



Connecting the Earth System with the Human System to study man-environment interactions

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The Earth System and Human System closely interact with each other. However, analyzing these interactions is difficult, because neither the data used in the disciplines studying these systems nor the disciplines themselves are typically well connected. This lack of interdisciplinary perspective limits our capacity to address key challenges in a changing world and understand the nexus between environmental conditions and human wellbeing, in particular under extreme climate or societal conditions. In this talk we outline strategies for making this connection. Using Gridded World Population data on population numbers per square kilometer as an intermediary, we have connected Human System data derived from the household survey database of the Global Data Lab with climate data and descriptors of land-surface dynamics as curated within the Earth System Data Cube and other sources. In this presentation we show first results on the role of socio-economy in explaining non-climatic variability in the land surface dynamics and impact of disasters/diseases.