

Is climate change adaptation all about water?



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Back to the Basics ?



The water cycle, including direct human interventions

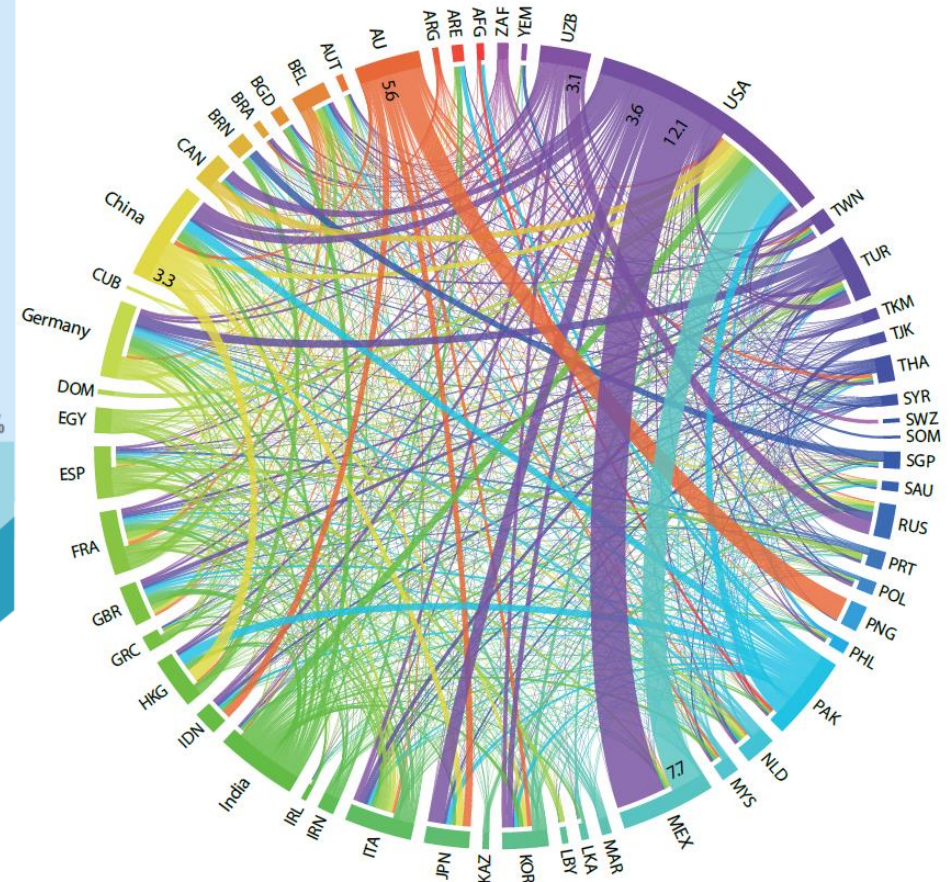
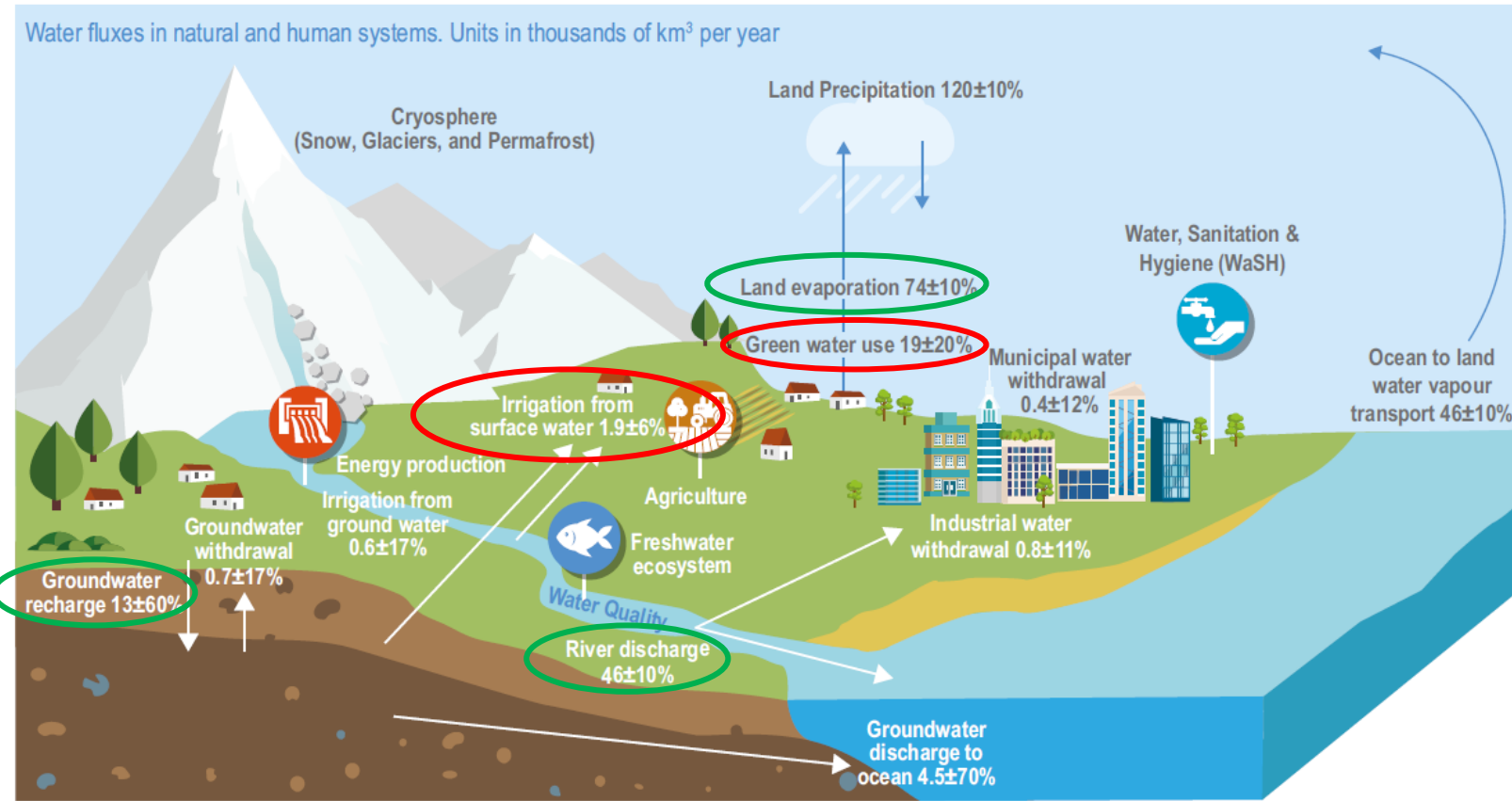
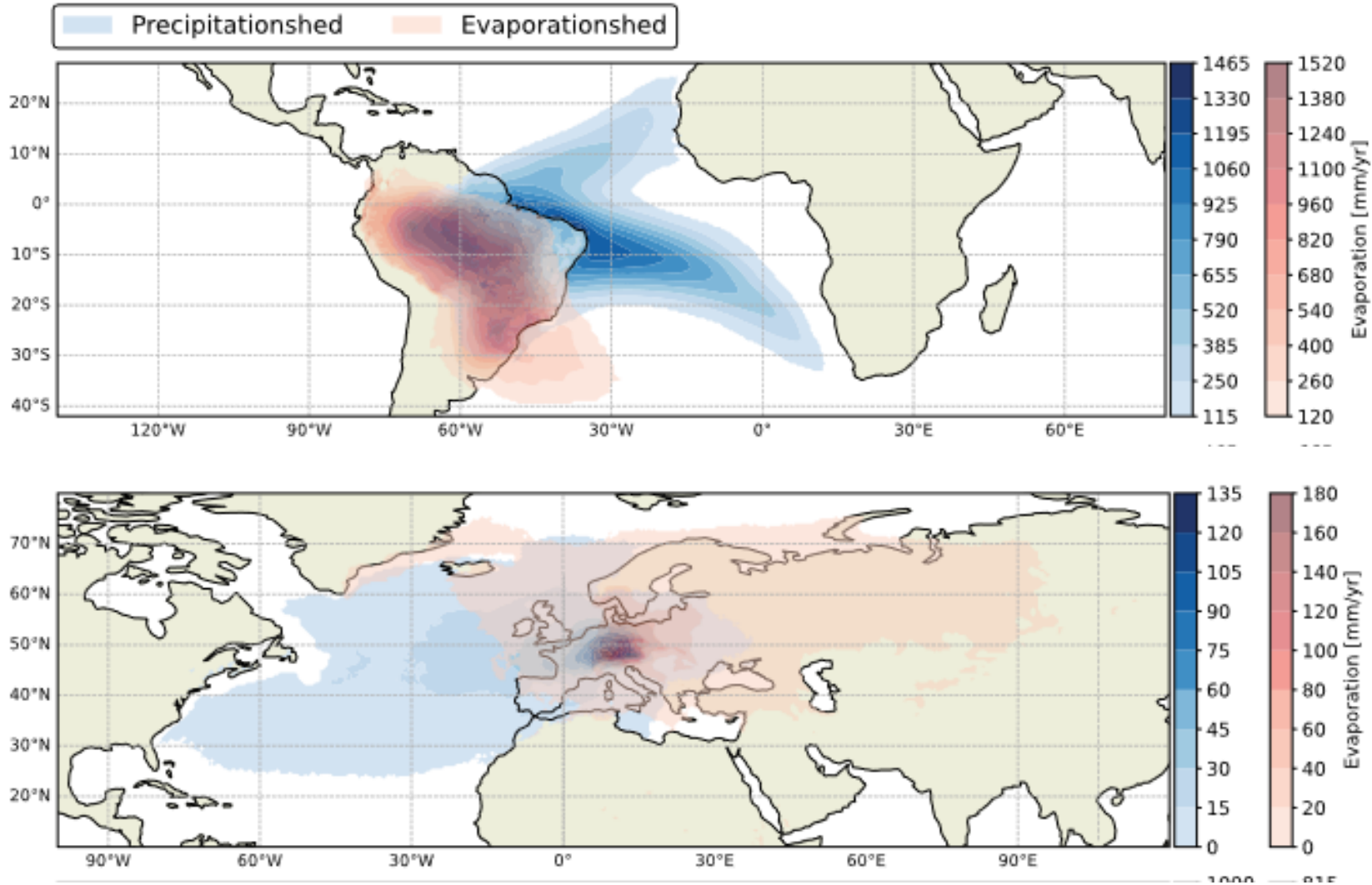
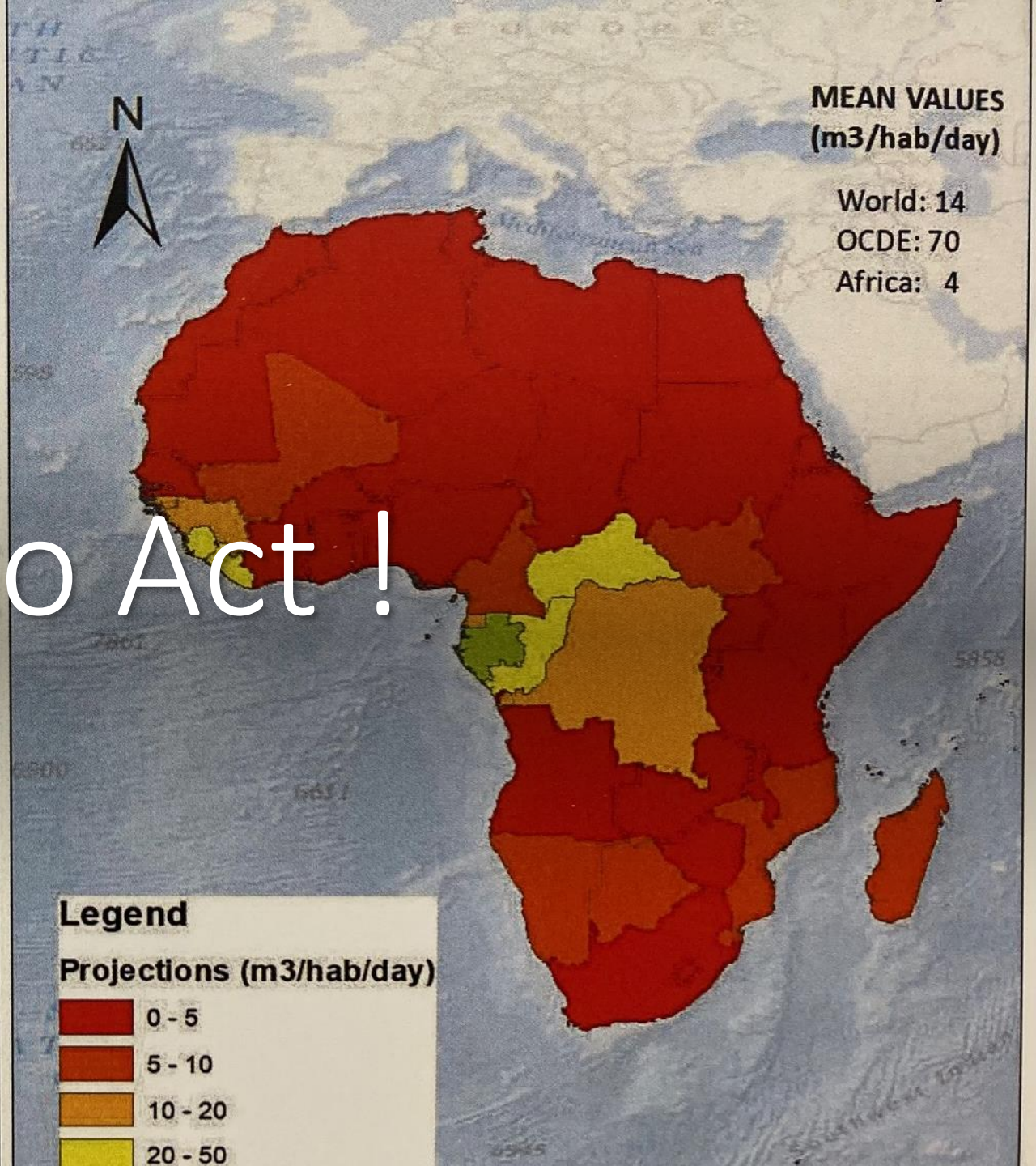
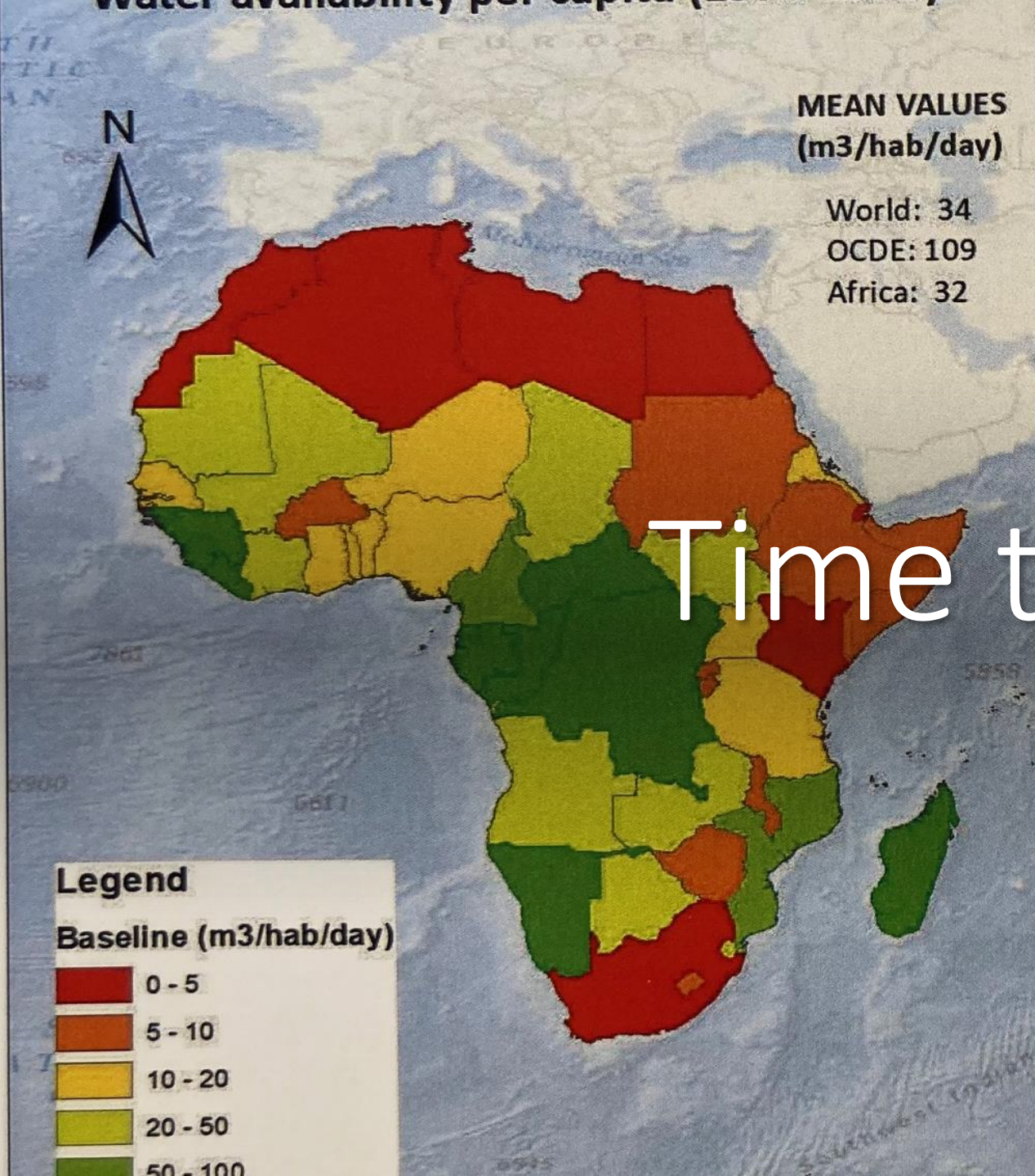


Figure 4.2 | The water cycle, including direct human interventions. Water fluxes on land precipitation, land evaporation, river discharge, groundwater recharge and groundwater discharge to the ocean from Douville et al. (2021). Human water withdrawals for various sectors are shown from Hanasaki et al. (2018), Sutanudjaja et al. (2018), Burek et al. (2020), Droppers et al. (2020) and Müller Schmied et al. (2021). Green water use (Abbott et al., 2019) refers to the use of soil moisture for agriculture and forestry. Irrigation water use (called blue water) is not included in green water use.

FIGURE 4.6 Blue water virtual flows between countries (1996–2005)
SOURCE: Scanlon et al., 2023

A global common good





Time to Act !

Different definitions for the WEFE



The WEFE Nexus = **description of interlinkages** of the water, energy, and food sectors, and how **they rely on and impact ecosystems**. The Nexus **approach** highlights the **interdependencies** between achieving water, energy and food security for **human well-being**, while ensuring **ecologically sustainable use** of globally essential resources.

The WEF Nexus approach = **understanding of synergies** and **trade-offs** between **competing uses** of water, land, and energy-related resources. Aim to **connect multi-sectorial stakeholders** to improve resource use and sustainable development

The water–food–energy (WFE) Nexus **is a strategic system** that integrates different separated sectors by using their interconnectedness to reduce trade-offs and allow sustainable development by **preventing future resource insecurity**.

The Nexus **is an approach** that integrates **management and governance** across multiple sectors involved, recognizing their interdependencies and the value of natural capital, ensuring coordination among stakeholders and identifying suitable **policy solutions** in order to **optimize** trade-offs and synergies across sectors

The **WEF Nexus** = extended **concept of Integrated Water Resource Management (IWRM)** and **Adaptive Water Management (AWM)** to overcome Water and manage resource scarcity. The WEF nexus refers to the intricate and close **interconnections** (synergies and tradeoffs) among the WEF sectors in order to achieve sustainable development

