stakeholders to accelerate the development and federal application of models for predicting dengue epidemics, contributing to the broader objective of applying prediction and forecasting models to support public health and national security decision-making.

For more information, please contact Dr. Lowe at rachel.lowe@ic3.cat







CCAFS blogs, participates in US-Africa leaders forum, and organizes inaugural meeting of the Global Alliance for Climate-Smart Agriculture Climate Change, Agriculture, and Food Security (CCAFS). With their blog entitled, "Climate services for farmers: climate information in action in Africa and South Asia," CCAFS entered the "Talking Science" online blog competition for scientists from CGIAR centers and research programs. CCAFS also attended the "Resilience and Food Security in a Changing Climate" session at the US-Africa Leaders Forum in Washington, DC (August 20).

On September 24th, the FAO and CCAFS/CGIAR held the inaugural meeting of the Global Alliance for Climate-Smart Agriculture. The Alliance was formed to help governments, farmers, scientists, businesses and civil society as well as regional unions and international organizations to adjust agricultural practices, food systems and social policies to take account of climate change and make efficient use of natural resources. The Global Alliance was officially launched on September 23, 2014 at the United Nations Secretary General's Climate Summit.

Read more: http://ccafs.cgiar.org/climate-smartagriculture#.VBhwYi6wJyw

International marine data workshops
US National Climatic Data Center (NCDC), US
National Oceanic and Atmospheric Administration
(NOAA). On June 9–14, 2014, the Technical
Commission for Oceanography and Marine
Meteorology (JCOMM) convened the fourth
JCOMM Workshop on Advances in Marine
Climatology (CLIMAR-IV) and the first International
Comprehensive Ocean–Atmosphere Data Set
(ICOADS) Value-Added Database Workshop (IVAD-

I) at NOAA's National Climatic Data Center in Asheville, North Carolina.

Sponsored by NCDC, JCOMM, and the UK National Oceanography Centre, the workshops aim to foster the continued collection, stewardship, and preservation of marine climate data, which provides knowledge and access to long-term databases and tools critical for local, regional, and global decision making.

Participants also established recommendations for future work on marine indices, particularly with respect to the provision of tools and information for at-risk coastal communities JCOMM is working to establish ICOADS as a specialized WMO Centre for Marine-Meteorological and Oceanographic Climate Data (CMOC) as part of the new WMO Marine Climate Data System (MCDS). Workshops like CLIMAR-IV and IVAD-I highlight what stakeholders can do with the available data and help to prepare for a streamlined transition toward a modern user-friendly CMOC.

For more information, see the <u>NCDC</u>, <u>JCOMM</u> and <u>ICOADS</u> pages.



The Met Office discusses implications of climate change on the UK water industry

The UK Met Office. On September 24th, at <u>Sustainable Water 2014</u>, the UK Met Services' Steven Wade presented on implications of increasing rainfall and rainfall intensity on the water industry and flood risk management, in a session entitled 'Flood risk management-how to deliver multiple benefits.'

For more about the event: http://www.metoffice.gov.uk/news/releases/archive/2014/sustainable-water-conference

Red Cross Climate Training Kit launched online
Red Cross/Red Crescent Climate Center (RCCC). The
new Climate Training Kit – created by the Climate Centre
in collaboration with the International Federation of Red
Cross and Red Crescent Societies' (IFRC) Department of
Community Preparedness and Risk Reduction (CPRR),
with support from the Canadian Red Cross and
contributions from many National Societies around the
world – is fully launched online.

The kit provides a comprehensive range of educational materials to build the capacity of Red Cross Red Crescent staff and volunteers, and links to existing IFRC products and guides.

Interactive and flexible learning modules – with exercises, games, film clips, presentations, reading materials, and examples from National Societies – have been designed for workshops on the humanitarian impacts of climate change.

They are also intended to reinforce awareness raising and participation in policy dialogues with governments and other stakeholders.

Training UN agro-development specialists in game facilitation

Red Cross/Red Crescent Climate Center (RCCC). The Climate Centre ran a two-day training session in game facilitation for staff at the International Fund for Agricultural Development (IFAD) at its Rome headquarters in June. Nearly 20 IFAD staffers were trained as facilitators on two new Climate Centre games: ASAP and Decisions for the decade. The training equipped the IFAD team with tools and facilitation skills and included a participatory session on designing games that addressed the complexities of climate risk management in agriculture.

IFAD – a specialized UN agency and Climate Centre partner – is now including games in the repertoire of communications, engagement, and learning tools for its global Adaptation for Smallholder Agriculture Programme (ASAP), for which the Climate Centre game is named.

The <u>ASAP</u> programme, being implemented in more than 30 countries, channels finance to smallholder farmers to help them access the information tools and technologies that help will build their resilience to climate change.

Read more here: http://www.climatecentre.org/site/news/537/climate-centre-trains-un-agro-development-specialists-in-game-facilitation?type

Climate Centre joins White House round table on agriculture and food resilience

Red Cross/Red Crescent Climate Center (RCCC). In August, the Climate Centre was among leaders of the US technology and agriculture sectors joining a <u>round table</u> on agriculture and food resilience, as part of the White House <u>Climate Data Initiative</u>.

The meeting explored ways to "to unleash data that will help ensure our food system is resilient to the effects of climate change," said a blog by Tom Vilsack, US secretary of agriculture, and John Holdren, President Obama's science adviser, who spoke in his opening remarks of the need for "actionable climate information in usable form."

Thirty representatives of business, academia and civil society, and senior administration officials gathered for the round table.

Read more here: http://www.climatecentre.org/site/news/553/climate-centre-joins-white-house-round-table-on-agriculture-and-food-resilience?type

New German support for "humanitarian challenges of climate change" includes forecast-based funding Red Cross/Red Crescent Climate Centre (RCCC).

In a bid to improve understanding between humanitarians and climate scientists, Germany has announced new support for a "platform for dialogue concerned with humanitarian uses of climatological research."

The platform, to be launched later this year by the CSP, will bring together weather and climate experts and humanitarians from the UN, Red Cross Red Crescent, and civil society. The aim, according to a statement recently made available by the Federal Foreign Office in Berlin, is to "facilitate more effective use of scientific information about climate change...and extreme-weather events in the context of humanitarian assistance."

Read more: http://www.climatecentre.org/site/news/544/new-forecast-based-funding?type

Advances in oceanic forecasts and evaluation of approaches to climate services
Latin American Observatory.

With the help of the Center for Scientific Modeling (CMC, Universidad del Zulia - Venezuela), the Oceanographic and Hydrologic Research Center for the Colombian Pacific (CCCP), in Tumaco, has started the continuous production of short-term oceanic forecasts with the regional oceanic modeling system (ROMS). The products involve salinity, temperature and ocean currents for both the Colombian Pacific and the Caribbean basin.

The Latin American Observatory just finished a preliminary diagnostic and evaluation of the present approach used for the production and communication of its climate services. This is expected to be presented as a contribution in the 4th ICCS this December in Montevideo.

IRI scientists at the center of several high-level events during Climate Week in New York City
International Research Institute for Climate and Society
(IRI). As thousands of people converged on New York City for Climate Week and the UN Climate Summit, IRI scientists were at the center of several high-level events, bringing nearly two decades of experience on the use of climate science and information to improve policy and decision making in agriculture, public health, finance and other sectors. These events included:

- Sustaining Health: Linking Environment, Nutrition and Health, co-hosted by the Wellcome Trust, Columbia University's Mailman School of Public Health, IRI and Meteos
- What is Climate Science?, organized by the International Center of Photography, in partnership with IRI, Lamont-Doherty Earth Observatory and the Human Impacts Institute
- Climate Risk Forum: Building Innovative and Sustainable Index Insurance Markets, co-hosted by IRI and the World Bank Group's Global Index Insurance Facility
- The Climate-Weather Connections: A Workshop for International Weather Presenters, run by IRI, WMO and Climate Central
- Colloquium on Forests and Climate: New Thinking for Transformational Change, sponsored by the Center for International Forestry and the Earth Institute

Event details can be found at: http://iri.columbia.edu/news/climate-week-2014-iri-events/

In addition, IRI posted a response to President Obama's UN speech and <u>Executive Order</u> on Climate-Resilient International Development. The response, entitled "8 Ways We Can Strengthen Development and Increase Climate Resilience" is available <u>here</u>.

Uruguay develops national information systemUruguayan Ministry of Livestock, Agriculture and Fisheries.

Uruguay's economy is strongly based on the agriculture sector, with about 77% of the land occupied by rangeland, 8% by different crops, and 9% by forests. Agriculture represents more than 70% of the total value of the exports. To safeguard the agricultural sector from climate risk, the Livestock, Agriculture and Fisheries Ministry of Uruguay is leading a project entitled Development and Adaptation to Climate Change, with the financial support of the World Bank.

The project includes the development of an information system for risk assessment, decision making, and public policy implementation, conceived as a public good and serving a platform offering data and applications to farmers, industry, and public managers. The implementation process is receiving the support of the International Research Institute for Climate and Society, through the development of early warnings for climate threats, the implementation of index-based insurance instruments, and training at several levels.

The project also supports sustainable rural development through rational soil, water and rangeland management, by means of financial support for climate resilient investment improvements and practices at the farm level.

The Livestock, Agriculture and Fisheries Information System aims to facilitate critical and timely information on climatic events and their potential impact on the whole chain of production. It includes the development of improved seasonal forecasts, real-time monitoring of climate and vegetation, and the development of simulation models to assess adaptation strategies to decrease social and productive vulnerability.

This initiative brings together numerous institutions that produce agricultural information with academic and research groups working in interdisciplinary partnerships focused on strategic areas defined by the government.

The project aims to build public services capacities and to enhance connections between the public and private sectors, strengthening the links between science and public policy.

German Climate Service Center moves to phase II Climate Service Center (CS2.0). The former Climate Service Center (CSC) was an initiative developed by the German Federal Government, initiated in 2009, based at Helmholtz-Zentrum Geesthacht (HZG) and supported until May 2014 by the Federal Ministry of Education and Research (BMBF). Starting 1 June 2014, the Center was institutionalized in the Helmholtz Association, renamed Climate Service Center 2.0 (CS2.0). Acting director is Dr. Daniela Jacob. CS2.0 is located, as before, in the "Chilehaus", Hamburg



recent publications

Title: State of the Climate in 2013 **Authors:** J. Blunden and D.S. Arndt

Summary: The State of the Climate in 2013 report provides a detailed update on global climate indicators, notable weather events, and other data collected by environmental monitoring stations and instruments on air, land, sea, and ice. According to the report, the vast majority of worldwide climate indicators continued to reflect trends of a warmer planet in 2013. State of the Climate in 2013 is the 24th edition in a peer-reviewed series published annually as a special supplement to the Bulletin of the American Meteorological Society. This yearly publication provides the foundational information needed to develop tools and services for communities, business, and nations to prepare for, and build resilience to, the impacts of climate change.

Link: NOAA Press Release, highlights, visuals, or full report

Title: Early adoption of climate information: lessons learned from South Florida water resource management

Authors: J. Bolson, K. Broad

Summary: Seasonal climate forecasting skill has improved over recent decades, accompanied by expectations that these forecasts, along with other climate information, will be increasingly used by water managers in certain regions of the United States. Most research focuses on why adoption does not occur; however, the question of why adoption does occur has received little attention. Barriers to use frequently identified, include risk aversion, institutional constraints, and low forecast reliability. Relying on the results from observations and semistructured interviews conducted from 2006-2010 in South Florida, this research identifies the characteristics that enabled the early adoption of climate information by the South Florida Water Management District, one of the largest water management organizations in the United States. The findings are analyzed in relation to existing theories on technology transfer and innovation diffusion. Lessons from this specific case are situated in the context of the broader U.S. water management landscape.

Link: http://journals.ametsoc.org/doi/pdf/10.1175/WCAS-D-12-00002.1

Title: Improving capacities and communication on climate threats for water resources adaptation in Paraguay

Authors: G. Coronel, M. Pastén, J. Báez, R. M. Domecq,

M. Bidegain, G.J. Nagy

Summary: Successfully improving the capacities and communication on climate adaptation in water resources in Paraguay requires enhanced acceptance and understanding of both climate change and variability adaptation (CCA and CVA respectively). The current deficit of CVA implies some lack of CCA to future scenarios. Secondly, we suggest focusing on building capacity on climate science and management through the (i) reinforcement of science-driven knowledge, e.g., future climate projections and scenarios; (ii) enhancing the communication of climate services within the Rio de la Plata basin (RPB) to make them more user-friendly; and (iii) training of climate science managers (CSM) capable of understanding and communicating climate-related issues, as well as to plan management policies. Thirdly, the coproduction of knowledge by natural and social scientists, engineers, managers, and users is necessary in order for them to be better informed and to produce flexible scenarios and plans.

Link: http://link.springer.com/referenceworkentry/ 10.1007/978-3-642-40455-9 113-1

Title: Managing health risks in a changing climate: Red Cross operations in East Africa and Southeast Asia

Authors: E. Coughlan de Perez, L. Nerlander, F. Monasso, M. van Aalst, G. Mantilla, E. Muli, T. Nguyen, G. Rose and C. Rumbaitis Del Rio

Summary: While climate variability and change affect global patterns of disease, there are few examples of methods that effectively integrate climate into health programming. This study examines a Red Cross Red Crescent pilot project in Kenya, Tanzania, Vietnam, and Indonesia that incorporated climate information and considerations in health operations. Our investigation looks at three elements of programming: baseline community perceptions of climate and health, integration of climate information in operations, and resulting community-level risk reduction behaviour.

Link: http://www.tandfonline.com/doi/abs/ 10.1080/17565529.2014.951012#.VBmANPmwL-k

Title: Reaching the Last Mile: Best practices in leveraging the power of ICTs to communicate climate services to farmers at scale

Author(s): A. Davis, A. Tall and D. Guntuku

Summary: This report reviews key ICTs for Development Programs that have been piloted in South Asia with the hopes of understanding the use and scalability of these approaches to Africa and other parts of the developing world. The report provides an overview of innovative projects and best practices of ICT in South Asia, and discusses how they may be scaled up and applied to Africa and other regions.

Link: http://ccafs.cgiar.org/publications/reaching-last-mile-best-practices-leveraging-power-icts-communicate-climate-services#.VCWb0OdBylJ

Title: Economic benefit of meteorology in the Swiss road transportation sector

Authors: T. Frei, S. von Grünigen and S. Willemse **Summary:** Meteorological services involve the provision of information on the state of the atmosphere and the ground surface. They provide data, information, forecasts and various related products, which are important for the smooth functioning of many aspects of the economy, government and society. The economic value or benefit of weather forecasts consists in generally improving financial and related outcomes resulting from the use of such forecasts. The merit of meteorological services cannot directly be deduced from the consumption of services. Rather, it emerges from the improvement of decisions made by economic stakeholders thanks to weather-related information. This is the first empirical study on this topic for Switzerland which includes economic data from interviewed users.

Link: http://onlinelibrary.wiley.com/doi/10.1002/met.1329/pdf

Title: The Vulnerability Sourcebook – Concept and guidelines for standardized vulnerability assessments

Author(s): GIZ in cooperation with Adelphi and EURAC **Summary:** The Vulnerability Sourcebook provides step-by-step guidelines to conduct vulnerability assessments and to monitor changes in vulnerability over time. Repeating vulnerability assessments on a regular basis is a rather new approach and

serves as a valuable tool for monitoring and evaluating the effectiveness of adaptation by showing whether a reduction in vulnerability has really been achieved. The approach of the Sourcebook is applicable from national to local level and to a broad range of sectors. It is illustrated with examples from pilot applications in Bolivia, Pakistan, Burundi and Mozambique.

Link: https://gc21.giz.de/ibt/var/app/wp342deP/1443/index.php/knowledge/vulnerability-assessment/vulnerability-sourcebook/

Title: Climate adaptation services for the Netherlands: an operational approach to support spatial adaptation planning **Authors:** H. Goosen, M. A. M. de Groot-Reichwein, L. Masselink, A. Koekoek, R. Swart, J. Bessembinder, J. M. P. Witte, L. Stuyt, G. Blom-Zandstra, W. Immerzeel

Summary: There is a growing availability of climate change information, offered to scientists and policy makers through climate services. However, climate services are not well taken up by the policy-making and planning community. Climate services focus on primary impacts of climate change, e.g., the disclosure of precipitation and temperature data, and this seems insufficient in meeting their needs. We argue that, in order to reach the spatial planning community, climate services should take on a wider perspective by translating climate data to policy-relevant indicators and by offering support in the design of adaptation strategies. There should be more focus on translating consequences of climate change to land-use claims and subsequently discuss the validity, consequences and implications of these claims with stakeholders, so they can play a role in spatial planning processes where much of the climate adaptation takes place.

Link:http://link.springer.com/article/10.1007%252Fs10113-013-0513-8

Title: Ethno-meteorology and scientific weather forecasting: Small farmers and scientists' perspectives on climate variability in the Okavango Delta, Botswana

Authors: O.D. Kolawolea, P. Wolskia, B. Ngwenyaa, and G. Mmopelwaa

Summary: Recent trends in abrupt weather changes continue to pose a challenge to agricultural production most especially in sub-Saharan Africa. The paper specifically addresses the questions on how local farmers read and predict the weather; and how they can collaborate with weather scientists in devising adaptation strategies for climate variability (CV) in the Okavango Delta of Botswana.

Link: http://www.sciencedirect.com/science/article/pii/S221209631400028X

Title: Enabling Climate Information Services for Europe

Author: S. van Pelt, and F. Ludwig

Summary: The aim of ECLISE was to develop and demonstrate local climate services to support the development of climate adaptation strategies. For the ECLISE project different users were identified in Europe in several climate vulnerable regions. The user communities varied in spatial scale and sector and were mainly determined by decision makers from businesses, local and regional authorities. Each user required different information. After an initial assessment of the user needs, the research institutes (providers) developed in cooperation with the users knowledge about climate change, adapted to the specifics of the case study. This report evaluates the experiences of providers and users within the ECLISE project.

Link: http://www.eclise-project.eu/content/mm_files/do_824/ D1.3%20ECLISE-User%20evaluation%20and%20best %20practices.pdf

Title: Gender and climate change

Authors: Red Cross / Red Crescent Climate Centre and Australian Red Cross

Summary: This guidance note outlines how climate change can impact men and women differently and identifies important ways in which gender roles can strengthen mens and women's capacity to adapt to changing climate-related risks. This resource can be used as a tool during gender training, as an information sheet for staff and volunteers, to help inform policy dialogues about climate change, and as part of education activities.

Link: http://www.redcross.org.au/files/ 2014 Gender and Climate Change.pdf

Title: Does Climate Information Matter? A proposed monitoring and evaluation framework for participatory assessment of the impact of climate services for male and female farmers

Author(s): A. Tall, A. Davis and S. Agrawal

Summary: This report summarizes a new contextual and gender-responsive monitoring and evaluation (M&E) framework to assess the added value of climate information and advisory services for smallholder farming communities across the developing world. The report describes the process by which workshop participants created and tested the framework as well as elements of the prescribed framework.

Link: http://ccafs.cgiar.org/publications/does-climate-information-matter-proposed-monitoring-and-evaluation-framework#.VCV_D-dBzLl

Title: Scaling up climate services for farmers: Mission Possible. Learning from good practice in Africa and South Asia **Authors:** A. Tall, J. Jansen, A. Jay, B. Campbell, J. Kinyangi, P.K. Aggarwal and R. Zougmoré

Summary: This report presents lessons learned from 18 case studies across Africa and South Asia that developed and delivered weather and climate information and related advisory services to smallholder farmers. The case studies and resulting lessons provide insights on what will be needed to build effective national systems for the production, delivery, communication and evaluation of operational climate services for smallholder farmers. Cases are examined with respect to how each addresses five key challenges to scaling up: salience, access, legitimacy, equity and integration.

Link: http://hdl.handle.net/10568/42445

Title: Climate services to improve public health

Authors: M. Jancloes, M. Thomson, M.M. Costa, C. Hewitt, C.

Corvalan, T. Dinku, R. Lowe, M. Hayden

Summary: A high level expert panel discussed how climate and health services could best collaborate to improve public health. This was on the agenda of the recent Third International Climate Services Conference, held in Montego Bay, Jamaica, December 2013. Issues and challenges concerning a demand led approach to serve the health sector needs, were identified and analyzed. Important recommendations emerged to ensure that innovative collaboration between climate and health services assist decision-making processes and the management of climate-sensitive health risk.

Link: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4053884/

upcoming events

in the climate services community

meeting framework, including ECAC – Applied climatology: developing climate services in partnerships, communication and education (CE), numerical weather prediction (NWP), and the atmospheric system and

Link: http://www.ems2014.eu/home.html

Date: October 5-8, 2014

Location: Davos, Switzerland

3rd GRF One Health Summit 2014

Lead organization(s): Global Risk Forum, Davos **About:** Today's human health management requires to be dealt with from a holistic "One Health" perspective that acknowledges the systemic interconnections of human, animal and environmental health in close relation with food safety and security. Knowledge sharing, education, improved governance, corporate responsibility and dedicated investments will be key. The 3rd GRF One Health Summit will further develop and strengthen the One Health paradigm and its global movement. In particular this 3rd global gathering will focus on the added value of a global One Health approach and a stronger involvement of the private sector

Link: http://onehealth.grforum.org/home/

Our Climate-Our Future, Regional perspectives on a global challenge

Date: October 6-9, 2014 **Location:** Berlin, Germany

and policy.

Lead organization(s): The Helmholtz Climate Initiative

REKLIM (Regional Climate Change)

About: Taking place in Berlin, Germany, this conference provides a forum for scientists from all over the world to present and discuss new results from regional climate research. The conference will be divided into a three-day international scientific conference, followed by a public engagement day on 'Regional climate change-causes and effects,' which focuses on the dialogue between scientists and decision makers.

Link: https://reklim-conference-2014.de/

14th European Meteorological Society (EMS) Annual Meeting & 10th European Conference on Applied Climatology (ECAC)

Date: October 6-10, 2014

Location: Prague, Czech Republic

Lead organization(s): The theme of this year's EMS annual meeting is "creating climate services through partnerships." Several programs will be incorporated into the larger

The Climate Symposium 2014

its interactions (ASI).

Date: October 13-17, 2014 **Location:** Darmstadt, Germany **Lead organization(s):** CLIVAR

About: The symposium will be an important step towards defining requirements, and further developing an efficient and sustained international space-based Earth observing system. This symposium is intended to bring together the international experts in climate observations, research, analysis and modelling to present and discuss results from their studies, with a particular emphasis on the role of space-based Earth observations in improving our knowledge of the current climate at global and regional scales, and in the assessment of models used for climate projections.

Link: http://www.theclimatesymposium2014.com/index .php/climatesymposium/index

International Symposium on Weather and Climate Extremes, Food Security and Biodiversity

Date: October 20-24, 2014

Location: George Mason University, Washington, D.C.,

United States

Lead organization(s): United Nations Food and Agricultural Organization (FAO), World Meteorological Organization (WMO), George Mason University

About: The symposium aims at bringing together experts from hydrometeorology and key decision-makers and practitioners from the agriculture and biodiversity sectors from different parts of the world. The symposium will be designed to facilitate the discussions on the key issues and help develop appropriate recommendations for implementation at the national and local levels to ensure global food security and healthy ecosystems.

Link: http://iscefs.org/



Development and Climate Days

Date: December 6-7, 2014

Location: At the Country Club Lima Hotel during COP 20

in Lima, Peru

Lead organization(s): The Red Cross Red Crescent Climate Centre, the International Institute for Environment and Development (IIED), the Overseas Development Institute (ODI), and the Climate and Development Knowledge Network (CDKN)

About: For the first time in history, an opportunity exists to integrate global efforts to tackle climate change and poverty, and set the world on a path to zero extreme poverty and zero net emissions within a generation. The 12th annual Development & Climate (D&C) Days at the UNFCCC COP 20 meeting in Lima, will feature two days of innovative approaches and incisive dialogue, focused on bringing "zero-zero" within reach. D&C Days will feature dynamic, interactive discussion, including participatory games, speed geeking, lightning talks, role-play discussions, world cafés and more.

Participants will explore ways to integrate climate and poverty targets, influence the UNFCCC negotiations and identify agreements that could produce zero-zero within a generation.

Link: http://www.climatecentre.org/site/development-andclimate-days

International Conference on Climate Services 4

Date: December 10-12, 2014 **Location:** Montevideo, Uruguay

Lead organization(s): Climate Services Partnership About: The fourth International Conference on Climate Services is hosted by the Uruguayan Ministry of Agriculture, Livestock and Fisheries, with support from the World Bank and the Climate Change Agriculture & Food Security theme of the Consultative Group on International Agricultural Research. The conference will explore the theme of decision support systems; it will also engage a range of other topics including health, water, disasters, grassland management, and the evaluation of

Link: http://www.climate-services.org/iccs/iccs-4/home

International Conference on Decision Support Systems for Early Warning and Mitigation of Disasters (DSS-EWMD)

Date: December 28-30, 2014

Location: National Institute of Technology Durgapur in

West Bengal, India

climate services.

Lead organization(s): National Institute of Technology

Durgapur

About: This international conference will serve as an academic platform for the exchange ideas, knowledge, experience and skills to better manage the increasing frequency and intensity of climate-related disasters. A major goal of the conference is to produce academic activites that develop decision support systems for geographical regions across India.

Link: http://www.nitdgp.ac.in/all_pdf14/DSSEWMD/

index.htm

3rd International Conference Energy & Meteorology (ICEM): Next Generation Meteorological Practices in the Energy Sector

Date: June 23-26, 2015

Location: Boulder, Colorado, United States **Lead organization(s):** ICEM 2015 Secretariat

About: As with the International Conference Energy & Meteorology (ICEM) 2011 (http://www.icem2011.org/) and ICEM 2013 (http://www.icem2013.org), the objective of ICEM 2015 is to provide a dedicated forum where scientists, engineers, economists, policy makers, and other specialists and practitioners involved in research or implementation activities at the intersection between weather, climate and energy can discuss recent research findings and emerging practices ranging from operational activities to long-term investment planning and to policy making.

Link: http://icem2015.org

11th International Conference on Southern Hemisphere Meteorology and Oceanography

Date: October 5-9, 2015 **Location:** Santiago, Chile

Lead organization(s): American Meteorological Society and the Department of Geophysics, Universidad de Chile About: ICSHMO provides a unique contribution to ocean and atmosphere sciences that are specific to the Southern Hemisphere. The objective of the 2015 conference is to provide an interdisciplinary forum for presentations of our current knowledge, as well as encouraging new research and applications within the variety of disciplines related to weather and climate of the ocean and atmosphere. The overarching theme of this conference will be the Challenges of the Next Decade. Participation of early career scholars and postgraduate researchers is positively encouraged.

Link: http://www.sbmet.org.br/userfiles/11-ICSHMA-FirstCircular.pdf

Sustainability Science Congress: Global Challenges: Achieving Sustainability

Date: October 22-24, 2014

Lead organization(s): This international and solutionsorientated congress invites experts across disciplines to break down academic barriers and jumpstart a broader collaboration on sustainable solutions relevant for society. Also targeting businesses and policy makers, the congress aims to provide a platform for science-policy interface

relevant for global challenges. **Location:** Copenhagen, Denmark

Link: http://sustainability.ku.dk/iarucongress2014

2nd International Conference on Evaluating Climate Change and Development "Tackling a Key 21st Century Evaluation Challenge"

Date: November 4-6, 2014

Location: Washington, D.C, United States **Lead organization(s):** Climate-Eval

About: This 2nd International Conference will tackle the difficulties linked to the evaluation of climate change and

development, described by many as a major 21st century evaluation challenge. Participants for the conference are expected to be drawn equally from the global South andNorth to take stock of existing tools and methods but also reflect on and share experiences on emerging approaches in order to improve the practice of climate change evaluation. Efforts will also be made towards identify new and innovative ways to create an enabling environment for the demand and use of climate change and development evaluation in order to improve policy making.

Link: http://www.climate-eval.org/events/2014-conference

Third International Conference on ENSO: "Bridging the gaps between global ENSO science and regional processes, extremes and impacts"

Date: November 12-14, 2014 **Location:** Guayaguil, Ecuador

Lead organization(s): CIIFEN (Centro Internacional para

la Investigación del Fenomeno de El Niño)

About: The III International Conference on ENSO, dedicated to "Bridging the gaps between Global ENSO Science and regional processes, extremes and impacts" will be held in Guayaquil, Ecuador from 12-14 November 2014. The conference is a follow-on to the Second International "Workshop on ENSO, Decadal Variability and Climate Change in South America: Trends, teleconnections and potential impacts" held in October 2010 and the First International ENSO Conference: "The El Niño phenomenon and its global impact" in May 2005, both held in Guayaquil, Ecuador. The conference aims to review progress on the science of ENSO and related regional processes in order to improve the prediction of regional impacts; and to contribute to development of decision support frameworks that allow timely and appropriate planning and response at national and local levels.

Link: http://www.ciifen.org/index.php?

option=com_content&view=category&layout=blog&id=117 &Itemid=172&lang=es

International Expert Symposium, Coping with Droughts: Building a Community of Practice on Drought Management Tools

Date: November 19-21, 2014 **Location:** Santiago, Chile

Lead organization(s): Managing Water Resources in Arid and Semi-Arid Regions of Latin America and the Caribbean (MWAR-LAC)

About: The expert meeting aims to:

- Exchange on the state of art and knowledge gaps on drought information systems (indices, monitoring, alert, data management, risk management)
- Evaluate of the value of information and the effectiveness of existing information strategies from a stakeholder perspective
- Derive demand for innovation (research / implementation) regarding drought risk management for different integrated information strategies.
- Develop integrated approaches towards effective drought risk management considering the regional characteristics (climate, hydrology,

- cryosphere, storage, water demands).
- Establish a community of practice (research-institutionspolicy) on drought management with the aim to develop solutions and proposals

Link: http://www.cazalac.org/mwar_lac/index.php? id=68&L=0

Green Skills for Boosting Transitions in Water Management

Date: November 22-29, 2014 **Location:** Valencia, Spain

Lead organization(s): Climate-KIC

About: This eight-day workshop for experienced environment and water management professionals, has been developed as a set of three concentric components: Green Skills, Transition Thinking and Water Management.

- The Green Skills component is the core of the course-to gain new skills to deal with environmental and complex problems in contexts which demand a systemic approach and socio-technical innovation.
- Transition thinking, makes up the course approach. The process management, systemic vision and system components rely on this concept of transitions and related theories such as circular economy.
- Water Management provides the scenario on which practical cases are built, defining discussion topics and cases.

Link: http://goo.gl/cKFY7c

UN Climate Change Conference COP20

Date: December 1-12, 2014

Lead organization(s): United National Framework

Convention on Climate Services

Location: Lima, Peru

About: The COP is the supreme decision-making body of the UNFCCC and serves as the Meeting of the Parties (MoP) to the Kyoto Protocol. All states that are parties to the Kyoto Protocol are represented at the CMP, while states that are not parties participate as observers. The CMP reviews the implementation of the Kyoto Protocol and takes decisions to promote its effective implementation. The pre-COP ministerial meeting will be held in Venezuela

Link: https://unfccc.int/meetings/lima_dec_2014/meeting/

