

Model/method	Short description	Reference	Spatial scale
FUNCEME seasonal forecast system	A 20-member ECHAM4.6 ensemble. Atmospheric circulation model, initial SSTs persisting for 6 months. Initial conditions of the atmosphere modeled by an AMIP-type run (starting in 1961). AMIP run is forced by monthly observed SSTs (NOAA Optimum Interpolation SST V2).	Roeckner et al. (1992)	approx. 2.8° longitude/latitude
ECMWF seasonal forecast system	A multi-model 15-member ensemble including ocean circulation. Initial conditions coming from ERA-Interim	e.g., Stockdale et al. (1998)	approx. 0.7° latitude/longitude
expanded downscaling	Simulates local events consistent with prevailing atmospheric circulation while preserving local covariability	Bürger (1996)	network of monitoring stations
empirical quantile mapping	Improves systematic biases throughout the statistical distribution by mapping the empirical cumulative distributions of the observed and modeled variables	e.g., Wetterhall et al. (2012)	network of monitoring stations
weather pattern classification	Including pre-selection of variables, variable combinations and spatial domain	e.g., Murawski et al. (2016), Philipp et al. (2007)	network of monitoring stations