

# High-resolution AR6-based climate projections for the Southeast Asia / Maritime Continent region

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The Centre for Climate Research Singapore (CCRS) recently produced Singapore's Third National Climate Change Study (V3) in Jan 2024, delivering a CMIP6-based 8-km convection-permitting regional climate change projections up to 2100 for the Southeast Asia region, and additional 2-km projections for the western Maritime Continent region (Singapore, Peninsular Malaysia and Sumatra), under three Shared Socioeconomic Pathways (SSP1-2.6, SSP2-4.5, SSP5-8.5).

I will provide a brief overview of the V3 study and its various stages. Some regional results on mean state changes and extremes will be presented and discussed. This includes a more detailed investigation into the effect of convection-permitting downscaling on rainfall characteristics, including subdaily rainfall, by utilising the Analysing Scales of Precipitation (ASoP) diagnostics.

I will also share some of our current plans post-V3, e.g. urban-scale downscaling at 100m resolution, and our plans for regional data sharing.