



Subseasonal forecasts from a climate services perspective

Francisco J. Doblas-Reyes (1), Juan Camilo Acosta Navarro (2), Dragana Bojovic (2), Isadora Christel Jiménez (2), Nicola Cortesi (2), Nube González-Reviriego (2), Raül Marcos (2), Andrea Manrique-Suñén (2), Albert Soret (2), Marta Terrado (2), and Verónica Torralba (2)

(1) ICREA & Barcelona Supercomputing Center (BSC-CNS), Barcelona, Spain (francisco.doblas-reyes@bsc.es), (2) Barcelona Supercomputing Center (BSC-CNS), Barcelona, Spain

Subseasonal forecasts offer valuable information for action-oriented decisions in climate-vulnerable contexts. Forecast quality assessments of this type of forecasts are essential to provide a relevant source of information that satisfy the requirements formulated by vulnerable users. This contribution discusses the challenges posed by the need to provide both forecasts and quality information to efficiently disseminate the climate information. It illustrates the approaches employed to engage with the users, identify their needs and co-produce the information in adequate formats. The appropriate consideration of observational uncertainty as a key source of the forecast quality uncertainty is an of this perspective. Forecast quality information results consider not only the predictive capability of operational multi-models, but also the relevance of certain predictability sources such as soil moisture or sea ice. The effort goes beyond the traditional verification and tries to pose the results in the context of how systems with increased forecast quality can be relevant to the users, with the aim to strengthen the bridges between users and forecast producers. Recognising the spatial mismatch between climate forecasts and the locality of climate information for some users, statistical/empirical downscaling has been employed to close this gap using observational datasets owned by those users. Examples from the agricultural and energy sectors are employed to illustrate these ideas.