A prototype seasonal forecast system for the agricultural sector in Peru.

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Seasonal forecasts can be of high value for the agricultural sector as agriculture depends strongly on climatic conditions during the growing season. Especially tailored forecasts, e.g. the number of days below a plant-specific critical temperature threshold or the onset of the rainy season can be of great value for planning activities. Within the framework of the CLIMANDES project (a pilot project of the Global Framework for Climate Services led by WMO [http://www.wmo.int/gfcs/climandes]) we aim to set up a prototype seasonal forecast system for the agricultural sector in Peru, including predictions of user-tailored indices.

This prototype seasonal forecast system combines climatological information and seasonal forecasts. This way robust information on climatic variability is provided in the first place and if a skillful forecast exists, tendencies away from this natural variability are identified. This has two main advantages over the usually used formats in seasonal forecasting. For one, users are often not familiar with the tercile category forecasts nor understand "normal" in a climatological sense. Presenting the current forecast relative to climatological variability and exceptional years in the past fosters the understanding of the provided information. Secondly, it provides an elegant way of integrating information on forecast skill, which is known to vary greatly in seasonal forecasting - spatially, temporally and also between different variables: In cases with low or no skill, this is clearly stated and the users are referred to the robust climatological information which already holds valuable information about the possible range of outcomes to expect .

This contribution presents selected verification results of user-tailored indices as well as first products of the prototype seasonal forecast system described above with a focus on understandable visualization. The work is based on ECMWF system 5 seasonal predictions and hindcasts and observations at stations as well as a gridded precipitation dataset provided by the meteorological and hydrological service of Peru.