





October 2020 Monthly Rainfall and Vegetation Cover (NDVI) (Issued November 26, 2020)

# Highlights

October marks the beginning of the (October to December), Deyr rainfall season across most parts of Somalia. In October 2020, some areas in the south (mostly Gedo and Juba regions) received light and intermittent showers while other regions (Shabelles, Hiraan, Bay, Bakool, Central and some parts of Nugaal regions) received moderate showers in terms of intensity, distribution, frequency and geographic coverage.

In northern regions, some areas received light showers while others remained dry (Maps 2-5 and Map 9). Rain gauge stations that recorded over 100mm of rainfall in October include: Burtinle (Nugaal), Hudur (Bakool), Baidoa and Bardaale (Bay), Buloburti and Mataban (Hiraan) as shown on Map 1 and Table 1.

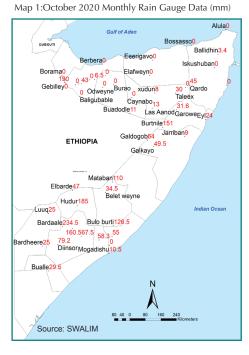
Vegetation cover, measured through the Normalized Difference Vegetation Index (NDVI), indicated continued deterioration of browsing conditions across most parts of southern Somalia, with the exception of some parts of Bay, Bakool and Hiraan, which improved the vegetation and browsing conditions as a result of signicant rainfall received in parts of these regions (Map 6 - 8 and map 10). Rainfall in these regions also helped replenish water catchments. As a result, these regions have experienced decline in water prices and a reduction in the use of water trucking.

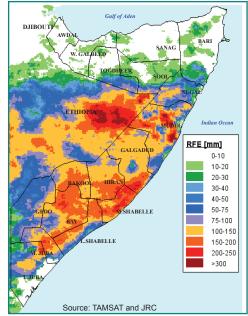
Available dry pasture and water and possibility of livestock migration options to adjacent grazing areas are adequate to support livestock as of late October. However, if current trends continue, regions that experienced poor cumulative rainfall will likely face faster depletion of pasture and water resources and consequent deterioration of livestock body conditions.

Field reports indicate mature desert locust swarms depleting pasture and germinating crop seedlings in central and adjacent parts of southern Somalia. Howedver, reported locust damages on pasture remain localized in northwest and northeast regions, permitting opportunities for livestock migration. In Bari region of the northeast, early migration of the small ruminants has been reported from parts of Northern Inland Pastoral (NIP) livelihood of Qardho, Iskushuban and Bandar Beyla districts towards Sanaag region (Dhahar area) where pasture conditions are relatrively better. As a result of cotinued availability of dry pasture, livestock body conditions in October were near average in areas with poor rainfall and average to above average in areas that received siginifiant rainfall.

Afer continuing to flood in September, Shabelle river levels declined significantly in October but remained above long-term average levels in Beletweyne and Buloburti but, further downstream, river levels in Jowhar and lower reaches of the river remained at hig flood-risk level through late October. On the other hand, Juba river levels increased in October, reaching moderate to high flood-risk levels in Dollow and Bardhere by the end of the month

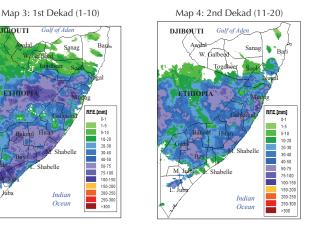
FSNAU field reports indicate extensive land preparation and planting of Deyr season crops in most southern and central agropastoral and riverine areas. In agropastoral areas, most farmers completed planting and adequate seed germination has already occurred, while early planted crops are at first weeding stage. However, Desert Locust has caused significant damage to early planted sorghum and cowpea crops in central Somalia and adjacent parts of of Middle Shabelle.



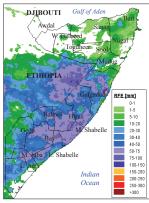


Map 2: October 2020 Monthly Rainfall Estimates (mm)

### October 2020: Dekadal Rainfall Estimates (RFE) Progression



Map 5: 3rd Dekad (21-30)



## October 2020: Dekadal Vegetation Cover (NDVI) Progression

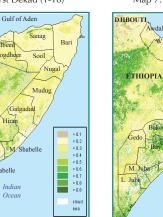
Gulf of Ade

Mud

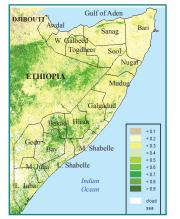
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< 0.1 < 0.2 < 0.3 < 0.4 < 0.5 < 0.6 < 0.7 < 0.8 > 0.8



Map 8: 3rd Dekad (21-30) Map 7: 2nd Dekad (11-20)

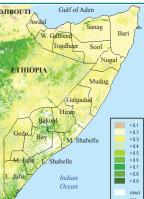


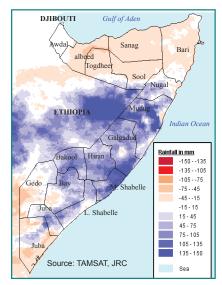
# Map 6: 1st Dekad (1-10)

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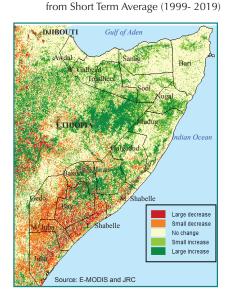
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Map 9: October 2020 Rainfall Difference from Short Term Average (2001-2019)



Map 10: October 2020 NDVI Absolute Difference

Table 1: Observed rain gauge data compared to Short term averages - STA (October 2020)Northern RegionsSouthern Regions

Station Name	Region	dek 1	dek 2	dek 3	Oct 20	STA
Borama	Awdal	0.0	0.0	0.0	0.0	19.0
Gebilley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	17.0
Malawle	Wogooyi Galbeed	0.0	0.0	0.0	0.0	32.0
Wajaale	Wogooyi Galbeed	0.0	0.0	0.0	0.0	25.0
Hargeisa	Wogooyi Galbeed	43.0	0.0	0.0	43.0	29.0
Daraweyne	Wogooyi Galbeed	10.5	0.0	0.0	10.5	32.0
Cadaadley	Wogooyi Galbeed	6.5	0.0	0.0	6.5	35.0
Dilla	Wogooyi Galbeed	19.0	0.0	0.0	19.0	25.0
Aburin	Wogooyi Galbeed	0.0	0.0	0.0	0.0	32.0
Dhubato	Wogooyi Galbeed	0.0	0.0	0.0	0.0	33.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	36.0
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	0.0
Burao	Togdheer	0.0	0.0	0.0	0.0	34.0
Sheikh	Togdheer	0.0	0.0	0.0	0.0	71.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	36.0
Buadodle	Togdheer	0.0	0.0	11.0	11.0	40.0
Eeerigavo	Sanaag	0.0	0.0	0.0	0.0	4.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	21.0
Caynabo	Sool	0.0	0.0	0.0	0.0	30.0
Xudun	Sool	0.0	8.0	0.0	8.0	26.0
Taleex	Sool	21.5	0.0	8.5	30.0	25.0
Las Aanod	Sool	4.0	9.0	0.0	13.0	30.0
Bossasso	Bari	0.0	0.0	0.0	0.0	2.0
Qardo	Bari	0.0	43.0	2.0	45.0	26.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	24.0
Ballidhin	Bari	0.3	3.1	0.0	3.4	9.0
Alula	Bari	0.0	0.0	0.0	0.0	1.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	17.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	6.0
Garowe	Nugaal	0.0	0.7	30.9	31.6	29.0
Eyl	Nugaal	24.0	0.0	0.0	24.0	41.0
Burtnile	Nugaal	40.0	97.2	13.8	151.0	36.0
Galdogob	Mudug	46.0	0.0	18.0	64.0	49.0
Jarriban	Mudug	6.0	0.0	3.0	9.0	32.0
Galkayo	Mudug	0.0	38.5	11.0	49.5	48.0

Station Name	Region	dek 1	dek 2	dek 3	Oct-20	STA
Hudur	Bakool	46.5	82.5	56.0	185.0	100.0
Elbarde	Bakool	0.0	47.0	0.0	47.0	87.0
Baidoa	Bay	27.5	45.5	87.5	160.5	135.0
Diinsor	Bay	28.4	22.0	28.8	79.2	64.0
Bardaale	Bay	51.5	67.0	116.0	234.5	89.0
BurHakaba	Bay	0.0	27.5	40.0	67.5	112.0
Luuq	Gedo	0.0	0.0	25.0	25.0	48.0
Bardheere	Gedo	0.0	0.0	25.0	25.0	82.0
Belet weyne	Hiraan	7.0	10.0	17.5	34.5	85.4
Bulo burti	Hiraan	58.0	39.5	29.0	126.5	88.2
Mataban	Hiraan	50.0	0.0	60.0	110.0	84.7
Balad	Lower Shabelle	0.0	0.0	0.0	0.0	83.0
Wanleweyne	Lower Shabelle	10.0	39.0	9.3	58.3	98.0
Mogadishu	Banadir	0.0	2.5	8.0	10.5	34.2
Bualle	Middle juba	0.0	0.0	29.5	29.5	48.0
Jowhar	Middle Shabelle	20.0	25.0	10.0	55.0	99.0

\*indicates missing data

#### Monthly rainfall and NDVI perfomance maps

The Mapped NDVI and RFE above represent the differences from Long Term Mean.E-MODIS NDVI is presented as absolute difference from Long Term Mean for the same period (current - long term mean), while TAMSAT-RFE is presented as the relative difference from Long Term Mean (Current\*100)/LTM.

#### Seasonal Trend Graph

The maps and graphs on pages 3 and 4 are produced in collaboration with the FOODSEC Action of the Joint Research Centre of the European Commision. The graphs present seasonal trends of crop specific NDVI (Normalised Difference Vegetation Index) as lines and rainfall values (RFE) as bars for each of the delineated land cover and administrative units (regions and districts). For more information or request on available data, please send an email to: data@ fsnau.org.

Primary data sources are NOAA/USGS, European Centre for Medium- range Weather Forecast (ECMWF), MARS-JRC, FSNAU and SWALIM. Maps and graphs on this bulletin are produced from four sources.

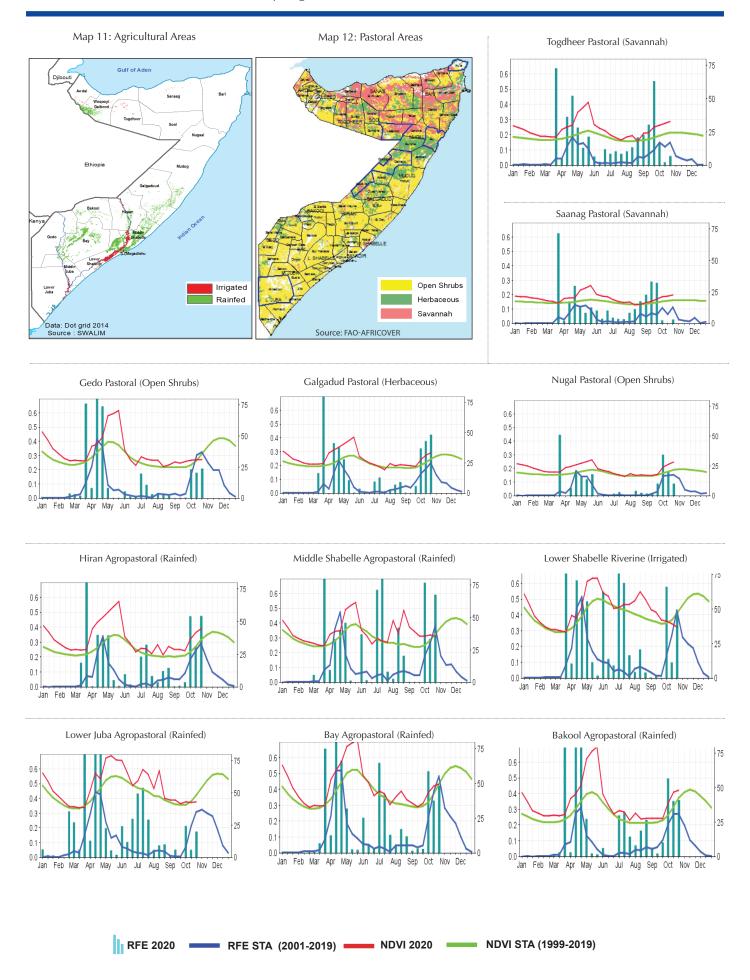
 Current Rainfall Estimates and NDVI data are derived from NOAA/CPC and DEVCOCAST (www.devcocast.eu) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit http://mars.jrc.europa.eu/mars/About-us/FOODSEC For more information on NDVI visit http://earlywarning.usgs.gov/adds and http://fsausomali.org/ fileadmin/uploads/1308.pdf

This report is a compilation of climate data and field reports on Somalia that FSNAU and FEWS NET regularly review for analysis. For more information on data sources, please refer to page 2.

The TAMSAT informatio is available on http://www.met.reading.ac.uk/tamsat/about/

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# Seasonal rainfall and NDVI trends for selected districts

