UNIKASSEL VERSITÄT | CENTER FOR ENVIRONMENTAL SYSTEMS RESEARCH

WANDEL
Water Resources Energy Transition as important factor in the at local and global scale

Water scarcity footprint of renewable electricity generation from mining activities

Anna Schomberg

Sustainable Resource Futures Group
Center for Environmental Systems Research
University of Kassel

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Multi-scale water-energy-land nexus planning
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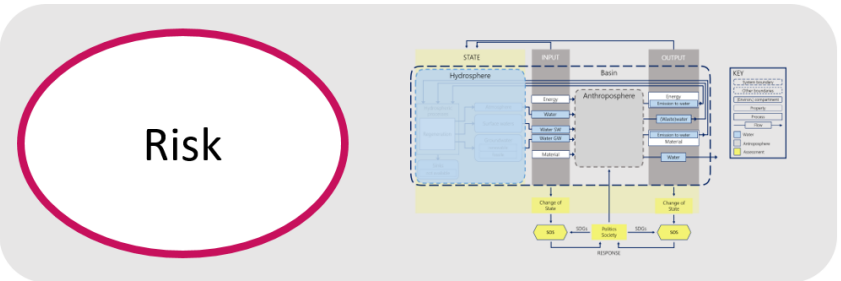
Water Scarcity Footprint - the Concept

Center for Environmental Systems Research



Water Scarcity Footprint - the Concept

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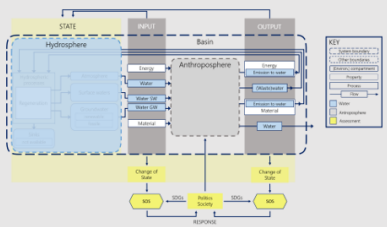
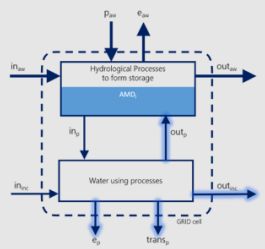
Risk



Indicators



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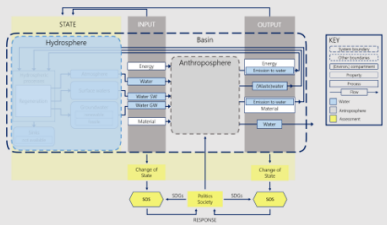
Risk



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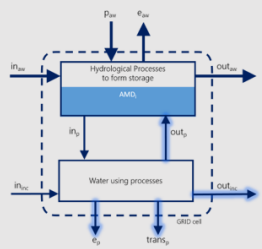

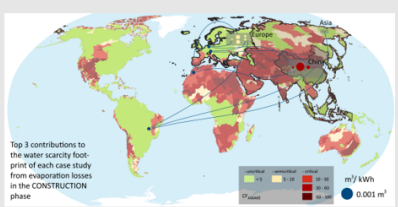

Regional Assessment

Link to Schomberg et al. 2021:

https://www.nature.com/articles/s43247-020-00080-9

Water Scarcity Footprint - the Results

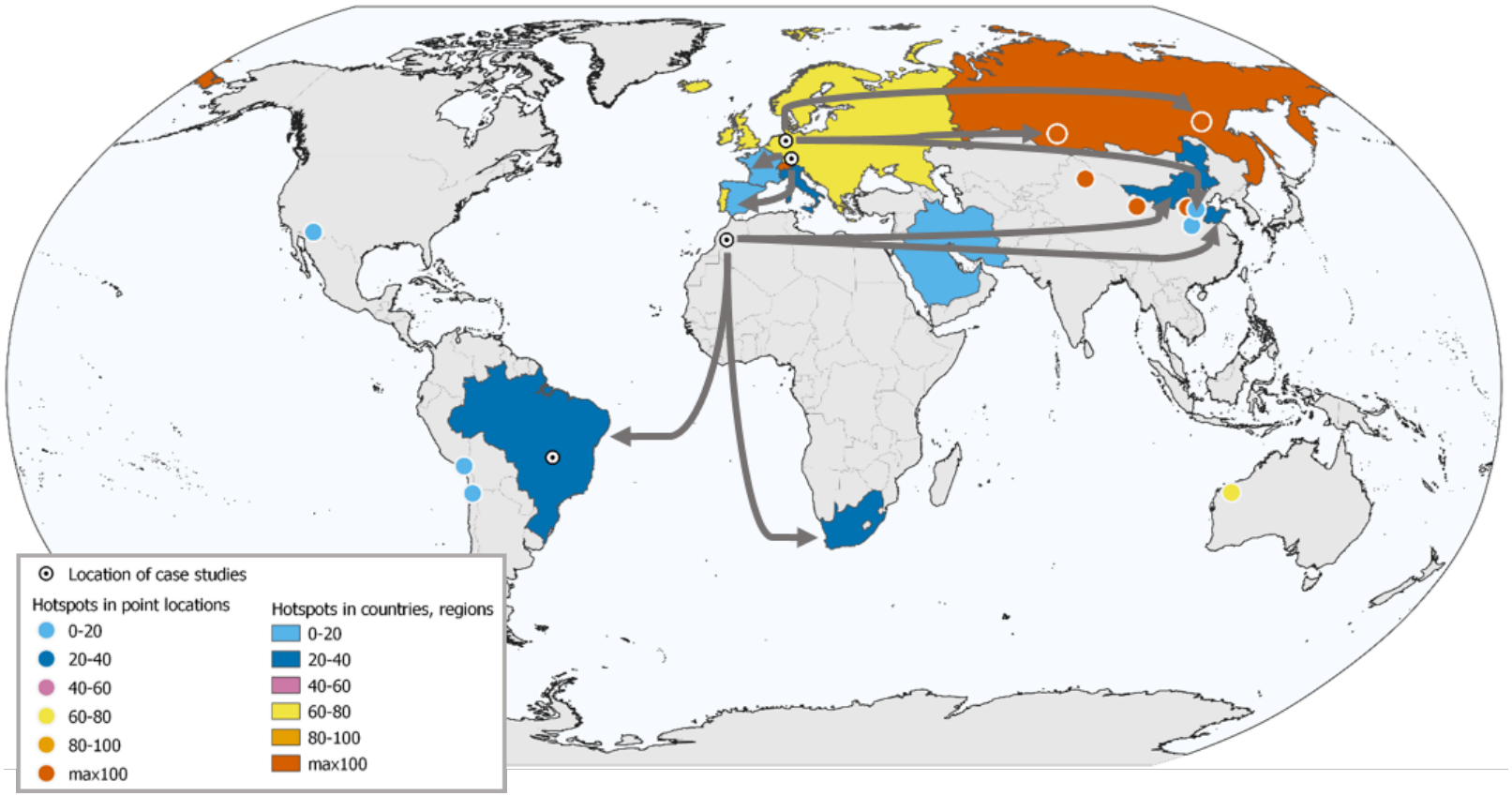

Figure 1: Hotspots of water use related to the four case studies (white circles with black dot). Results of the water scarcity footprint have been normalized, multiplied by 100 and are cut off at a maximum value of 100. Arrows are drawn if a case study is the only contributor to a hotspots, i.e. it is the only case study that has an indirect water scarcity footprint at this location. Regarding all other hotspots more than one case study is involved.

Water Scarcity Footprint - the Results

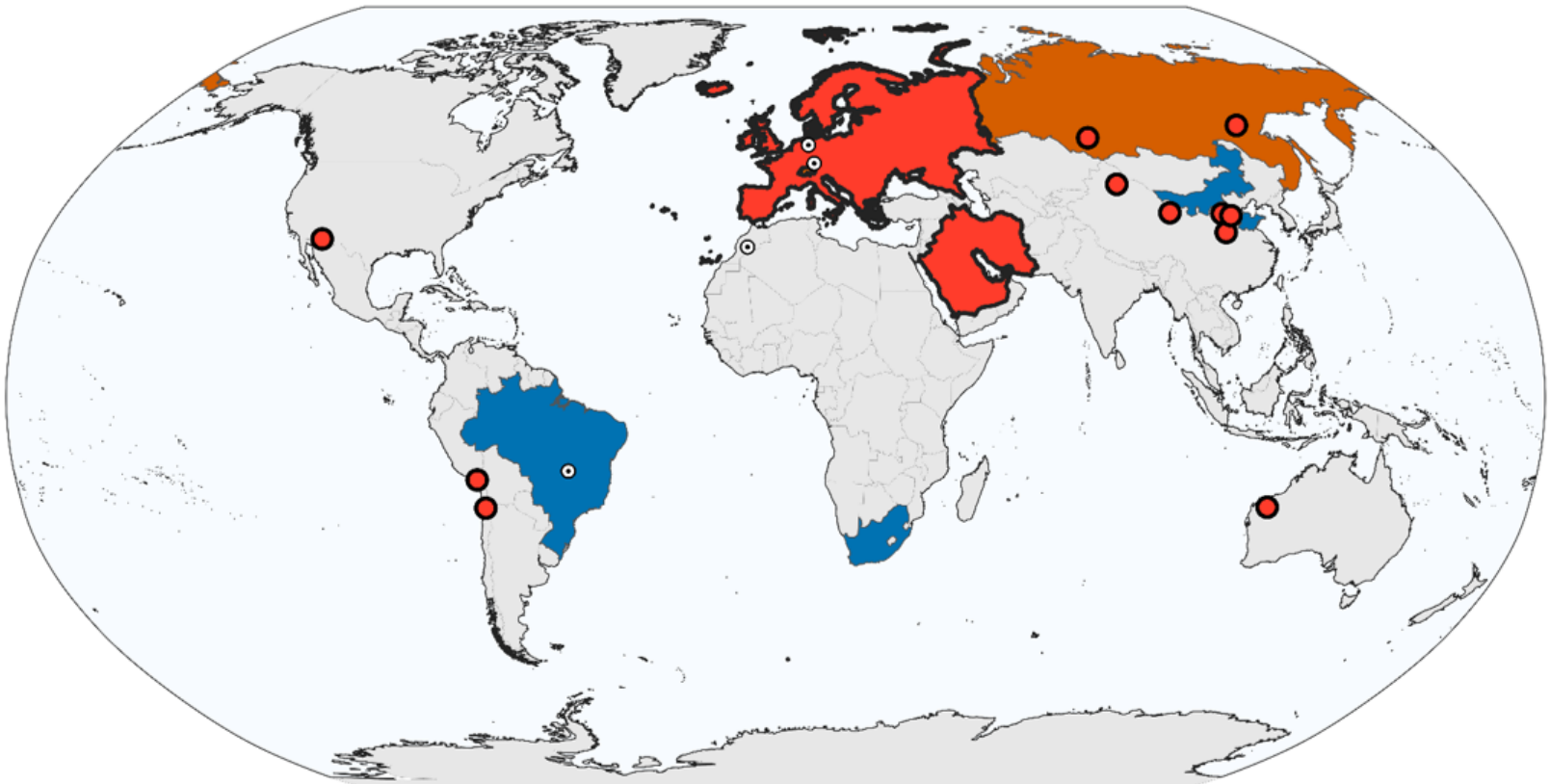

Figure 2: Visualisation identical to Figure 1, but all hotspots related to mining activities are coloured in signal red.