EMS Annual Meeting Abstracts
Vol. 13, EMS2016-433, 2016
16th EMS / 11th ECAC

Assessing the value of seasonal climate forecasts in decision-making

Marta Bruno Soares and Suraje Dessai

Sustainability Research Institute and the ESRC Centre for Climate Change Economics and Policy, School of Earth & Environment, University of Leeds, UK (m.soares@leeds.ac.uk)

Existing and emerging climate services are making use of seasonal climate forecast (SCF) information. By itself, SCFs do not have intrinsic value as value is acquired through its ability to influence the decisions made by the users of such forecasts. The concept of value is often associated to either a monetary worth or as a fair return in money, services or goods; or as something useful or important. These different conceptualisations can be associated to an array of potential benefits when applying SCFs to decision-making ranging from those quantifiable economically to those of a more qualitative nature.

The aim of this paper is threefold. Firstly, we review the factors that influence the value of SCFs in decision-making such as the type of user (i.e. decision-maker), the context and time horizon of their decision-making, their capacity to use SCFs, and the characteristics of the forecast e.g. accuracy and timeliness. Secondly, we review the methods commonly applied to assess the value of SCFs in decision-making based on empirical studies. These can range from quantitative approaches e.g. decision-based theory models to qualitative approaches e.g. qualitative participatory studies. Finally, we discuss the main implications and trade-offs between these methods and the various factors influencing the potential value of SCFs in decision-making as well as existing gaps and limitations in existing methods. Our paper provides an overview of existing methods to assess the value of SCF in decision-making which is critical not only in the context of the user of such forecasts but also more widely for the evaluation and quality assurance of climate services.