



Forward

This Dekedal Hydro Meteorological Bulletin is prepared and disseminated by the Ethiopia Meteorological institute (EMI). The ultimate objective of producing and disseminating this bulletin is to inform all level decision makers with the updated and relevant hydro meteorological information. This Dekedal Bulletin reviews the september21-30, 2026-month climate condition and its impacts over the river catchment across the country and highlights the October 1-10, 2026 climate outlook along with the likely impact over the water dams and the rivers basins.

The information contained in this bulletin is believed to assist the water professionals for planning the capacity expansion of reservoirs, water supply, ecosystem restoration as well as rehabilitation of existing systems including dams, irrigation, canals, pumps, wetlands and the likes. In addition to the aforementioned benefit the bulletin also reveals the aridity levels of each basin, extremes heavy rainfall events and areas where significant amount of moistures loss through evapotranspiration. In the impact outlook section of the bulletin it provides the likelihood of the climate in the coming month and its potential impact over various aspect of the river basins including the hydraulic structures such as culverts, bridges, reservoir spillways, road embankments and dikes. It also indicates the measures need to be taken as the early actions so as to reduce the possible negative impact of the upcoming month climate condition. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objectives of this bulletin a success.



1. *Introduction*

The provision of hydro meteorological services can contribute a significant role toward water resource management and socio-economic development. Both surface water and groundwater management are essentially linked to climate variability. Therefore, the provided climate information and knowledge in this monthly hydro meteorological bulletin have a critical importance for efficient, equitable and sustainable development and management of the national water resources and for coping with any climate related risks. The information illustrates the impact of previous 10 day weather on each and every water basins and the associated climate risks observed during the day under review. In addition to the previous 10 day impact assessment, the bulletin also provided the expected climate condition for the coming ten day and its impact on the water resource. The design of water-use and flood-control facilities, mainly dams and reservoirs, is frequently based on these analyses. Estimating the likelihood of precipitation, the distribution of precipitation and the rate of evaporation in location and time, the heavy rainfall and the subsequent runoff, extreme temperature and wind are among issues that hydro meteorologists are concerned with.



Hydro Meteorological Impact Assessment September 21-31, 2026

During the 3RD decade of September, sub-humid to very wet levels of surface runoff were experienced across most of the Abay, Tekeze, Baro Akobo, Omo-Gibe, Ogaden, Awash, Rift Valley, Wabi Shebelle, Genale Dawa, Afar Denakil and upper Awash basins. Furthermore, exceptionally high surface runoff was observed in the most of Baro Akobo, Omo Gibe, and lower Abay basins.

Hydro meteorological analyses indicate that these runoff conditions substantially enhanced surface water availability and contributed positively to water resources within the affected basins; in contrast, much of the middle and Awash, upper Tekeze, basins were remained predominantly dry throughout the decade.

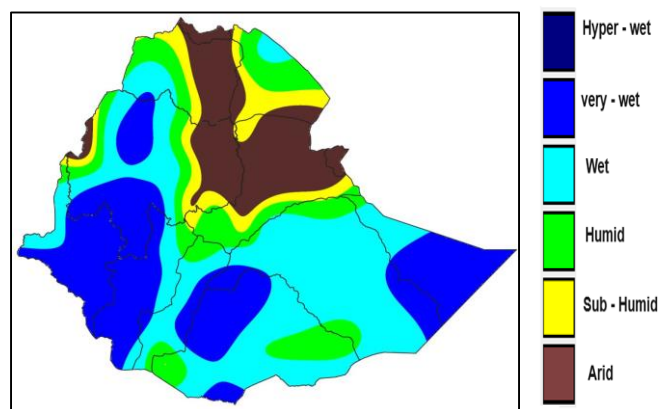


Figure 1 Dekedal Hydro Meteorological Assessments from September, 21-30

1.2 Hydro Meteorological Impact Outlook for October 1-10,

During the 1st decade of October, river basins benefiting from the Bega rainfall season are expected to experience moderate to high surface water flows; while this surge in rainfall provides vital opportunities for agricultural activities, water storage, and resource development, it simultaneously heightens the risk of localized flooding, riverbank overflow, and soil erosion in vulnerable areas.

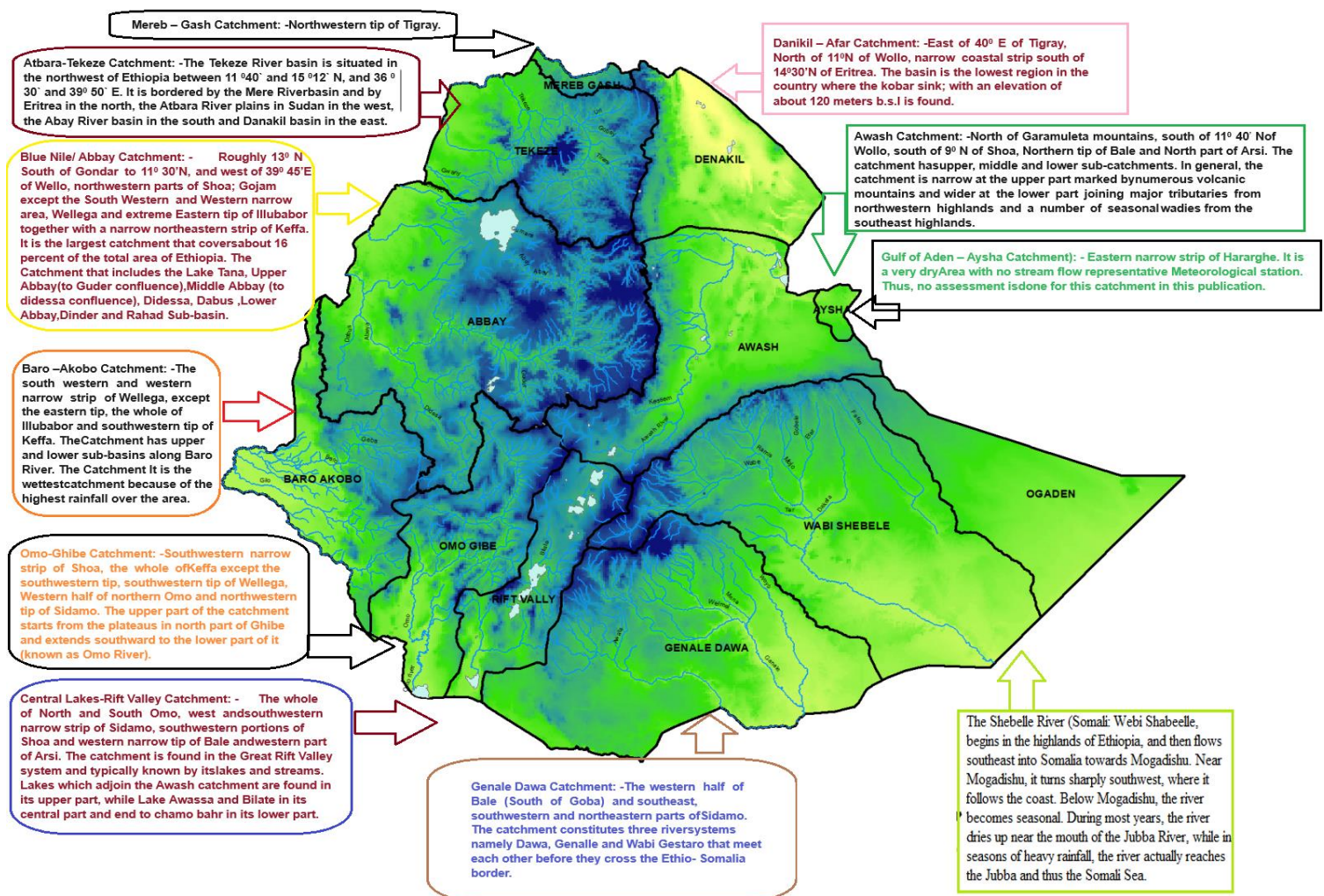
Accordingly, the following sub-basin-specific Hydro meteorological recommendations should be implemented promptly. These measures are intended to maximize the benefits of the expected water availability, strengthen preparedness and early action, and minimize potential adverse impacts associated with excessive rainfall and elevated surface water flows.

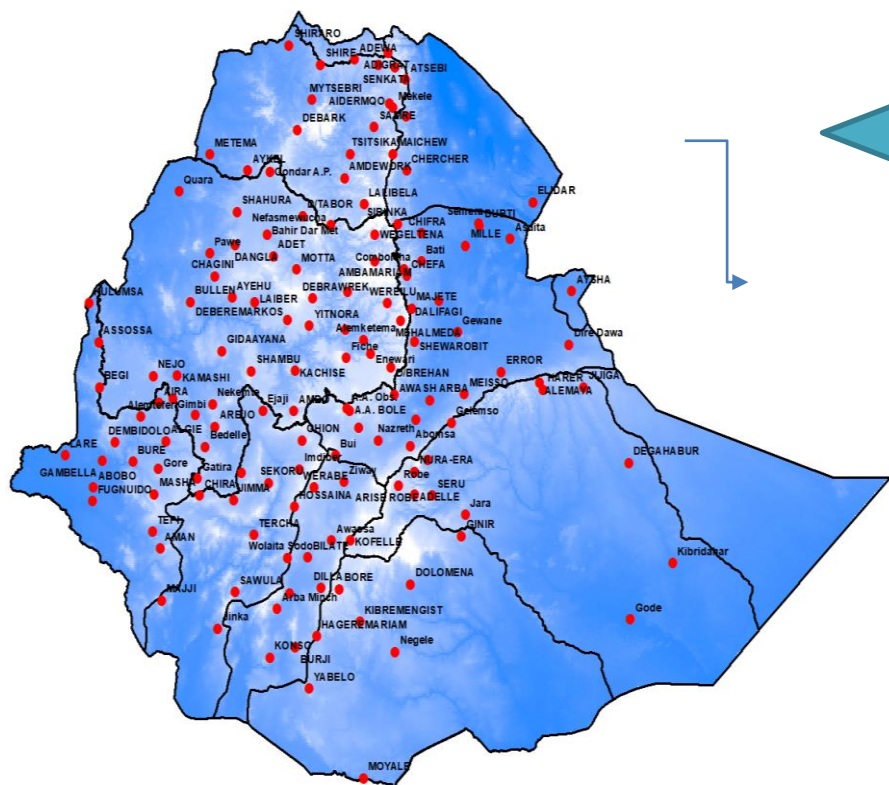


Surface Runoff Category	Positive Impacts	Negative Impacts	Hydrometeorological Recommendations
Moderate to High Surface Runoff Basins:			
Most of the Abay, Baro-Akobo, Tekeze, Awash, Mereb, Upper and Middle Omo-Gibe basins	• Increased surface water and river flows • Improved groundwater recharge. • Increased water storage in irrigation and hydropower dams. • Improved irrigation and drinking-water supply • Enhanced agricultural productivity and hydropower generation.	• Flash-flood risk. • Increased sedimentation • Road flooding and traffic congestion • Blocked drainage systems.	• Do not attempt to cross flowing water on foot or in light vehicles. • Harvest and store rainwater • Regularly monitor weather forecasts and advisories • Clean drainage channels and gutters. • Prepare flood-diversion ditches.
Light to Moderate Surface Runoff Areas	Positive Impacts	Negative Impacts	Hydrometeorological Recommendations
Basins: Lower Awash, Afar-Danakil, Aysha, Upper Wabe-Shebelle	• Slight improvement in surface-water flow. • Reduced risk of flooding and sedimentation.	• High evaporation rate. • Low river and surface-water flow. • Mild water scarcity in moisture-stressed areas.	• Treat available rainwater before use. • Harvest and store surface runoff water. • Collect and store rooftop rainwater. • Closely monitor local weather information.
Dry Surface Runoff Areas	Positive Impacts	Negative Impacts	Hydrometeorological Recommendations
Basins: Ogaden, Lower Wabe-Shebelle, Genale-Dawa, and Lower Rift Valley	• Minimal risk of flooding and sedimentation.	• Decreased surface-water flow • Reduced water levels in natural and artificial reservoirs. • Depletion of	• Ensure water-supply accessibility in water-scarce areas. • Manage available water resources sparingly and efficiently. • Utilize existing surface-water resources wisely.



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