



Gu 2020 Rainfall Performance (March to June 2020)

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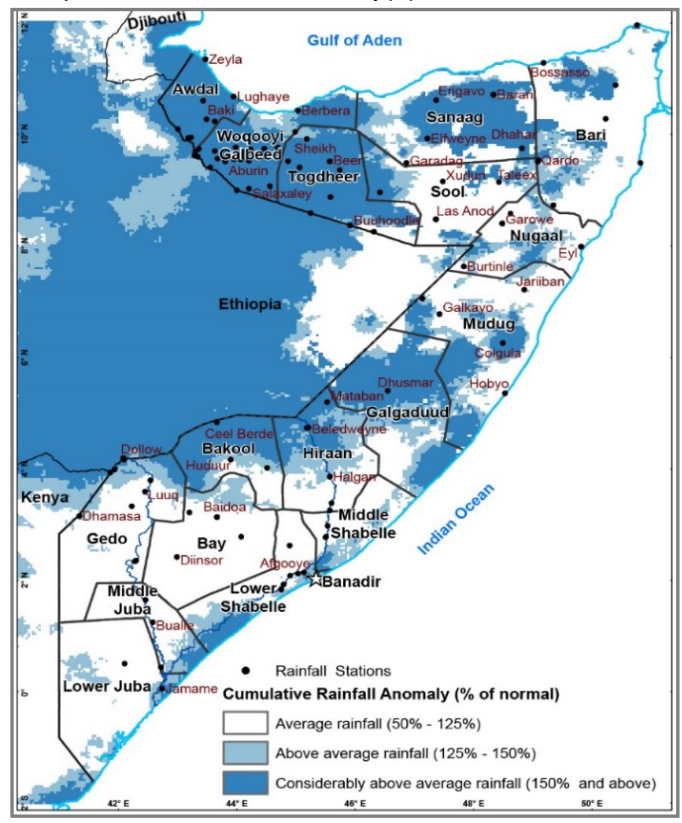
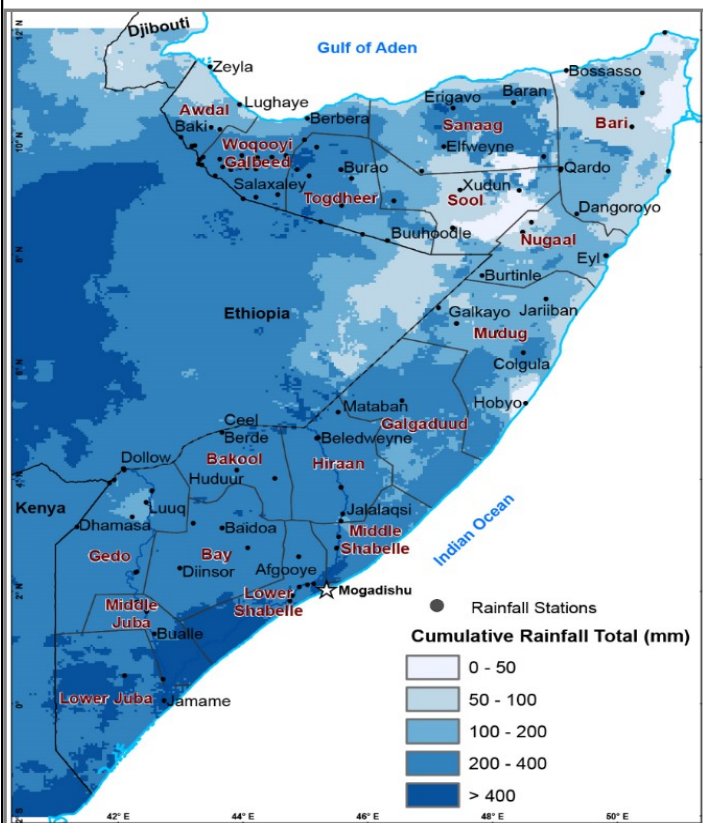
Summary

The 2020 Gu rainy season was generally good with many areas in Somalia recording normal to above normal rains (Map 1 & 2 and Annex I). There was an early start of the season in late March in some areas and continued to spread spatially with a peak during the last two weeks of April. The season came to an early end during the second half of May. The good rains were beneficial to most water dependent sectors which saw a boost in the growth of pasture and crops in many areas and especially in the north eastern and central parts of the country which had a poor rainfall performance in the previous season. The rains also contributed to significant ground water recharge which had been depleted previously. There was also an improvement in animal body conditions thus more reproduction and availability of milk and meat. On the other hand, the heavy rains experienced in April led to both flash and riverine flooding affecting about **919 000¹** people of whom **411, 905** were displaced and **24** killed. Further, along the Juba and Shabelle basins, more than **100,000 km²** of land was inundated as seen in Annex II. Belet Weyne town in Hiraan region was the worst affected by the floods and remained submerged for over two weeks. It is also worth noting that while the overall rainfall amounts for the season are mostly average to above average, there was a prolonged dry period since mid-May that is adversely impacting crop harvest prospects.

Map 1 shows the cumulative rainfall amounts for March to June, while Map 2 shows a comparison of the seasonal rainfall with the long term mean, both based on satellite rainfall estimates data. Both maps indicate good rainfall performance in Gu 2020. Positive cumulative anomalies are observed across the country.

Map 1: Gu 2020 (March to June) cumulative rainfall

Map 2: March to June rainfall anomaly (%)



Footnotes: 1- UNOCHA Flood update issued on 21 May 2020

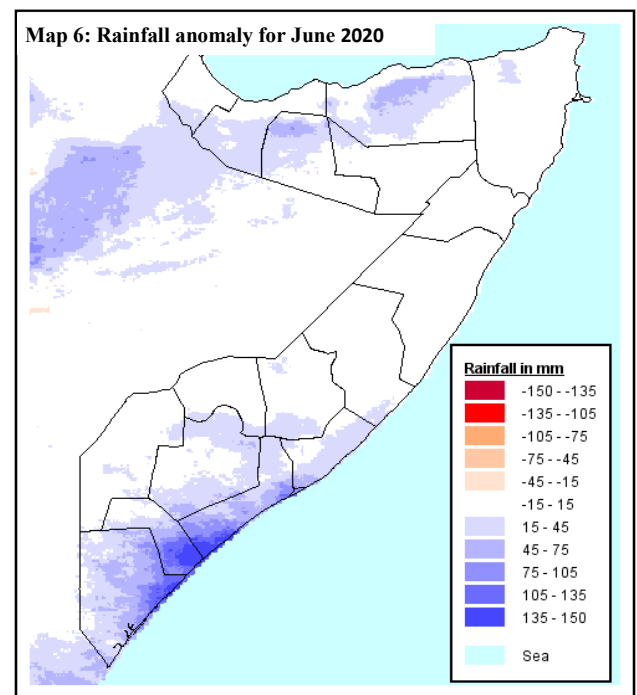
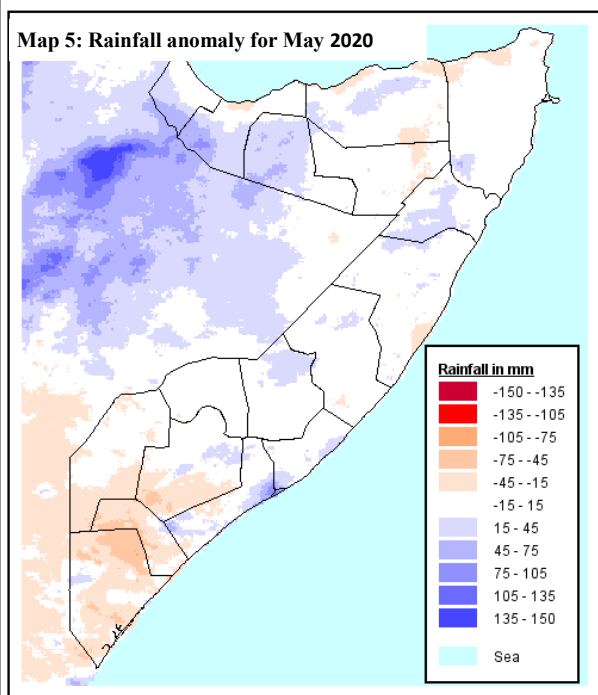
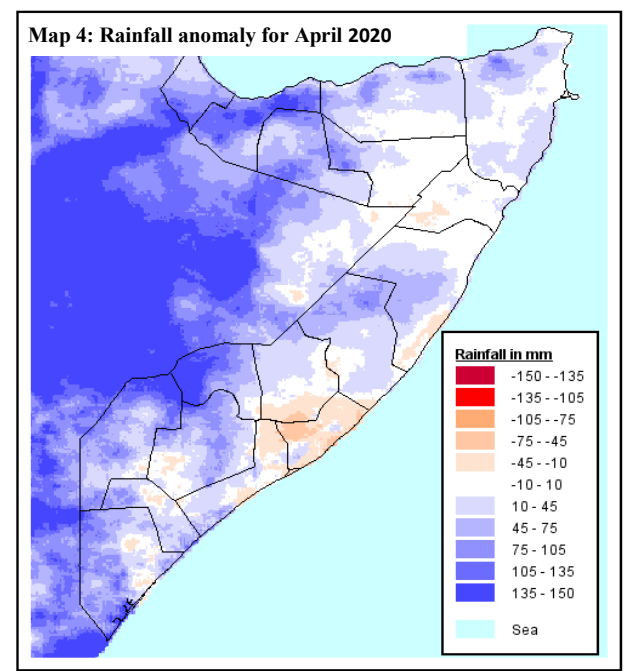
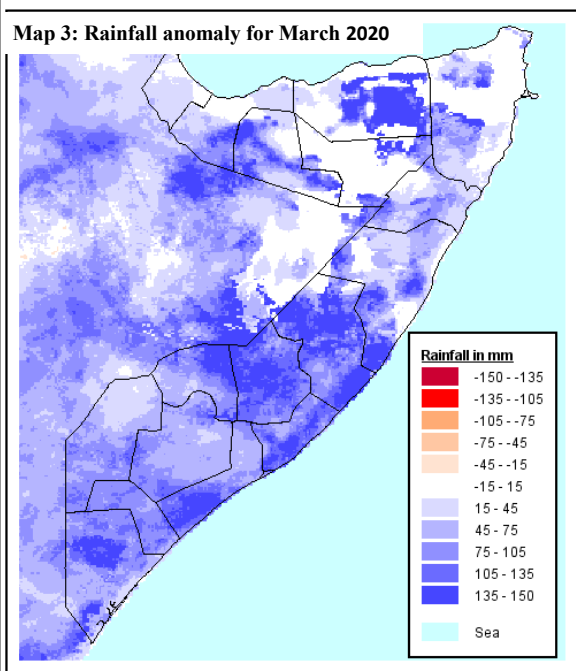
Primary data sources are; Ministries of Agriculture of Puntland, Somaliland and FGS, and Ministry of Energy & Water Resources of the FGS, SWALIM and NOAA/USGS. Tables, Maps and graphs on this bulletin are produced from these sources.

Heavy rains in the Ethiopian highlands led to increased river flow along the Juba and Shabelle rivers. This contributed to high and stable flows throughout the season albeit the flooding that was associated with the high flows.

Map 3 to 6 shows March to June rainfall anomalies. In March the rainfall was above normal in many areas as the rains came earlier than anticipated. While many parts of the country saw a peak of rains in April a few pockets in the south observed slightly below normal rains as seen in Map 4. The rains came to an early end in mid May leaving big deficits of the month in Middle and Lower Juba.

With the early start and early end of the rains, the agricultural sector has been adversely affected after leaving a water deficit which led to widespread crop moisture stress in most agro pastoral areas in southern regions, resulting in poor seed germination and crop wilting. Driest conditions were reported in Hiran, Bakool, Gedo and parts of Juba and Shabelle regions. There is also a concern that there will be rapid deterioration of vegetation condition in many parts of the country due to short lived Gu rains.

However, some riverine communities took advantage of the flooding and started offseason planting although this will not be sufficient as it is in minimal scales.



Overall Gu 2020 Rainfall Performance

South and Central: Several places in the central and southern parts of the country received good rains. Notably, the sorghum belt of Bay and Bakool, Hiraan and Middle Shabelle regions received normal to above normal rains. Figure 1 presents the Gu 2020 cumulative rainfall amounts compared to the Long Term Average (LTA) for the same season for some selected rainfall stations in south and central regions. El Berde, Bardale, Bualle, Baidoa, and Mataban stations recorded the highest amounts of rainfall exceeding 300mm. The rains were well distributed especially in the month of April with more than 15 days of rainfall in total. Annex I presents the total amounts of rainfall during the Gu 2020 season for individual stations compared to the long term average for the same season. While the rains were beneficial to most sectors, they also led to floods in some areas especially in Belet Weyne, Jowhar, Balaad, Mahaday Wayne, Afgoye, Wanla Wayn, Janale, Luuq, Dollow and Bardhere consequently causing crop damage.

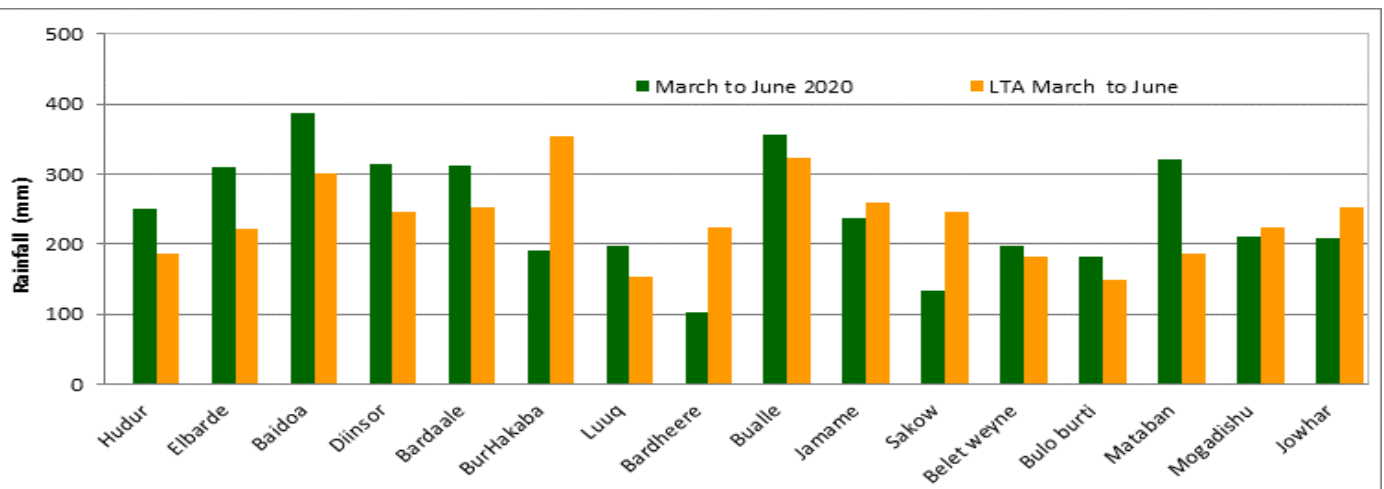


Figure 1: Gu 2020 Rainfall Performance in South and Central Somalia (Source—SWALIM)

Somaliland: The overall Gu season rainfall performance was above normal in most parts of Somaliland. The rains started in the last week of March, followed by heavy rains in the months of April and May. Some of the stations that recorded the highest amounts of the rainfall include Geed Deeble (380 mm), Beer (378 mm), Las Dacawo (364 mm), Gacan Libaax (360 mm), Hargeysa (331 mm), Wajaale (285 mm) and Borama (177 mm). Other stations recorded cumulatively significant amounts (more than 150mm) of the rainfall. The western parts of Somaliland however recorded light to moderate rains. Figure 2 presents the Gu 2020 cumulative rainfall amounts compared to the Long Term Average (LTA) for the same season for some selected rainfall stations in Somaliland.

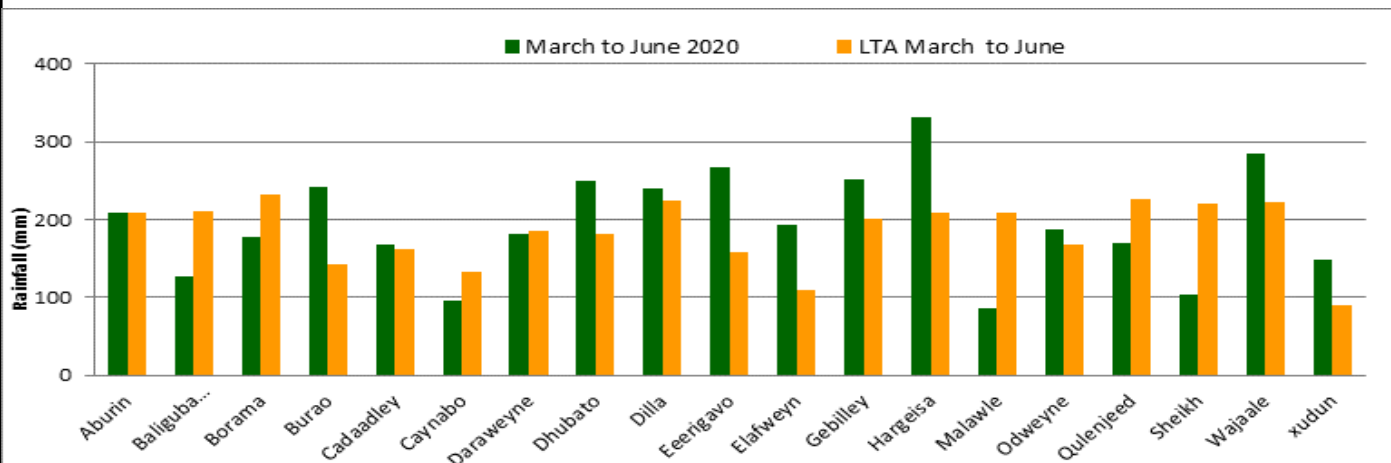


Figure 2: Gu 2020 Rainfall Performance – Somaliland (Source—SWALIM)

Puntland: The overall Gu performance in Puntland was above average. However, the intensity and distribution of rainfall varied from place to place. Bari, Sanaag, and Karkaar regions, the coastal area between Eyl and Jariban received the most significant rains in Puntland. In the northern district of Garowe, the rainfall performance was normal to slightly below normal. The good rains came as a relief in this area which had experienced below normal rains in the previous three seasons. Figure 3 shows a comparison of Gu 2020 and the long term average rainfall in Puntland using observed rainfall data from selected stations. Evidently, most stations recorded normal to above normal rains with Dangoroyo, Ballidhin and Bandabeyla stations receiving more than 150 mm of cumulative rainfall.

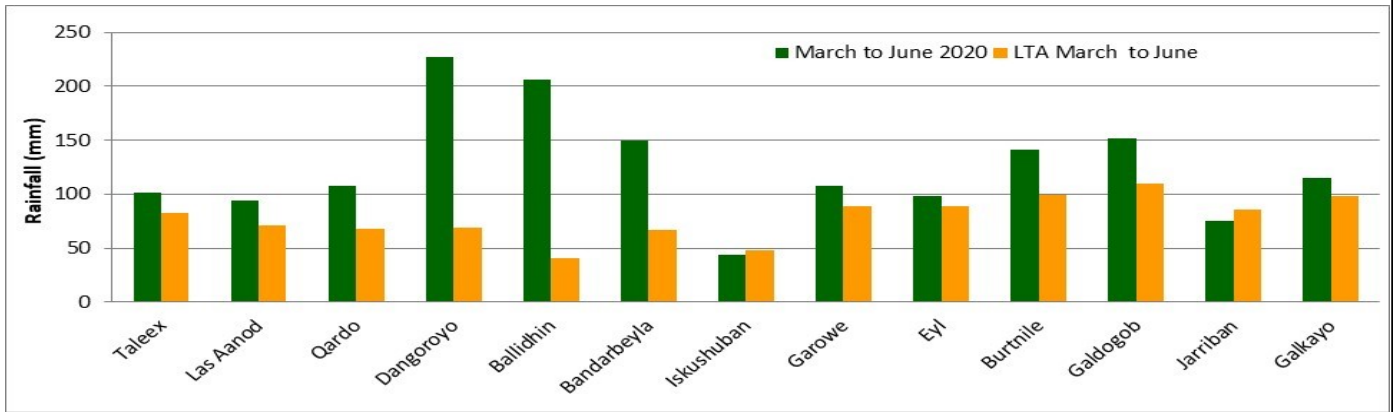
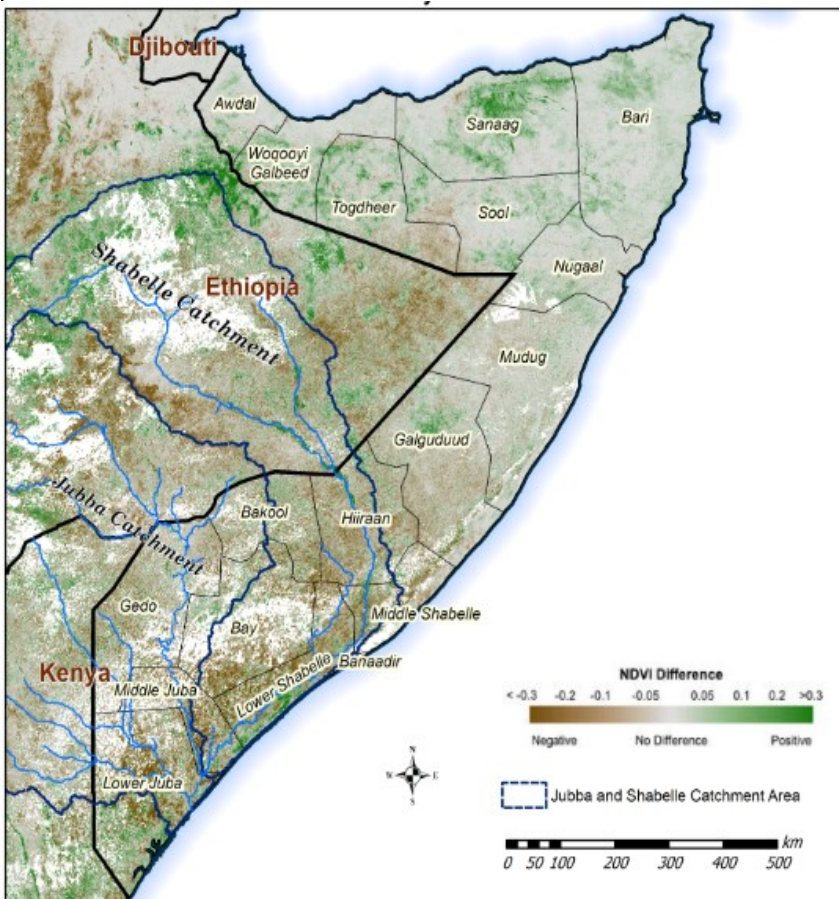


Figure 3: Gu 2020 Rainfall Performance – Puntland (Source—SWALIM)

Vegetation conditions

Map 7: Vegetation Conditions as at 10 July 2020 (Source—USGS)



Satellite-derived vegetation condition (Normalized Difference Vegetation Index – NDVI) is used to assess the spatial distribution of vegetation during the season. Most areas in the country indicate negative or no change in current vegetation conditions compared to the long-term average apart from few pockets that show positive vegetation conditions. The current positive conditions was particularly due to the rains that continued to be experienced in the southern coastal areas and parts of Somaliland where Hagga rains have continued after Gu. There is an apparent deteriorating conditions in the south due to the short lived rains and prolonged dry period since mid-May.

Water Resources

The good rains were beneficial in terms of water availability for domestic use, irrigation and livestock. Parts of the northern regions of the country also benefited immensely from the good rains in April and May by replenishing the ground water which is the major source of water in the regions. Rainfall in the Ethiopian highlands is usually responsible for more than 80% of river flow along the two rivers of Juba and Shabelle in Somalia. During the Gu 2020 season the highlands recorded very high rains that led to massive river flow inside Somalia.

In Shabelle, levels remained high from late-April to mid-May (Figures 4 and 5) with the upper and middle reaches experiencing overbank flow that led to floods. Floods in Belet Weyne, which was worst affected, submerged the town for more than two weeks causing extreme human suffering and economic damage. Several households were affected by the floods and large portions cropland was inundated (Annex II). River breakages in Jowhar district also caused extensive damage to cropped land.

The floods in Southern Somalia began in mid April causing extreme human suffering and economic damage. Factors other than weather played a role in causing the increased flooding. Alterations in the natural environment contribute to the increased frequency of floods in Somalia by increasing erosion rates that result in river bed sedimentation. This makes river channels shallow causing floods to occur even with low amounts of rainfall. Another key contribution that leads to floods year after year is the deliberate cutting of river banks by communities for irrigation purposes during low river flow which they are unable to close when the heavy rains begin to fall. This was the case for Jowhar floods.

In Puntland flash floods were observed due to unusually heavy rains during the last week of April in Qardo district which also saw loss of lives and destruction of infrastructure including houses, roads and a cut off of the communication network.

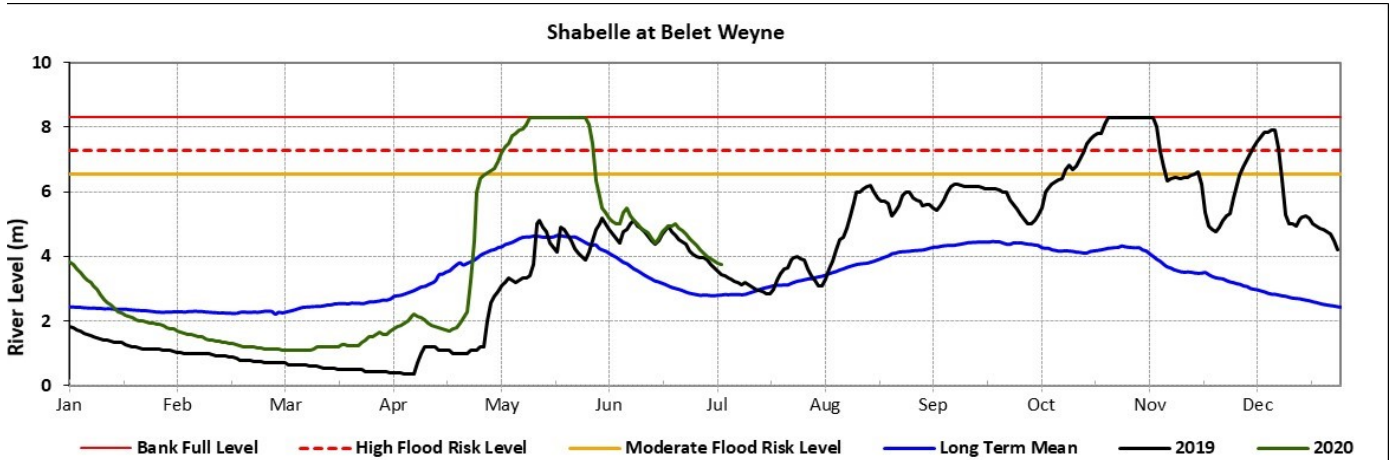


Figure 4: Observed river levels at Belet Weyne (Source—SWALIM)

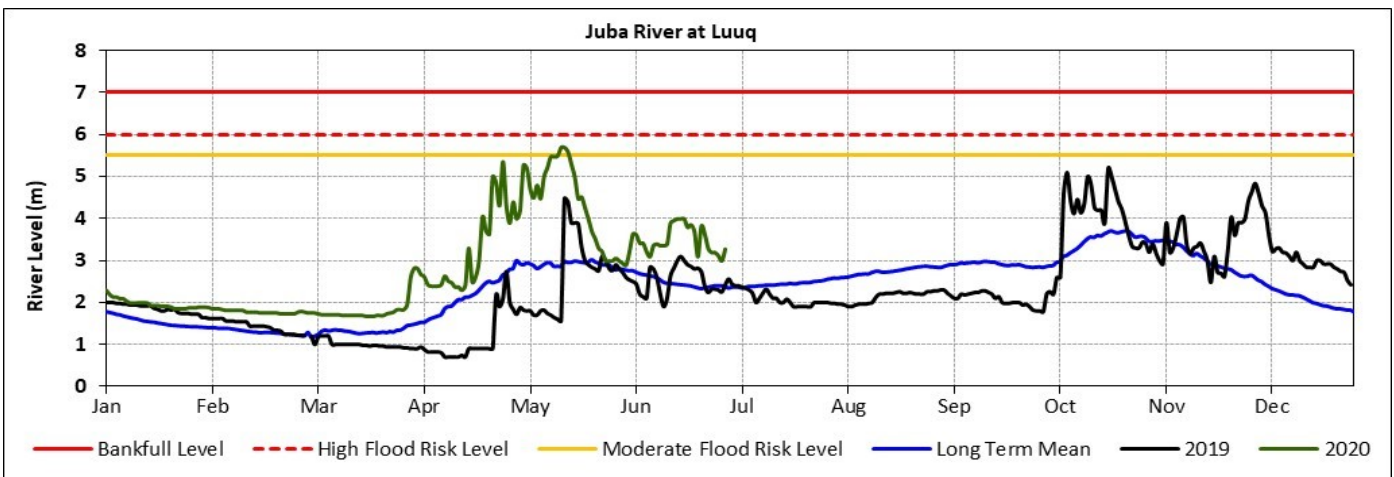
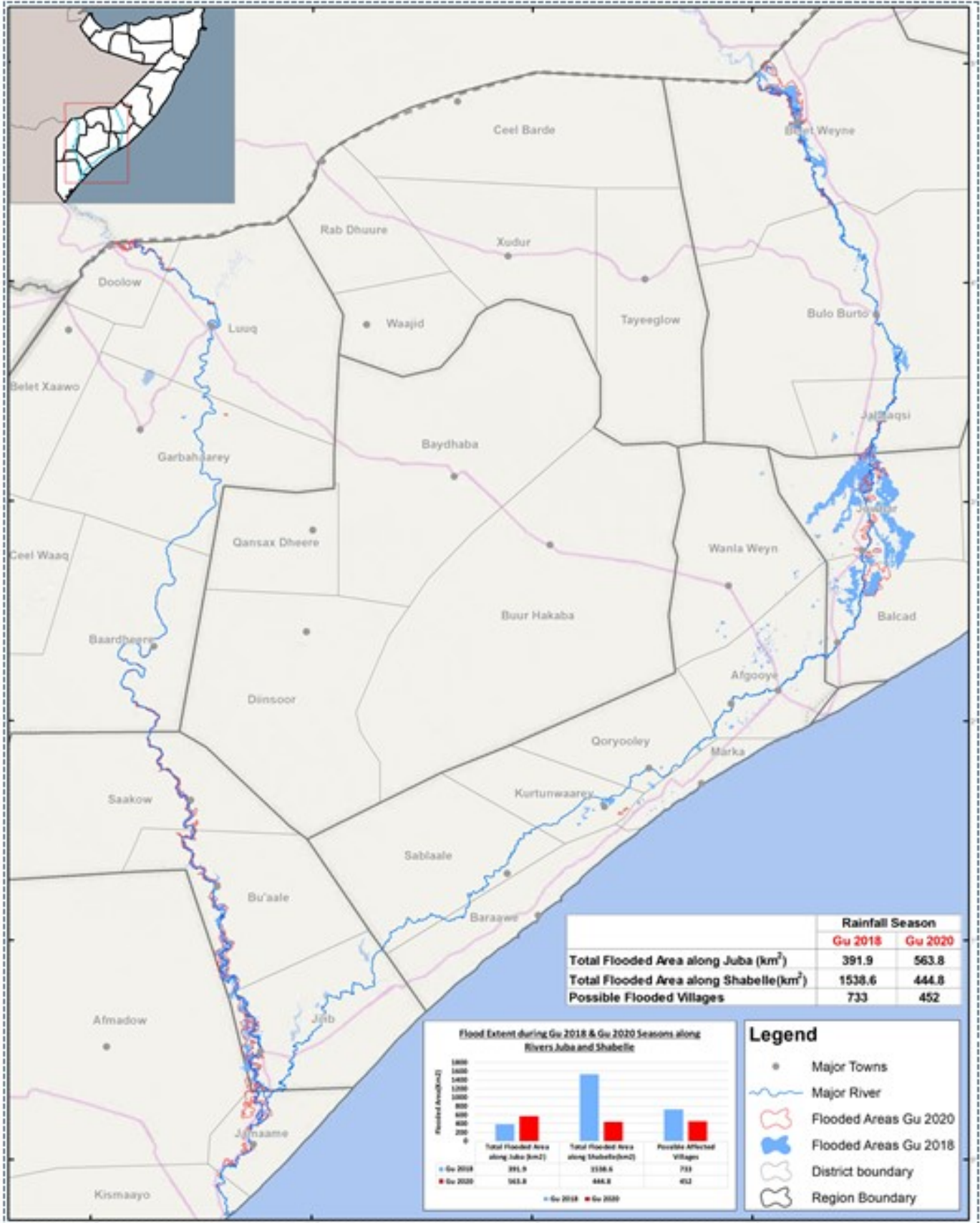


Figure 5: Observed river levels at Luuq (Source—SWALIM)

Annex I—Gu 2020 rainfall performance

Somaliland Gu 2020 Rainfall								
Station	Region	Mar-20	Apr-20	May-20	Jun-20	March to June 2020	LTA March to June	Percent of Normal (%)
Aburin	W. Galbeed	67.0	87.0	28.0	27.5	209.5	209.0	100.2
Baligubable	W. Galbeed	0.0	55.5	71.0	0.0	126.5	211.0	60.0
Borama	Awdal	20.0	70.0	31.5	56.0	177.5	232.0	76.5
Burao	Togdheer	65.0	145.0	0.0	32.0	242.0	143.0	169.2
Cadaadley	W. Galbeed	24.0	67.5	40.0	35.5	167.0	161.0	103.7
Caynabo	Sool	54.0	21.0	21.0	0.0	96.0	133.0	72.2
Darawayne	W. Galbeed	25.0	119.5	10.0	26.0	180.5	186.0	97.0
Dhubato	W. Galbeed	38.0	132.0	19.0	60.0	249.0	181.0	137.6
Dilla	W. Galbeed	31.0	102.0	97.0	10.0	240.0	224.0	107.1
Eeerigavo	Sanaag	67.0	128.0	28.0	43.5	266.5	158.0	168.7
Elafweyn	Sanaag	36.0	49.0	9.0	98.0	192.0	110.0	174.5
Gebilley	W. Galbeed	36.5	130.0	50.5	35.0	252.0	200.0	126.0
Hargeisa	W. Galbeed	71.0	167.5	68.0	24.5	331.0	208.0	159.1
Malawle	W. Galbeed	25.0	28.0	32.0	0.0	85.0	208.0	40.9
Odweyne	Togdheer	84.0	71.5	28.5	3.5	187.5	168.0	111.6
Qulenjeed	Awdal	43.5	61.0	22.5	43.0	170.0	227.0	74.9
Sheikh	Togdheer	18.5	15.5	56.5	13.0	103.5	221.0	46.8
Wajaale	W. Galbeed	86.0	104.0	39.0	56.5	285.5	223.0	128.0
xudun	Sool	0.0	31.0	35.0	82.0	148.0	89.0	166.3
Puntland Gu 2020 Rainfall								
Station	Region	Mar-20	Apr-20	May-20	Jun-20	March to June 2020	LTA March to June	Percent of Normal (%)
Taleex	Sool	12.5	75.0	14.0	0.0	101.5	83.0	122.3
Las Aanod	Sool	18.0	22.0	53.9	0.0	93.9	71.0	132.3
Qardo	Bari	51.0	31.5	25.0	0.0	107.5	68.0	158.1
Dangoroyo	Bari	45.5	88.8	92.5	0.0	226.8	69.0	328.7
Ballidhin	Bari	0.0	90.0	95.5	20.6	206.1	41.0	502.7
Bandarbeyla	Bari	42.0	59.0	49.0	0.0	150.0	67.0	223.9
Iskushuban	Bari	0.0	14.5	25.5	4.0	44.0	48.0	91.7
Garowe	Nugaal	27.3	63.9	16.2	0.0	107.4	89.0	120.7
Eyl	Nugaal	0.0	86.5	12.0	0.0	98.5	89.0	110.7
Burtnile	Nugaal	39.5	65.5	36.3	0.0	141.3	99.0	142.7
Galdogob	Mudug	1.0	83.0	68.0	0.0	152.0	110.0	138.2
Jarriban	Mudug	2.0	73.0	0.0	0.0	75.0	86.0	87.2
Galkayo	Mudug	11.0	90.5	14.0	0.0	115.5	98.0	117.9
South and Central Gu 2020 Rainfall								
Station	Region	Mar-20	Apr-20	May-20	Jun-20	March to June 2020	LTA March to June	Percent of Normal (%)
Hudur	Bakool	9.0	181.5	61.0	0.0	251.5	187.0	134.5
Elbarde	Bakool	34.0	264.0	11.0	0.0	309.0	222.0	139.2
Baidoa	Bay	58.5	278.0	40.0	11.5	388.0	302.0	128.5
Diinsor	Bay	111.0	155.5	19.6	27.8	313.9	247.0	127.1
Bardaale	Bay	43.0	208.0	54.0	7.5	312.5	252.0	124.0
BurHakaba	Bay	25.0	91.0	75.0	0.0	191.0	354.0	54.0
Luuq	Gedo	19.5	174.5	0.9	2.0	196.9	154.0	127.9
Bardheere	Gedo	35.0	68.0	0.0	0.0	103.0	225.0	45.8
Bualle	Middle juba	20.5	279.5	23.5	33.0	356.5	323.0	110.4
Jamame	Lower Juba	6.5	68.0	66.0	96.0	236.5	260.0	91.0
Sakow	Middle juba	0.0	133.0	0.0	10.0	133.0	247.0	53.8
Belet weyne	Hiraan	61.0	90.0	47.0	0.0	198.0	182.0	108.8
Bulo burti	Hiraan	0.0	119.5	63.0	0.0	182.5	150.0	121.7
Mataban	Hiraan	20.0	100.0	200.0	0.0	320.0	186.0	172.0
Mogadishu	Banadir	0.0	76.0	105.5	28.5	210.0	225.0	93.3
Jowhar	Middle Shabe	27.0	120.0	61.0	0.0	208.0	252.0	82.5

Annex II—Gu 2020 Flood extent along the Juba and Shabelle Rivers



FAO SWAUM Technical Partners:



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