Food and Agriculture Organization of the United Nations

SWALIM

Deyr 2015 Rainfall Performance

September–December 2015

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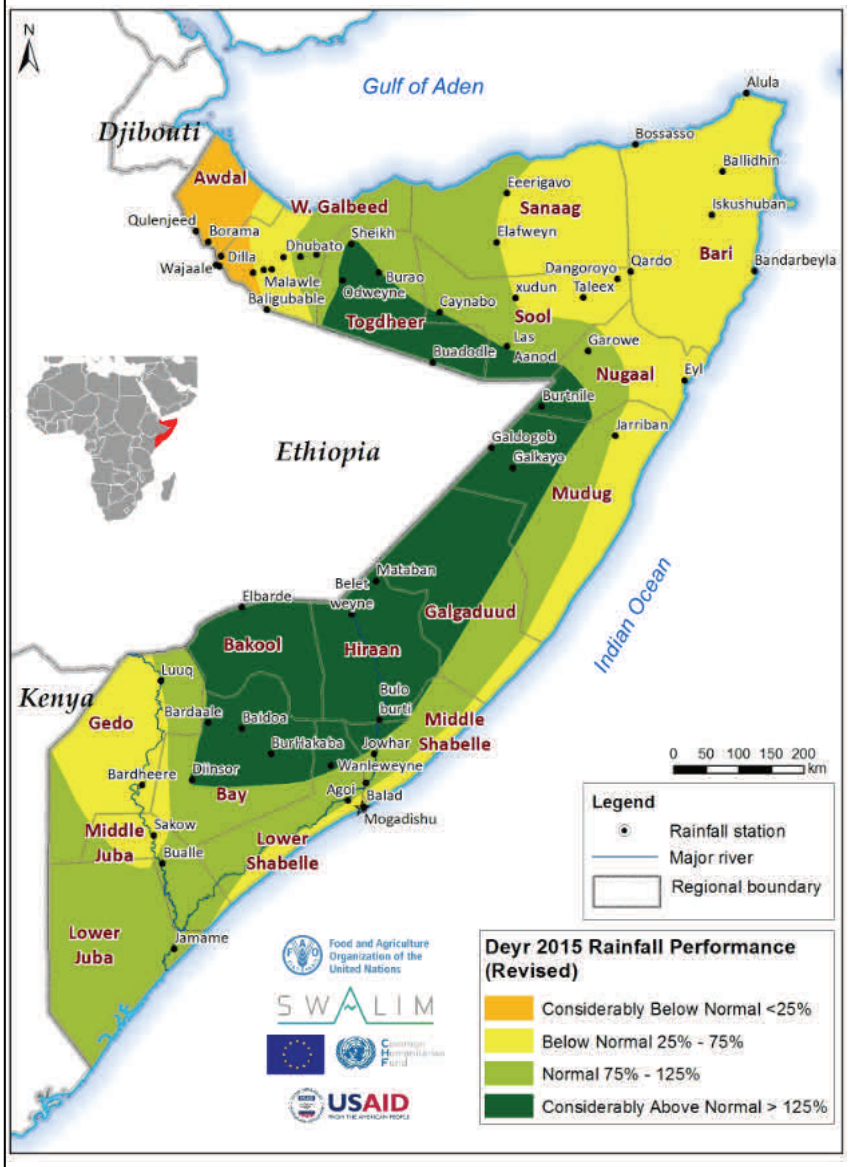
Summary

The 2015 Deyr rainy season was generally good with many areas in Somalia recording normal to above normal rains with exception of the western parts of Somaliland, central Puntland and parts of Gedo region in the south that recorded below normal rains. The season started off well in early October in some areas and continued to spread spatially with a peak during the last two weeks of the month. In some parts of the South and central regions El nino phenomena caused very heavy rains leading to both flash floods and riverine flooding affecting over **140 000** people. The unusual heavy rains were also beneficial to most sectors. During the first week of November, the north eastern coastline was hit by two tropical storms (Chaplla and Megh) which led to loss of livestock and destruction of property. There were also cases of flooding along the storm path and close to **70,000** people were affected.



The second half of November saw a significant reduction in rainfall activities in the country with some stations recording little to no rain. The rains came to an end in late November in most areas with few stations in Lower Shabelle region recording rains in the first week of December.

The good rains in October and November boosted growth of pasture and crops in many areas and especially in the central parts of the country which had a poor rainfall performance in the previous season. Areas with below normal rains saw poor crop and pasture growth during the season.

The short lived rains in the upper parts of Ethiopian highlands led to reduced river flow in the upper stations of Juba and Shabelle rivers bordering Ethiopia compared to the previous two seasons. However, there was a significant water flow from local rains within Somalia that contributed to high and stable flows throughout the season. This was beneficial to irrigated agriculture in the area.

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Overall Deyr rainfall performance

South and Central: Several places in the southern parts of the country received good rains. Notably, the sorghum belt of Bay and Bakool, Hiraan, Middle Shabelle regions and most areas of central parts of the country received normal to above normal rains (Figure-1). Some areas that recorded below normal rains including small parts of Middle Juba and Gedo region with less than five rainy days during the whole season. The heavy rains led to both flash floods and riverine flooding. Figure 2 presents the Deyr 2015 cumulative rainfall amounts compared to the Long Term Mean (LTM) for the same season for some selected rainfall stations in south and central regions. It is on record that Hudur, Bardale, Mataban and Belet Weyne stations recorded the highest amounts of rainfall exceeding 400mm all translating to 150% -350% above the expected normal rains in these areas. The rains were well distributed especially in the month of October and November with more than 20 days of rain rainfall in total. Annex 1 presents the total amounts of rainfall during the Deyr 2015 season for individual stations compared to the long term average for the Deyr.

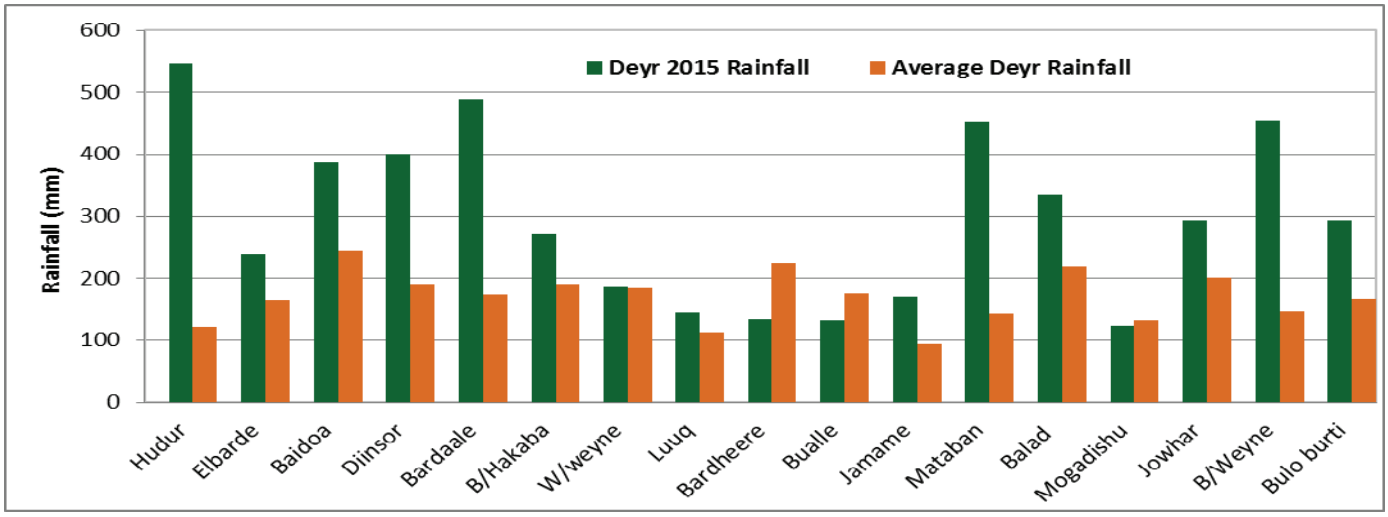

Figure 2: Deyr 2015 Rainfall Performance in South and Central Somalia *(Source—SWALIM)*

Somaliland: The region has seen below normal rainfall performance during the previous main Gu season resulting into drought conditions especially in the western parts of the region. The drought conditions are as a result of consecutive failed seasons. The drought conditions seen have however improved with few stations recording moderate rains in September that reduced significantly in October. There was however a relief during the month of November when many stations in the western parts of the region recorded moderate rains which were very beneficial in terms of water availability for pasture and livestock. In general, the total amount of rainfall received during the season still remain low in many areas compared to the long term average as seen in Figure 3 and Annex 1.

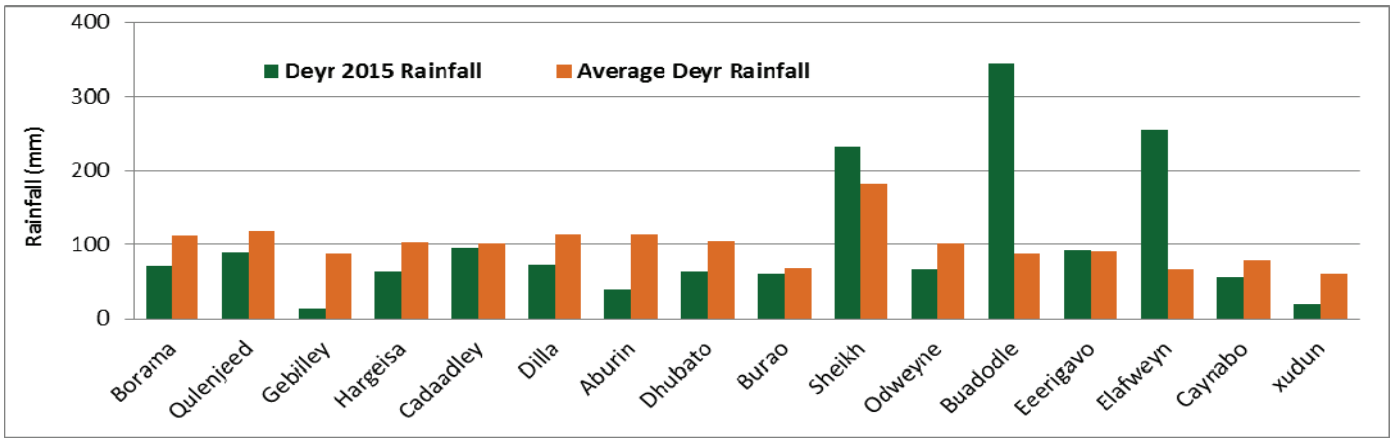

Figure 3: Deyr 2015 Rainfall Performance – Somaliland *(Source—SWALIM)*

Puntland: Normal to below normal rains were experienced across Puntland during the rainy season. Isolated cases of unusual storms were recorded in Eyl, Las Anod and Galckayo stations recording 429%, 329% and 247% of the expected rains respectively. Some areas in Puntland including Taleex, Dangoroyo and Jariban and their surrounding received below normal rains with 30% of the expected rains (Figure –4 and Annex 1). During the first half of November, two cyclones, Chapalla and Megh, made a passage in the coastal areas of Puntland leading to strong winds and heavy rains along their pathway. There were cases of flash flooding along the storm path and close to **70,000** people were affected.

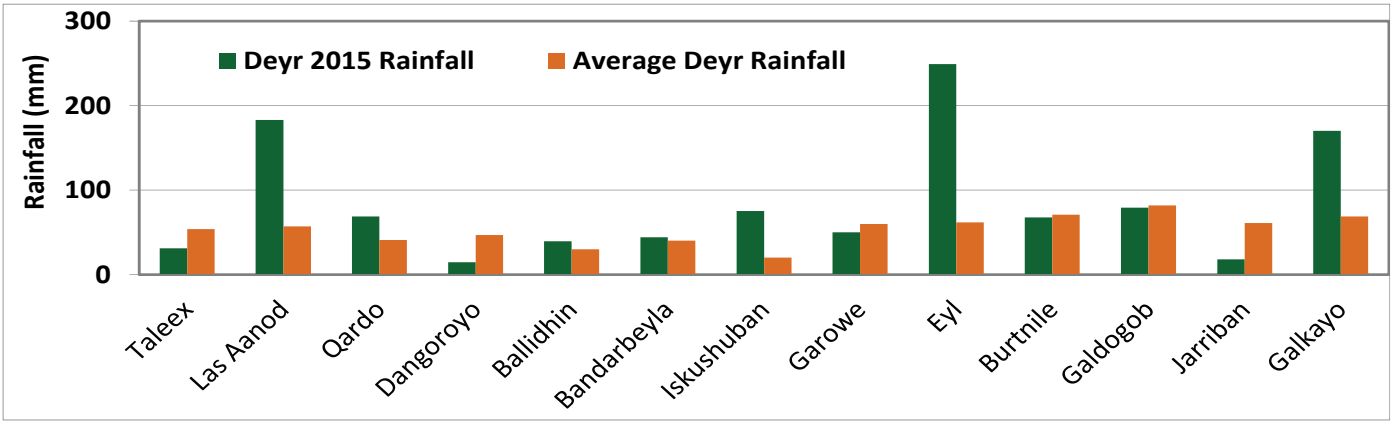

Figure 4: Deyr 2015 Rainfall Performance – Puntland *(Source—SWALIM)*

Vegetation conditions

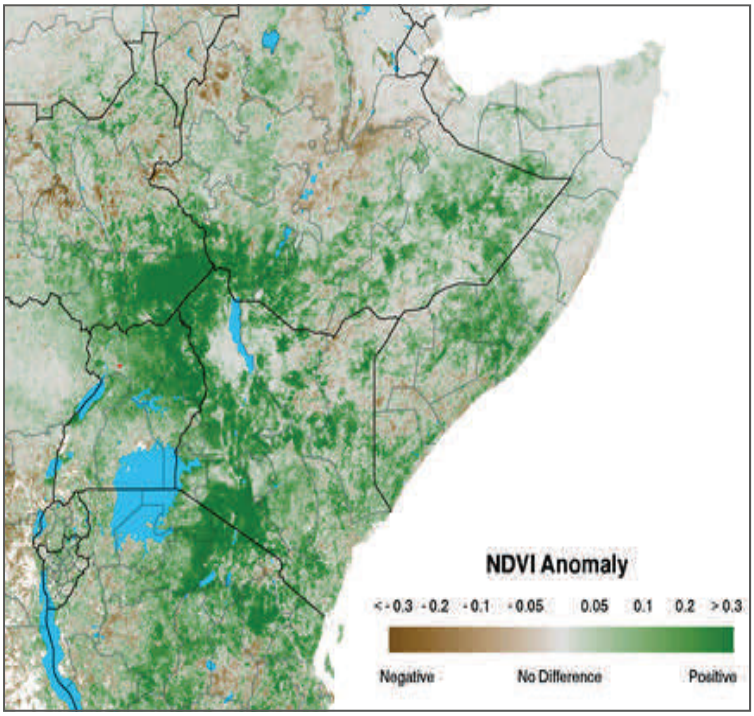

Figure 5: **Vegetation conditions as at 31st December at the end of Deyr 2015 rainy season** *(Source—USGS)*

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 good or positive conditions compared to the long-term average apart from few pockets that show negative vegetation conditions. This was particularly due to the significant rains recorded in October and November, which boosted the growth of pasture and crops. The areas in the south bordering Kenya and west parts of Somaliland show mixed vegetation conditions, with pockets of negative anomalies. These are areas where there were rainfall deficits such as the areas of Gedo and Middle Juba and the north western parts of Somaliland in Awdal region, Figure - 5.

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 October and November by re-plenishing the ground water which is the major source of water in the regions. Despite the El Nino conditions and the increased rainfall in Somalia, this Deyr season has seen a reduction of river flow at Luuq upper stations of the two rivers compared to the previous seasons. This has been contributed to the below normal rains in the upper catchments of the basins in Ethiopia which are the water tower of the two rivers. However, the river levels have been high and stable throughout the season (Figures 6 and 7)

In Shabelle, levels remained high from mid-October to mid-November with the middle reaches experiencing over-bank flow that led to floods especially in Middle Shabelle region, Figure - 7. Floods in Middle Shabelle began in Mid-October which causing extreme human suffering and economic damage. Several households were affected by the floods and large portions cropland was inundated (Annex 2). There were also reported river breakages in the region of which some have been closed.

In Puntland flash floods were observed due to unusually heavy rains during the last week of October. The coastal areas of Puntland also experienced heavy rains in early November that was caused by the passage of cyclones Chapalla and Megh. About 70, 000 were affected by the cyclones.

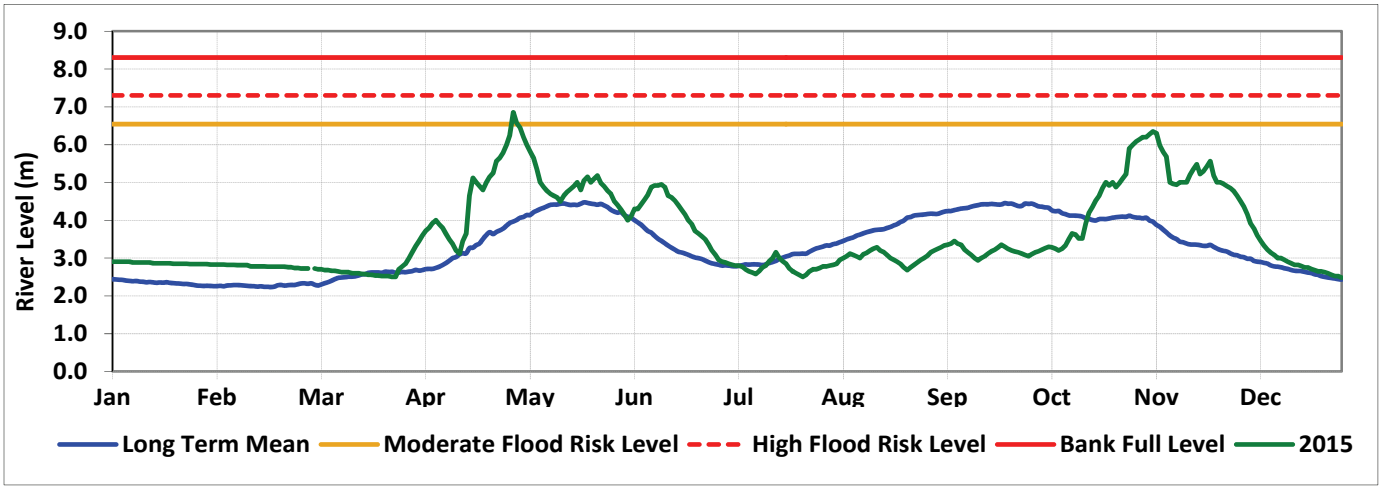

Figure 6: Observed river levels at Belet Weyne *(Source—SWALIM)*

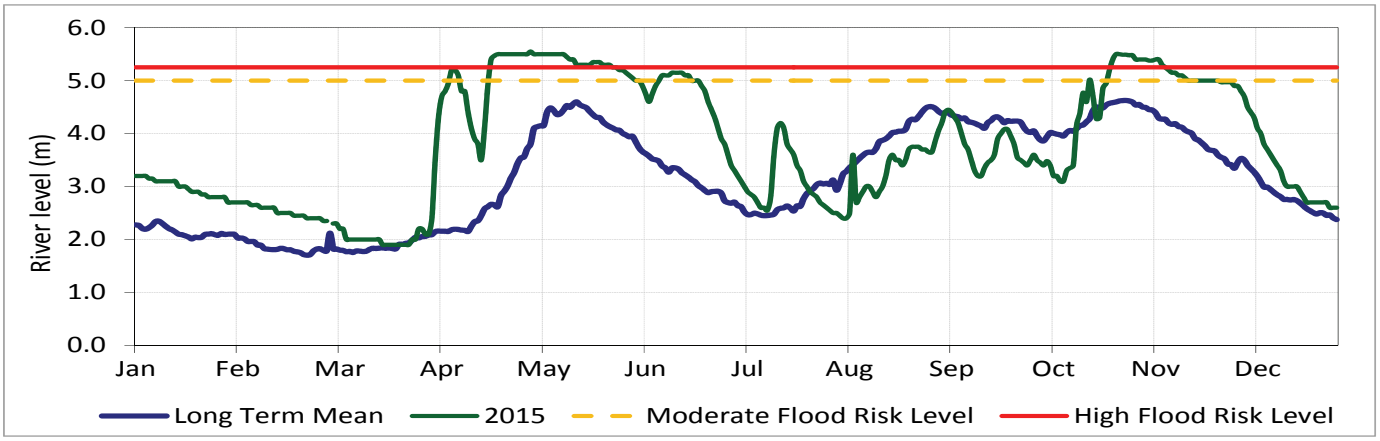

Figure 7: Observed river levels at Jowhar *(Source—SWALIM)*

Annex 1—Deyr 2015 rainfall performance

Station_Name	Region	Deyr 2015 Rainfall (mm)	Deyr Long Term Average Rainfall (mm)	Percent of Normal (%)
Hudur	Bakool	547.0	120.0	455.8
Buadodle	Togdheer	344.4	84.0	410.0
Mataban	Hiraan	452.5	135.0	335.2
Las Aanod	Sool	183	55	332.7
Belet weyne	Hiraan	454.5	140.0	324.6
Bardaale	Bay	489.0	164.0	298.2
Galkayo	Mudug	166.0	67.0	247.8
Diinsor	Bay	401.5	173.0	232.1
Bulo burti	Hiraan	294.0	159.0	184.9
Balad	Middle Shabelle	334.4	189	176.9
Baidoa	Bay	386.5	237.0	163.1
Jamame	Lower Juba	120.5	75	160.7
Jowhar	Middle Shabelle	271	180	150.6
Elbarde	Bakool	239.5	160.0	149.7
Sheikh	Togdheer	233.0	170.0	137.1
Wajaale	Wogooyi Galbeed	142	107	132.7
BurHakaba	Bay	242.0	187.0	129.4
Eeerigavo	Sanaag	92	89	103.4
Burtnile	Nugaal	67.9	67.0	101.3
Galdogob	Mudug	79.0	78.0	101.3
Wanleweyne	Gedo	185.5	184.0	100.8
Mogadishu	Banadir	122.9	123	99.9
Cadaadley	Wogooyi Galbeed	95	96	99.0
Garowe	Nugaal	50	57	87.7
Burao	Togdheer	60.5	69.0	87.7
Baligubable	Wogooyi Galbeed	97.0	114.0	85.1
Qulenjeed	Awdal	89	115	77.4
Caynabo	Sool	57	76	75.0
Dilla	Wogooyi Galbeed	74	110	67.3
Borama	Awdal	72.5	108	67.1
Bardheere	Hiraan	133.5	206.0	64.8
Dhubato	Wogooyi Galbeed	64.5	101.0	63.9
Hargeisa	Wogooyi Galbeed	64.5	102.0	63.2
Taleex	Sool	31.0	52.0	59.6
Bualle	Middle Juba	87	148	58.8
Malawle	Wogooyi Galbeed	55.5	109	50.9
Aburin	Wogooyi Galbeed	39.5	110	35.9
Daraweyne	Wogooyi Galbeed	36.0	102.0	35.3
xudun	Sool	20.0	58.0	34.5
Dangoroyo	Bari	14.7	44.0	33.4
Jarriban	Mudug	18.0	57.0	31.6
Gebilley	Wogooyi Galbeed	13	86	15.1

Considerably Below Normal	Normal
Below Normal	Considerably Above Normal

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Annex 2—Summary of Flood affected population

Region	District	Type of flood and damage	Estimated number of households affected	Comments
Middle Shabelle	Jowhar	River and Flash Floods (17th to 22nd Oct) 234 Ha of crop fields destroyed	**5,108**	Baalguri, Fanoole, Biaza IDP Camp, Jilyaale IDP Camp, Bulo Dani, Ceejoy, Tuugareey, Mangay and Xawadley villages.
	Mahadey Weyne	Flash Floods (28th Oct) 150 ha crop fields destroyed	**2,625**	Xudur Ciise, Shidlo Bari, Kulmis Weyn, Buurfuule, Kacaanka, Villages
	Balcad	River Floods (22nd Oct) 369 ha crop fields destroyed	**2,139**	Kulmis Yorow and Xawadleey villages
Lower Juba	Jamame	River breakage (22nd Oct)	**1,864**	Kamsuma
Bay	Burhakaba	Flash Floods (22nd Oct) Underground food storage destroyed.	**736**	Dooyo-Shiidle, Dheento, Cambuulo Hararka, Dhowka, Gulish, Buulo-Bacaad, Aaminey and Aw-Birkaan Caliyow villages
Hiraan	Belet Weyne	Flash Floods (21st Oct) Blocked roads by mudflows.	**416**	
Mudug	Galckayo	Flash Floods (26th Oct) 265 shelters damaged.	**1,500**	Referral hospital, Omar Samatar Secondary, Ummadda and Barda'ad primary, Garasoor, Israac and Horumar, IDP settlements of Qorahey, Midnimo, Bulonoto, Bulojawan, Elgab and Hiiraan 1 remain at high risk.
Togdheer	Buuhoodle	Flash Floods (18th Oct)	**1,640**	Buuhodle, Dan-Dan,Horufadhi, Widhwid Villages.
Gedo	Bardheere	Several farms innundated owing to open river breakages which had been cut before the rainy season for dhesheg farming in Bualle district (9th Nov 2015)	**95**	Musawa - 40 HH, Geed-Awoowo - 10 HH, 45 HH from these villages: Shimbiroole, Afyar, Beled-Amin, Mugdiile, Dhobley, Bakal-Washaak, Hilo-Shiid, Danbanley, Bilisyar and Kukato
	El-Wak	Flash floods. Business centre in main town worst hit; houses collapsed and a lot of livestock affected. Affected crops: maize, millet, banana, wheat, onion and vegetables washed away or submerged.	**200**	Cusqurun area:-Bulla Masajid (displaced families moved to Bulla Kurman); Towfiq village (moved to Hoymoud); Bulla Sheikh (moved to Hormoud); El Wak area:- Garsal; Saamda'ar; and Meeri
Bari	Bossasso,Qandala and Caluula	CHAPALA cyclone (2nd - 3rdNov) and MEGH Storm (8th Nov). Destruction of public buildings such as Alula main hospital, MCHS, schools, police stations and local administration offices. A number of private buildings have also been affected. Lifeline access roads are blocked. Boats and fishing gear have been destroyed or washed away. More than 10,000 animals affected. date palms and fruits trees destroyed or uprooted.	**7,000**	Baeeda, Olog, Alula, Murcanyo, Tooxin, Seynweyn, Seyn yar, Fagoora, buq, Baxda, Xoogaad, Xayslaha, Dhurbo, Xaabbo, Geesaley, Afkalahaye, Gumbax, Cadaya, Xandha, Buula Xamuj, Gadaadin, Ceel quud, Tolomugge and Cel laas villages affected
Total number of affected households			**23,323**	