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Research Classification	: INTEGRATED WATER RESOURCE MANAGEMENT - MD - RESOURCE SUSTAINABILITY
Category	: Science Technology (ST)
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Title :
Projection of Weather Extremes in Peninsular Malaysia for Shared Socioeconomic Scenarios
Maximum Duration : 24 month
Start Date :
01/11/2022
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31/10/2024
Duration :
2 years 0 months 0 days
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12

EXECUTIVE SUMMARY

Higher recurrence and intense weather extremes are the main effects of global climate change. Extreme weather occurrences also primarily cause economic and social damages; as a result, growing weather extremes brought on by global warming are seen as the biggest danger to sustainable development. It is essential to evaluate current changes in weather extremes and their potential future changes to establish efficient climate change adaptation strategies for creating a climate-resilient society. The main goal of the proposed research project is to model risks associated with climate change by using an ensemble of global circulation models (GCMs) from the sixth phase Coupled Model Intercomparison Project (CMIP6) to project potential future changes in extreme weather events in Peninsular Malaysia under various Shared Socioeconomic Pathways (SSPs). The project will create maps showing the geographical pattern of changes in rainfall and temperature extremes, which are extremely significant to the socio-economics of Peninsular Malaysia. Finally, using multicriteria decision-making methods, the forecasted extreme weather data will be combined with socioeconomic and landuse data to simulate climate change risk. The results of the proposed study would enable various stakeholders to comprehend the effects of climate change in Peninsular Malaysia and implement the appropriate adaptation strategies.