

“Future Climate Change over Southeast Asia: Alerting or Alarming?”

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Climate Change is real. Climate science has advanced rapidly over the recent years as increasing evidence of anthropogenic influences on climate change has been reported by the Intergovernmental Panel on Climate Change, IPCC. A deeper understanding and quantification of climate processes and their incorporation in climate models have progressed rapidly especially since the inception of IPCC in 1988. There has always been uncertainty in understanding a system as complex as climate and equally climate change, but there is now stronger evidence that significant global warming is occurring. The evidence comes from direct measurements of rising surface air temperatures and subsurface ocean temperatures and from phenomena such as increases in average global sea levels, retreating glaciers and changes to many other physical and biological systems. Southeast Asia is a region which is under studied when it comes to climate sciences. Unlike the scientific and technical expertise in countries such as the USA, UK, Australia and New Zealand, climate research studies in Southeast Asia remains challenging. In addition to lack of sufficient scientific contributions, Southeast Asia has limitations in available climate data, dense and robust observational networks and technology that support such an intricate science as that of climate. This talk will present some of the recent scientific findings of the possible climate changes in the future over Southeast Asia and in general, will discuss the science of climate change, how climate is modelled, the challenges we have in interpreting climate changes, climate scenarios and where the next generation of climate sciences is heading towards.