Climate Predictions in a Forecast based Action (FbA) pilot within the Greater Horn of Africa; Experiences from ForPAc and Down2Earth Projects

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Skillful weather and climate forecasts, if utilized effectively, have the potential to improve preparedness and disaster risk reduction. Forecast-based Action (FbA) is a framework for aiding decisions on preparedness in advance of weather/climate hazards, through use of forecasts. Here, we present a summary of research results and pilot project work within the Arid and Semi-Arid Land (ASAL) areas of Kenya conducted under the Towards Forecast-based Preparedness and Action (ForPAc) project. We also present opportunities for scaling up FbA across the Greater Horn of Africa region through leveraging on connected projects and initiatives like Down2Earth. Skill assessment of a pool of weather/climate models has established the most skilful multi-model combinations for monthly-seasonal timescale. Co-production initiatives between forecast users and producers established the forecast variables best aligned with Kenya's existing Drought Early Warning Systems (DEWS); Standardized Precipitation Index (SPI), Vegetation Condition Index (VCI) and soil moisture, as well as optimum forecast delivery time required by the DEWS processes. Our analysis shows that rainfall forecasts have skill across 'seamless' sub-seasonal to seasonal lead times, offering the potential to improve the anticipatory actions within the DEWS of Kitui county of Kenya. Working with multiple stake-holders from across local and national government, humanitarian agencies, forecasting services and climate researchers, we have explored the potential for a more anticipatory, proactive DEWS using forecast information. The Down2Earth project, which aims at translating climate information for adaptation and climate-resilience across decision-making levels is leveraging on gains of ForPAc by advancing FbA approaches within the rural communities of Kenya, Somalia and Ethiopia. To facilitate the institutionalization of FbA, we have developed a regional roadmap to guide implementation within National, regional and international humanitarian actors.