



Dekedal Hydro Meteorology Bulletin



[EMI]



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 June 21-30 2025-month climate condition and its impacts over the river catchment across the country and highlights the July-1-10, 2025 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 month climate on each and every water basins and the associated climate risks observed during the month under review. In addition to the previous month impact assessment, the bulletin also provided the expected climate condition for the coming months 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 June 21-30, 2025

During June 3rd ten day, moderate to high moisture conditions were observed across most catchments, including Abay, Omo Gibe, Baro Akobo, Rift Valley, Middle and lower Tekeze, upper and few place of lower Awash catchments. In addition, very high moisture levels were recorded in middle Abay, western upper Omo Gibe, and upper BaroAkobo catchments. These favorable moisture conditions have significantly contributed to recharging surface and Ground water and enhancing surface water availability, according to the analyzed meteorological data. On the other hand, most parts of the Ogaden, Afar Danakil, and lower Wabi Shebele, and lower Genale Dawa, catchments experienced dry conditions. These dry conditions negatively impacted water availability by reducing surface water levels and stressing water resources.



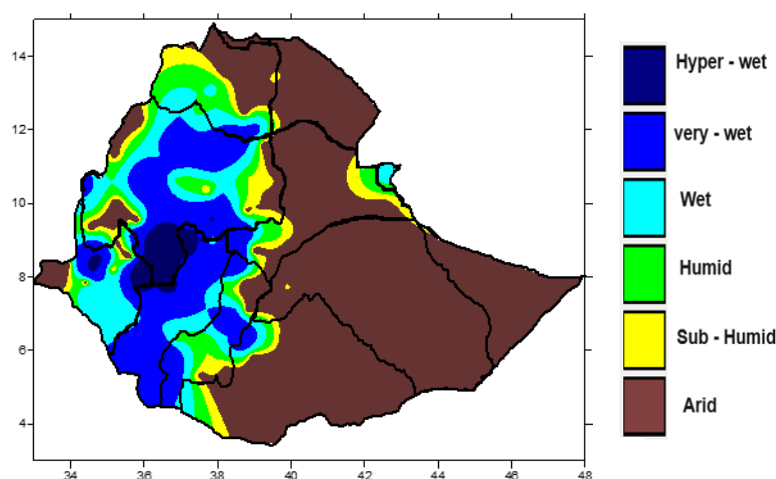


Figure 1 Dekedal Hydro Meteorological Assessments from June 21-30, 2025

1.2 Hydro Meteorological Impact Outlook for July 1-10, 2025

Looking at the surface water table forecast for the first ten days of July, most of the country's river basins will experience moderate to high surface water flow. However, occasional heavy rainfall, especially in flood-prone urban and rural areas, may cause flash floods and river levels to rise. Therefore, relevant stakeholders are advised to implement the following location-specific hydro meteorological recommendations to reduce the risk of flooding and take advantage of favorable opportunities.

Ethiopian River Basin	Expected Moisture	Positive Impacts	Negative Impacts	Hydro meteorological Advisory
Mostly • Tekeze • Mereb Gash • Abay • Baro Akobo • Upper and Middle • Omo Gibe • Rift Valley • Awash	High humidity to Medium	• Improvement of surface water flow • Improvement of groundwater levels • Improvement of water levels in irrigation and hydroelectric dams • Improvement	• Flash floods • Risk of waterborne diseases • Overflow onto roads and traffic disruptions • Contamination of water sources • Landslides and erosion	• Clean drainage channels • Prepare temporary flood defenses • Promote water conservation • Raise awareness for riverbank communities • Closely follow forecasts • Harvest rainwater in areas with deficits



		nt of drinking water supply in all areas		
Mostly in the middle and lower <ul style="list-style-type: none"> • Awash • Afar Danakil • Genale Dewa • Wabeshebele • Ogaden 	Moderate to dry conditions	<ul style="list-style-type: none"> • No risk of flooding or land slide 	<ul style="list-style-type: none"> • High evaporation • Continuous dry seasons • Low water flow • Water scarcity in areas with low humidity • Reduced surface water flow • Reduced water levels in natural and man-made reservoirs • Reduced groundwater resources 	<ul style="list-style-type: none"> • Utilizing available rainwater to prevent waste and pollution • Collecting and storing rainwater • Collecting and storing water from rooftops • Ensuring access to water in water-scarce areas • Managing available water efficiently and effectively • Proper use of surface water resources





.



[EMI]





[EMI]

