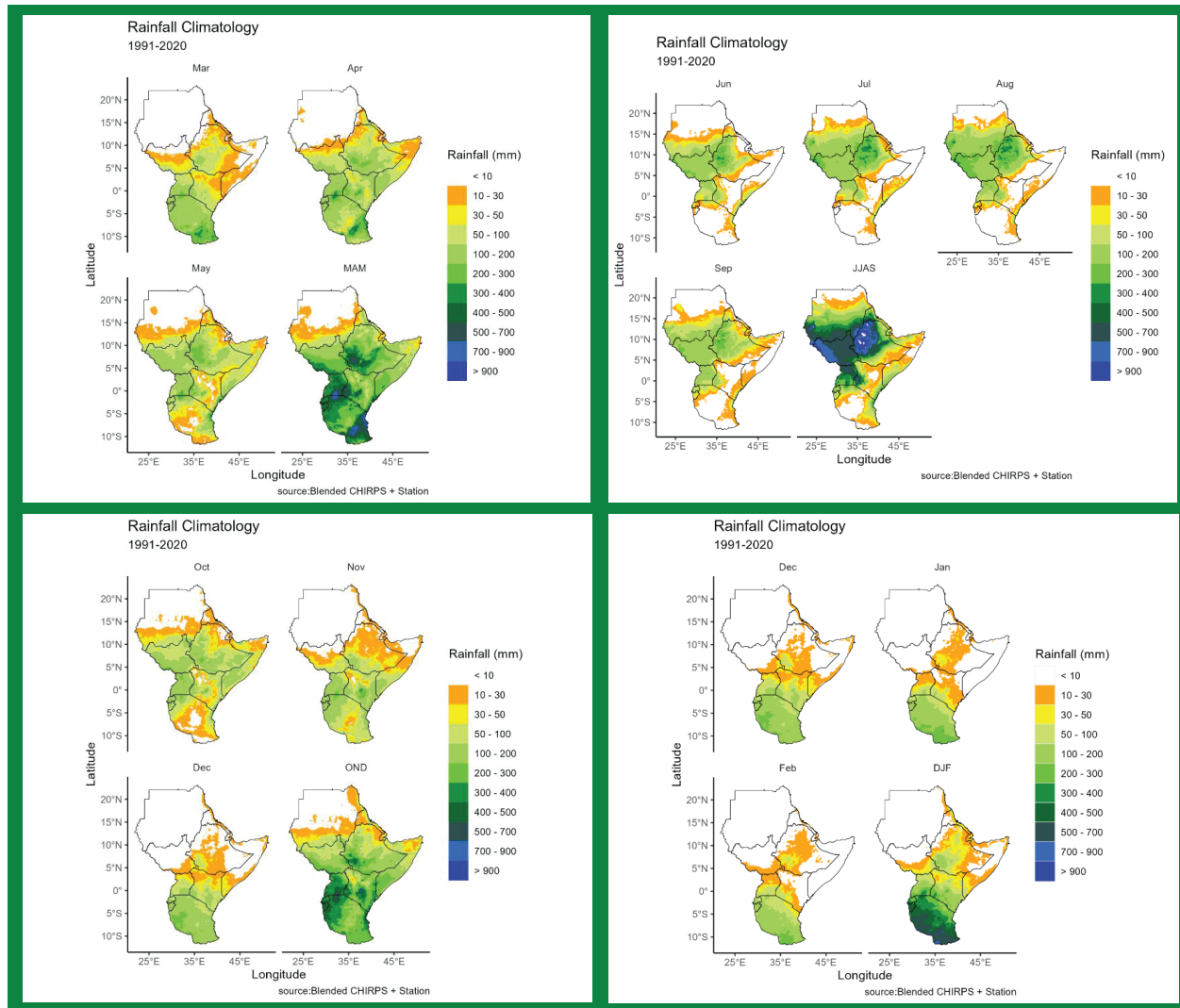


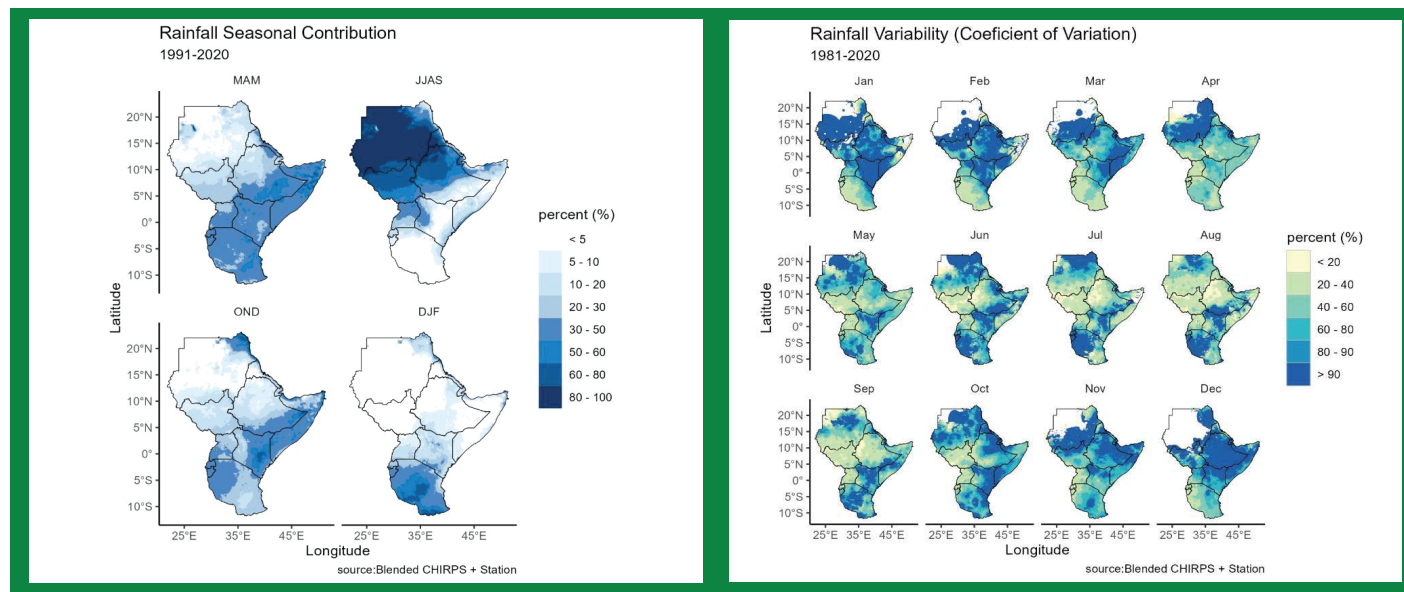
CLIMATE BASELINES - FACT SHEET



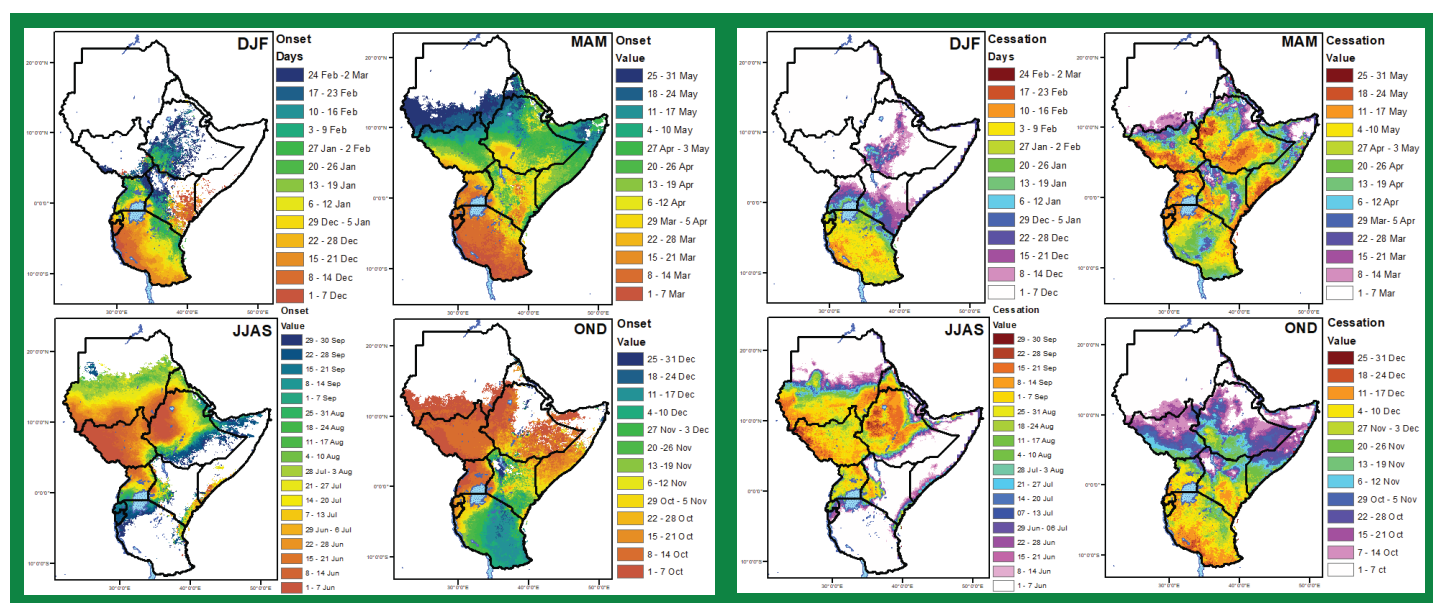
Average Seasonal rainfall in Eastern Africa (1981-2010)



- The March-April-May (MAM) season is the main season over the equatorial and southern parts of the region contributing up to 70% over the eastern areas, thus, has a significant influence on the food security situation of the region.
- Tropical cyclones over the south western Indian Ocean during the season can either cause depressed (resulting in failed seasons) or enhanced (increasing flooding probability) rainfall over the region depending on their trajectory intensity, and the basin it occurs.
- The June to September (JJAS) season is the main season over the northern sector of the region, contributing more than 80% of annual rainfall in Sudan.
- The October to December (OND), popularly known as the 'short rains' season, is essentially significant over equatorial and southern parts of the region
- The OND season is significantly influenced by global drivers such as ENSO and the Indian Ocean Dipole (IOD). The positive phase of ENSO and IOD are associated with enhanced rainfall over the region, with cases of flooding experienced in extreme years.
- December marks the cessation of the short-rains season over the equatorial parts of the region and by January and February, the rains are concentrated over the south with the ITCZ reaching its maximum southern latitude in January.



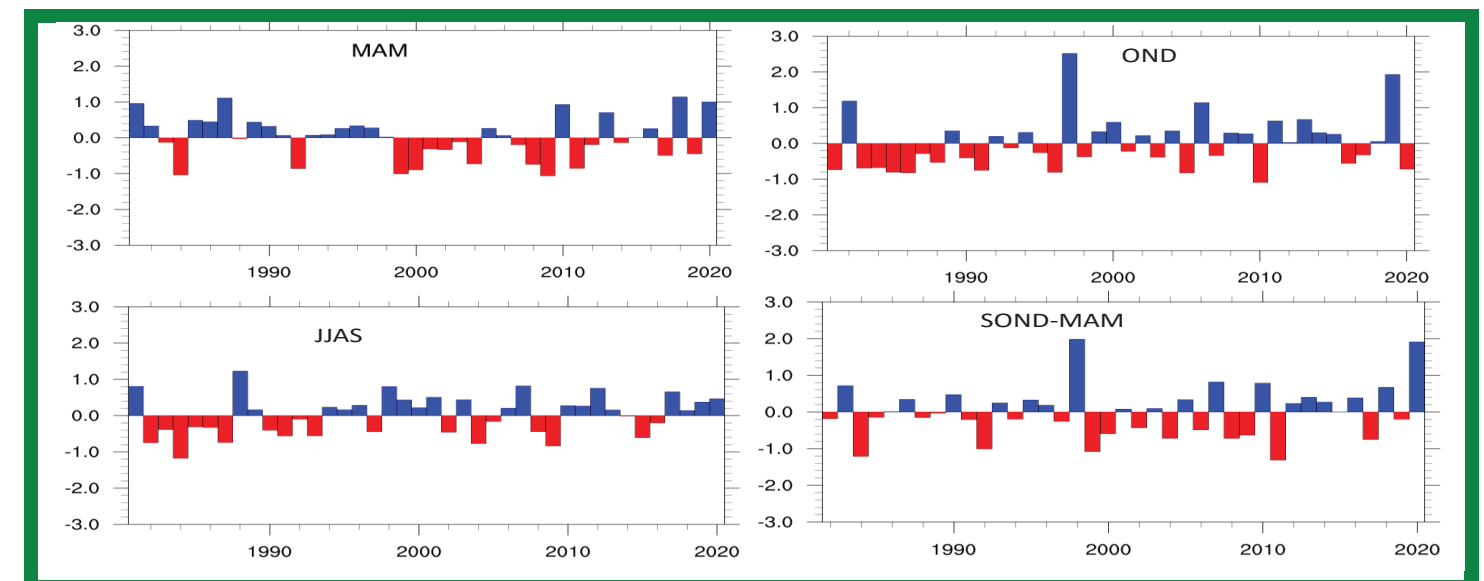
Onset and Cessation



- Onset follows the south-north progression of the tropical rain-belt.
- In MAM the southern and parts of equatorial areas record onset in March and April. The northern records onset in from late April to May
- The rains continue into June and marks onset in the northern parts and all the way to August during the JJAS season
- The rains begin to move southwards in October and marks its onset in most parts reaching the south in November and December
- The rains begin to withdraw over the southern and parts of Kenya in April and over much of the equatorial in May during the MAM season
- During the JJAS season, most parts record the end of the season in September
- Since OND is part of a long season Over most parts of Tanzania, Cessation can only be observed in mid-December in Rwanda, Burundi, Uganda and southern parts of Kenya

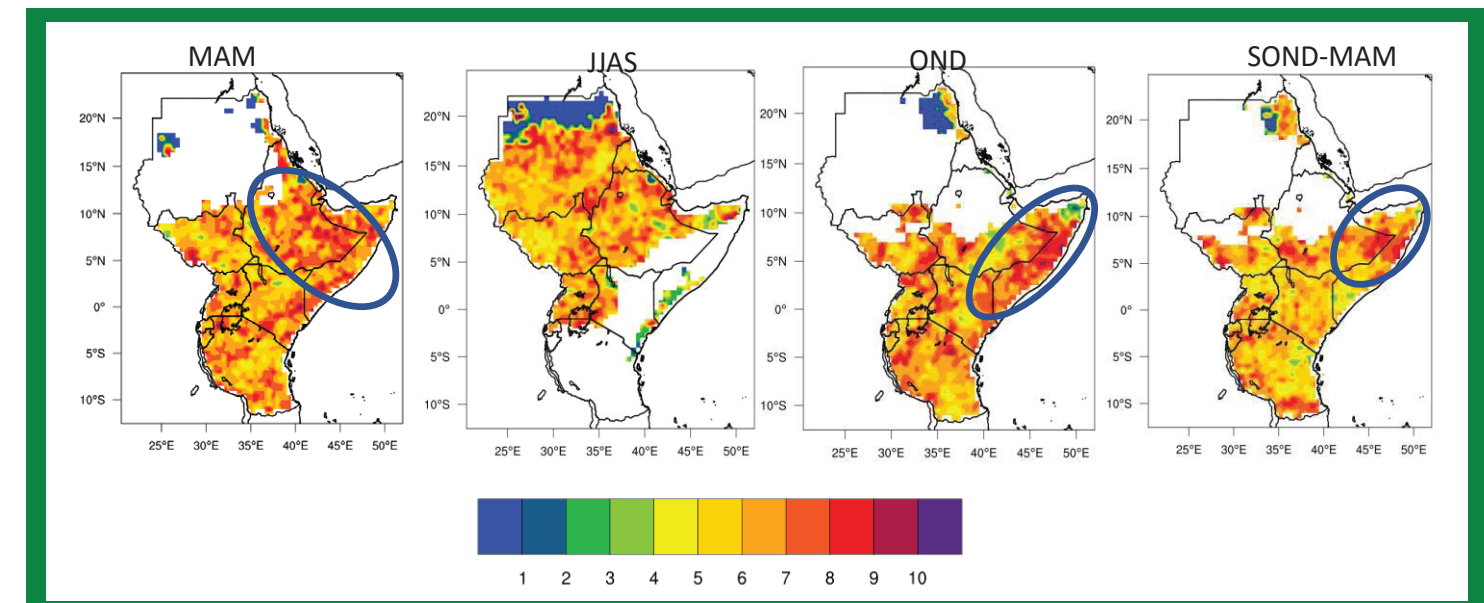
Degree of Wetness and Dryness over Eastern Africa

ICPAC

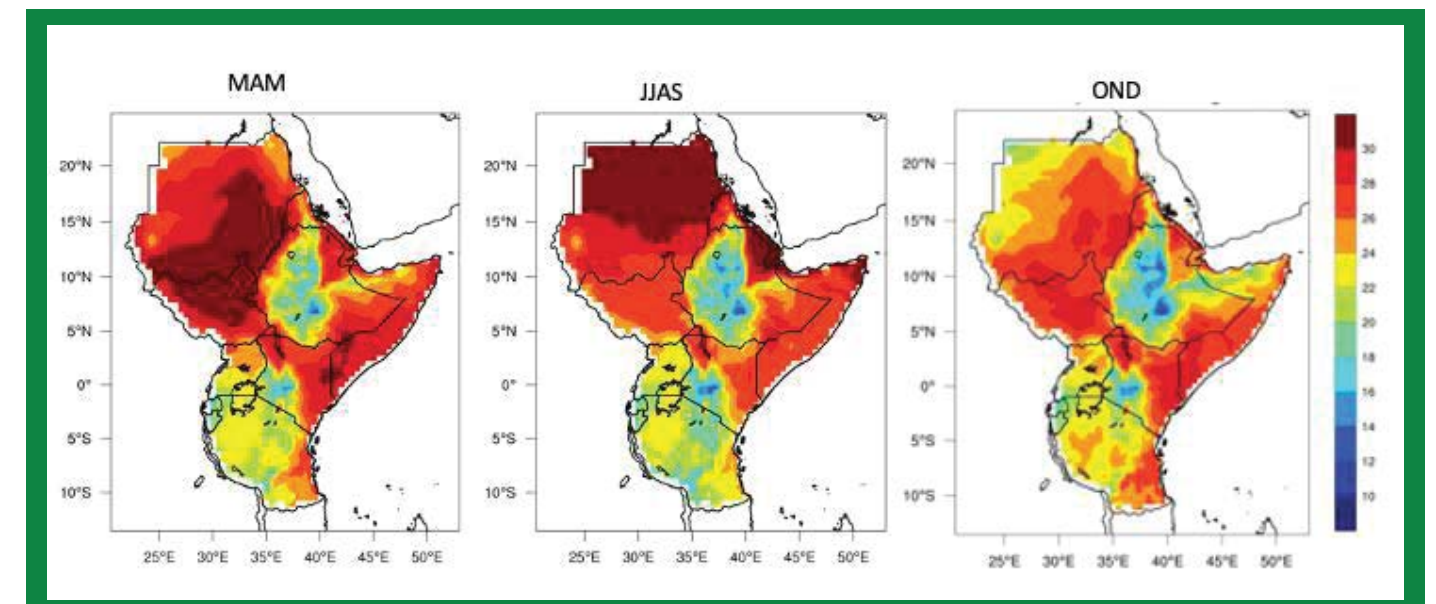


- The year-to-year variation shows a high number of dry years during the 1980s with 2015 predominantly showing a negative index in the recent past.
- Extremely wet conditions were observed in 1997/98 and 2019/20 while extremely dry conditions were recorded in 2010/11
- The region has experienced increased number of drought years
- The Horn of Africa region, especially areas bordering Somalia and Ethiopia is the most impacted by extreme dry events, especially during MAM and OND seasons
- The northern sector of the region has also experienced failed JJAS (4-month SPI) seasons although no significant spatial pattern is observed.
- Arid conditions especially in Ethiopia and South Sudan have caused devastating impacts on lives and livelihoods. The 2015 drought, for instance, was one of the most severe droughts on the record in Ethiopia.
- A high number of dry years is also observed during the October to December season over the horn especially in Somalia.

Drought frequency (SPI < -0.99) for Standardized Precipitation Index (SPI) over Eastern Africa

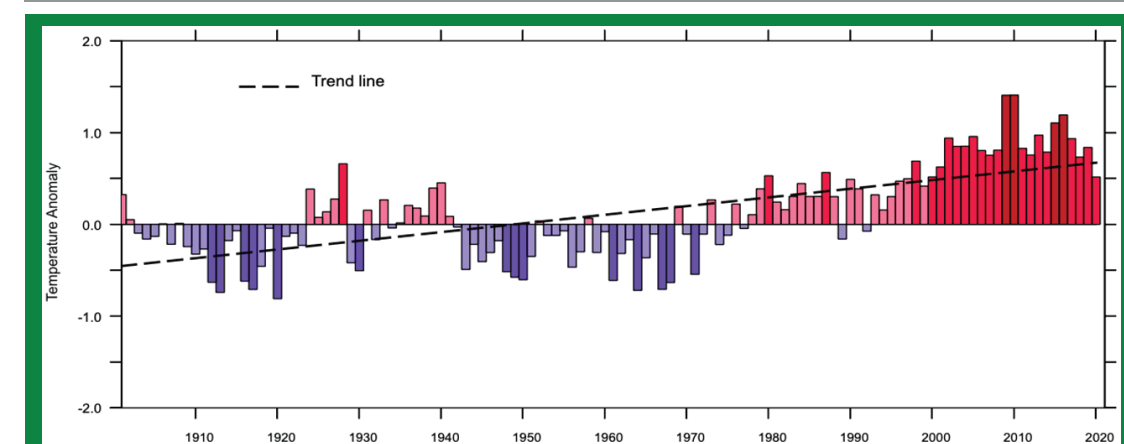


Temperature Distribution Over Eastern Africa (1981-2010)



- The MAM season is characterized by temperatures above 30 degrees Celsius over South Sudan and southern to eastern Sudan and temperatures above 24 degrees are normally recorded over western, northern and coastal Sudan, north eastern Ethiopia, and eastern parts of the region
- Temperatures less than 24 °C are normally recorded over central to western Ethiopia, central to western Kenya, southern Uganda, Rwanda, Burundi, and much of Tanzania.
- During the JJAS season, northern Sudan, Eritrea, Djibouti, and north eastern Ethiopia record above 30 degrees Celsius while southern areas of Sudan, South Sudan, south eastern Ethiopia, Somalia and northern to eastern Kenya record above 24 °C.

Average Temperature Distribution Over Eastern Africa



- Average temperatures over the Greater horn of Africa have increased significantly over the past century as a result of global warming.
- The Greater Horn of Africa is currently experiencing record-breaking heatwaves.
- These record-breaking temperatures have been linked to the combined effects of a strong El Niño event, natural variability, and human greenhouse gas emissions
- An increase in mean temperature is directly linked to a higher rate of transmission of pathogens, which has been observed in the region