



Methodological discussion for interdisciplinary project on the effects of climatic variability on cropping systems.

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The Campus of International Excellence Moncloa (CEI, 2009) is a joint project of the Universities Complutense (UCM) and Politécnica of Madrid (UPM) which aims to promote connectivity between both of them in a context of scientific excellence. Within this framework an interdisciplinary doctoral Thesis is being developed, whose methodological line is presented here to collect the comments from the international scientific community.

The aim of the Thesis is to assess the effect of the climatic variability in the agricultural systems of the Iberian Peninsula. It takes place between the group of agricultural systems (AgSystems) of the UPM and the TROPA group of Climatic Variability of the UCM.

The provisional methodology consists on using time series of simulated crop yields and to correlate the monthly deviations with different atmospheric and oceanic anomalous fields in order to characterize the climate variability patterns affecting the fluctuations in productivity. We use observed data of climate reanalysis, general circulation models and crop simulation models. We have identified a common tool to connect both modeling disciplines: MATLAB software is used to program the functions used in data processing, for both climate and agricultural data.

In this paper the methodological scheme will be shown. Both the potentials and synergies that we are finding between the group of modelers of climate and cropping systems, as well as the problems and methodological points to be resolved will be specified. We invite researchers with similar experiences to contribute to this discussion.

References

CEI, 2009. Project Description. Available in <http://www.campusmoncloa.es/data/pdf/description.pdf>