

## Annual report 2020 for domain Southeast Asia

### Scientific highlights

Under SEACLID/CORDEX Southeast Asia, Tangang et al. (2020) reported 11 GCMs have been downscaled using 7 RCMs at 25 km. A regional data portal called the Southeast Asia Regional Climate Change Information System (SARCCIS) has also been established as an ESGF data node. Generally, the projection calling for increase rainfall over Indo-China during DJF but decrease rainfall in Maritime Continent during JJA. Large biases and inter-model variations tended to be over archipelago regions as 25 km may not be sufficient. On-going simulations focused on further downscaling of a number of subdomains at 5 km resolution.

Another initiative under CORDEX-CORE managed downscale 3 GCMs using 2 RCMs at 25 km resolution.

### Summary of each workshop/activity held during the year

Title, date, short description, location, website, links	Responsible person/-s	Funder
<b>The CORDEX Southeast Asia Outreach and Capacity Building Workshop Via Online 17 - 19 November 2020,</b> <a href="http://www.rucore.ru.ac.th/cordex_outreach">http://www.rucore.ru.ac.th/cordex_outreach</a>	Fredolin Tangang, Jerasorn Santisirisomboon, Thanh Ngo-Duc	APN

### Domain related publications during the year

Title, journal and link to publication	Author/-s	Date
Projected Future Changes in Rainfall in Southeast Asia based on CORDEX – SEA Multi-model Simulations. <i>Climate Dynamics</i> , <a href="https://doi.org/10.1007/s00382-020-05322-2">https://doi.org/10.1007/s00382-020-05322-2</a>	Tangang, F., Chung, J. X., Juneng, L., Supari, Salimun, E., Ngai, S. T., Jamaluddin, A. F., Faisal, M. S., Cruz, F., Narisma, G. T., Santisirisomboon, J., Ngo-Duc, T., Phan, V. T., Singhruck, P., Gunawan, D., Aldrian, E., Sopaheluwakan, A., Nikulin, G., Remedio, A. R. C., Sein, D. V., Hein-Griggs, D. & McGregor, J. L.	2020
Extreme Rainfall Projections for Malaysia at the End of 21st Century Using the High Resolution Non-Hydrostatic Regional Climate Model (NHRCM)., <i>SOLA</i> , 2020, Vol. 16, 132–139, doi:10.2151/sola.2020-023	Ngai ST., Sasaki H., Murata A., Nosaka M., Chung JX., Juneng L., Supari, Salimun E., Tangang F.	2020
Climate analogue and future appearance of novel climate in Southeast Asia. <i>International Journal of Climatology</i> . <a href="https://doi.org/10.1002/joc.6693">https://doi.org/10.1002/joc.6693</a>	Nguyen-Thi, T., Ngo-Duc, T., Tangang, F, Cruz F., Juneng L., Santisirisomboon J., Aldrian E., Phan-Van, T., Narisma G.	2020
Multi-model projections of precipitation extremes in Southeast Asia based on CORDEX-Southeast Asia simulations, <i>Environmental Research</i> , Environmental Research 184, 109350	Supari, Tangang et al.	2020
Future projections of Malaysia daily precipitation characteristics using bias correction technique. <i>Atmospheric Research</i> 240, 104926,	Ngai ST., Juneng L., Tangang F., Chung JX., Salimun E., Tang M.L., Amalia S.	2020

<a href="https://doi.org/10.1016/j.atmosres.2020.104926">https://doi.org/10.1016/j.atmosres.2020.104926</a>		
---	--	--

**Planned activities for next year**

Will carry out another 1 – 2 workshops. Continue the 5 km simulations. Initiate CMIP6 downscaling.

**Additional relevant information**

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

The report should be sent to [jpoc@cordex.org](mailto:jpoc@cordex.org) before the 15<sup>th</sup> November each year.