

Introduction

- Drought is prolonged periods (often a season or more) of insufficient precipitation, resulting in water shortages that adversely affect agriculture, water reservoirs and society. Drought frequency, severity and intensity have increased in pastoral and agro-pastoral areas of Oromia regional State, particularly in the past two decades. Agricultural activities are largely dependent on seasonal rainfall, which varies widely due to global, regional and local climate drivers. Due to its reliance on rain-fed agriculture, the Oromia region is highly sensitive to drought, whose impacts range from reduced water supply to crop and livestock production decrement, leading to food insecurity and conflict. To overcome the impacts of drought in the region, an Integrated Drought Management (IDM) strategy was developed to help adapt to it rather than responding every time it occurred. The strategic plan entails developing a roadmap and implementation and evaluation models for an IDM strategy to minimize the impact of drought in the region.

Methods

- To develop the strategy and manage the impact of drought in the region, three key pillars were considered: (1) drought monitoring and early warning systems, (2) drought impact, vulnerability and risk assessment, and (3) implementation measures. The IDM strategy has four strategic focus areas (crops, livestock, natural resources and socio-economic). This IDM strategy document was prepared by reviewing relevant literatures of other countries' experiences with the active participation of research experts in climate science, crops, livestock and natural resources at Oromia Agricultural Research Institute (IQQO).

Result

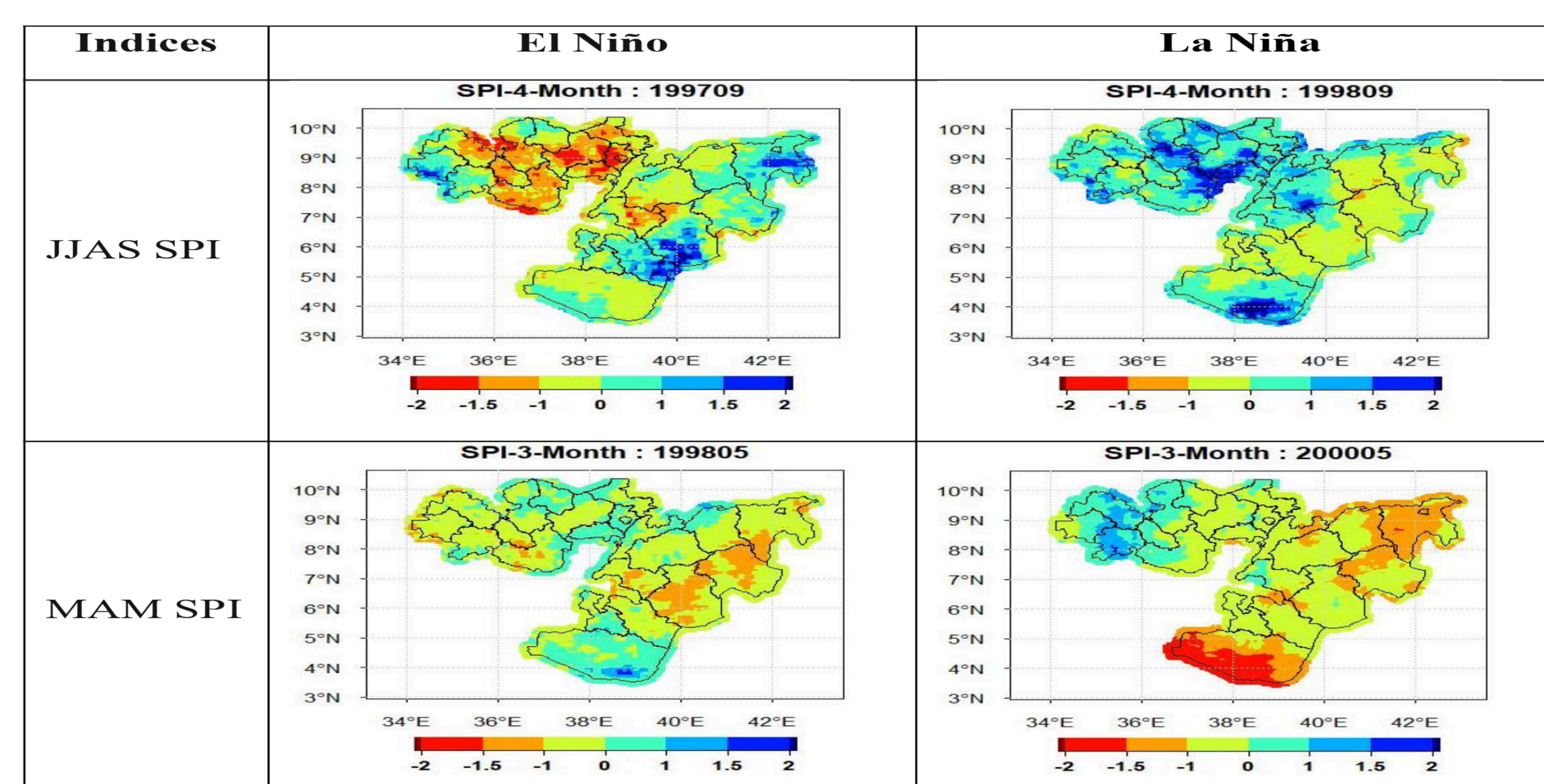


Fig. 1. Meteorological drought indices (SPI) for selected ENSO phases (Lanina and ELNINO)

- The impacts, vulnerabilities and risks of drought identified on agriculture: Crop failure, Food crop production declines for both rain-fed and irrigated crops, Declining in cropping areas, Decreased crop diversifications, Decreased water availability for crop production, Increased prices for local food as the farmers cope with lower yields., Increased incidences of pest and diseases, Decline in the size and quality of produce due to stunt growth of crops and Reduced the availability of local food.

Summary

- This strategic intervention focuses on crop, livestock, natural resources, and socio-economic activities.
- This allows decision-makers and communities to devise measures that reduce and prevent the impacts of drought.

Implementation measures to minimize impacts of drought

- Strategic preparedness prior to the occurrence of drought (**Before drought**).
- Strategic intervention measures during drought occurrence (**Response**).
- Strategic intervention measures after drought (**Recovery**)

Interventions Identified for Drought Monitoring and Early Warning.

- Monitor key indicators of meteorology (precipitation, temperatures), agriculture (soil moisture, vegetation conditions) and (stream flow, surface runoff and ground water). Develop/customize consistent seasonal forecasts and appropriate decision-support tools for impacted sectors. Improve quality of the predictor data (indices) and sharing accurate drought information on time. Prepare regional early warning work package and disseminate contextual early warnings. Integrate dynamical crop advisory at spatial scale for advisory packages. Incorporate indigenous knowledge and experiences of farmers and pastoralists into the early warning systems.

Interventions for drought impact, vulnerability and risk assessment

- Inventory and monitoring drought impacts on the specified focus areas (agriculture, environment and socioeconomic).
- Map geographic area affected by drought impact
- Assess drought impacts and priorities management options in the drought-prone areas.
- Map geographic area affected by drought impact.
- Create regional centralized database system for drought management.
- Assess drought vulnerability
- Produce drought vulnerability and risk map at regional level.
- Identify and priorities management options in the drought-prone areas.
- Mainstreaming drought impact, vulnerability and risk information for concerned institutions