



Use of Seasonal Forecasts for Dams Management in Spain

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This presentation describes the potential use of seasonal climate predictions for water management in Spain. Given the low skill provided by seasonal forecasting systems based on the current operational models, and after analyzing the response to the climate drivers at different time scales for selected river basins in Spain, a two steps empirical forecasting technique has been developed and tested as a pilot study in the framework of the Euporias project. In the first step the winter North Atlantic Oscillation index is forecasted from the observed Eurasian Snow Advance Index in October taking advantage of the high correlation between them. Then, a synthetic probability distribution function is generated to sample the NAO index in order to assess the forecasting uncertainty. In the second step, a KNN algorithm is used to retrieve a set of reservoir inflows associated with each of the NAO index samples. The final result is an ensemble of possible scenarios (reservoir inflows) which are used as input for the water allocation decision support models.