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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 in 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 Allyza Lustig at arlustig@iri.columbia.edu by **December 15, 2013**.

Editorial Board: Allyza Lustig (IRI), Cathy Vaughan (IRI), Steve Zebiak (IRI)

**The NEW Climate Services
Partnership website is up
and running!**

Visit www.climate-services.org
to explore our new [interactive
map](#) and our updated
[Knowledge Exchange](#) platform.

**Please send us your comments
and let us know how this site
can better serve you.**

climate services and collective impact

letter from the CSP secretariat

In many ways, the CSP was formed around notions of collective action and collective impact. Our aim for the CSP was to create the means by which partners could more effectively and efficiently exchange knowledge, learn from each other, and collaborate in the development of new knowledge to advance climate services throughout the world. Our proposition was that in so doing, we could accelerate learning, identify and promote good practices, and create resources beneficial to our members and the broader climate services community.

Over the past two years the CSP has focused primarily on aspects of knowledge capture and dissemination, communications, and the evaluation of climate services. While there is more to do on these fronts, there are also a number of ways our community could expand on this agenda including curricula development, the establishment of good practices, and standards of assessment, as already proposed by our members.

As we consider options for collective work we wish to pursue, and how it can have impact, it is useful to know that there is actually research being developed on a general theory of collective impact. Reviewing some of this work recently, I found that a lot of the ideas seem very relevant to climate services, and I think they could be helpful to our community in trying to organize our work.

“Our aim for CSP was to create the means by which partners can more effectively and efficiently exchange knowledge, learn from each other, and collaborate in the development of new knowledge to advance climate services throughout the world.”

An excellent overview of collective impact is provided by [Kania and Kramer \(2011\)](#). As these authors point out, collective impact is relevant primarily as an approach to addressing complex problems that involve a diversity of actors across differing sectors and institutions. In such settings, there may be a variety of interests, and goals represented among stakeholders, but in fact none of the actors are in a position of being able to address the problem successfully alone. This resonates well with the climate services experience at both local and global levels.

There are examples of how collective impact has been effective in tackling problems such as education, or environmental restoration, where traditional

approaches based on the isolated and uncoordinated efforts of multiple actors have failed. Even in instances where some aspect of multi-stakeholder engagement is established around a particular problem, it can fail to achieve much if lacking common objectives, measures of progress, or accountability for results.

So how is collective impact different? The research points to a number of key components that seem to be present in one form or another in successful examples. And these, I think, are the main points our community might usefully consider in thinking how climate services initiatives might be organized, from the local, individual service level, to the global partnership level. Adapted from above reference, they are:

Common Agenda. Participants share a common understanding of the problem and a joint approach to addressing it through agreed upon actions. They agree on primary goals for the initiative.

Shared Measurement Systems. The means by which success will be measured and reported are identified and adopted by all parties, helping to ensure alignment of efforts, and accountability.

Mutually Reinforcing Activities. Participants contribute individually, drawing on their particular capacities and resources, but in accordance with a mutually reinforcing plan of action that is responsive to the common agenda.

Continuous Communication. Communication mechanisms are created to aid in building trust, creating common understanding and language, and monitoring progress.

Backbone Support. A mechanism is established to plan, manage and support the initiative (eg, facilitation, reporting, logistics, monitoring).

We can recognize some aspects of these programmatic approaches in many existing climate services initiatives, and in activities of the CSP to date as well. The collective impact research helps to further elucidate them, and to provide evidence of their value. It also gives us food for thought in how we can build on our existing work for greatest impact going forward. We look forward to those discussions at ICCS3 and beyond.



Stephen Zebiak
Climate Services Partnership Secretariat

bringing science to society: the working group on regional climate

an op-ed by Clare Goodess, University of East Anglia (UEA)

This piece provides an excellent opportunity to introduce the Working Group on Regional Climate (WGRC), which was recently set up by the World Climate Research Programme (WCRP). However, it also poses a challenge – how to persuade you to read beyond the acronyms and convince you that we have a useful contribution to make within the climate services arena. Perhaps it will help if I say that I agreed to co-chair the WGRC (along with Bruce Hewitson of the University of Cape Town) because I feel that its establishment reflects a genuine aspiration of the climate science community to work towards the co-production of ‘actionable knowledge’.

Our Terms of Reference specifically name the CSP as one point of contact between the WCRP and climate service entities, and recognise the need to foster communication with the Global Framework for Climate Services (GFCS). We also have a key role to play in advising the WCRP about the research activities needed to support and improve regional climate science and prediction. More fundamentally, we will strive to integrate the user and decision-maker context in the design and development of regional climate science through two-way communication and co-production activities.

We acknowledge that these are ambitious goals, particularly for a voluntary working group, so we have identified some relatively modest but concrete activities as the first steps on our challenging journey. One focus is the [CORDEX](#) (Coordinated Regional Downscaling Experiment) modelling initiative. Large volumes of regional climate model output will become available over the coming months for domains covering all land areas. This output and the associated CORDEX evaluation activities lay a firm foundation for the Research, Modelling, and Prediction pillar of the GFCS. Now is the perfect time to begin to build networks of modellers and “users” (including climate service

providers and users) for each of the CORDEX domains. For the South American and Caribbean domains, this took a step forward in September during the VAMOS-CORDEX workshop in Lima.

I closed my Lima workshop talk by posing three ‘big’ questions which are relevant to all CORDEX regions: How do we make the Terabytes of CORDEX data available and, more importantly, accessible? How do we integrate the user and decision-maker context and communities into the application of regional climate science? What are the limits to regional information and how do we communicate them?

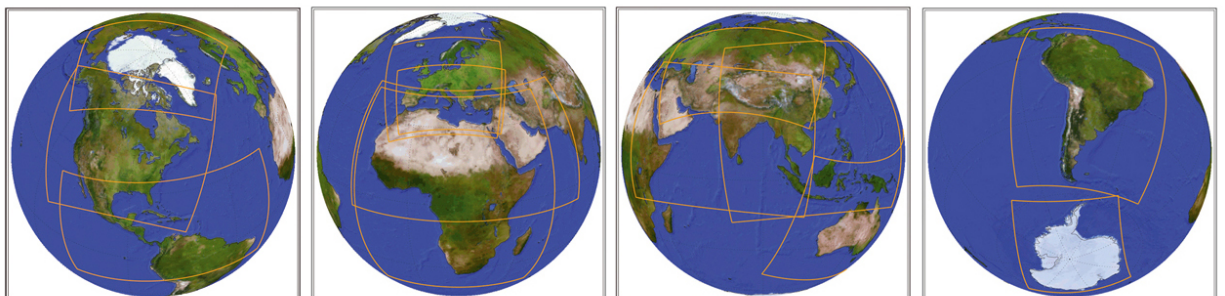
“I agreed to co-chair the WGRC because I feel that its establishment reflects a genuine aspiration of the climate science community to work towards the co-production of ‘actionable knowledge’.”

The WGRC will be facilitating wider discussion on these issues and developing guidance based on examples of good practice. One important forum will be the side event we are organising for the afternoon of 3 December prior to the third International Conference for Climate Services in Jamaica. We warmly invite CSP members to this participatory event, which will have a firm foundation in experiential learning or ‘learning by doing’.

The members of the WGRC are listed on [our website](#). Good communication is paramount if we are to achieve our ambitious goals. Please do contact me or any of my colleagues for further information or if you have suggestions relating to our activities.

Clare Goodess

University of East Anglia



the third international conference on climate services (ICCS 3)

[The third International Conference on Climate Services \(ICCS 3\)](#) will be held December 4-6, 2013 at the [Montego Bay Convention Centre](#) in Montego Bay, Jamaica; December 3 is reserved for side events.

To register, please click [here](#). Note that priority registration ends October 15. Once you have registered, we encourage you to book your hotel as soon as possible. Information regarding accommodations can be found [here](#).

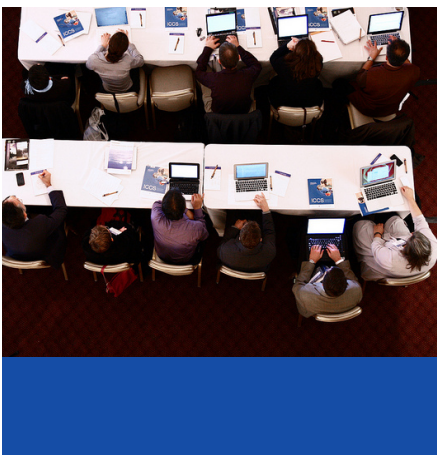
For more information, please email Cathy Vaughan: cvaughan@iri.columbia.edu.

Agenda

ICCS 3 will explore opportunities and constraints regarding the implementation of climate services, and will feature discussion regarding the transition from pilot activities to sustained services. The conference will include sessions on topics including climate and health, financial services, evaluation, the private sector, and drought management; it will highlight activities from Jamaica, the Caribbean region, and around the world.

Participants will also be able to engage in training activities and learn more about training opportunities through the ICCS Tools Training Expo.

The conference will also provide an opportunity for updates of a variety of



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projects and contribute to the development of the CSP workplan.

A draft of the conference agenda is available [here](#).

ICCS 3 Tools Training Expo

We're delighted to announce that we will include, for the first time ever, a training element at the upcoming International Conference on Climate Services. The [ICCS 3 Tools Training Expo](#) will provide an opportunity to highlight various software tools and climate information products that can be used to improve climate-informed decision making.

The ICCS 3 Training Expo will begin on Wednesday, December 4, with a round robin for participants to explore and share relevant offerings and initiatives in the realm of climate-relevant tools. The expo will outline the "hot topics" regarding strengthening the knowledge infrastructure around climate service tools and resources. The round robin will be followed by a poster session, allowing participants to further explore the tools discussed. Longer training

demonstrations will be held on Thursday, in which tool providers will give a more in-depth explanation of their services. The Expo is still soliciting contributions that describe the tools and training opportunities offered by your institution, so please do consider submitting information on your own tools or training opportunities if you plan to be at the conference. For more information about the Expo, please contact Allyza Lustig at arlustig@iri.columbia.edu.

CDEMA Conference

The 8th annual [Comprehensive Disaster Management for Resilient Development](#) conference will occur concurrently with ICCS, from 2-6 December in Montego Bay, Jamaica. The conference, hosted by the [Caribbean Disaster Emergency Management Agency](#) (CDEMA), is the Caribbean region's largest gathering of professionals in the field of disaster management, as well as professionals from other sectors with specific involvement in the field. We're very excited to link our conference with CDEMA's and will ensure that both communities benefit from these simultaneous discussions.

climate community spotlight

a conversation with Jeffery Spooner, Meteorological Service of Jamaica



Jeffery Spooner, director of the Jamaican Meteorological Service, spoke with us about his work and the broader work of the organization.

Tell me a bit about what the Met Service does, and the ways in which it is involved with the wider climate services community. One of our regular services is a rainfall summary, which provides a precipitation projection going out three months. These summaries reach a number of stakeholders: the insurance sector, the agricultural sector, the water resources sector, the engineering sector – they all rely on our insight.

As we move forward to ICCS 3, we have been working to support stakeholder consultation and raise public awareness, particularly in the agricultural sector. We ask farmers what information they require, how they require it, and the frequency at which their information is needed. That is to say, we work to create a tailored product.

Regionally, we have been working with the Caribbean Institute for Meteorology and Hydrology on a project for agriculture, CAMI [Caribbean Agrometeorological Initiative]. This is a service for farmers that will assist them in planning their activities in a more sustainable manner. Most importantly, this is a regional initiative that's been tailored to meet local needs. We send out a farmers bulletin, for example, through the agricultural ministries. This is aimed at guiding farmers' decision making at the local level.

What you see as the Met Service's greatest strengths? The Jamaican Meteorological Service mission is to take full advantage of our present knowledge of weather and climate, and build upon that knowledge so as to foresee and prevent potential changes that might be adverse to the well being of society.

One of our main strengths is in our ability to maintain an early warning system with respect to the onset of severe weather events impacting Jamaica and its territorial waters. This is especially true during hurricane season. Of course, we are impacted by frontal systems at other times as well, so we maintain a watch year round. With respect to climate services – well, this is fairly new. We want to be in a position to provide climate services to the various sectors that could benefit from them.

How would you define climate services? "Climate services" speaks to the creation of products and services in the context of climate and climate change. Emphasis is put on the key sectors in an attempt to assist in the adaptation and mitigation process.

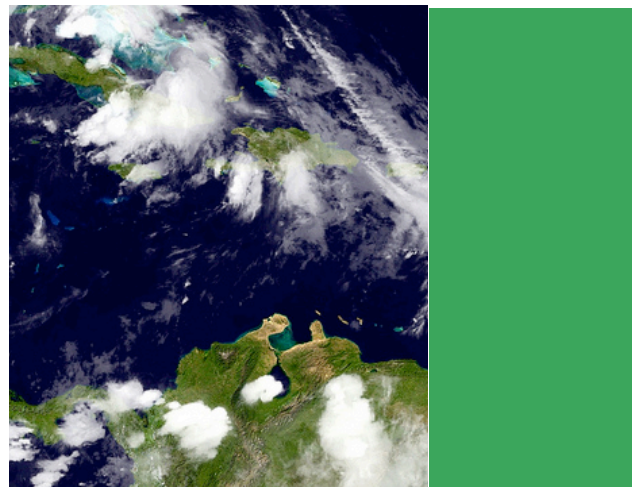
What are your goals for the future of the Met Service?

As the impacts of climate change are becoming more and more evident, there is an increased need for climate services. Broadly speaking, the Met Service's objective is to position itself to provide and operate, to an extent, the climate services needed for the country. We have to be proactive in predicting drought, for example, which will have significant implications for all.

A decrease in rainfall will affect, firstly, water resources. This in turn will affect tourism, agriculture, industry, and domestic life. The health sector is also a concern, and the availability of potable water has serious implications. Work has already been done in relation to climate services and the health sector, for example in the case of dengue.

What do you see as the largest challenges in developing effective climate services? We do not have the capacity to provide the climate services needed to address the rising concerns of climate change. For example, modelling and scenario generation – we simply do not have those resources. That said we are hoping to develop them over time, and to that end have been working collaboratively with the Climate Studies Group Mona at the University of the West Indies.

What do you like most about your work? I've built most of my career at the Met Service. One of my greatest fulfillments, really, is that we are able to provide a service, and that we can identify its usefulness. We can see how its been used and know how it's appreciated. We are able to provide guidance to all stakeholders, and especially those who are the most vulnerable.



Climate Service UK

UK Met Office. Climate Service UK will provide users in the UK and internationally with actionable information to help them manage risks and opportunities arising from climate variability and change. The initiative is led by the Met Office in close collaboration with the UK's Natural Environment Research Council, Environment Agency, and key government departments. The Met Office is taking a lead with its collaborators to show how science can be used to deliver real value both in the UK and abroad.

By working in partnership with users to understand vulnerability to weather and climate, the Climate Service UK will support "climate-smart" decision making and resilience. Building on existing services, expanding climate science knowledge, and improving climate forecasts, Climate Service UK is a marked advance in the provision of services to assess the effects of a changing climate on business and society.

An event to showcase Climate Service UK took place on 3 June in London as the Met Office's response to, and alignment with, the WMO's Global Framework for Climate Services. Over 100 leading figures from the UK government, academia, and business sectors attended the event, along with several international participants. UK Secretary of State for Energy and Climate Change Edward Davey and WMO Deputy Secretary-General Jerry Lengoasa presented keynote speeches.

Julia Slingo, Met Office Chief Scientist, said, "The volatile weather of 2012 illustrates society's increasing vulnerability and exposure to climate-related hazards. Together with our global network of partners across government, academia and business, we are well placed to rise to the challenge of delivering Climate Service UK that addresses the needs of societies everywhere."

Read more: <http://www.metoffice.gov.uk/climate-service-uk>
Contact: Chris Hewitt chris.hewitt@metoffice.gov.uk, Jane Strachan jane.strachan@metoffice.gov.uk

R4 Senegal: experimental economic games

International Research Institute for Climate and Society (IRI). In May 2013, the Columbia University index insurance team (Helen Greatrex and Sari Blakeley) visited eight villages in Senegal to lead participatory processes for index verification and gather information from farmers and partners. This information was to be used to further develop the indexes for the dry run and the online Weather Index Insurance Educational Tool (WIET). Experimental games were designed and conducted in collaboration with Senegalese partners and served as dry run of a drought index insurance product. Additional parameters were added to the game (i.e. remote sensing versus rain gauge) to research decision making and farmer preferences. By building transferable experimental games research strategies in Ethiopia, the team was able to expand the economic experimental games and use them in Senegal.

Kilimo Salama index insurance project: insuring farmers against drought

International Research Institute for Climate and Society (IRI), Syngenta Foundation for Sustainable Agriculture, Rwandan Ministry of Agriculture, SORAS Insurance, Swiss Re. The [Kilimo Salama index insurance project](#) is a partnership between the Syngenta Foundation for Sustainable Agriculture, Rwanda's Ministry of Agriculture, Rwanda's SORAS Insurance, and Swiss Re. Recently, the partnership extended a new product to smallholder farmers in Rwanda that was both understandable and affordable to distribute. IRI supported this work by providing access to the wide array of public satellite products that are accessible through its [Data Library](#). IRI also provided supporting research and training services available through the [USAID/NASA SERVIR-Global](#) satellite hub in Kenya. This enabled Kilimo Salama to navigate the challenges of using satellite data to develop index insurance contracts and querying the Data Library to scale up index design. Ultimately, Kilimo Salama was able to develop and sell a product that automatically drew on NOAA's ARC2 satellite rainfall data to drive their indices.



As a result of this initiative, more than 37,000 low-income smallholder farmers in Rwanda were able to purchase a satellite-based index insurance product, as part of a larger effort to increase farmers' ability to make productive investments.

Desert Locust Early Warning: prioritization for field operations

Flemish Institute for Technological Research (VITO), International Research Institute for Climate and Society (IRI), Food and Agriculture Organization (FAO). Unusually heavy rains trigger the growth of annual vegetation in the deserts of North Africa, the Near East and South-West Asia that can lead to the development of Desert Locust plagues. Once a plague occurs, local farmers can lose an entire season's worth of crops in a morning, livelihoods are threatened, leading to greater food insecurity. To avoid spending a half billion dollars or more to spray millions of hectares, FAO operates an early warning system to react early to prevent locust plagues from developing. Knowing where vegetation is green in some of the remotest places on Earth is critical to the operation of the system. In partnership with the Flemish Institute for Technological Research (VITO), a MODIS-derived dynamic greenness map is produced every ten days that includes both spatial and temporal information in a single geotiff file for analysis within a GIS. Each map shows the evolution of vegetation development for the previous eleven 10-day for each 250m pixel as various shades of color. Recently, Columbia University's IRI has assumed responsibility for disseminating the maps to locust-affected countries and FAO via the same popular web-based Map Room used for disseminating rainfall estimates and NASA MODIS images. The countries use both products to help guide ground teams to the remote areas where ecological conditions may be

favorable for Desert Locusts. In this way, vast desert areas can be delimited and prioritized for field operations, thus saving time and money in the continuing fight against the Desert Locust.

Read more: http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/index.html

iCOLT: predating lower than usual irrigation needs for the past summer

Arpa Emilia-Romagna. Substantially lower than normal total irrigation needs appeared most likely for the Emilia-Romagna region in northern Italy. These were the results of the iColt2013 activity, which ended this year with the presentation of results to the regional agricultural authorities on 17 June. Total median regional irrigation water forecast amounted to 466 mm³, though values the 25th and 75th percentiles were also available to reflect the inherent variability.

Summer seasonal forecasts for 2013 indicated index values in the climate norm. However, after considering the crop maps produced from satellite remote sensing, as well as the availability of significant groundwater and the levels of soil moisture, irrigation needs were found to be less than normal.

Since 2010, Arpa's iCOLT system has integrated annual satellite data, seasonal weather forecasts, and the water balance model to provide an assessment of potential irrigation demand of crops for the Emilia-Romagna regional plain area (northern Italy, Po river plain). It also covers the eight regional reclamation and irrigation districts.

Criteria model: www.tinyurl.com/criteriamodel
 Seasonal forecasts: http://www.arpa.emr.it/sim/?previsioni/lungo_termine
 iColt reports and results: <http://www.arpa.emr.it/sim/?telerilevamento/colt>

CSAG Winter School: using climate information for adaptation and policy development

Climate System Analysis Group (CSAG). The Climate System Analysis Group (CSAG), based at the University of Cape Town, recently completed its 5th annual Winter School course. This course, entitled, 'Using climate information for adaptation and policy development' is aimed at professionals from government departments and ministries, city councils and local municipalities, NGO's, corporate organizations, environmental consultancies, and individuals involved in decision making and policy development. It is a two-week intensive course that combines lectures, group work, and interactive discussions.

The topics covered range from understanding basic climate science and climate dynamics, accessing and understanding climate information, climate adaptation frameworks and adaptation planning, and policy and decision making. Most of the facilitators are CSAG members, though specialists from a range of other partner organizations join in to enhance the learning experience.

Over the last few years, the demand for this course has increased tremendously, and CSAG continues its efforts to help participants from less developed countries by offering sponsorships where possible.

CSAG will once again offer this course in 2014 and will be opening applications online via its website – <http://www.csag.uct.ac.za>. Anyone interested should visit the website or contact Ruwani (winterschool@csag.uct.ac.za) for information.

Climate Crab and Cloud Nasara star in ENSO animations for early action in the Pacific

Pacific-Australian Climate Change Science and Adaptation Planning Program, Australian Red Cross. The second of two animations integrating climate and disaster preparedness in the Pacific in an entertaining and accessible way is now available for download, along with a range of educational materials in Bislama – one of the languages of Vanuatu – and English and French.

The first film, [The Pacific Adventures of the Climate Crab](#) is an animated story that integrates climate science and disaster preparedness through the eyes of a "Climate Crab" experiencing a variety of climate and weather events.

The second, [Cloud Nasara](#), centers on the impacts of El Niño and La Niña on Vanuatu and encourages people to take early action to prepare; the Vanuatu island group can be severely affected, experiencing very dry or wet conditions.

Along with other extreme events like cyclones, ENSO events have serious impacts on water quality, food security, homes and roads, livelihoods and health. The 2010–11 La Niña, for example, is believed to have contributed to [drought in Tuvalu](#) and [floods in Fiji](#), which the local Red Cross worked hard to alleviate.

Both animations are the product of collaboration between the Australian government's [Pacific-Australia Climate Change Science and Adaptation Planning Programme](#) and the [Australian Red Cross](#). The project was implemented by the Red Cross region wide – National Societies, IFRC and Climate



Centre – the [Australian Bureau of Meteorology](#), the [Commonwealth Scientific and Industrial Research Organisation](#), the [Vanuatu Meteorology and Geo-Hazards Department](#), and the [SPC-GIZ Climate Change Program](#).

Read more here: <http://www.climatecentre.org/site/news/466/thankyou-so-much-says-star-of-second-pacific-climate-animation-reggae-parrot?type=>

CU-Boulder students focus on aid policies in new Red Cross partnership.

Red Cross Red Crescent Climate Centre, University of Colorado at Boulder. The Red Cross Red Crescent Climate Centre and the [University of Colorado](#) at Boulder have linked up to send CU graduate students to Africa for a three-month internship program focusing on climate. This summer, three CU environmental studies graduate students are working with the Climate Centre in Kenya, Uganda and Zambia. Lisa Dilling, co-director of the Red Cross Red Crescent program at CU, said the internships will give participants a chance to use climate-based research in real world decision-making and generate effective environmental policies and practices for humanitarian aid efforts. This is the first year CU has partnered with the Climate Centre, but the programme has been working with Columbia, Oxford and Yale Universities for several years.

The three students worked on projects as diverse as forecast-based financing, flood risk mitigation, and climate-smart livelihoods assessments. "There is a lot of useful scientific information out there that has the potential to make a significant impact on society, but there are challenges in making sure that this knowledge is successfully put into practice," says a coordinator of the program, Meaghan Daly.



These students help partners on the ground to make links between information and action.

Read more here: <http://www.climatecentre.org/site/news/453/cu-boulder-students-focus-on-aid-policies-in-new-red-cross-partnership?type=>

‘Partners for Resilience’: a summary of two years of experience in DRR.

CARE Nederland, Cordaid, Netherlands Red Cross, Red Cross/Red Crescent Climate Centre, Wetlands International. The Netherlands Partners for Resilience (PfR) – [CARE Nederland](#), [Cordaid](#), [the Netherlands Red Cross](#), the Red Cross/Red Crescent Climate Centre and [Wetlands International](#) – published a summary of two years’ worth of case studies and lessons learned from their joint programming in nine countries. The four-year program works with 30 implementing partners on ecosystem-based and climate-smart disaster risk reduction (DRR) in Ethiopia, Guatemala, India, Indonesia, Kenya, Mali, Nicaragua, the Philippines and Uganda. It’s estimated to reach more than 400,000 people.

The program’s initial successes illustrate how the partners’ initial [resilience vision](#) is being turned into practice on the ground. Some PfR highlights worldwide are as follows:

- In the Mahanadi Delta in Odisha state, India, community-risk assessments revealed patterns in the hazards facing villages; people on the coast, for example, were able to invest in eco-projects such as greening the shoreline and maintaining river flow through the removal of silt.
- PfR in the Philippines “layered” past, present and future risk maps, enabling people to see the changing nature of risks

and get a better idea of the risk-reduction resources available to them.

- In Ethiopia, PfR implementing partners worked with communities and pastoralist women to create community action plans and manage rangelands and water.
- In Guatemala, Mayan communities are supplementing traditional knowledge of weather and climate predictions by using small weather stations, all of which helps to improve local warning systems.
- PfR communities in Uganda facilitated the development of user-friendly weather forecasts, and for the first time ever communities were in direct contact with local meteorologists to identify risk-reduction measures based on the information.

Acclimatise to launch global contributors network

Acclimatise. World-leading climate change adaptation consultancy, Acclimatise, is looking for contributors to its news network. The Acclimatise Network covers climate change adaptation stories from around the globe and our network of contributors help bring the latest developments and eyewitness stories to our audience of businesses and policy makers.

Contributor articles are published through the Acclimatise Network, each with a photo and bio of the author. Our contributor network allows us to establish a relationship with climate change writers in every continent and allows our contributors to get their stories heard by thousands of influential people each week.

To see the latest articles on the Acclimatise Network please click [here](#). For more information about becoming an Acclimatise Contributor please click [here](#). To sign up to the Acclimatise Contributors Network click [here](#).

ICARUS: providing online climate change adaptation strategy

Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC). Water resources management presents significant challenges for the economic and social development of southern Europe. The ICARUS (IWRM for Climate Change Adaptation in Rural Social-Ecosystems in Southern Europe, a IWRMnet project) project focused in particular on the need to increase the efficiency of agricultural water management under scenarios of climate change and increased demand. We applied eParticipation techniques to the field of climate change adaptation, opening a new communication channel between the public and policy makers and creating the conditions for a more transparent and informative decision-making process. Via an online questionnaire, farmers in the Veneto Region provided information on their



practices, needs, and priorities. From this database and after consultations with policy-makers, we drafted a set of adaptation measures to be evaluated via seven criteria – which were also extrapolated from the questionnaire’s results. In a second phase, farmers and Irrigation Boards could evaluate alternative adaptation measures via an online platform for multi-criteria analysis (mDSSweb) and their preferences were delivered to regional decision makers. The same exercise was repeated in the Jucar river basin, Spain, and in Central Algarve, Portugal. The flexible design approach offered by the mDSSweb platform makes it suitable for different groups of stakeholders, from farmers to policy makers. Furthermore, the platform is multilingual and can easily be extended to other countries beyond Italy and adjusted to different case studies. A well-developed online network showed to be an important pre-condition for the success of the suggested participatory framework. However, we could expect different engagement approaches to become feasible with further Internet proliferation. Finally, stepping out of the analytical approach and presenting results to decision-makers can be a good motivation for the public participation. We believe that this approach is an efficient and effective operational solution for mainstreaming climate change into policies – and it is particularly useful in a time where European countries are finalizing their National Adaptation Strategies.

ICARUS Project documents: <http://www.cmcc.it/icarus-project-documents>

mDSSweb homepage: www.netsymod.eu/mdss; <http://www.tiamasg.org/ICARUS/sawEN/>

Constructing and Applying High Resolution Climate Scenarios

University of Oxford. The University of Oxford is delighted to announce that enrollment is now open for the seven-week advanced online short-course [Constructing and Applying High Resolution Climate Scenarios](#) to commence 28th October 2013.

This course draws upon the world-class expertise in climate science at the University of Oxford and the UK MET Office, and is designed to equip participants with a better understanding of regional climate modelling and analysis of its outputs. It offers practitioners and policy-makers the opportunity to develop their understanding of the science behind complex climate systems to help inform decision-making.

The course is comprised of seven units, each of which is designed to be covered in around one week with explanatory and contextual details, learning activities, topics for discussion, and further reading.

As an online course, it can be taken from anywhere in the world and is attractive to a global professional community. Participants are able to interact with one another and the course tutor online via our dedicated Virtual Learning Environment (VLE). Reading material and activities are embedded into the VLE, and students also have access to the university’s electronic resources and online journals through the Bodleian library.

The course will be of particular relevance to users of PRECIS or those interested in developing an understanding of it. Upon successful completion of the course participants received a University of Oxford Certificate of Attendance; see the course website for further details.

For full details of all our Climate Science and Policy courses please visit www.conted.ox.ac.uk/climatescience or contact climate@conted.ox.ac.uk or +44 (0)1865 286953.



Regional Oceanic Modelling System: introductory regional training

Observatorio Latinoamericano de Eventos Extraordinarios (OLE2). The Observatorio Latinoamericano de Eventos Extraordinarios (OLE2) continues to strengthen local capacities to improve tools for environmental decision-making in Latin American countries. As part of the goals for the 2011-2015 work plan, the Observatory has been working in consolidating the use of regional oceanic models as both operational and research tools on El Niño impacts, coastal phenomena (e.g. waves, coastal erosion, sea surface level) and ecosystems (e.g. fisheries). With the help of the Comisión Permanente del Pacífico Sur (South Pacific Permanent Comision, or CPPS) an introductory regional training on the use of the Regional Oceanic Modeling System (ROMS) was provided by the Center of Scientific Modeling (CMC, Universidad del Zulia) in 2011 for personnel of different institutes of Venezuela, Colombia, Ecuador, Peru and Chile. In 2012 and 2013 these efforts have continued, especially in Ecuador, Peru and Colombia. For example, the General Maritime Office of the Pacific Oceanic and Hydrographic Research Center in Colombia (or DIMAR-CCCP), has received two additional trainings (the last one in July this year) focused on the physics and evaluation of ROMS for the Colombian Pacific (see figure). In early 2014, an extended visit from CMC personnel will help to start tailored forecast products in DIMAR-CCCP.

CLIM RUN Annual Meeting

CLIM RUN. The CLIM-RUN European project (2011-2014) aims at developing a protocol for applying new methodologies and improved modeling and downscaling tools for the provision of adequate climate information at regional to local scale that is relevant to and usable by different sectors of society (policymakers, industry, cities, etc.). It is a Seventh Framework Project from the European Commission, with a focus on the Mediterranean area.

CLIM RUN held its annual meeting in Rome in July, which included discussions regarding the current activities of the range of CLIM RUN stakeholders; it also set the stage for next steps consolidation of lessons learned, the distribution of information through web and data portals, and the creation of a Mediterranean climate services network.

Members of CLIM RUN see the provision of targeted and precisely timely climate information as crucial to establishing better planning policies; there is also urgent need to involve stakeholders in the decision-making process. This involvement has the potential result in financial savings, improved political and strategic decision making, and increased resilience in the face of a changing climate. Clear coordinated efforts from various groups and countries is critical, as all can provide useful information in terms of adaptation policies in the Mediterranean region.

CLIM-RUN is in a particular position to provide knowledge and methodologies that can be used in a range of climate service activities. More information here: <http://www.climrun.eu/products/presentations-and-posters/clim-run-3rd-governing-board-assembly-rome-8-9-july-2013>

ARECS

Institut Català de Ciències del Clima (IC3). The Advancing Renewable Energy with Climate Services (ARECS) initiative aims to stimulate the use of probabilistic wind and solar forecasting in the renewable power sector, by developing and disseminating seasonal to decadal forecast tools and impact studies to manage climate-related risks. The initiative is pleased to announce the launch of its new website: www.arecs.org.

ARECS has been developed by the Climate Forecasting Unit at The Catalan Institute of Climate Science (IC3) in Barcelona, Spain, within the framework of several European climate service projects: CLIM-RUN (www.clim-run.eu), EUPORIAS (www.euporias.eu) and SPECS (www.specs-fp7.eu), and with support from the Catalan Government.

Global climate reanalysis

European Centre for Medium-Range Weather Forecasts (ECMWF). Global climate reanalysis provides critical resources for understanding and monitoring the processes associated with climate change, and for informing future climate change scenarios. Reanalysis combines information from past and present meteorological observations with modern forecast models, using data assimilation techniques originally developed for numerical weather prediction.

ECMWF has been running an ambitious program of reanalysis activities for a number of years. The first reanalysis product, ERA-15, generated a comprehensive description of the global atmospheric evolution during a 15-year period, from December 1978 to February 1994. The second product, ERA-40 (originally intended as a 40-year reanalysis) begins in 1957 (the International Geophysical Year) and covers 45 years to 2002. ECMWF has now produced and released ERA-Interim, which covers the period from 1979 to present, and which has attracted more than 12,000 users from the scientific climate community and the private sector. ERA-Interim products, which continue to be updated on a monthly basis, are increasingly used for monitoring climate change. All ECMWF reanalysis products are freely available on the web at <http://apps.ecmwf.int/datasets/>.

New developments in reanalysis at the Centre are focused on extending the length of atmospheric reanalyses, developing a coupled data assimilation capability, and continually expanding and improving the use of past and current observations, in particular from satellites.

State of the Climate 2012

US National Oceanic and Atmospheric Administration (NOAA). Worldwide, 2012 was among the 10 warmest years on record according to the 2012 State of the Climate report released on August 6, 2013, by the American Meteorological Society. The peer-reviewed report was compiled by 384 scientists from 52 countries, with scientists from [NOAA's National Climatic Data Center](#) in Asheville, North Carolina, serving as lead editors ([highlights](#), [full report](#)). The report provides a detailed update on global climate indicators, notable weather events, and other data collected by environmental monitoring stations and instruments on land, sea, ice, and sky. For more information, view the full [NOAA Press Release](#).

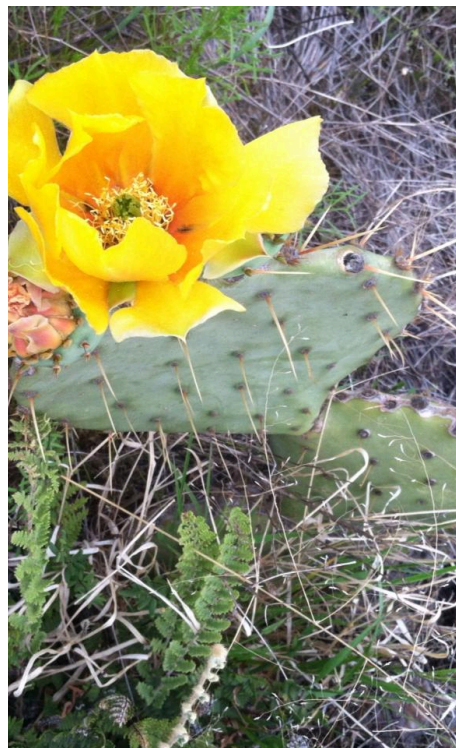
Explaining Extreme Events of 2012 from a Climate Perspective

US National Oceanic and Atmospheric Administration (NOAA). Human influences are having an impact on some extreme weather and climate events, according to the report "[Explaining Extreme Events of 2012 from a Climate Perspective](#)" released September 5, 2013, by the Bulletin of the American Meteorological Society. Overall, 18 different research teams from around the world contributed to the peer-reviewed report that examined the causes of 12 extreme events that occurred on five continents and in the Arctic during 2012. Scientists from NOAA served as three of the four lead editors on the report. For more information, view the full [NOAA Press Release](#).

Connecting to Farmers in Asia Climate Change, Agriculture, and Food Security (CCAFS). As part of its strategy to support scaling up climate services for farmers, the CCAFS Research Theme on Adaptation through Managing Climate Risk is working to synthesize knowledge and evidence on institutional arrangements and communication processes for enhancing climate services for agriculture and food security. CCAFS

recently co-sponsored two workshops with ICRISAT: a May 2013 [workshop](#) in Senegal on Developing a Methodology to Evaluate Climate Services, and a June 2013 [workshop](#) in Kenya on Developing a Methodology for Communicating Climate Information at Scale to Farmer Communities. The insights and outputs generated from these workshops, including evaluation methodologies and curriculum for training climate service communicators, will feed into continuing efforts to enhance climate services for farmers.

As part of these efforts, CCAFS is partnering with World Vision, the World Meteorological Organization (WMO), and the International Research Institute for Climate and Society (IRI) to put climate information into the hands of millions of farmers in Tanzania, with potential for upscaling to other countries in Eastern Africa. The project brings together cutting-edge prediction capabilities and expertise in communicating forecast information to farmers through a workshop-based process. CCAFS and IRI researchers visited World Vision and the Tanzania Meteorological Agency (TMA) in September to begin project implementation, including working with TMA to develop a 30-year, 10-km gridded daily rainfall dataset and capability to efficiently produce and deliver downscaled seasonal forecasts tailored to the needs of smallholder farmers and other agricultural stakeholders. A program to train World Vision staff/volunteers and other intermediaries to communicate the resulting seasonal climate information with smallholder farming communities is also under development. Trained staff, new climate information products and delivery channels, and agricultural experts in the



country will be brought together to provide climate information services to farming communities that World Vision serves in northern Tanzania, and support climate-informed risk management and safety net interventions.

Integrated Climate Risk Management Program

United Nations Development Program (UNDP). UNDP's integrated climate risk management (CRM) approach looks at risk management from a development perspective and harmonizes disaster risk reduction and climate adaptation to manage climate-induced risks and impacts as a key enabler of development. CRM is premised on recognition that reducing exposure and vulnerability to climate risks and impacts today will be a cornerstone of the efforts to build resilience for the future by harmonizing CCA and DRR practices.

The Integrated Climate Risk Management Program (ICRMP) has been formulated to assess the impacts of climate variability and change on the overall risk profile (in the context of increasing hydro-met disasters) and impacts on climate-

sensitive development sectors in high risk countries. ICRMP aims to (i) promote convergence of DRR and CCA and mainstreaming of CRM into development planning processes; (ii) strengthen and expand evidence-base for CRM at national, sub-national and sectoral levels; and (iii) develop risk reduction and adaptive capacity of institutions, sectors and communities. It seeks to bring together relevant actors including governments, sector-specific agencies, technical institutions, communities and other stakeholders to generate evidence-based CRM solutions and build capacities at the same time.

The Program seeks to identify existing and emerging climatic risks and impacts by analyzing climate data and information from three time thresholds (historical data, observable trends and projected scenarios) and conduct climate risk assessments to identify CRM interventions. Capacity needs assessments of national hydro-met agencies will be conducted with specific reference to monitoring, tracking and analysis of climate data/information and linkages with international and regional technical institutions and organizations will be promoted for capacity development and climate analysis.

The Program is intended to strengthen the risk management work at national and community levels and contribute towards promoting a sustainable development paradigm recognizing the close nexus between climate and national and community development paths and processes.

For further information, please contact Rajeev Issar, UNDP-BCPR at rajeev.issar@undp.org

PPCR Experience in Hydromet and Climate Services: From Learning to Investments, Pilot Program for Climate Resilience

World Bank. The PPCR coordination unit at the World Bank is developing an e-Learning Course, “Hydromet and Climate Services (HCS): A Value Chain Approach to Project Design” in response to the direct demand from the hydromet task teams. The course intends to provide guidance on how to develop targeted HCS projects, integrate HCS into sector-specific projects, or address user-specific needs with a consideration of the whole HCS value chain. A beta version of the course is planned to be launched at the Third International Climate Services Conference in the early December.

The target audience of this e-Learning course is: development practitioners and task teams, and client country counterparts. Sector specialists (e.g. water, agriculture, others), practitioners in the hydromet agencies and private sector, who are interested in designing and implementing effective HCS projects would particularly benefit from this course.

Under the Pilot Program for Climate Resilience, five hydromet and climate services projects (US\$ 85 million) have already been approved in Nepal, Niger, Mozambique, Tajikistan, and Yemen. Types of investments range from targeted end-to-end HCS project (e.g. Tajikistan) to projects with a focus on increasing uptake of hydromet and climate information in vulnerable sectors, such as agriculture (e.g. Nepal, Niger) and water (e.g. Mozambique). All five projects support specific activities to improve early warning systems and monitoring and observation equipment, build local capacity and strengthen HCS institutions. Read more [here](#).



recent publications

the latest publications from the CSP community

Games for a New Climate: Experiencing the Complexity of Future Risks

Authors: Janot Mendler de Suarez, Pablo Suarez, Carina Bachofen, Nick Fortugno, Jarrod Goentzel, Paulo Gonçalves, Natasha Grist, Colleen Macklin, Kimberly Pfeifer, Sarah Schweizer, Maarten Van Aalst, Hassan Virji.

Summary: The Climate Centre's flagship publication Games for a New Climate: Experiencing the Complexity of Future Risks explores ways in which games help stakeholders (including subsistence farmers, humanitarian workers, scientists, policymakers, and donors) experience the difficulty of decision-making in a complex and uncertain future.

Link: <http://www.climatecentre.org/downloads/File/Games/Games-related%20publications/Pardee%20report.pdf>

Drivers of Change in Southern European Agriculture: Online Participatory Approaches for the Analysis of Planned and Autonomous Adaptation Strategies

Authors: Dragana Bojovicab, Laura Bonzanigoab, Carlo Giupponi

Summary: The presented work explores how online participatory tools can be linked to a decision support system (DSS), in order to set up a web based DSS for assessment and evaluation of autonomous and planned water-saving adaptation strategies in irrigated production systems.

Link: http://www.iemss.org/sites/iemss2012//proceedings/C1_0968_Bojovic_et_al.pdf

An Agent-Based Model Driven by Tropical Rainfall to Understand the Spatio-Temporal Heterogeneity of a Chikungunya Outbreak

Authors: Carlos J. Dommar, Rachel Lowe, Marguerite Robinson, Xavier Rodó.

Summary: The spatio-temporal transmission of chikungunya is investigated by implementing an agent-based model (ABM) where individual hosts are explicitly represented and vector population are linked to precipitation estimates in a tropical setting. This model can help to inform public health officials on

both the impact and potential spatial expansion of the disease through both urban and rural regions under the influence of dynamic climatic conditions. The climate sensitivity of such vector-borne diseases highlights the importance of linking the monitoring of meteorological conditions to public health surveillance and control.

Link: <http://www.ncbi.nlm.nih.gov/pubmed/23958228>

Climate and Non-Climate Drivers of Dengue Epidemics in Southern Coastal Ecuador

Authors: Anna M. Stewart-Ibarra, Rachel Lowe

Summary: This paper reports a statistical mixed model for assessing the importance of climate and non-climate drivers of interannual variability in dengue fever in southern coastal Ecuador. Results indicate that monitoring the climate and non-climate drivers identified in this study could provide some predictive lead for forecasting dengue epidemics, showing the potential to develop a dengue early-warning system in this region.

Link for more information: <http://www.ncbi.nlm.nih.gov/pubmed/23478584>

Dengue Vector Dynamics (*Aedes aegypti*) Influenced by Climatic and Social Factors in Ecuador: Implications for Targeted Control

Authors: Anna M. Stewart Ibarra, Sadie J. Ryan, Efrain Beltran, Raúl Mejía, Mercy Silva, Ángel G. Muñoz

Summary: This study investigates the combined influences of climate and local social-ecological factors on *Aedes aegypti* dynamics in a hyper-endemic city in southern coastal Ecuador, six months after the most severe dengue epidemic on record. Results provide evidence that the influence of climate on dengue risk can vary by season and by neighborhood depending on the local social-ecological conditions. This initial study of dengue risk factors provides information for the region's public health sector to conduct time and location specific vector control campaigns.



Science for the Environment

Lead organization(s): Partnership for European Environmental Research (PEER), Aarhus University

Date: 3-4 October 2013

Location: Aarhus, Denmark

Description: Horizon2020 is the European Commission's Framework Programme for Research and Innovation, covering the period 2014-2020. One of the aims of the programme is to promote scientific research that tackles the grand societal challenges facing Europe and the World. This conference is an opportunity to gain insight and impact on which scientific needs that are going to be addressed in Horizon2020.

Web Link: <http://dce-conference.au.dk/>

International Conference on Climate Justice

Lead organization(s): The Climate Group

Date: 9 October 2013

Place: Edinburgh, Scotland

About: This high-level conference, hosted by the Scottish government, will examine how business, civic society and governments can collaborate on climate justice and reinforce the case for accelerating the transition to a low carbon economy – which will deliver jobs, investment, trade and growth – by tackling key climate justice themes. Themes include water and food scarcity, access to clean energy and the services it provides, the vulnerability of children and women to climate change, and climate finance.

Read more: <http://www.theclimategroup.org/what-we-do/events/international-conference-on-climate-justice/>

The Society for Social Studies of Science (4S) Annual Meeting

Date: 9-12 October 2013

Location: San Diego, California, USA

Lead organization(s): Society for Social Studies of Science

Read more: <http://www.4sonline.org/meeting>

Scoping Workshop on Seasonal to Decadal Predictability of Regional Climate for Decision Making

Lead organization(s): Ministry of Earth Sciences, Govt. of India and the French National Research Agency

Date: 23-25 October 2013

Location: Goa, India

Read more: <http://www.ncaor.gov.in/news/view/184>

Constructing and Applying High Resolution Climate Scenarios

Lead Organization(s): University of Oxford and the UK Met Office

Date: 28 October 2013

Location: Online

About: Enrolment is now open for this seven-week advanced online short-course aimed at professionals wishing to develop

their understanding of the science behind complex climate systems. For more information please contact us on climate@conted.ox.ac.uk or +44 (0)1865 286953.

Read more: www.conted.ox.ac.uk/climatescience

CLARR 2014 - International Conference on Regional Climate Adaptation and Resilience

Towards Climate Adapted and Resilient Regions

Lead Organization(s): Federal Ministry of Education and Research, Germany

Date: 24-25 February 2014, abstract deadline: 31 October 2013

Location: Hamburg, Germany

About: The CLARR 2014 conference seeks to foster an exchange between the discourses on resilience and adaptation to climate impacts.

Read more: <http://clarr2014.nordwest2050.de/>

International Conference on Regional Climate - CORDEX 2013

Lead organization(s): the European Commission, the World Climate Research Programme (WCRP), the Intergovernmental Panel on Climate Change (IPCC)

Date: 4-7 November 2013

Location: Brussels, Belgium

About: The International Conference on Regional Climate - CORDEX 2013 aims to entrain as many aspiring early career scientists and students as possible from across the world in order to facilitate growth of the diverse future workforce needed to meet the increasingly complex scientific challenges of the sustainable development.

Read more: <http://cordex2013.wcrp-climate.org/>

Development and Climate Days

Lead organization(s): Red Cross Red Crescent Climate Centre and the Global Environmental Fund (GEF)

Date: 16-17 November 2013

Location: Warsaw, Poland

About: The Red Cross Red Crescent Climate Centre and the GEF will co-host "Development and Climate Days" this year at the COP in Warsaw. The event will be focused on "innovative approaches and incisive dialogue for climate-smart development", held in the weekend in between the negotiations.

COP19

Lead organization(s): United National Framework Convention of Climate Change (UNFCCC)

Date: 11-22 November 2013

Location: Warsaw, Poland

About: The 19th session of the Conference of the Parties to the UNFCCC and the 9th session of the Conference of the Parties serves as the Meeting of the Parties to the Kyoto Protocol.

Read more: <http://www.cop19.gov.pl/>

International Conference on Climate Services

Lead organization(s): CSP

Date: 4-6 December, 2013

Location: Montego Bay, Jamaica

Description: The third International Conference on Climate Services (ICCS 3) will explore opportunities and constraints regarding the transition to sustained climate services. The conference will provide an opportunity for updates of a variety of projects and contribute to the development of the CSP workplan.

Read more: <http://www.climate-services.org/iccs/iccs-3/home>

Comprehensive Disaster Management for Resilient Development conference

Lead organization(s): Caribbean Disaster Emergency Management Agency (CDEMA)

Date: 2-6 December 2013

Location: Montego Bay, Jamaica

About: The conference, hosted by the Caribbean Disaster Emergency Management Agency (CDEMA), is the Caribbean region's largest gathering of professionals in the field of disaster management, as well as professionals from other sectors with specific involvement in the field.

Read more: <http://www.cdema.org/cdmconference/index.php>

CLIM RUN School: Building two-way communication: a week of climate services

Lead organization(s): Abdus Salam International Centre for Theoretical Physics (ICTP), ENEA

Date: 2-6 December 2013

Location: Trieste, Italy

About: Traditionally there has always been a gap between the usual products that the scientific climate community produces

and what is suitable for using by stakeholders. This school will provide an innovative and interdisciplinary arena in which to explore how these two different communities can meet and interact.

Read more: <http://cdsagenda5.ictp.it/askArchive.php?base=agenda&categ=a1317&id=a1317/announcement>

AGU Fall Meeting 2013

Date: 9-13 December 2013

Location: San Francisco, California

About: The AGU Fall Meeting is the largest worldwide conference in the geophysical sciences, attracting more than 24,000 Earth and space scientists, educators, students, and other leaders. For 46 years, energized and passionate Earth and space scientists from around the world gather at the AGU Fall Meeting to connect with colleagues, broaden their knowledge base, and embrace the joy of science.

Read more: <http://fallmeeting.agu.org/2013/>

AGU Fall Meeting merged session: Translating Science into Action: Innovative Services for the Geo- and Environmental- Sciences in the Era of Big Data Conveners

Lead organization(s): NCAR, University of Colorado at Boulder, UK Met Office, IC3, NEON Inc.

Date: 9-13 December 2013

Location: San Francisco, CA, USA

About: In this session we welcome impacts researchers, dynamical and statistical modelers, and those downscaling environmental data to 1) present innovative approaches for the quantitative evaluation of geo- and environmental- science data (e.g. observations, forecasts and projections) across multiple spatio-temporal scales and their use for applications; and 2) share strategies to more effectively present and disseminate evaluation results to decision makers for an improved knowledge exchange. We particularly welcome



papers providing examples of the two-directional translations between users and producers of climate information, especially in climate-sensitive sectors (e.g., water, energy, health, agriculture, ecosystems).

European Space Agency Lesson-writing Competition

Lead organization(s): European Space Agency
Date: 31 January 2014, deadline for submissions
Place: international

About: Participants from all over the world are invited to take part in the LearnEO competition to develop lessons on the use of Earth observation (EO) space techniques. The themes of the lessons must be chosen within Earth Science in the broadest sense (e.g. oceanography, geodesy, biology, atmospheric, and cryospheric sciences). Lessons can focus on topics ranging from remote sensing application to illustration of processes.

Read more: <http://www.learn-eo.org/competition.php>

International Conference on Subseasonal to Seasonal Prediction

Lead organization(s) US National Oceanic and Atmospheric Administration (NOAA)
Date: February 10-13, 2014

Place: NOAA Center for Weather and Climate Prediction, College Park, Maryland, United States

About: The conference will bring together the research community, operational centers, and the applications community interested in forecasts on subseasonal and seasonal timescales. Topics will include: 1) relevant phenomenon for subseasonal to seasonal predictions and their predictability; 2) predictions of extremes; 3) initialization and perturbation methods; 4) design of forecast systems, bias correction, verifications, and quantification of uncertainty; 5) approaches to integrate S2S forecasts into applications.

Read more: http://www.wmo.int/pages/prog/arep/wwrp/new/S2S_project_main_page.html



CIRCLE 2 - Frontiers in European Climate Change Adaptation Research and Practice

Date: 10-12 March 2014, abstract deadline: 15 November 2013

Location: Lisbon, Portugal

About: The objective of this final CIRCLE conference is to share the results of 10 years of European cooperation in climate change impacts, vulnerability and adaptation research, and to pave the way for the development of new research in support of climate change adaptation in Europe in the next decade.

Read more: <http://www.circle-era.eu/np4/611.html>

Adaptation Futures 2014: The Third International Climate Change Adaptation Conference

Lead organization(s) Earth System Science Center of the National Institute for Space Studies (CCST-INPE), Earth System Science Center of the National Institute for Space Studies (CCST-INPE)

Date: 12-16 May 2014, abstract deadline: 15 November 2013

Location: Fortaleza, Brazil

About: The conference will bring together researchers, policy makers, and practitioners from developed and developing countries to share insights into the challenges and opportunities that adaptation presents, and to share strategies for decision making from the international to the local scale.

Read more: <http://adaptationfutures2014.ccst.inpe.br>

Society for Risk Analysis Europe Annual Meeting, 2014

Date: 16 - 18 June 2014, abstract deadling: 31 January 2014

Location: Istanbul, Turkey

About: The special theme of the conference is "Analysis and Governance of Risks beyond Boundaries". The conference aims to emphasize that risks are able to travel through the virtual boundaries labeled as "regions", "territories" and "countries", It also aims to promote recent scientific novelties in risk reduction and enhance inter-disciplinary approaches to develop new strategies in both evaluating and coping with well-known and less-known risks.

Read more: <http://www.sraeurope.org/home.aspx?pag=1252>