



## **Integrated approach for the development across Europe of user oriented climate indicators for GFCS high-priority sectors: agriculture, disaster risk reduction, energy, health, water and tourism (INDECIS). Project Presentation.**

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Climate variability, climate change and climate extremes have a relevant impact over Europe. Droughts, floods, heat waves and wind storms, among others, can cause severe damage to properties and lives and affect different sectors such as agriculture, water resources, tourism activities, energy production and, in some way, could compromise public health. The project “Integrated approach for the development across Europe of user oriented climate indicators for GFCS high-priority sectors: agriculture, disaster risk reduction, energy, health, water and tourism”, INDECIS, constitutes a pan-European effort for the routine production of climate indices, specifically targeting the priority sectors of the GFCS plus tourism and their conversion into climate services by engaging the stakeholders in their definition and communication. The INDECIS consortium (see [www.indecis.eu](http://www.indecis.eu)) includes 16 institutions from 12 countries and intends to maximize the benefits achievable from the use of observational data across Europe to develop climate indicators and climate services useful to assess the effects of climate variability, including extreme events, and climate change over socioeconomic systems.

INDECIS starts with the creation of its own dataset, based on the European Climate Assessment Dataset (ECA&D), expanded through data collection and data rescue efforts from the partners. This will be followed by an effort to improve the quality control and homogenization of the ECA&D variables, through a benchmarking process and the application of the best available techniques plus an evaluation of the introduced uncertainty. In parallel, INDECIS will work in the definition of a new set of sector adapted climate indices, involving the stakeholders in their definition. Once defined, those indices will be computed and compared to sectorial information gathered via exchanges with stakeholders. INDECIS will use the indices computed over the observational data sets to study their relations to the atmospheric circulation and to examine the strengths and weaknesses of different gridded, reanalyzed and modeled datasets to serve as alternative data sources to compute the indices in the absence of observations. INDECIS will create a dedicated portal to offer data, indices and climate services to the sectors. Finally, INDECIS will work, from the perspective of the social sciences, in a business case study for and a communication strategy for Climate Services, centered in the tourism sector in Spain.

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