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Dear reader,

as always, you will find various information on partner activities, recent publications and upcoming events in this issue.

In case you are not yet a subscriber, we invite you to visit https://www.gerics.de/network/secretariats/CSP_Newsletter/index.php.en for subscription.

Enjoy reading!

Climate is changing – this is nothing new. However, a new impetus is present in how the public discusses the topic, and decision-makers e.g. in business or cities address it differently than only just a few years ago. What has changed, and why?

In 2018, the IPCC Special Report on Global Warming of 1.5 °C (SR1.5) was published in October. It compiled the current knowledge on a warming of 1.5 °C, on the differences as compared to a 2 °C warming, and on projected consequences for natural and human systems. The report showed what would be necessary to avoid the higher levels of warming, and how large the benefit would be that would arise from staying below the ‘magic’ 2 °C level, thus achieving the goals of the Paris Agreement (PA).

The SR1.5 changes the direction of the climate debate, when compared with the impact of former reports, as it puts a particular focus on the feasibility of limiting global warming. One of the key messages of the report is that it is still possible to achieve the PA goals, however, that it is only possible at ‘unprecedented changes’. The COP24 in Katowice in December 2018, shortly after the SR1.5 release, has shown how difficult it is to agree on rules to implement these changes needed for achieving the PA, and how far we are from that.

Outside the space of political discussions, 2018 was a year that seemed to tangibly hint to what climate change, among other symptoms, is in the real world: more severe extreme weather events, longer droughts, heat waves, extreme precipitation, and more. The actual heat wave in Europe with unprecedented temperatures seems to even outplay that. Definitely, these extreme events contribute to a different perception and discussion of climate change by the public. One of the most visible phenomena of a changing public awareness is the *Fridays for Future* youth movement.

Also in the scientific community, changes are perceivable. *Fridays for Future* gets support from the science side through *Scientists for Future*, a network that most probably would not have collected so many signatures just a year ago. Also new is that the scientific community actively searches for changes in its working habits to curb down their own emissions: Universities work out guidelines for establishing sustainability, e.g., avoid traveling, reduce printing, and travel by train instead of taking the plane. For my case, traveling by train to this year’s ECCA in May in Lisbon, then to the next conference in Italy, and then back to Hamburg was different - but doable.

This year’s ECCA, aside of the SR1.5 related discussions in which I took part, provided an opportunity to observe how foci in science change and evolve, which of course has an influence on climate services. The ECCA showed that the recent years’ work in climate services was successful, and decisive in terms of the main direction. Crucial expertise was gained in terms of designing the transfer of information and data from science for the use in practical applications. Now, a new emphasis is put into the relevance of basic research, as it became ever more clear that it is vital to underpin climate action with sound scientific knowledge. This is also an effective means against fake science. Climate services should not be put on weak footing – basic research continues to be one of the indispensable ingredients for climate services.

Daniela Jacob

Director of Climate Service Center Germany (GERICS)

Acclimatise

,This News Climate' Podcast series

Supported by the EIT Climate-KIC programme, Acclimatise put forth a six-episode series exploring projects and programmes that are at the cutting edge of innovation in water, agriculture, insurance, urban development and supply chain. This New Climate investigates some of the toughest problems that humans face as we enter a new era of climate instability, and tell the stories of the projects and people who are grappling with them.

<http://www.acclimatise.uk.com/thisnewclimate/>

Lessons from the Action on Climate Today (ACT) Programme in South Asia

Acclimatise has been in collaboration with Oxford Policy Management in the dissemination of the knowledge and best practice generated by the ACT (Action on Climate Today) programme. This initiative is working to reduce the effects of climate change in South Asia. As part of delivering the programme, ACT has summarised its lessons in series of learning papers with the objective to share the gained experiences and knowledge with the outside world.

<http://www.acclimatise.uk.com/collaborations/action-on-climate-today/>

MARCO:

Market Research for Climate services Observatory

The 'Market Research for a Climate services Observatory' (MARCO) project successfully ended in December 2018. MARCO gathered market research firms, climate scientists, climate services practitioners, and innovation actors, around the Climate-KIC, to provide a detailed insight into the market for climate services in Europe, in line with the challenge of enabling market growth outlined in the EC's "R&I roadmap for climate services".

The project's key objectives were to: assess the EU market of climate services; validate and enrich the market assessment with case studies; forecast future user needs and assess market growth until 2030; unveil opportunities and promote market growth.

MARCO's research results will be soon available at <http://marco-h2020.eu>

EU-MACS:

EUropean MARKET for Climate Services

Also, the 'European Market for Climate Services' (EU-MACS) project - the twin project of MARCO - was successfully completed in December 2018. The project analysed the market structures and drivers, obstacles and opportunities from scientific, technical, legal, ethical, governance and socio-economic vantage points. The analysis was grounded in economic and political science theories on how service markets with public and private features can develop, and how innovations may succeed. The study engaged a large diversity of stakeholders in the financial services, urban planning, and tourism sectors in many ways, especially through the explorative market development exercises employing different co-design approaches. Next to reporting based analysis of market functioning and solutions, the protocols developed in the explorative market development exercises are meant for replication at large scale. Specifically, the study aimed to identify constraints and enablers in the market for climate services so as to clarify and illustrate how the supply of and demand for climate services can be optimally matched, while accounting for differentiation in climate service products and their production, as well in the user needs and capabilities regarding climate services.

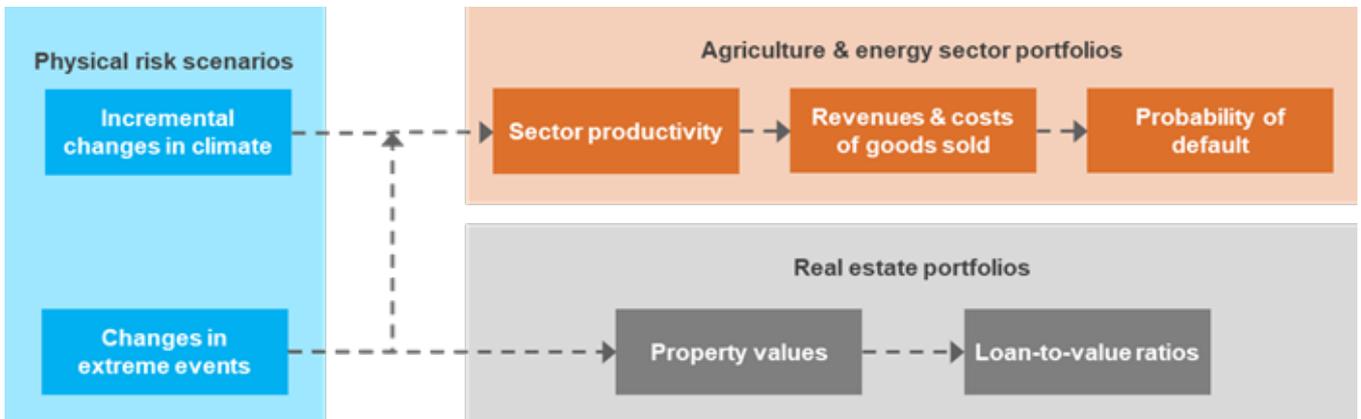
All results of EU-MACS are available at <http://eu-macs.eu/>

Piloting the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations in the Banking Industry

Acclimatise produced a set of methodologies for the United Nations Environment Programme – Finance Initiative (UNEP-FI) that enables banks to assess and disclose physical climate risks and opportunities, in alignment with the TCFD recommendations.

Drawing on our deep knowledge of climate impacts and robust science, we developed and tested the scenario-based approaches with 16 commercial banks.

Risk analysis methods were developed to determine how climate change will lead to changes in probability of default in the agriculture and energy sectors, and changes in loan to value ratios in the real estate sector:



Acclimatise also developed a novel approach for banks to evaluate growing opportunities to support borrowers’ investments in adaptation and resilience.

MetOffice - ARRCC Programme

Kick-starting new interactions on the provision and application of future climate projections in South Asia

A three day workshop held in Kathmandu, Nepal, from 29-31 January 2019, brought together providers, intermediaries, and users of climate information to grapple with the challenges and opportunities associated with the provision and application of future climate projections in South Asia. Participants included climate scientists and sector experts from national meteorological and hydrological institutions, research organizations and academia in Afghanistan, Bangladesh, India, Nepal, Pakistan, and the UK.



The regional workshop, organised by the Met Office and the International Centre for Integrated Mountain Development (ICIMOD), is part of the Asia Regional Resilience to a Changing Climate (ARRCC) Programme. ARRCC is a new partnership between the Department for International Development (DFID), the Met Office, and the World Bank, that aims to deliver new technologies and innovative approaches to help vulnerable communities across South Asia make better use of weather forecasts and long-term projections to better prepare for climate-related shocks.

The workshop is a key activity of the CARISSA (Climate Analysis for Risk Information and Services in South Asia) project, one of four Met Office projects under the ARRCC programme, focused on understanding of user needs for climate projections and

developing climate change information services to meet these needs.

The workshop took participants on a journey, starting with a review of the existing climate projections for the region, through to understanding the current and potential application of climate projections in key sectors such as hydropower, agriculture, water resources, biodiversity, and health. Through a mixture of plenary discussions, presentations and interactive group exercises, we heard from providers, intermediaries and users of climate services in the region.

The workshop also included a remote presentation and discussion with the WMO and GFCS, to align the regional activities with global efforts to improve climate services. Discussions on the third day focused on recommendations for the CARISSA project, with discussion on the need for enhanced regional collaboration and integration of activities.



The workshop provided valuable insight into the vast and varied requirements for provision of, access to, and improved application of future climate projections in South Asia. A long list of recommendations created at the workshop will now be prioritised and will help to form plans for ongoing work under the ARRCC Programme, including the co-production of pilot climate services targeted at key sectors with specific decision-making needs.

For more information on the ARRCC Programme and to contact the team, visit:

<https://www.metoffice.gov.uk/services/government/international-development/arrcc>

Photos: Marin Dracea

NOAA - GHHIN Forum (the First Global Forum on Heat and Health of the Global Heat Health Information Network)

The First Global Forum on Heat and Health was held on December 17, 2018. Over 120 heat health practitioners and researchers from more than 33 countries met to launch a new network focused on reducing heat health risks worldwide: the Global Heat Health Information Network (GHHIN).

The forum and network are the first steps to coordinate effort globally to develop strategies to manage current heat health risks and develop long-term solutions to mitigate the impacts of future global changes.



The inaugural forum was designed to break the mold of scientific conferences by bringing practitioners and researchers together to provide fresh, real-world perspectives on heat health risk, and to seek broad participation from diverse fields, such as disaster risk management, urban planning, meteorology, and medical sciences.

The program covered technical areas of heat health risk including capacity and partnership building, exposure and vulnerability, actions and interventions to manage risk, and a full day on understanding communication challenges associated with heat and health. Participants also took part in site visits arranged by local hosts to understand the local context of the problem as well as solutions.

Forum participants agreed that GHHIN could make a major impact on improving heat health risk reduction capabilities globally by focusing on enhancing awareness of the issue, increased co-production of knowledge and enhanced mechanisms for sharing, promoting a transdisciplinary approach, and improving implementation of science-based actions by better developing the connections between practitioners and researchers.

In response, GHHIN web portal will be developed to meet these demands, serving as a space to find experts who specialize in managing heat risks, providing a good practice exchange, and support the training of new experts in heat and health through opportunities for student and professional exchanges.

Full information on the Forum and soon-to-be-released reports and outcome statements will be available on

<https://ghhin.org/>

GERICS at the Global Platform for Disaster Risk Reduction 2019 (GP2019)

From May 13 to 17, the Global Platform for Disaster Risk Reduction 2019 took place in Geneva, Switzerland. The bi-annual conferences, organized by the United Nations (UN) office for Disaster Risk Reduction (UNDRR), was hosted by the Swiss government. This year, the event had the overarching theme of “Resilience Dividend: Towards Sustainable and Inclusive Societies”.

Being the most important global meeting on disaster preparedness and response, the platform gathers representatives from governments and other entities such as NGOs, civil society organisations, communities, and the private sector.



The conference aims at supporting the goals of a social, ecological and economic development through an effective risk management. These long-term objectives are also known through their definition in the Sendai Framework for Disaster Risk Reduction, which became adopted by the UN in 2015. Considering risk is increasingly being integrated in development work; climate change and related risks, as, e.g., described in the IPCC “Special Report on Global Warming of 1.5 °C”, adds yet another dimension to the complex field of disaster risk reduction.

partner updates

CSP partner activities



GERICS director Dr. Daniela Jacob gave a presentation in the Working Session „National Disaster Risk Reduction strategies and climate NAPs“. Her talk on „IPCC SR1.5 – Challenges and Reasons for Action“ was positioned in the event entitled „Ensuring Coordination in the Development and Implementation of National DRR Strategies and National Adaptation Plans (NAPs)“, and was followed by intense discussions.

More information on the conference and the Sendai Framework can be found under

<https://www.unisdr.org/conference/2019/globalplatform/home>

GERICS at the ECCA 2019

From May 28 to 31, the European Climate Change Adaptation conference (ECCA) took place in Lisbon, Portugal. It is one of the largest conferences on the topic, this year under the motto of “Working together to prepare for change”. The bi-annual events gather representatives from science, politics, and practice with the aim of supporting the adaptation to the impacts of climate change. ECCA is a platform for the presentation and discussion of research and experience, on the global as well as on the local level.



Daniela Jacob, director of GERICS, at the opening plenary session (photo: ECCA).

GERICS' director Daniela Jacob, who traveled to Lisbon by train, gave a talk on the key messages from the IPCC “Special Report on Global Warming of 1.5 °C” at the opening plenary session. Furthermore, the institute was present with several staff members leading sessions and giving presentations, for example on “Knowledge integration as science based-decision making for adaptation strategies” or “Climate services and methods for agriculture and food production”.



From the perspective of GERICS, this year's ECCA was especially interesting under the aspects of relevance of science for the society and the overall direction research can take. If science is driven as something of direct use or applicability for the society, questions for reliability, transparency, reproducibility, and quality are maybe even more important than where it is rather motivated by intellectual curiosity alone. In times of fake news, the significance of sound science for a field such as climate services cannot be overstated. There is, for instance, an increasing need for robust, reliable, state-of-the-art climate model data, especially, but not only, in the developing countries. ECCA 2019 featured many discussions around such themes, touching on questions that are fundamental for working at the nexus between science and society.

More information on GERICS' contributions can be found under:

https://www.gerics.de/about/news_and_events/news/081221/index.php.de

More information on the ECCA:

<https://www.ecca2019.eu/>

selection of the latest publications from the CSP community

Title: Vulnerability of informal settlements in the context of rapid urbanization and climate change**Authors:** Williams D. S., M. Máñez Costa, C. Sutherland, L. Celliers, J. Scheffran

Summary: Rapid urbanization and climate change together increase the vulnerability of poor urban communities to natural hazards, undermining urban resilience. It is therefore critical to identify and deepen our understanding of the main variables, and the complex interactions between them, producing and shaping the vulnerability of poor urban communities to natural hazards. Identifying factors that challenge or support the efforts of these communities in responding to hazards is also helpful in policymaking for urban resilience. To develop this understanding, it is necessary to conduct detailed research at the local scale. This paper aims to contribute to this knowledge by applying participatory modelling techniques to a particular case study of an informal settlement in Durban, South Africa. The aim is to elucidate how this detailed empirical research can contribute to broader theoretical knowledge on urban vulnerability and resilience in the face of climate change and rapid urbanization.

Link/DOI: <https://journals.sagepub.com/doi/full/10.1177/0956247818819694>

Title: A temperature-scaling approach for projecting changes in short duration rainfall extremes from GCM data.**Authors:** Dahm R., A. Bhardwaj, F. S. Weiland, G. Corzo, L. Bouwer

Summary: We test an approach that projects future rainfall extremes by scaling the empirical relation between dew-point temperature and hourly rainfall and projected changes in dew-point temperature from the EC-Earth GCM. The shift in intensity-duration-frequency curves shows that a 100-year (hourly) rainfall event today could become as frequent as a 30-year event in the period 2071–2100. The temperature-scaling approach can be of use in practical applications in urban flood risk and design studies for locations where no high-resolution precipitation projections are available.

Link/DOI: <https://doi.org/10.3390/w11020313>

upcoming events in the climate and climate services community

EMS Annual Meeting 2019 9 - 13 September 2019 Copenhagen

The Annual Meetings of the EMS aim at fostering exchange and cross-fertilization of ideas in the meteorological, climatological, and related communities. Facilitating interactions, integration, and engagement of science, applications, and actors is our core objective. The session programme highlights these goals and offers many opportunities for enhancing collaboration across the entire weather and climate enterprise (public, private, academic, users, and NGOs) to benefit societies in Europe and worldwide.

More details: <https://ems2019.eu/>

System-Risk Conference 2019 17 - 19 September 2019 Potsdam, Germany

In view of globally increasing flood losses, the assessment and management of flood risk is a substantial societal challenge and an important issue on the political agenda. Current approaches for assessing and managing flood risk ignore fundamental principles of flood risk system functioning. Interactions and feedbacks between atmosphere, catchments, river-floodplain systems, as well as socioeconomic processes are usually disregarded. System approaches are needed to address the solidarity principle anchored in the EU Floods Directive, which calls for consideration of the potential adverse consequences of risk management interventions for upstream and downstream regions.

The purpose of this conference is to bring together flood risk researchers and practitioners from research institutes, authorities, the insurance industry and consultancy. It provides an opportunity to share new insights and developments and offers a forum to discuss the uptake of these findings in risk management including the implementation process of the European Flood Directive.

We invite scientists and practitioners to share their research and insights into flood risk assessment and management.

More details: <https://system-risk.eu/System-Risk-Conference-2019>

upcoming events in the climate and climate services community

Climate Action Summit 2019 23 September 2019 New York, USA

Climate change is the defining issue of our time and now is the defining moment to do something about it. There is still time to tackle climate change, but it will require an unprecedented effort from all sectors of society. To boost ambition and accelerate actions to implement the Paris Agreement on Climate Change, UN Secretary-General António Guterres will host the 2019 Climate Action Summit on 23 September to meet the climate challenge.

The Summit will showcase a leap in collective national political ambition and it will demonstrate massive movements in the real economy in support of the agenda. Together, these developments will send strong market and political signals and inject momentum in the “race to the top” among countries, companies, cities and civil society that is needed to achieve the objectives of the Paris Agreement and the Sustainable Development Goals.

More details:

<https://www.un.org/en/climatechange/#>

2nd International REKLIM conference: Our Climate – Our Future: Regional Perspectives on a Global Challenge 23 - 25 September 2019 Berlin, Germany

REKLIM warmly welcomes researchers over the globe to take part in the 2nd International Conference “Our Climate – Our Future: Regional Perspectives on a Global Challenge” which will be held 23-25 September 2019 in Berlin, Germany. This international conference will be structured in six sessions:

- Coupled regional modelling,
- Sea-level rise in a warming climate: from global drivers to coastal impacts,
- Land-atmosphere interactions: from measurements to modelling,
- Atmospheric composition and climate: interactions between global and regional scales,
- Extreme events across scales (past, present, future),
- Climate change adaptation as societal challenge.

Deadline for online registration: 8 September 2019
Be aware that there will be no on-site registration.

More details:

<https://www.reklim-conference-2019.de/>

ICE Coastal Management 2019 24 - 26 September 2019 La Rochelle, France

ICE Coastal Management 2019 will gather delegates from around the world to focus on new approaches to coastal engineering that integrate planning and ‘place-shaping’ to encourage bold adaptation to coastal change, and that balance environmental and community concerns.

More details: <https://ice.org.uk/events/ice-coastal-management-2019>

in the climate and climate services community

International Conference on Climate Science and Climate Services**5 - 10 October 2019****Exeter, UK**

The European Climate Observations, Modelling and Services (ECOMS) initiative was formed in June 2012 to ensure close coordination and cooperation across European Commission funded climate modelling and climate services projects and to act as an advisory group / think tank to identify priorities and research and investment needs in the field of climate modelling and services. ECOMS is promoted by the European Commission and led by three European projects: SPECS, EUPORIAS and NACLIM. It includes representatives of all the other European framework programme 7 projects on climate research and infrastructure.

More details: <https://imprex.eu/international-conference-on-climate-science-and-climate-services>

Making Climate Services a reality in Europe**6 - 7 November 2019****Brussels, Belgium**

The Climate-fit.city team is hosting a two-day conference that will bring together 200+ climate researchers, policy-makers, industry experts, as well as city and regional actors to showcase how climate data can serve both cities and business.

More details: <https://climate-fit.city/nes/call-for-partnerships-conference-making-climate-services-a-reality-in-europe/>

EU Conference on Modelling for Policy support**26 - 27 November 2019****Brussels, Belgium**

The European Commission makes extensive use of models throughout the policy cycle. Models are used to assess the environmental, economic, and social impacts of policies.

The Commission Competence Centre on Modelling promotes a responsible, coherent and transparent use of modelling to support the evidence base for policies in the EU, and pools the Commission's competencies and best practices in building and using models.

The Conference will bring together researchers and policy makers involved in modelling activities from the Commission, European and international institutions and agencies, Member States, Universities, research institutes, and consultancies.

Its aim is to identify common challenges and solutions in the use of models to support policy making. Experiences, challenges and the way ahead will be discussed by sharing best practices to ensure high quality standards and adherence to the state-of-the-art.

More details: <https://ec.europa.eu/jrc/en/event/conference/eu-conference-modelling-policy-support>

25th Conference of the Parties to the United Nations Framework Convention on Climate Change**COP 25****2 - 13 December 2019****Santiago de Chile, Chile**

The United Nations Framework Convention on Climate Change (UNFCCC) is the international response to climate change. It is a treaty that sets out the basic responsibilities of the 196 Parties (States) plus the European Union to fight climate change. It was signed at the Earth Summit in 1992 and entered into force in 1994. Chile joined that year and entered into force in 1994.

The Conference of the Parties (COP) is the supreme decision-making body of the Convention. The Parties meet annually to review progress in the implementation of the Convention, while other instruments underpinning its implementation are proposed, assessed and approved.

More details: <https://cop25.cl/en/index.html>



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 programmes 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 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.

Editorial board: Tanja Blome, Daniela Jacob, María Máñez Costa, Irene Fischer-Bruns (all GERICS)



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