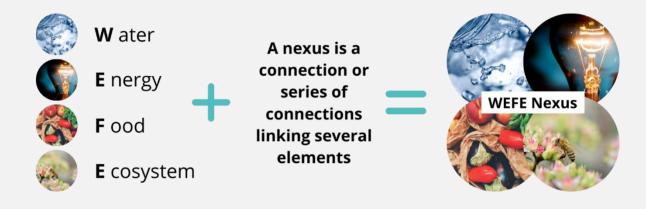


WHAT IS THE WEFE NEXUS?

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The Water, Energy, Food and Ecosystems form an interconnected **WEFE nexus** characterised by many interlinkages. For example, water is used for cooling energy power plants and in food processing industry; energy is used to produce drinking water and to treat wastewater; dams built to produce hydropower energy disrupt ecosystems and interrupt river flows thus obstructing fish migration; 70% of the global water withdrawals is used for irrigating agricultural crops; excessive use of fertilisers in agriculture damage ecosystems and leads to water contamination.



The WEFE nexus in the NEXOGENESIS project

The NEXOGENESIS project aims to improve policies related to the WEFE nexus for effective management of resources. Policies aim to change peoples' behaviour in relation to a certain issue and in so doing to change patterns of use of resources. For example, the European energy efficiency policy provides incentives to stimulate people and industries across sectors to improve the energy efficiency of buildings, households, etc. to reduce energy consumption.

Policies are typically designed to achieve the goals of a specific sector without explicitly considering the impact they might have on other sectors. Because WEFE are so interconnected, such a sectoral approach inevitably leads to policies having unintended negative impacts. For example, incentives for the biofuel crop production led to an increased use and contamination of water resources. Furthermore, opportunities to exploit potential positive interactions between sectors are missed.

NEXOGENESIS seeks to understand WEFE interlinkages and develop solutions to improve the formulation and integration of policies that take into consideration WEFE interactions. Problems and solutions are discussed with WEFE experts and policy makers in 5 case study regions.



