

Final report 2024 for Flagship Pilot Study Southeast Africa

Describe the status on fulfilment of the objectives of the project, major outcomes/scientific highlights, what were the main challenges or (if applicable) reasons why you didn't achieve some goals or why some goals were changed, lessons learned, what can be transferred to other domains/projects/activities, how did you engage users/stakeholders and work with the end-to-end perspective during the project period. Include some illustrative photos and graphics of the results.



Joint workshop with CORDEX-Africa and CORDEX FPS Southeast Africa in Johannesburg on April 21, 2022.

CORDEX FPS Southeast Africa (2020-2024) had a slow start due to the COVID-19 pandemic but maintained online Zoom meetings throughout the four years of its duration. A second on-site workshop with hands-on activities was planned in Maputo in November 2024, but it had to be postponed due to political unrest after the recent elections in Mozambique. The project has resulted in the drafting of a science paper that presents an evaluation of in-situ daily rain gauge data from southeastern Africa. The manuscript needs some final polishing before submission. The work in this paper has created a regional network of collaboration within climate analysis and regional climate modelling and has facilitated training in the use of R for data handling and analysis. The project was presented at the EGU in 2021 (<https://doi.org/10.5194/egusphere-egu21-5319>), and prepares the ground for subsequent work on regional climate projections for the southeastern African countries. Future work on climate change projections will involve CORDEX data from Copernicus C3S (or ESGF), as well as an empirical-statistical downscaling approach for downscaling statistics on heavy rainfall described in <https://doi.org/10.5194/hess-29-45-2025>.

Planned follow-up activities/projects

We apply for a year's extension. The future activities will be aligned with the EU-SPRINGS project (<https://www.springsproject.eu/>) that aims to model the connection between climate and the emergence of diarrhea outbreaks, where one pilot region is Tanzania.

Final conclusions of the project

The project has started a valuable research community on regional climate modelling in southeast Africa, and has some unfinished results and manuscripts that need to be published. The results will be valuable for the next IPCC report, impact studies, and climate change adaptation.

Example of societal use of project results

The project was delayed due to COVID-19 and political unrest in Mozambique, affecting a planned workshop, and further progress is needed before the project results can have a societal use. The plan is to reap the experience from EU-SPRINGS and tie a closer connection to a project called SAREPTA (Met Norway) to improve the climate services of the national meteorological services.

Summary of major workshops/activities performed during the project time

Title, date, short description, location, website, links	Responsible person/-s	Funder
Workshop with CORDEX Africa in Johannesburg 20-22 April 2022	Chris Lennard	CORDEX
CORDEX FPS southeast Africa Workshop March 3-5, 2025, Maputo/Mozambique, https://sites.google.com/met.no/cordexmaputoworkshop2024	Bernardino & Rasmus	CORDEX, SAREPTA, AICCRA

Related publications during the project time

Title, journal and link to publication	Author/-s	Date
https://doi.org/10.5194/hess-29-45-2025		
https://doi.org/10.5194/egusphere-egu21-5319		

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Please inform IPOC about other news, calls, activities or other information that is relevant and can be shared with the community! We want to show your work on the website and on social media.

If more space is needed just add rows in the table.

The report is due the 15th of February the year after closing of the FPS or 1,5 months after closing and should be sent to <mailto:ipoc@cordex.org>.