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**Dear reader,**

we are pleased to present a new issue of the CSP newsletter.

You will find various information on partner activities, recent publications and upcoming events.

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

Enjoy reading!

The 27<sup>th</sup> Conference of the Parties (COP27) under the United Nations Framework Convention on Climate Change (UNFCCC) ended a few weeks ago in Sharm el-Sheikh, Egypt. COP27 was labeled the “African” and the “Implementation” COP – did it live up to these expectations? Answering this question depends on the perspective taken and on how one puts this year’s COP into the context of its predecessors.

Taking into consideration the distressing publications right before COP27 about greenhouse gas emissions and concentrations, as well as about the impacts of climate change, the event’s outcomes seem disappointing. Emissions of carbon dioxide continue to rise; the impacts of climate change hit faster than projected by former scientific reports. 2022 was a year of devastating climate hazards worldwide, unprecedented in severeness and unlikely without anthropogenic climate change. The science, including the latest IPCC Assessment Report (AR6) clearly indicates that global warming must be limited to 1.5 °C to avoid even more catastrophic impacts. Having this in mind, COP27 did not deliver sufficient outcomes in terms of joint, ambitious efforts to rapidly and deeply reduce emissions.

Africa’s contribution to the cause of climate change in terms of its greenhouse gas emissions is minimal, as compared to the historically and currently largest emitters. Meanwhile, the African continent is among the regions most affected by climate change, which is sorrowfully illustrated by the variety of climatic extremes such as droughts, floods or tropical storms leading to major impacts.

In this context, from a climate justice point of view, the conference can be considered a success. For the first time the topic „finances for loss and damage“ (L&D) was on the agenda. Consequently, the most striking outcome from COP27 is the establishment of an L&D fund. The fund enables addressing climate-related losses and damage and support of reconstruction due to the impacts of climatic hazards. For decades, countries of the Global South demanded for the recognition of the problem and targeted financial support. Thus, having L&D as a prominent part of the agenda and the decision on the L&D fund means a milestone in climate diplomacy and COP negotiations, and is an important signal of solidarity and recognition of responsibilities.

The establishment of the L&D fund was backed by further aspiration to include ethical aspects such as responsibility and accountability in the UNFCCC process. Notably, the term “the right to a clean, healthy & sustainable environment” was included in the COP’s closing agreement for the first time.

The COP27 acknowledged the need to integrate human rights and sustainable development in a systemic way into climate action. The aspects of mitigation, adaptation and finances are intricately linked. These interrelationships and the urgency of moving all three areas forward simultaneously is critical, especially on the African continent where climate change is already hitting hard, and is projected to worsen in the future. In this issue of the CSP newsletter, we feature reports from African countries that foster and work on climate adaptation, such as CONFER and WASCAL. These projects show the manifold initiatives that strengthen communities’ climate resilience, for instance through the co-development of methods to use climate information for decision-making on the regional to local level.

COP27 achieved progress on the aspect of adaptation. Further details were worked out for the Framework for the Global Goal on Adaptation (GGA), to be concluded next year at the COP28. Aspects related to GGA’s methodologies, data, indicators, metrics, and measures to facilitate the monitoring and evaluation of the success of adaptation measures are still to be defined. However, there was no progress on finance for adaptation.

Aside of this, the impacts of climate change to which societies have to adapt determine the adaptive success. In that light, it is critical to understand if a certain adaptation measure remains effective at higher levels of global warming. What are the ecosystems and societies’ adaptation limits? It illustrates that it is crucial to accelerate mitigation efforts and to reduce emissions drastically and fast, in order to reduce the adaptation needs, as well as losses and damages. It shows the interlocking effect between mitigation and adaptation and how climate science and climate services are crucial for both. In this regard, another success, also for the first time, is the explicit mentioning of tipping points, food, and nature-based solutions in the COP27’s cover decision, which are of particular relevance for the development of climate services.

Thus, albeit the COP process is slow and sometimes frustrating, progress is being made. It was a difficult year, adding severe geopolitical crises to the already existing pandemic and climate crises. Nevertheless, COP27 could deliver results.

We all can contribute to climate action through creating robust science and usable climate services. Therefore, I wish you a successful new year full of climate action.

*Daniela Jacob*

Director of Climate Service Center Germany (GERICS)

**About CONFER**

CONFER is an EU-funded research project focusing on climate adaptation through co-production of climate services in East Africa. Our main objective is to co-develop dedicated climate services for the water, energy, and food security sectors with stakeholders and end-users, enhancing their ability to plan for and adapt to seasonal climate fluctuations. With the help of statistical and machine learning tools, we want to improve the accuracy of weather forecasting in the region, in order to reduce impacts associated with extreme weather. More information: <https://confer-h2020.eu/>

CONFER published its first policy brief, in partnership with Down2Earth and Focus Africa. It looks at the integration of local and traditional knowledge into scientific climate forecast.

Please [click here](#) for more information.

CONFER’s first Annual Assembly was held on November 1-4 in Nairobi. Partners from Norway, UK, Germany, Kenya and South Africa reviewed the first 18 months of the project and firmed up their plans to improve existing climate services in the Horn of Africa and develop three new products: river streamflow and flood hotspots predictions, rainfall onset defini-



tions and predictions, crop yield and health modelling. More information on the event can be found [here](#), featuring a video interview of Erik Kolstad, CONFER project lead, and Stefan Sobolowski, Research Professor at NORCE Climate.

CONFER was at COP27 where we launched a [series of podcasts](#) documenting the lives of communities at the forefront of climate change. This is a partnership between ICPAC and BBC Media Action.



(c) CONFER

Living Climate Change Africa is a five-part podcast series featuring the voices of herders, farmers, fishers, and weather experts from across East Africa as they experience the impacts of climate change in their region. The episodes cover stories of forecasting, adaptation, decision-making, projections, and policy – how people are experiencing climate change, what information they rely on to prepare and adapt, what changes are possible when confronted by extreme weather shocks, what lies ahead and what communities expect from their leaders.



(c) CONFER

## Activities at the MetOffice

### Traditional Knowledge for Climate Services Working Group (TraKCS)

The co-production of climate services involves the bringing together of different knowledge holders, allowing them to contribute their knowledge and experience in a space of equality to produce knowledge or understanding of greater value than the production of scientific knowledge alone. This is particularly important in traditional or indigenous communities which have historically had poorer access to scientific information and been less integrated in climate risk decision making, or the provision of climate services. This is now widely recognised, and a range of projects and initiatives now seek to more deeply involve local and traditional knowledge holders in the co-production of climate services. The learning from these projects is sometimes shared in journals or in project reports, however much remains only with those closely involved in the process. There is a strong need to gather this learning and experience and share it in accessible ways with the wider community so that we can all make this practice more mainstreamed and effective for the future.

To this end, a small global working group has been set up to gather literature, resources, case studies, and personal experiences to provide some simple outputs that will support future work in this area. This working group is currently open to anyone who would like to contribute to these tasks and will run initially until December 2023.

**Contact:** Please contact [nicola.golding@met-office.gov.uk](mailto:nicola.golding@met-office.gov.uk) if you would like to contribute to this group or learn more.

## The Met Office's Climate Services Week 2022

The Met Office Climate Services Week 2022 was a hybrid event that took place from 9-13 May. The aim of the week was to celebrate the fantastic progress made by the Met Office, our partners, and the wider climate services and science communities to help people be better prepared for the future.



Climate services project stalls (Met Office).

A key theme of the week was 'success through partnership'. Sessions during the week included interactive webinars, workshops, panel discussions, and stalls showcasing various climate services projects being undertaken with partners and customers. Several events were open for external participants to join and some thought-provoking discussions took place.

A Climate Data Challenge (hackathon) was also held in conjunction with the Ministry of Justice, Aon and the Met Office Academic Partnership (MOAP). Themes included the relationships between climate & crime and climate & food, and thermal discomfort in court rooms.



Behind the scenes of the panel discussion (Adam Walmesley).

**Recordings** of three of the key events can be viewed below:

- i. [WMO Global Annual to Decadal Climate Update \(recording\)](#) - Hear about the latest WMO Global Annual to Decadal Climate Update.
- ii. [The Big Questions \(recording\)](#) - A panel of international experts discussed the big questions around climate services. Topics included the standardisation of climate services, should providers evaluate whether climate services improve decision making, and should climate services always be co-produced between users and providers.
- iii. [Research frontiers in climate services \(recording\)](#) - This session showcased past and present collaborative work as well as advertising to staff and students MOAP universities (and beyond) to highlight future opportunities.

### A climate service is brewing

The province of Yunnan, Southwest China, is one of the biggest producers of tea in China. Met Office scientists are working closely together with the China Meteorological Administration, the Yunnan University of Finance and Economics, and farmers in [Yunnan province to provide actionable climate information for decision making](#). During this year's CSSP China Annual Meeting work from the Tea-CUP (Co-developing Useful Predictions) project was presented showcasing the development of a framework for stakeholder analysis.

Work led by Tongwen Zhao, a MSc Student from the University of Leeds, applied social science techniques novel to the climate services field to stakeholder analysis for the tea industry in Baoshan, Yunnan. This framework enabled key stakeholders to be identified, better understand their relationships with different sectors within the tea industry, and examine the level of power they have in influencing decisions and the level of interest they have in climate information.

The information gathered through engagement with potential users will lay the foundation to effectively co-develop, deliver, and evaluate a new climate service through the co-production process, and provide a template for the development of future climate services.

Priorities for this project are now to understand in more detail the precise information requirements of users regarding spring drought, and to construct a narrative approach to describing both seasonal and climate change timescale information. This work is funded by UK Government Newton Fund, and the MSc work is supported by the Met Office Academic Partnership (MOAP) with the University of Leeds.

## Extreme rainfall in Nepal – what is the risk to hydropower and why does it matter?

In July, Met Office scientists completed a successful and much anticipated visit to Kathmandu, Nepal to round-off their work on the Climate Analysis for Risk Information & Services in South Asia (CARIS-SA) project within the Asia Regional Resilience to a Changing Climate (ARRCC) programme, that ended in August 2022.

The aim of the project was to understand the risk of current and future extreme rainfall to the hydropower sector in Nepal. This work was motivated by user engagement in 2019 and was advanced by researchers during the 'lockdown years'! Travel in July 2022 enabled us to reconnect with our in-country contacts, make new connections, learn about developments in the hydropower sector, and share the scientific developments since the last meeting.



Experts from the hydropower sector talk to attendees about the challenges they face and how they currently use climate information ((c) Rosie Oaks)

The meeting, hosted by the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, was attended by private hydropower owners, policy makers, hydropower engineers, hydrologists, and climate science researchers. Over the two days, participants learnt from each other through listening to presentations, interacting with panel discussions, playing games and editing climate risk narratives.

Following the workshop, Met Office and ICIMOD scientists took a field trip to visit two hydropower projects on the Marsyangdi river. This gave us a



Attendees at the workshop focused on increasing the resilience of hydropower sector to climate extremes held at ICIMOD, Kathmandu (Rosie Oakes).

first-hand look into how hydropower plants operate on a day-to-day basis. This gave us new insight into the decision-making processes into which climate information may need to be incorporated.

To learn more, look at the [website](#), read our [blog](#), listen to the Mostly Climate [podcast episode](#), or watch our [TikTok!](#)

## Coastal climate services in South Asia

Climate services scientists at the Met Office have been working with partners at Bangladesh University of Engineering and Technology (BUET) and Institute of Water Modelling (IWM) in Bangladesh and Pakistan Meteorological Department (PMD) and Water Environment Forum (WEF) in Pakistan, in collaboration with the International Centre for Integrated Mountain Development (ICIMOD), to better understand and build resilience to sea-level rise and related coastal hazards. This partnership has involved literature reviews to understand the use of sea-

# partner updates

## CSP partner activities

level information in scientific studies; the generation of **local sea-level projections for the 21st century** and to 2300 for South Asia tide gauge locations; training workshops on sea-level science; science-policy webinars on sea-level rise and coastal climate risk and communicating with scientists, practitioners and policy-makers and presenting this work at conferences; and an IWM project exploring sea-level dynamics along the coastline of Bangladesh.



End-of-project training workshop at Institute of Water Modelling, Bangladesh ((c) Jenny Weeks).

Following webinar discussions, PMD have set up a sea-level monitoring unit with 5 working professionals and established an ongoing Pakistan Sea-level Working Group, with support from the Met Office, to connect organisations working in the field and establish priorities for tackling sea-level rise together.

### Climateurope2 kick-off meeting – join the network!

More than 90 people from at least 13 countries attended the **Climateurope2** kick-off meeting on the 27th and 28th September in Lecce, Italy. The hybrid event was hosted by the **Euro-Mediterranean Center on Climate Change (CMCC)** and marked the start of the project, which will run until February 2027.

Climateurope2 is a 4.5-year Horizon Europe project that addresses the need for timely delivery and effective use of climate information. Climateurope2 will support the development of future equitable and quality-assured climate services of greater value to society, which will provide trustworthy, user-relevant, and usable information. For that, we need to involve all the actors in the climate services value chain...we need you! We will develop a network across Europe to improve the connection, engagement, and promotion of European climate service activities.



Schematic of the Climateurope2 project ((c) Climateurope2)

## partner updates

### CSP partner activities

In our network you will be able to:

- Engage with the community of climate services through the interactive Climateurope2
- Platform Participate in discussions on the standardisation of climate services' components with the aim to reach consensus with the different actors involved
- Have direct access to information about good practices, recommendations, capacity-building materials, vocabularies, and standardisation processes of for climate services
- Be informed about activities bringing the network together, including festivals, webstivals, a roadshow, a webinar series, business breakfasts and much more!

If you would like to be informed about the project activities and participate in the network, please [register here](#).

You can find out more about Climateurope2 on the project website: <https://climateurope2.eu/>



Climateurope2 in-person contingent in Lecce ((c) Climateurope2).



### Interaction protocol developed to identify climate indicators and end-user needs

The Climate Service Center Germany (GERICS) has presented a first result from the LANDSURF project at the WASCAL Science Symposium (WASS 2022), which took place in Ouagadougou, Burkina Faso, from 6 to 9 December 2022. A scientist from GERICS informed the audience about the interaction process between scientists and end-users to co-design a Decision Support System (DSS) that is being developed with the project partners in LANDSURF.

In detail, the identification of climate indicators and end-user needs for shaping the DSS was recorded in an “Interaction Protocol” to facilitate this process in future projects.



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The implementation of this process consists of nine different steps, which is being carried out in sequence in the project (Fig. 1).

More information on the implementation of this process in LANDSURF can be found in the “Users’ interaction protocol to identify specific climate indicators and end-user needs for the development of a decision support system (DSS)” that will be published on the GERICS-LANDSURF website early next year.

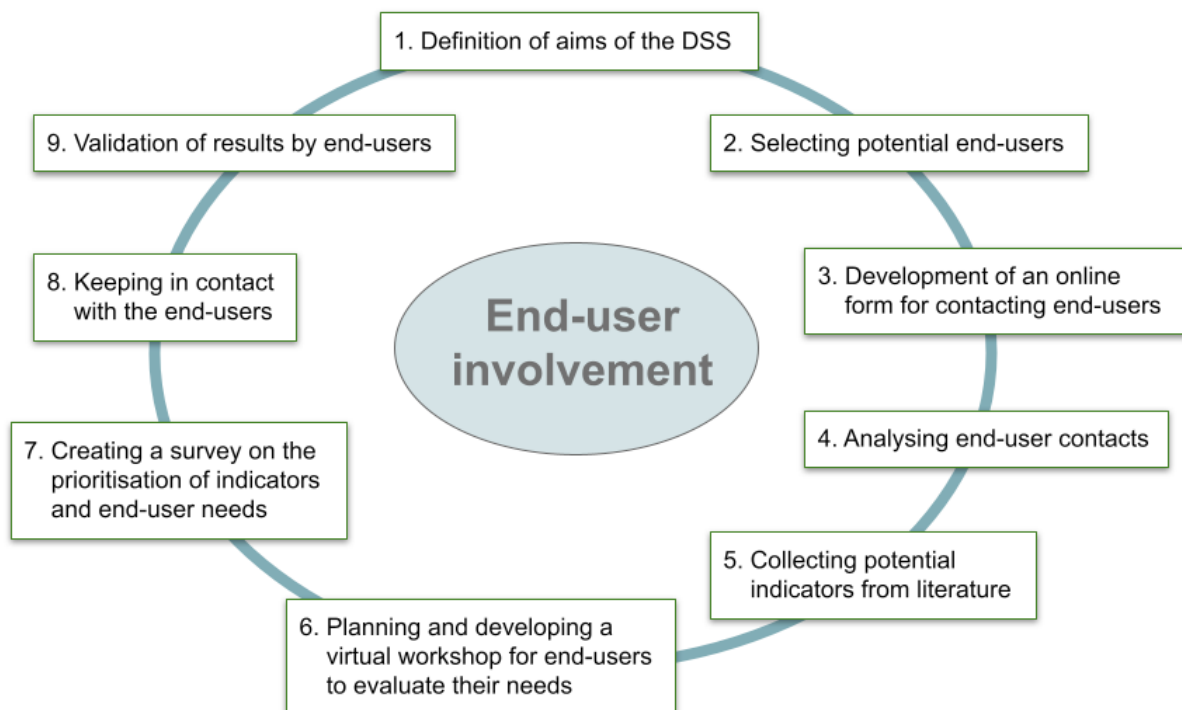
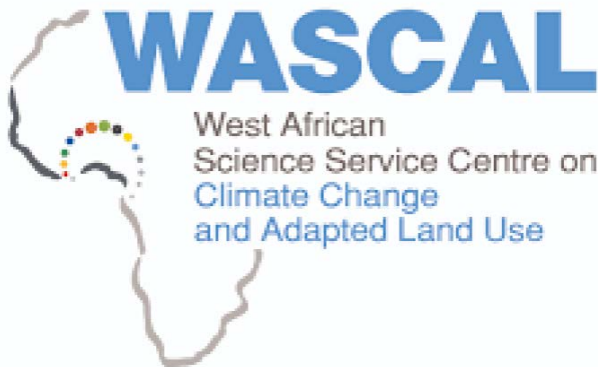


Figure 1: Implementation process ((c) GERICS)

In the LANDSURF project, an Earth system model for West Africa is being developed that will enable the provision of high-resolution regional climate change information.

A new regional climate modelling concept takes into account the dynamic interactions between the atmosphere and land surface processes, including anthropogenic land cover change and land degradation, and between the atmosphere and the ocean.



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An important aspect in this project is the involvement of end-users in the development of a web-based Decision Support System (DSS) mainly for agriculture, but also for food security, water management and risk management. LANDSURF is financed by the funding measure „WASCAL II - West African Science Service Centre on Climate Change and Adapted Land Use“. The funding measure WASCAL II is an initiative of the BMBF as part of the framework program „Research for Sustainable Development“ (FONA3).

**More information:**

<https://wascal.org/>

<https://www.gerics.de/science/projects/detail/102563/index.php.en>

<https://wascal.org/wascal-science-symposium-2022-calls-for-more-concrete-actions-in-the-fight-against-climate-change/>

## Climate Services at the 27th Conference of the Parties (COP27), 6 - 18 November 2022 GERICS at the COP27

The 27th Conference of Parties (COP27) under the United Nations Framework Convention on Climate Change (UNFCCC) was held in November, in Sharm el-Sheikh, Egypt. GERICS, as part of the Helmholtz-Zentrum Hereon, is an observer to the UNFCCC since 2018. This allows GERICS staff members to be present at the conference, to keep an eye on the negotiations, the side-events, and to exchange with decision makers, and to understand the latest needs and directions for the development of climate services.



(c) T. Y. Guillen Bolanos

### COP27 key progress of relevance to climate services

Climate action needs to be guided by the best available science. The COP27, branded as “implementation” and “African” COP, delivered a milestone decision on finance for loss and damage for the most vulnerable countries. Furthermore, discussions around the framework for the global goal on adaptation (GGA) continued, with the expectation of adopting a GGA framework during the next COP (COP28).



An institution of Helmholtz-Zentrum **Hereon**

As of particular relevance for climate services development, the Sharm el-Sheikh Implementation Plan includes the first-ever mentions of tipping points, nature-based solutions, food, rivers and right to a healthy environment in a UNFCCC/COP “cover decision”. This specific mentioning raises the importance of these topics on the international political level and agenda. The Executive Action Plan for “Early Warning System (EWS) For All” was launched by the UN/WMO, particularly in support of adaptation action.

### Keeping within 1.5°C and adaptation needs

The expected and needed increase in ambition with respect to mitigation remained largely absent at the COP27. For instance, not all parties submitted revised NDCs and there was no references to fossil fuels phase-out in the final decision. This is of particular importance as without enough ambitious mitigation action, adaptation needs, as well as losses and damages will increase. In this context, climate services remain pivotal in order to mitigate climate change and keep within the 1.5°C and well below 2°C, as well as to adapt to the consequences of the changing climate now and in the future.

**More information:** [https://www.climate-service-center.de/about/news\\_and\\_events/news/107457/index.php.en](https://www.climate-service-center.de/about/news_and_events/news/107457/index.php.en)

**Blue-Action Climate Coffees: Call for speakers!**

- climatecoffees are short (30-40 min), relaxed meetings for scientists to share ideas, discuss methods and communicate new results.
- climatecoffees are an exciting opportunity for scientists to build a network and disseminate recent results, peer-to-peer.
- Open to speakers of all levels of seniority, we especially encourage early career scientists to candidate!
- Open to researchers from across the entire climate science community (SSH included)



There are two climate coffees per month average, always on Thursdays. The time is always the same, from 11:00 - 11:45 am.

Apply by proposing a title and a short text via mail to Chiara Bearzotti (DMI): [chb@dmi.dk](mailto:chb@dmi.dk)

**More details:** <https://blue-action.eu/training/climate-coffees>

<http://ecra-climate.eu/13-publications/218-climate-coffee>

**Climate Services Network – guest speakers welcome!**

At the Met Office we have a well-established internal Climate Services Network (CSN). A CSN session is held once a month and we would like to offer the opportunity for guest speakers to present to our network. If you have a project you would like to promote, or recent work you would like to showcase please fill out the Microsoft Form via the link <https://forms.office.com/e/TTAdK1zH1H> or contact [stacey.new@metoffice.gov.uk](mailto:stacey.new@metoffice.gov.uk).

The aims of the Climate Services Network are:

- Share and highlight climate service projects, activities &/or services. This includes sharing best practise and testing ideas; in order to enhance cross-team collaboration and mutual learning
- Provide a forum for collecting research needs, informed by evolving customer requirements
- Share knowledge of emerging underpinning science and new climate service capabilities
- Promote development and working opportunities within the climate service field.

## recent publications

### selection of the latest publications from the CSP community

**Title: The Value-Add of Tailored Seasonal Forecast Information for Industry Decision Making**

**Authors:** C. M. Goodess, Troccoli, A., Vasilakos, N., Dorling, S., Steele, E., Amies, J.D., Brown, H., Chowienczyk, K., Dyer, E., Formenton, M., Nicolosi, A.M., Calcagni, A., Cavedon, V., Perez, V.E., Geertsema, G., Krikken, F., Nielsen, C.L., Petitta, M., Vidal, J., De Ruiters, M., Savage I., Upton, J.

**Summary:** There is a growing need for more systematic, robust, and comprehensive information on the value-add of climate services from both the demand and supply sides. There is a shortage of published value-add assessments that focus on the decision-making context, involve participatory or co-evaluation approaches, avoid over-simplification, and address both the quantitative (e.g., economic) and qualitative (e.g., social) values of climate services. The 12 case studies that formed the basis of the European Union-funded SECLI-FIRM project were co-designed by industrial and research partners in order to address these gaps while focusing on the use of tailored sub-seasonal and seasonal forecasts in the energy and water industries. For eight of these case studies, it was possible to apply quantitative economic valuation methods: econometric modelling was used in five case studies while three case studies used a cost/loss (relative economic value) analysis and avoided costs. The case studies illustrated the challenges in attempting to produce quantitative estimates of the economic value-add of these forecasts. At the same time, many of them highlighted how practical value for users—transcending the actual economic value—can be enhanced; for example, through the provision of climate services as an extension to their current use of weather forecasts and with the visualisation tailored towards the user.

**Link for more information:** <https://doi.org/10.3390/cli10100152>

**Title: How to develop new digital knowledge transfer products for communicating strategies and new ways towards a carbon-neutral Germany**

**Authors:** S. Preuschmann, Blome, T., Goerl, K., Köhnke, F., Steuri, B., El Zohbi, J., Rechid, D., Schultz, M., Sun, J., Jacob, D.

**Summary:** Human-induced climate change is one of the most pressing challenges of our time. The Helmholtz Association is making essential research contributions to mitigate the causes and impacts of climate change and find ways to adapt. The “Net-Zero-2050” project, the Cluster I of the Helmholtz Climate Initiative, scientifically investigates and evaluates strategies and new ways to reduce, extract and permanently store carbon emissions. Two digital knowledge transfer products (DKTPs) were developed to present the complex research results comprehensively: (1) the “Net-Zero-2050 Web-Atlas” provides information on methods and technologies for CO<sub>2</sub> reduction and possible reduction paths; (2) the “Soil Carbon App” provides simulated soil carbon data to estimate climate protection potentials through different land management methods. Both formats intend to support users in making informed decisions and developing appropriate climate neutrality strategies.

During the two DKTPs development, common main challenges were identified regarding concepts and stakeholder involvement. Along with that, specific approaches to solving the tasks could be distilled for each product. In the still-evolving arena of digital knowledge transfer, no standard methods can be applied. At the same time, communication of climate research results to decision-makers is becoming more and more relevant. This paper extracts the challenges and gives approaches to facilitate a transfer of the gained experience to future similar projects.

**Link for more information:** <https://doi.org/10.5194/asr-19-51-2022>

## selection of the latest publications from the CSP community

**Title: Climateurope Festival: An innovative way of linking science and society**

**Authors:** L. Kotova, Manez Costa, M., Jacob, D., Hewitt, C., Newton, P., Garrett, N., New, S., Parfitt, R., Dunbar, T., Bessembinder, J. and Toumi, R.

**Summary:** The Climateurope Festivals were designed to create synergies between different European, national and international initiatives in the fields of Earth-system modelling & Climate Services and enhance the transfer of information between suppliers and users. It gave an opportunity to display best in class outcomes and engage in world class networking in a less rigid environment than a scientific conference. A number of formats were adopted in the Festival, from traditional impulse talks to innovative interactive sessions, and the thought-provoking discussions allowed the participants to share their experiences and knowledge around the advantages and challenges that Climate Services face within different sectors. Three Climateurope Festivals were originally planned to be held across Europe. Two Festivals were successfully organised, the first in Valencia in 2017, and the second in Belgrade in 2018. Due to the COVID-19 pandemic and associated lockdowns and travel restrictions, the third and final Festival was held online as a series of virtual web-based Festivals in 2020/2021. The Festivals were highly valued by participants. There was a strong desire by the Climateurope network to continue a science-stakeholder dialogue and make the Climateurope Festivals a regular event.

**Link/DOI:** <https://www.sciencedirect.com/science/article/pii/S240588072200019X>

**Title: Enabling climate action: Messages from ECCA2021 calling for re-imagining the provision and use of knowledge and information**

**Authors:** R. Street, Alterio, I., Hewitt, C., Golding, N., New, S. and Mysiak, J.

**Summary:** As the need for climate action increases in terms of timing, nature and scope there is a commensurate call for knowledge and information that can enable such action consistent with policy

targets. The European Climate Change Adaptation Conference ECCA2021 virtual session 'At your Service: Climate knowledge and information as enablers for climate action' engaged users and providers of these enablers to seek views and insights as to how knowledge and information are and could better inform and inspire the required action for climate adaptation, resilience and mitigation. The intention of this engagement was to identify successes and where urgent and priority action is needed to enhance the relevance, quality and use of that knowledge and information. The results of deliberations revealed perceptions of successes and actions needed under the four ECCA2021 themes – sharing knowledge, inspiring action on transformation, creating connections and collaborations, and implementing action. Central to most of the highlighted successes and required action is the need to re-imagine the knowledge and information being provided and how they are used to be consistent with and supportive of the evolving nature and scope of required climate action.

**Link/DOI:** <https://www.sciencedirect.com/science/article/pii/S2212096322000353>

**Title: Advancing climate services in South Asia**

**Authors:** J. Daron, Soares, M.B., Janes, T., Colledge, F., Srinivasan, G., Agarwal, A., Hewitt, C., Richardson, K., Nepal, S., Shrestha, M.S., Rasul, G.

**Summary:** Many communities in South Asia are highly exposed and vulnerable to weather and climate hazards, and climate services play an important role in managing present and future climate risks. Here we take stock of ongoing climate service activities under the Asia Regional Resilience to a Changing Climate (ARRCC) Met Office Partnership programme. ARRCC aims to strengthen climate resilience in South Asia through co-producing weather and climate services, building institutional capacities, and enhancing coordination across the region and in focal countries: Afghanistan, Bangladesh, Nepal and Pakistan. We identify what is working well and challenges that remain in the pro-

## selection of the latest publications from the CSP community

vision and uptake of climate services, focusing on examples of applying seasonal forecasts, sea-level rise projections, and extreme rainfall information for hydropower decisions. We demonstrate the value of building equitable and sustainable partnerships, enhancing knowledge sharing, strengthening evaluation, and approaches that combine model information within a decision-centred framework. Based on experiences in ARRCC, we find that climate information alone is often insufficient to meet decision-maker needs, and discuss the role for new climate impact services that integrate climate information with knowledge and tools on climate impacts and vulnerabilities.

**Link:** <https://doi.org/10.1016/j.cliser.2022.100295>

**Title: The worldwide C3S CORDEX grand ensemble: A major contribution to assess regional climate change in the IPCC AR6 Atlas**

**Authors:** J. Diez-Sierra, Iturbide, M., Gutiérrez, J.M., Fernández, J., Milovac, J., Cofiño, A. S., Cima-devilla, E., Nikulin, G., Levavasseur, G., Kjellström, E., Bülow, K., Horányi, A., Brookshaw, A., García-Díez, M., Pérez, A., Baño-Medina, J., Ahrens, B., Alias, A., Ashfaq, M., Bukovsky, M., Buonomo, E., Caluwaerts, S., Chan Chou, S., Christensen, O.B., Ciarló, J. M., Coppola, E., Corre, L., Demory, M.-E., Djurdjevic, V., Evans, J. P., Fealy, R., Feldmann, H., Jacob, D., Jayanarayanan, S., Katzfey, J., Keuler, K., Kittel, C., Kurnaz, M. L., Laprise, R., Lionello, P., McGinnis, S., Mercogliano, P., Nabat, P., Öno, B., Ozturk, T., Panitz, H.-J., Paquin, D., Pieczka, I., Raffaele, F., Remedio, A. R., Scinocca, J., Sevault, F., Somot, S., Steger, C., Tangang, F., Teichmann, C., Termonia, P., Thatcher, M., Torma, C., van Meijgaard, E., Vautard, R., Warrach-Sagi, K., Winger, K., and Zittis, G.

**Summary:** The collaboration between the Coordinated Regional Climate Downscaling Experiment (CORDEX) and the Earth System Grid Federation (ESGF) provides open access to an unprecedented ensemble of regional climate model (RCM) simulations, across the 14 CORDEX continental-scale

domains, with global coverage. These simulations have been used as a new line of evidence to assess regional climate projections in the latest contribution of the Working Group I (WGI) to the IPCC Sixth Assessment Report (AR6), particularly in the regional chapters and the Atlas. Here, we present the work done in the framework of the Copernicus Climate Change Service (C3S) to assemble a consistent worldwide CORDEX grand ensemble, aligned with the deadlines and activities of IPCC AR6. This work addressed the uneven and heterogeneous availability of CORDEX ESGF data by supporting publication in CORDEX domains with few archived simulations and performing quality control. It also addressed the lack of comprehensive documentation by compiling information from all contributing regional models, allowing for an informed use of data. In addition to presenting the worldwide CORDEX dataset, we assess here its consistency for precipitation and temperature by comparing climate change signals in regions with overlapping CORDEX domains, obtaining overall coincident regional climate change signals. The C3S CORDEX dataset has been used for the assessment of regional climate change in the IPCC AR6 (and for the interactive Atlas) and is available through the Copernicus Climate Data Store (CDS).

**Link:** <https://doi.org/10.1175/BAMS-D-22-0111.1>

## upcoming events in the climate and climate services community

### The Fourteenth International Conference on Climate Change: Impacts & Responses

20 - 21 April 2023

Vancouver, Canada

The *Fifteenth International Conference on Climate Change: Impacts & Responses* is brought together by a common concern for the science of, and social responses to, climate change. We seek to build an epistemic community where we can make linkages across disciplinary, geographic, and cultural boundaries. We invite proposals addressing one of the following themes or special focus:

- Theme 1: The nature of evidence
- Theme 2: Assessing impacts in diverse ecosystems
- Theme 3: Human impacts and responsibility
- Theme 4: Technical, political and social responses

The 2023 conference has the special focus *Responding to the Climate Emergency: Scalable Solutions for the Climate-Nature Intersect*

**More details:** <https://on-climate.com/2023-conference>

### European Geosciences Union (EGU)

#### General Assembly 2023

23 - 28 April 2023

Vienna, Austria + online

The EGU General Assembly 2023 brings together geoscientists from all over the world to one meeting covering all disciplines of the Earth, planetary, and space sciences. The EGU aims to provide a forum where scientists, especially early career researchers, can present their work and discuss their ideas with experts in all fields of geoscience.

**More details:** <https://www.egu23.eu/>

### European Conference on Climate Change Adaptation - ECCA

19 - 21 June 2023

Dublin, Ireland

JPI Climate will organise a European Conference on Climate Change Adaptation, bringing regional stakeholders (policy and decision makers) together around state of the art climate adaptation science and knowledge for a climate resilient Europe. In person event for up to 500 people with life streaming for online access and interaction.

**More details:** <https://jpi-climate.eu/event/ecca-2023/>

### EMS2023: EMS Annual Meeting 2023

03 - 08 September 2023

Bratislava, Slovakia

A particular focus of the EMS Annual Meeting 2023 will be on “Europe and droughts: Hydrometeorological processes, forecasting and preparedness”. Upcoming milestones are:

call for session proposals: 15 Dec 2022

call for abstracts: end of Feb 2023

abstract submission deadline: end of Apr 2023

upload of session programme and letters of schedule: end of Jun 2023

The website with more information will become available at <https://www.emetsoc.org/events/ems-annual-meetings> in December 2022.



## upcoming events in the climate and climate services community

### **NORDIWA 2023** **05 - 07 September 2023** **Goteborg, Sweden**

Water professionals as well as experts and practitioners, managers and operators, city planners, researchers, engineers, advisors and others with an interest in wastewater, sewerage and climate change mitigation and adaptation in the Nordic region of Europe are welcome to attend this conference. Climate change adaptation and resilience is one of the planned topics.

**More details:** <https://climate-adapt.eea.europa.eu/en/more-events/nordywa-2023>

### **Adaptation Futures Conference 2023** **2 - 6 October 2023** **Montreal, Canada**

The seventh Adaptation Futures international conference series on global adaptation is being organized by Ouranos, in partnership with the Government of Canada and WASP.

The Adaptation Futures 2023 conference aims to learn from Indigenous, local knowledge and voices in climate change adaptation research, policies, practices and actions around the world, accelerate the adoption of transformative adaptation for long-term resilience, bring marginalized voices, especially from the Global South, to the forefront in pursuit of climate justice, equity, diversity and inclusion and accelerate momentum towards the Global Goal on Adaptation and the Global Stocktake and build on action to implement effective adaptation.

**More details:** <https://wasp-adaptation.org/all-events/adaptation-futures-conference-2023>

### **WCRP Open Science Conference 2023** **23 - 27 October 2023** **Kigali, Rwanda**

Every decade the World Climate Research Programme (WCRP) brings together communities from around the world to showcase recent and significant advances in climate science, identify gaps and opportunities, and jointly develop future plans. The next WCRP Open Science Conference, focusing on “Advancing climate science for a sustainable future”, will be held in Kigali (Rwanda) and online on 23-27 October 2023, with the major goal of bridging science and society.

**More details:** <https://wcrp-osc2023.org/>

### **COP28** **28th session of the Conference of the Parties (COP 28)** **30 November - 12 December 2023 2022** **United Arab Emirates**

The 28th session of the Conference of the Parties (COP 28) to the UNFCCC will convene from 30 November to 12 December 2023. It will take place in the United Arab Emirates.

**More details:** <https://sdg.iisd.org/events/2022-un-climate-change-conference-unfccc-cop-28/>



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](http://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 (all GERICS)



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