



ETHIOPIA

Disaster Risk Management Commission

National Flood Alert Number 3

August 8, 2022



Flood in Itang town, Gambella (Regional DRM office)

BACKGROUND

In Ethiopia, flooding is primarily linked to heavy rainfall, topography of highland mountains and lowland plains with natural drainage systems formed by river basins. It is one of the major natural hazards next to drought that affects lives, livelihoods, and properties of vulnerable population every year. Flood-prone areas in Ethiopia include parts of Oromia and Afar regions lying along the upper, middle, and down-stream plains of Awash River, parts of Somali region along the Wabe Shebelle, Genale and Dawa Rivers; low-lying areas of Gambella, along Baro, Gilo, Alwero and Akobo River basin.

In addition, down-stream areas of Omo and Bilate Rivers in SNNPR and the extensive flood plains surrounding Lake Tana and the banks of Gumera, Rib and Megech Rivers in Amhara region are highly vulnerable to seasonal flooding. (See Fig 1).

Flood Prone Areas of Ethiopia

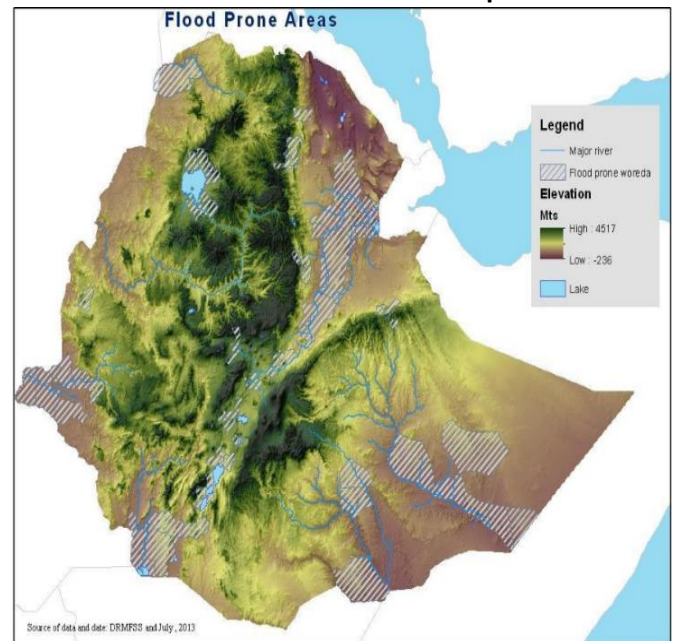


Figure 1. Flood Prone Areas of Ethiopia

Flash floods mostly affect some areas of Tigray, including Central and Southern Tigray region; North and South Wollo, West Gojjam and Oromo zone in Amhara region; parts of Zone 1, Zone 2 and Zone 4 of Afar region; North Shewa zone in Oromia; Wolayita, Hadiya, Siltie, and Guraghe zones in SNNPR; parts of Sidama region, Jigjiga Town in Somali region, and Dire Dawa City Administration. Flash flood is characterized by sudden onset with little lead time for early warning and often result in considerable damage on lives, livelihoods, and properties.

Following Ethiopia Meteorology Institute’s (EMI) 2022 Kiremt (July-September) weather outlook that indicated a very high probability of wetter climate condition in the southwest, Western, Northern, and central parts of the country in July and August, the National Flood Taskforce issued Flood Alert No 2 on 8 June 2022. The Flood Task Force also prepared a Flood Contingency Plan (CP) to mitigate the adverse impacts of current and anticipated floods and to support resource mobilization, which identified the most likely scenario/worst-case scenario based on the weather forecast and analysis of the preparedness and response capacity of the affected areas.

The Contingency Plan also stipulates flood-related requirements by sector, including other mitigation and preparedness efforts. Based on Ethiopia Meteorology Institute (EMI) weather outlook, Regional Flood Contingency Plans (2022), *Kiremt* season analogue year (1985 and 2000) and flood incidences historical data, the contingency plan identified flood and landslide risk areas in all regions (See section 3.1 and 3.2 below).

Furthermore, current dam reservoir levels of Koka, Fincha’a, and Tana Beles have already increased because of heavy rains in the watersheds.

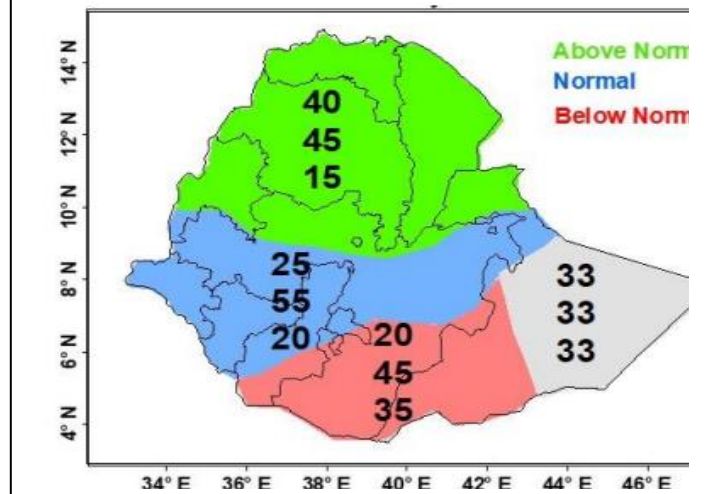
This flood alert bulletin has four parts, background, weather outlook (Kiremt 2022), flood and landslide risk areas and advisory notes.

NMA WEATHER OUTLOOK FOR KIREMT 2022

All-weather forecasting indicators show a high probability of a wetter Kiremt season. As a result,

- Most of the recent and prognostic products are indicating the likelihood of continuing of La Niña episodes during the Kiremt 2022 season
- La Niña has a positive contribution for the wet performance during Kiremt season.
- Normal to above normal rainfall is expected to prevail across the northern half of the country.
- Near normal rainfall is anticipated across west, southwest central, and eastern Ethiopia. Other part of the country, South, Southwest and Southeast remains below normal and dry.

Figure 2. Rainfall forecast for kiremt 2022



August 2022 Weather Forecast

Kiremt rain benefiting areas of the country will receive peak rainfall in the month of August both in terms of amount and distribution.

The weather outlook for August 2022 indicates that West, East and Horo Guduru Wellega, all shewa zones, and Jima zone in Oromia, Addis Ababa Zuria and Addis Ababa, all zones in Amhara and Tigray, and most parts in Afar Regions are anticipated to receive near normal and in some parts above normal rainfall during the month. The heavy rains in some step areas are anticipated to be cause for flash flood and landslides. Benshangul Gumuz, Hadiya, Guraghe, Silti, Welayita, and Gedio Zones in SNNPR, Sidama, Southwest Ethiopia People, Kellem Wellega, Illubabor, Buno Bedele, Arsi and West Arsi, East Hararghe, and West Hararghe zones in Oromia, all zones in Gambella, Siti and Fafen Zones in Somali, and Harari Regions, and Dire Dawa Administrative Council are expected to have near normal rainfall. The remaining part of the country will remain dry during the Month of August 2022.

Current Flood Situation Updates

Currently, Northwest, Western and Central parts of the country have been receiving normal and above normal rains that causes increase in the water level of dams, flash flood and river floods in different areas of the country including Addis Ababa, Amhara (Libo Kemkem, Dera, Fogera, Gonder Zuria , Bure and East Dembia woredas and parts of Oromo Zone), and Gambella (Itang woreda).

FLOOD AND LANDSLIDE RISK AREAS DURING THE REMAINING PERIOD OF 2022 KIREMT SEASON

Based on Ethiopia Meteorology Institute (EMI) weather outlook, Regional 2022 Flood Contingency Plan, 2022 *Kiremt* season analogue year (1985 and 2000) and flood incidences historical data, the following flood risk areas are identified in all regions,

Flood Risk Areas - *Kiremt* 2022 Rain

Flood risk areas are identified in each Region by zones and woredas as follows.

Gambella: Nuer Zone (Wanthowa, Lare, Akobo, Makuay and Jikawo Weredas), Agnwak Zone (Gambella Zuria, Gambella town, Dimma, Jor, and Gog Weredas), Mejeng Zone (Memgsh Wereda) and Itang Special Wereda.

Benshangul Gumuz: Assossa Zone (Assossa Town, Sherkole, Menge, Kurumuk, Homosha, Bambasi, Oda Bildiglu Weredas), Mao-Komo Special Wereda, Kamashi Zone (Kamashi, Agalometi, Yaso, Belejiganfo and Sedal Weredas), Metekel Zone (Wembera, Bullen, Debate, Mandura and Dangur Weredas) and Pawe Special Weredas.

Oromia: West Hararge Zone (Hawi Gudina, Darolabu, Shen Duggoo, Gubi Bordode Weredas), East Hararge Zone (Golo Muti, Kombolcha, Goro Gutu, Melka Belo, Kersa, Jarso, Bedeno, Deder, Meta and Grawa Weredas), West Arsi Zone (Shala and Siraro Weredas), Arsi Zone (Ziway Dugda, Gololcha, Robe, Seru, Tiyo, Shanankolu, Dodota, Jaju and Merti Weredas), Bale Zone (Agarfa, Goro, Guradamole, Sinana and Goba Weredas), West Shoa Zone (Ejere and Ejersa Lafo Weredas), Southwest Shoa Zone (Illu and Dawo Weredas), West Guji Zone (Gelana, Bulle Hora, Karcha and Abaya Weredas), East Showa Zone (Boset, Liben Chukala, Bora, Adama Town, Dugda, Adama, Fentale, Adametulu JidoKembolcha and Lome Weredas), North Shoa Zone (Dara, Were Jarso, Yaya Gulele, Kuyu, Debre Libanos, Girar Jarso, Degem and Hidebu Abote Weredas), East Bale Zone (Ginir Sewena, Legahida, Dewe Qechen, Dewe Serer Golelcha),

Finfine special Wereda (Sebeta Hawas, Welmera and Akaki), East Wollega Zone (Gidada and Sasiga), and Horo Gudru (Jima Genete).

Amhara: South Gondar Zone (Libo Kemkem, Fogera and Dera Weredas), Central Gonder Zone (East Dembia and Gonder Zuria,), West Gojam Zone (Bahir Dar Zuria and Semen Achefer Weredas), East Gojam Zone (Awuber, Dejen and Mechekel Weredas), Oromia Zone (Jile Tumuga, Artuma Fursi, Kemisie town and Dewa Chefa Weredas), North Shewa Zone (Ansokia Ataye Town, Shoa Robit, Kewet, Efrata Gidm and Ensaro Weredas), North Wollo Zone (Kobo, Habru, Woldia town, Kobo Town, Mersa Town and Gubalafto Weredas), South Wollo Zone (Ambasel, Tehulederie, Kembolcha town, Dessie town, Desse Zuria, Haik and Kallu Weredas).

Afar: Zone 1 (Dubti, Afambo, Asayita, Mille and Chifra Weredas), Zone 2 (Ab'ala, Berhale, Megale and Koneba Weredas), Zone 3 (Amibara, Gele alo, Gewane, Dulecha, Hanruka, Awash town and Awash Fentale Weredas), Zone 4 (Gulina, Yalo and Ewa Weredas) and Zone 5 (Semurobi and Artuma Weredas).

Tigray: Southern Zone (Alamata, Raya Azebo, Maichew, Ofla and Enda Mehoni Weredas).

Somali: Kelafo, Mustahil, Ferfer, Gode, Berano, Adadile, East Imey in Shabelle zone; West Imey, Chereti, Dollo-bay, and Hargelle in Afder zone; Dollo Ado, in Liben zone; Jijiga, Togochale, Gursum, Kebribayah and Babile in Fafan zone; and Afdem, Ayisha, Erer, Miesso, Biki, Gablalu and Shinile in Siti zone

SNNP: South Omo Zone (Dasenech, Debub Are, Ganangatom, Semen Ari, Bako Dawula Benatsemay, Hamer and Selamango Weredas), Hadiya Zone (Shashogo, Anlemo, Misrak Badawocho Mirab Badewacho Weredas), Wolayta Zone (Humbo, Damot Woyide, Duguna Fango, Kindo Didaye, Kindo Koyisha, Ofa, Sodo Zuria, Damot Sore, Boloso 6 Sore and Boloso Bombe Weredas), Alaba Zone (Weiyra Dijo, Atote Ello and Weiyra Weredas), Yem special Wereda, Basketo Special Wereda, Amaro Special Wereda, Ale Special Wereda, Burji Special Wereda, and Derashe Special Wereda, Kembata Tembaro Zone (Angacha, Kacha Bira and Kedida Gamela Weredas), Konso Zone (Segen Zuria and Karat Zuria Weredas), Silte Zone (Wulbarek, Dalocha, Lanfro, Sankura, Misrak Silte and Silte Weredas), Gamo Zone (Arba Minch Zuria, Kemba, Mirab Abaya, Kucha, Daramalo, Bonke, Dita, Gerese, Gacho Baba, and Chenchu Weredas), Gofa Zone (Gizie Gofa, Melekoza, Uba Debretsehay, Oyda, Sawula Town and Demba Gofa Weredas), Gurage Zone (Sodo, Enemor, Misraq Mesqan, Muhur Aklil, Endegagne and Mareqo Weredas), Gedio Zone (Kochere, Yirgachefe, Bule and Wenago Weredas).

Sidama: Borchu, Loke Abaya, Awasa Zuria, Shebedino, Awasa City (Tula) and Wendo Genet Weredas.

Southwest Ethiopia People Region: Keffa Zone (Adiyu, Telo, Cheta, Goba, Chena, Gewata, Decha, Shisho Ende, Bitu, Gimbo and Bonga Weredas), Dawuro Zone(Esera, Tocha, Mareqa, Maji Manta and Kechi Weredas), Bench Sheko Zone (Shay Bench, Semen Bench, Gdi Bench and Debub Bench Weredas), Mirab Omo Zone (Menti Shasha and Gachit Weredas) and Konta Special Weredas.

Dire Dawa: Dire Dawa City and Rural Kebeles

Harari: Harar City (Urban and Rural Kebeles) Addis Ababa: Flood prone kebele.

Addis Ababa: Rural and urban flood risk areas

Landslide Risk Areas - Kiremt 2022 Rain

Landslide risk areas are also identified by region, zones and woredas.

Oromia: Arsi Zone (Aseko Wereda), West Guji Zone (Gelana, Bulle Hora and Abaya Weredas), North Showa Zone (Were Jarso, Gimbichu and Dera Weredas), East Shoa Zone (Abuna, Gende Bert, Jildu, and Meta Robi Weredas), Jimma Zone (Jimma, Dodo, Goma and Seka Cherkosa Weredas), East Wollega Zone (Sasiga Wereda).

Amhara: East Gojam Zone (Awbel, Dejen, and Mechakel Weredas), North Shewa Zone (Antsokia, Baso and Worana, Tarma Ber and Merehabete Weredas), North Wello Zone(Habru and Meket Weredas) and South Wello Zone (Dessie, Mekdela, Sayint, Werebabo and Kalu Weredas)

SNNP: South Omo Zone (Semen Ari, South Ari and Bako Dawula Weredas), Wolayita Zone (Kindo Didaye, Kindo Koyisha, Bayira Koyisha, Kawo Koyisha, Ofa, Damote Sore and Boloso Bombe Weredas), Kenbata Tembaro Zone (Kacha Bira Wereda), Konso Zone (Segen Zuria Wereda), Gedio Zone (Bule and Wenago Weredas), Gofa Zone (Melekoza, Geze Gofa, Oyida and Mulo Gada Weredas), Gurage Zone (Sodo, Endegagne ,Meskan, Mareko, and Mihur Aklil Weredas). Sidama: (Dale, Loka Abaya, Hawassa Zuria, Shebedino, Wenesho and Hula Weredas). South West Ethiopia People: Keffa Zone (Adiyu, Telo, Cheta, Goba, Chena, Gewata, Decha, Shisho Ende, Bitu, Gimbo and Bonga Weredas), Dawuro Zone(Esera, Tocha, Mareqa, Maji Manta and Kechi Weredas), Benchi Sheko Zone(Shay Bench, Semen Bench, Gdi Bench and Debub Bench Weredas), Mirab Omo Zone (Menti Shasha, and Gachit Weredas) and Konta Special Weredas (Konta). Tigray: Central Tigray Zone (Kolla Tenben and Aksum Weredas).

ADVISORY NOTES

To minimize the likely adverse impacts of flooding, appropriate mitigation and preparedness measures should be in place both before and during the crisis, these activities should include: -

1. It is essential to strengthen the relations between the national and regional flood taskforces through increased communications and exchange of timely information.
2. Reactivate flood taskforces at all levels (regions, zones and woredas), share roles and responsibilities and communicate updates to all concerned on regular basis.
3. Close monitoring of the weather and the situation of the areas at risk to trigger timely response,
4. Conducting multi-sectoral flood impact rapid assessment as required to ensure that comprehensive humanitarian needs are identified and addressed on time
5. Complete the preparation of National flood response plan and share it immediately with partners and regional DRM offices, regional administrations, NGOs, Red cross, and other humanitarian agencies. Prepositioning of supplies in flood affected communities should be completed before heavy rains block access roads in rural areas
6. Reactivate Emergency Coordination Center (ECC) at least at regional level from where flood related information should be generated and communicated.
7. Enhance structural and non-structural flood mitigation activities to minimize the impacts of flash floods and river floods including flood protection structures and community engagement and timely evacuation of communities at risk to higher grounds.

8. Public Awareness Creation

Public emergency warning and information system must be carefully planned. All regions must strengthen community awareness creation in flood affected areas in a systematic way. In public awareness creation, NOTE the following two important points,

- a. Flood Alert/warning should be issued and disseminated on time to flood vulnerable communities at all levels.
 - b. Be as specific as practicable concerning the magnitude of the event, the place at which it is expected and the time when it will occur,
9. In areas like Dire Dawa, where flood comes from highland areas far from the flood risk lowlands, there must be a communication system that connects the two communities and administrations to share information on the rainfall situation and possible flooding.
 10. Prepare response action plan, train staff on damage and needs assessment, emergency preparedness and response (if you don't have resource persons, request others for support)
 11. Contact NGOs, Red Cross and Military personnel in your vicinity and inform them on the impending disaster for possible support, especially if you think communities will be stranded by water bodies.
 12. Mobilize local resources (personnel, and NFI...) for communities living in flood risk areas
 13. Government with partners must undertake preparedness and mitigation measures including scaling-up of water harvesting structures, provision of clean water supply and water treatment chemicals, monitoring, and prevention of communicable diseases, enhancing other health and nutrition interventions to minimize the likely impacts of flood on lives and livelihoods.