

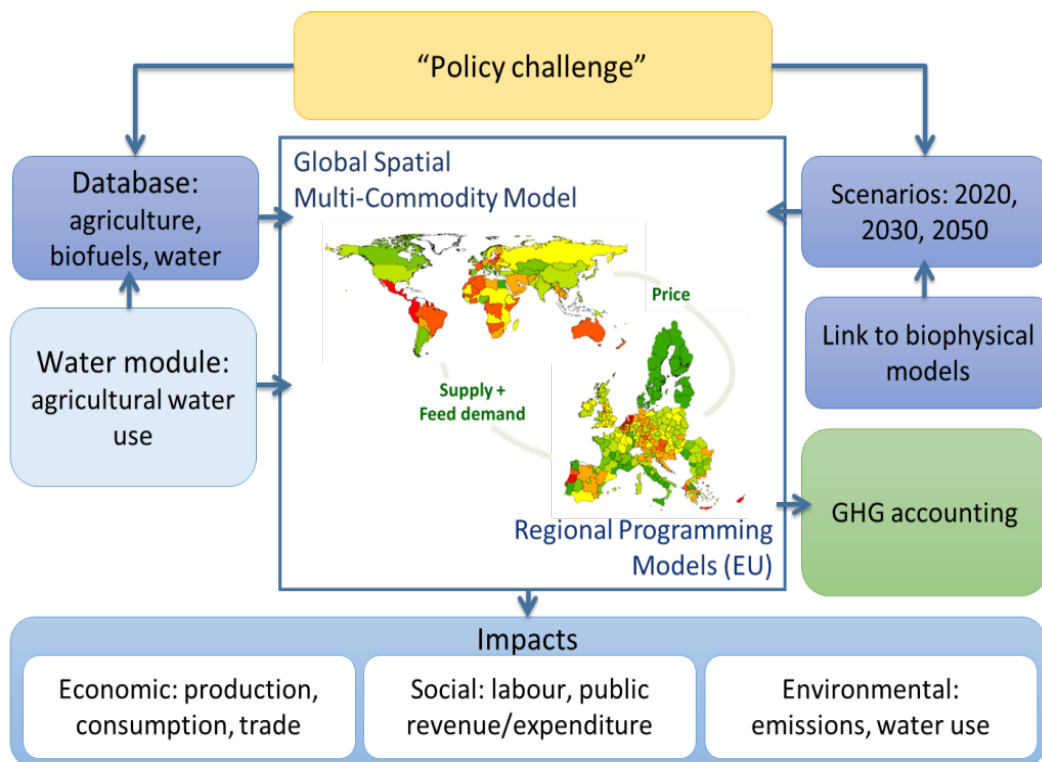


The model

CAPRI

The Common Agricultural Policy Regionalised Impact modelling system (CAPRI) is a global agro-economic model designed for the **ex-ante impact assessment of agricultural, environmental and trade policies with a focus on the European Union**. It is a global spatial partial equilibrium model, solved by sequential iteration between supply and market modules. The unique combination of regional supply-side models with a global market model for agricultural products provides simulated results for the EU at subnational level, whilst, at the same time, simulating global agricultural markets.

The main strength of the CAPRI modelling system is the fact that it is based on a **unified, complete and consistent data base**, and integrates economic, physical and environmental information in a consistent way.



Spatial and temporal coverage

Spatial coverage: Global

Spatial resolution: National and regional within the EU

Temporal scale: Until 2050 in flexible time steps





Nexus coverage

Food-water links: The water module in CAPRI accounts for agricultural water use all over the EU. Both irrigation and livestock water use are included. The water module enables the CAPRI model to simulate the potential impact of climate change and water availability on agricultural production at the regional level, as well as assessing the sustainable use of water, the implementation of the Water Framework Directive or other water related policies (water pricing).

Food-energy links: Biofuel markets as well as their interlinkages with biofuel feedstock are represented in CAPRI.



Inputs

CAPRI exploits wherever possible well-documented, official data sources from EUROSTAT, FAOSTAT, OECD and extractions from de Farm Accounting Data Network (FADN).

Specific modules of the model ensure that the data used are compatible and complete in time and space



Outputs

- ★ Areas , herd sizes, income and environmental indicators (NPK balances, GHE) for each agricultural activity and each region

- ★ Producer and consumer prices, bilateral trade flows, transport costs and tariffs globally for each trade block

- ★ Spatial downscaling part to 1x1 km, which covers crop shares, yield, the environmental indicators.



Recent applications

CAPRI is **extensively used** to assess agricultural policy measures, GHG emissions from the agricultural sector, food-water-energy linkages and climate change impacts.

- ★ Blanco M., Witzke H.P., Perez-Domínguez I., Salputra G., Martínez P. (2015). [Extension of the CAPRI model with an irrigation sub-module](#). Luxembourg: Publications Office of the European Union, EUR 27737 EN. doi: 10.2791/319578.

- ★ EC (2013). Impact Assessment Accompanying the Communication “An EU Strategy on adaptation to climate change”. European Commission, Brussels, SEC(2011) 1153 final/2. http://ec.europa.eu/clima/policies/adaptation/what/docs/swd_2013_132_2_en.pdf



Further information

Get CAPRI model

Technical documents

Training material

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