Imrovements of seasonal forecast at Regional level (Ethiopia)

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Multi modal ensemble has better skill forecast than single model forecast then we are making verification and validation for the entire of Ethiopia region (3.30°–15°N, 33°– 48°E)using statistical ensemble model using bias calculation statistical with the observation and comparing method observation and forecast for pattern analysis, and correlation analysis for the select eight homogenous zones, and the data is gridded at high resolution (10x10km) using Inverse Distance Weighting (IDW) method in consideration topography effect. We are using(NMA) National Meteorology Agency of Ethiopia reanalysis data, (National Center for Environmental Prediction) NCEP, multi-modal ensemble(MME) for data assimilation and initial condition at 0.5° x 0.5 ° data resolution and (International Research Institution)IRI (See Surface Temperature)SST to select potential prediction regions with good correlation +/- 0.5 and +/- 0.3 deterministic seasonal forecast of precipitation is the most difficult task of weather forecast and also the model is running at high resolution (10 x 10km) then the quantitative MME has good forecast skill as we see in the verification MME quantitative forecast is useful for Agriculture, water reserves, hydropower dams much more application.