CLIM4CROP: Climate monitoring and seasonal forecast for global crop production

Description

When provided in a climate-services context, seasonal climate forecasts can enable a more effective adaptation to climate variability and change, offering an under-exploited opportunity to minimise the agricultural impacts of adverse climateconditions. However, the development of seasonal prediction systems of climate-driven impacts on agriculture is still largely in the early stages, especially on a global scale. CLIM4CROP is designed as a multidisciplinary project aimed at exploring how to best exploit seasonal forecasts for crop management decision making on a global scale. This goal will be achievedthrough three specific supporting objectives:

- characterising the uncertainties in global datasets of climate observations covering the last three decades and providing data in near-real time;
- understanding the role of climate as underlying mechanisms driving crop yields, and thereby developing statistical models linking climate and yields;
- exploring theseasonal predictability of crop yields with the above-mentioned developed models and implementing a model suiteoperationally using the data available in near-real time.

These objectives will be addressed by making use of the latest advances in climate information, including the most complete and up-to-date sets of seasonal forecast systems. The expected outcomes of this project are an improved understanding of the interaction between climate and crop yields, and new insights allowing more efficient crop management. This could prove useful to policy-makers and commercial entities intheir decision-making processes. To this end, the transfer of knowledge to impact users is envisaged.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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