Shared Socio-Economic Pathways – what they are about and what not

RÉSUMÉ

The talk discusses methods behind the Shared Socio-Economic Pathways (SSPs). This new scenario framework for climate change research combines alternative futures of socio-economic development with pathways of radiative forcing in the 21st century. The shift from Representative Concentration Pathways to SSPs marks a stark change of research focus towards understanding climate change impacts, adaptation and mitigation. The talk will introduce the method on how narratives for the five SSPs were developed and complemented with quantitative indicators, allowing for the modeling of marker scenarios with integrated assessment models of climate change (O’Neill et al. 2014, Kriegler et al. 2017). A key input to the scenario process has been the development of scenarios for demographic and economic development. The talk also presents a method for the building of long-term GDP scenarios, which rests on assumptions about technological progress, and human and physical capital formation as major drivers (Leimbach et al. 2016). Their impact is studied for 32 world regions, differing significantly between SSPs. Scenarios are tested against stylized facts. The talk closes with a critical outlook on the weaknesses of SSPs.

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