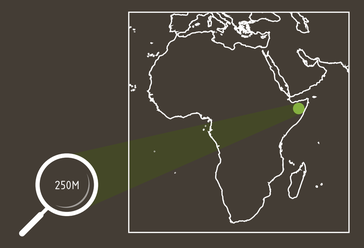
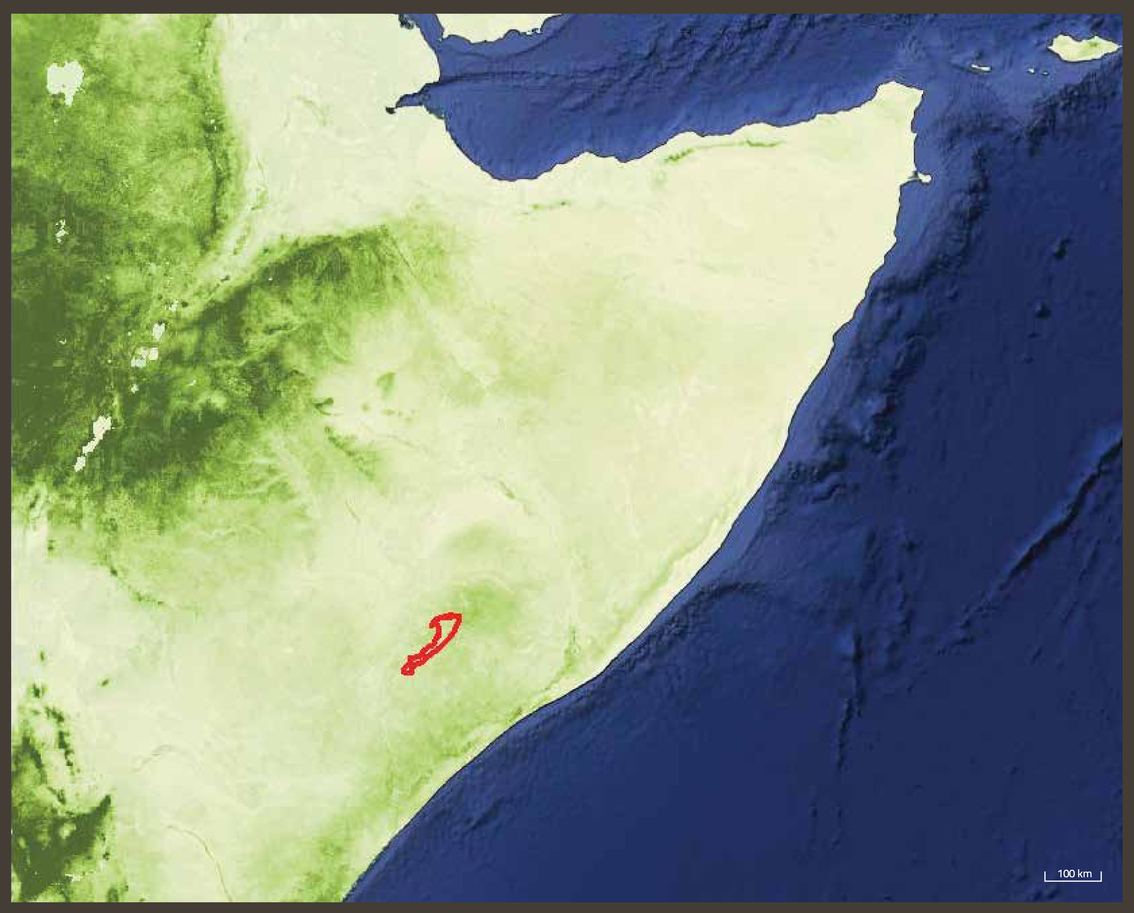
Food and Agriculture Organization of the United Nations

FAO WaPOR CONTINENTAL LEVEL MAPS (250M)

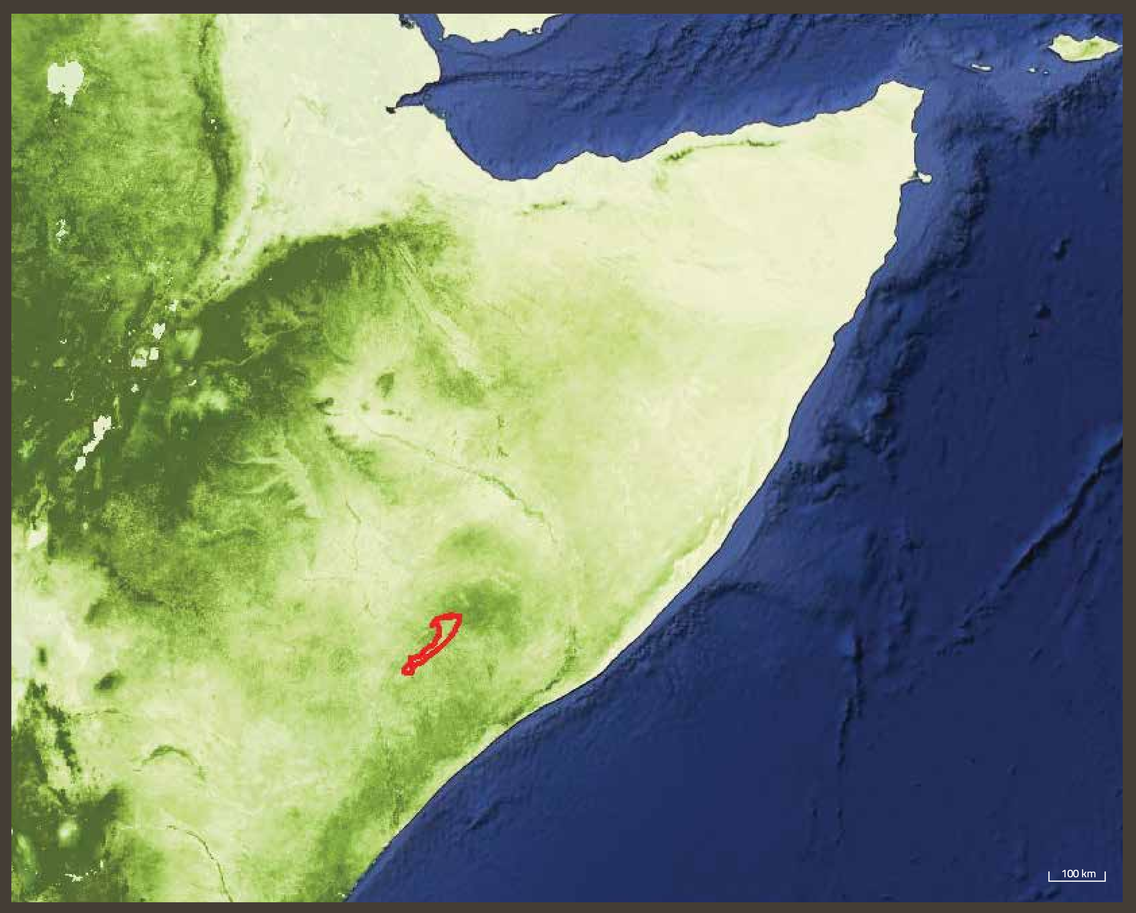
MONITORING THE IMPACT OF DROUGHT | SOMALIA



SEASONAL BIOMASS PRODUCTION IN 2011 (APRIL-AUGUST)



SEASONAL BIOMASS PRODUCTION IN 2018 (APRIL-AUGUST)



These maps show the **biomass production** (plant material produced through vegetation growth, which translates in yield in agricultural areas) for two different growing seasons in the Horn of Africa. In 2011, as featured in the map on the left, biomass production is shown for a season with low precipitation, which accumulated less than 150 millimetres. On the right, seasonal biomass production in 2018 appears to be greater, supported by the high level of rainfall which was more than double compared to 2011. Maps, like this one of seasonal biomass, can help assess the impact of climatic conditions on agricultural production.

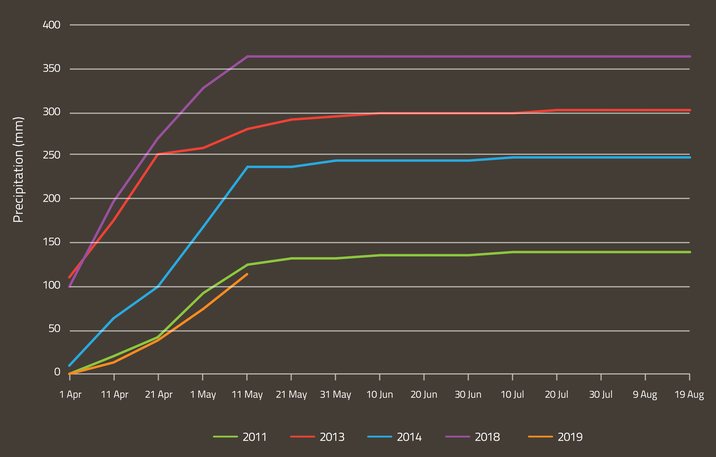
Legend (seasonal biomass production)

300 kg/ha | 1500 kg/ha | 3000 kg/ha | 6000 kg/ha

By plotting the accumulation of the biomass in the area highlighted in red in the map using WaPOR, it is possible to predict the performance of the current season compared to previous years with various precipitation conditions, as seen in the charts below. This area was selected because it is a major cereal producing area. In 2019 a severe drought is undermining the current cereal season which may affect the food security of more than 2 million people in Somalia in the coming months.

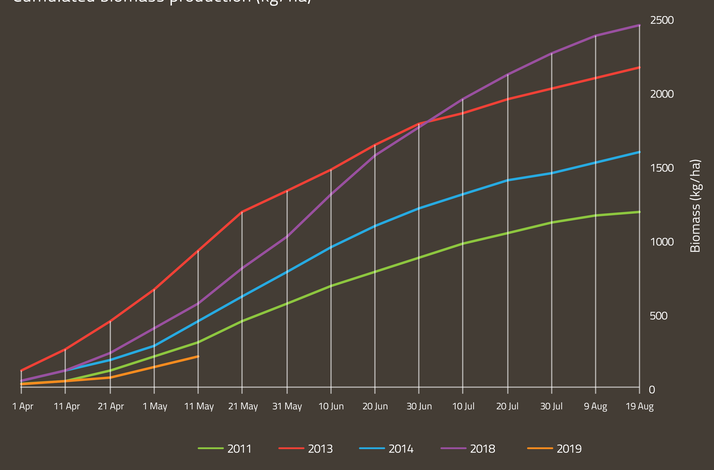
This chart represents the precipitation accumulated during the cereal season April-August for five different years between 2011 and 2019.

Cumulated Precipitation (mm)



This chart represents the biomass production for five different years between 2011 and 2019. The observation of WaPOR is indeed consistent with the national data on cereal production provided by FAOSTAT (see table below graph).

Cumulated biomass production (kg/ha)



Cereal production in Somalia - 2009 -2017 (Maize + Sorghum)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
1000 tonnes	223	346	114	379	380	243	237	140	185

Source: FAOSTAT

This photo shows the severe drought conditions that can impact cereal outputs during years of low precipitation. Drought can affect food security due to the observed relationship between biomass production and precipitation. Using WaPOR it is possible to detect signals of vegetation stress linked to weather patterns, allowing farmers, government agencies and the international community to prepare for changes in agricultural output and to implement mitigation measures.

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WAPOR.APPS.FAO.ORG

All maps: wapor.maps.fao.org

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