



## **Visualization of uncertainties and forecast skill in user-tailored seasonal climate predictions for agriculture**

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Seasonal climate forecast products potentially have a high value for users of different sectors. During the first phase (2012-2015) of the project CLIMANDES (a pilot project of the Global Framework for Climate Services led by WMO [<http://www.wmo.int/gfcs/climandes>]), a demand study conducted with Peruvian farmers indicated a large interest in seasonal climate information for agriculture. The study further showed that the required information should be precise, timely, and understandable.

In addition to the actual forecast, two complex measures are essential to understand seasonal climate predictions and their limitations correctly: forecast uncertainty and forecast skill. The former can be sampled by using an ensemble of climate simulations, the latter derived by comparing forecasts of past time periods to observations.

Including uncertainty and skill information in an understandable way for end-users (who are often not technically educated) poses a great challenge. However, neglecting this information would lead to a false sense of determinism which could prove fatal to the credibility of climate information.

Within the second phase (2016-2018) of the project CLIMANDES, one goal is to develop a prototype of a user-tailored seasonal forecast for the agricultural sector in Peru. In this local context, the basic education level of the rural farming community presents a major challenge for the communication of seasonal climate predictions. This contribution proposes different graphical presentations of climate forecasts along with possible approaches to visualize and communicate the associated skill and uncertainties, considering end users with varying levels of technical knowledge.