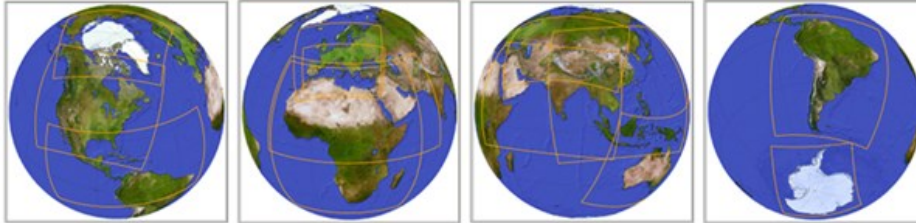
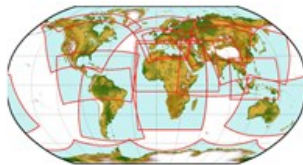




Report 2020



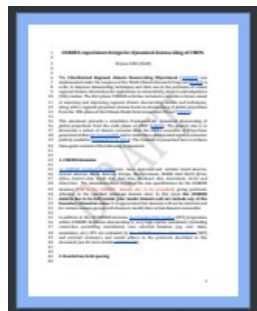
Science Highlights



Updated CORDEX Simulations overview

We were in December 2020 happy to publish a new overview with the regional climate change simulations available for the CORDEX domains.

Read more in the [Regional Climate Change simulations](#)



CORDEX experiment design for dynamical downscaling of CMIP6

The CORDEX Science Advisory Team in June released the First Order Draft for the CORDEX experimental design for dynamical downscaling of CMIP6. The community was invited to comment and then the SAT revised the document. The SAT is now working with comments on the second order draft.

[Here is the link to the document.](#)

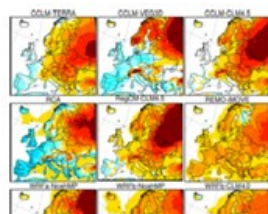
[Here is the link to the second order draft.](#)



Comments and development of CORDEX White Paper

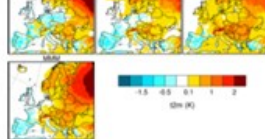
Also in June the SAT published a White paper Draft dealing with domain size, model complexity etc, open for the community comments. As there has been evolvments in the WCRP structure and regional downscaling the White Paper has since been developed further and will be finalized during 2021.

[Here is the link to the White Paper draft.](#)



Flagship Pilot Studies

In February 2020 the FPS on Land use and Climate Across Scales (LUCAS) published [this paper on forestation in Europe](#) and there were also new project reports from the FPSs on [Extreme precipitation events in Southeastern South America](#), [Convective phenomena at](#)



high-resolution over Europe and the Mediterranean as well as the [Impact of land use changes on climate in Europe across spatial and temporal scales](#)

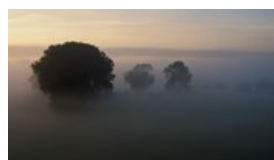
The FPS on Modelling the Southeast African regional Climate launched their [new website](#) and in September the CORDEX office, the FPS PIs and representatives from the groups working with the African Demonstrator/Atlas held a kick-off meeting online, including networking and training.

The FPS on High-resolution modelling over the Third Pole region also launched a [web page](#).

In July we again issued a [call for Flagship Pilot Studies](#) - projects to advance the CORDEX vision where local and regional climate challenges are in focus and this time with an extra eye to Climate Risks.

We are glad for the seven new proposals we received and in our next newsletter you can read more about them. [All the endorsed FPSs are presented on our web](#).

CORDEX publications



Peer Reviewed Publications

During the year we have rearranged and updated the list on [CORDEX publications](#). Your submission will then be held for approval by the CORDEX office. Please note that only publications that are CORDEX related should be submitted here.

Submit your publication

Submit your CORDEX peer reviewed publication for publication at the CORDEX website. [Use this link](#).



CORDEX Newsletter

We were very happy to publish a [CORDEX newsletter](#) in November



CORDEX IPCC Authors

In May 2020 the office proudly wrote about the large number of CORDEX members that are also AR6 lead authors.

[Read the article here](#).

We published the first article, in an intended series, on these authors [featuring the former CORDEX co-chair William Gutowski](#).

CORDEX future and Science Advisory Team (SAT)





After many years as CORDEX co-chair we extended our sincere thanks to **William Gutowski** who stepped down. We were also happy to welcome **Daniela Jacob** as the new co-chair from January 2020.

At the end of 2019 we also thanked **Anne Frigon** and at the end of 2020 **Tannecia Stephenson** and **Chris Lennard** for their valuable contributions as SAT-members. From January 2020 we welcomed **Tereza Cavazos** and **John Cassano** and from January 2021 **Wilfried Pokam** and **Melissa Bukovsky** as new SAT-members. Check out the SAT-members [here](#).

During the year we had a number of online SAT-meetings. Due to the covid-19 situation the planned face-to-face SAT-meeting was replaced by an extended online meeting. The SAT discussed the plans for CORDEX future, [the new WCRP structure](#) and the role in the new [WCRP home Regional Information for Society \(RIFS\)](#). After this the CORDEX co-chairs have been involved in further elaborations on the RIFS and there has been some meetings to involve a larger WCRP/CORDEX community.

In order to be transparent and to engage the CORDEX community more in the plans and advancement of CORDEX we held an [Open SAT-meeting in September](#) where Points Of Contact (POCs) and Flagship Pilot Study Principal Investigators (FPS PIs) were invited.

The CORDEX co-chairs and office director took part in the WCRP groups, meetings and discussions such as the yearly Joint Scientific Committee Session and the extraordinary session: [JSC-41](#) and [41b](#).



CORDEX representatives have also been involved in the [Lighthouse Activity](#) discussions and have specific representatives in these groups:

- **Claas Teichmann** in Digital Earths
- **Daniela Jacob** in My Climate Risk
- **Irène Lake** and **Chris Lennard** in Academy

The CORDEX office also offers special support to the regionally based [Climate Research Forums](#) for South America and Africa.

The collaboration and exchange between The WCRP International Project Offices (IPOs) and the WCRP Secretariat were enhanced during 2020. We now have regular online meetings and alternate hosting the meetings. CORDEX for instance hosted a [meeting in June](#).



Major CORDEX workshops and meetings

Due to Covid-19 a lot of activities were cancelled, postponed or rearranged and it took some time to reset to online events.

10th EURO-CORDEX General Assembly

The first, and only, larger face-to-face CORDEX event for 2020 was the [10th EURO-CORDEX General Assembly](#) in Hamburg, where among others future strategies, outcomes from the ICRC-CORDEX 2019 and contributions to the IPCC AR6 were discussed.

CORDEX Polar Meeting

In addition to the meetings already described above and CORDEX/regional modelling contributions to events such as the EGU and the Baltic Earth Conference the next larger event was the online [CORDEX Polar meeting in October](#). It contained many interesting presentations and discussions on the latest developments, including improved simulations of temperature in snow and ice surface, and next steps for instance on how Polar CORDEX simulations will be used in the IPCC Interactive Atlas.

Regional Climate Change Projections

ICIMOD, the Met Office, the WCRP, and the CORDEX office in October organized a six-day online training event on [Regional climate change projections: Climate change analysis using CORDEX regional climate models over South Asia](#). The training covered aspects of climate change science and projections, including how to access and analyse CORDEX data sets. Resource persons guided the participants through the use of open-source tools to analyse and visualize climate change projections at different timescales.



CORDEX and MAIRS-FE Workshop

The online workshop organized by CORDEX and MAIRS-FE in November 2020 aimed to seek enhanced collaboration between the organizers and other relevant actors such as [APN](#) and [ANSO](#). During these two days potential partners discussed ideas and created a strong basis for the future cooperation on issues as for instance climate risks.

Online Paper-Writing Workshop

The IPOC and local representatives organized the online training [CORDEX Central America and South America Online Paper-Writing Workshop on Regional Climate Modeling in November and December 2020](#). The overall goal was to promote collaborative activities and networking in the CAM/SAM regions with focus on specific regional climate phenomena. One aim was to train PhD students and early career researchers in designing a research topic on regional climate modeling and documenting the scientific results. The groups will continue their collaboration and we will organize follow-up meetings.



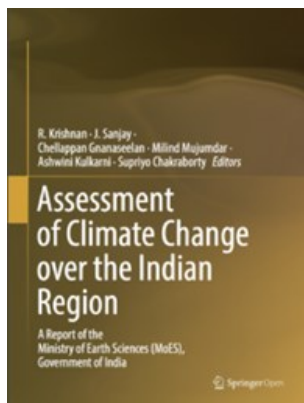
CORDEX Southeast Asia Outreach and Capacity Building Workshop

In November we were happy to support the organization of [CORDEX Southeast Asia Outreach and Capacity Building Workshop](#) where almost 200 participants learned about new regional climate change information systems, high-resolution climate simulations over key regions in Southeast Asia, data retrieval and how to use it.

Examples of other publications demonstrating the importance of CORDEX

AMS Journal of Climate

In May AMS published an article on [Future Global Meteorological Drought Hot Spots: A Study Based on CORDEX Data](#).



Assessment of climate change over the Indian region – new book

A new open access book on [Assessment of Climate Change over the Indian Region](#) was published. The book discusses the influence of human-induced global climate change over the Indian subcontinent and the regional monsoon, the adjoining Indian Ocean and the Himalayas. It also briefly discusses policy relevant information based on robust scientific analysis and assessments of the observed and future projected climate change over the Indian region.

Some highlights from the [domain reports](#)

- North America (NA) are deploying variable resolution Earth System Models (ESMs) over specific regions. NA also works with methods for developing storylines for stakeholder engagement and for experiments.
- EURO-CORDEX FPSs held several meetings during the year and published a joint EURO-CORDEX paper.
- South Asia performed fresh water availability scenarios for agricultural planning in India.
- Central Asia organized a webinar on Capacity Building for Sustainable Fisheries and Aquaculture Management in Central Asia, Azerbaijan and Turkey in June.

- Australasia published new datasets on historical heatwaves and future climate data. AUS also hosted a session on regional climate projections and CORDEX at the AMOS conference.
- In November Central American (CAM) CORDEX organized a session on Regional Climate Modelling and CORDEX at the Annual meeting of the Mexican Geophysical Union.
- MED FPSs had several meetings and a Mediterranean assessment report was published in November.
- MENAs first common publication effort was released in March.

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