



Satellite-based agroclimatic indicators to support real-time and strategic decisions in agricultural management

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The objective of the poster is to present our activity in the COST-734 Action, CLIVAGRI of collection of satellite based information on the actual state and longer-term evolution of vegetation cover. The main purpose of CLIVAGRI is the evaluation of possible impacts from climate change and variability on agriculture and the assessment of critical thresholds for various European areas. As one of its targets, sensitivity, adaptive capacity and vulnerability of European agriculture areas are evaluated to provide users with all the information needed to adapt their strategies to current and future climatic conditions. This covers the fields of farmer activity, public and private extension services and especially policy-maker decisions on short- and long-term bases. Under a changing climate, the role of agriculture as provider of environmental and ecosystem services will gain further importance. These services rely more and more on remotely sensed information, mainly gathered from meteorological and land surface imaging satellites.

Satellite-derived variables already have a long record of monitoring crop production. The most relevant variables measured over land are: solar radiation, albedo, vegetation indices, leaf area index (LAI), land surface temperature (LST), rainfall, fires and burned area, snow cover and land use types. Some of these variables are required as inputs to give an immediate view of climate change impact for example. The most important parameters of this type are: vegetation indices and specifically the normalised difference vegetation index (NDVI), maximum and total greenness during the growing season, fraction of Photosynthetically Active Radiation and its absorbed proportion (FPAR and APAR) and the leaf area index (LAI).

The present aim of the specific Working Group within the COST-734 is to prepare an intelligent inventory of the practically available agroclimatic indicators and to provide them together with general recommendations for their use, together with practical case studies. The results will be disseminated in order to significantly enhance awareness in the agricultural sector of the current hazard level and the perspectives related to the next few decades. Risk maps, graphics, tables, etc. will be used to provide the requested information to end-users.

The current state of these activities will be displayed through this poster.