

The Water-Energy-Food Nexus in Andalusia (Spain)



Water-efficient irrigation does not automatically save energy



Key achievements

- Identification of water-agriculture-energy inter-relationships in Andalusia, through collaboration with stakeholders
- Assessment of public policies related to the water-energy-food Nexus
- Application of thematic models to simulate alternative futures that take into account foreseen socioeconomic and environmental trajectories (simulation scenarios)
- Development of a System Dynamics Model (SDM) of the Nexus in Andalusia

Key products

System Dynamics Model of the Nexus in Andalusia, developed in close collaboration with regional stakeholders. The model helps to understand synergies and trade-offs between Nexus sectors and supports Nexus-coherent decision making.

[Martinez P., M. Blanco & B. Castro-Campos \(2018\) *The Water-Energy-Food Nexus: A Fuzzy-Cognitive Mapping Approach to Support Nexus-Compliant Policies in Andalusia \(Spain\)*. *Water* 10 \(5\): 664](#)

[Martinez P. & M. Blanco \(2019\) *Sensitivity of Agricultural Development to Water-Related Drivers: The Case of Andalusia \(Spain\)*. *Water*, 11\(9\), 1854](#)

Maria BLANCO

Technical University of Madrid (UPM)

✉ maria.blanco@upm.es