



# Dekedal Hydro Meteorology



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## *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 june11-20, 2026-month climate condition and its impacts over the river catchment across the country and highlights the june-21-30, 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.*



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## 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.



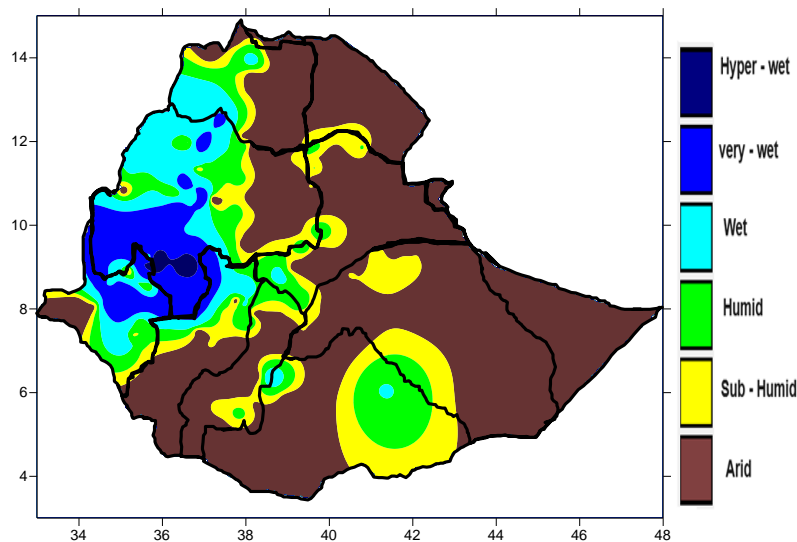
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## Hydro Meteorological Impact Assessment June 21-30, 2026

During the second dekade of June, moderate to high levels of surface runoff were experienced across the Middle and Lower Abay, Tekeze, Upper and Middle Baro Akobo, Omo-Gibe, Rift Valley, portions of the Upper Awash, and the Middle Genale Dawa and Wabi Shebelle basins. Furthermore, exceptionally high surface runoff was observed in the Lower Abay, Upper Omo Gibe, and Baro Akobo basins.

The 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 Afar Danakil, Awash, Mereb Gash, Aysha, Ogaden, Genale Dawa, Wabi Shebelle, Lower Omo Gibe, and Rift Valley basins remained under predominantly dry conditions throughout the dekade.



*Figure 1 Dekedal Hydro Meteorological Assessments from June 11-20, 2026*



## 1.2 Hydro Meteorological Impact Outlook for June 11-20, 2026

The country's basins that benefit from the kiremt rains are expected to experience light to moderate surface water flows during the third decade of June. Therefore, it is recommended that the following sub basin hydro meteorological recommendations be implemented immediately to take advantage of the opportunities and minimize the expected negative impacts.

Basin Area	Positive Impacts	Negative Impacts	Recommendations
<b>Moderate to High Surface flow</b>			
Most parts of the Abay, Baro-Akobo, Upper Omo-Gibe, Rift Valley, and Genale-Dawa basins	<ul style="list-style-type: none"> <li>• Increased surface water availability.</li> <li>• Improved water storage in irrigation and hydropower reservoirs.</li> </ul>	<ul style="list-style-type: none"> <li>• Urban drainage systems may become blocked by debris and sediment.</li> <li>• Increased risk of river overflow and localized flooding.</li> <li>• Higher likelihood of water quality deterioration in rivers and ponds.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement flood preparedness and mitigation measures.</li> <li>• Regularly clean and maintain drainage channels and culverts.</li> <li>• Disseminate timely early warning information.</li> <li>• Promote efficient and sustainable use of potable water resources.</li> </ul>
<b>Low to Moderate Surface flow</b>			
Upper and Middle Omo-Gibe, Rift Valley, and parts of the Middle Tekeze basin	<ul style="list-style-type: none"> <li>• Moderate improvement in drinking water availability.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased evapotranspiration losses.</li> <li>• Prolonged dry spells may occur.</li> <li>• Reduction in the extent and volume of water bodies.</li> </ul>	<ul style="list-style-type: none"> <li>• Properly manage and store available water resources.</li> <li>• Encourage water conservation practices.</li> <li>• Review and implement weather-based irrigation scheduling plans.</li> </ul>
<b>Arid Surface Conditions</b>			
Most parts of the Afar-Danakil, Wabi Shebelle, Genale-Dawa, Ogaden, Aysha, Middle and Lower Awash, and Lower Genale-Dawa basins	<ul style="list-style-type: none"> <li>• Reduced flood and sedimentation risks.</li> <li>• Lower likelihood of flood-related pollution and waste contamination.</li> </ul>	<ul style="list-style-type: none"> <li>• Declining river flows, reservoir levels, and other water bodies.</li> <li>• Increased evaporation losses and water stress.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote efficient water utilization.</li> <li>• Apply water saving and conservation technologies.</li> <li>• Improve drinking water supply management systems.</li> <li>• Implement measures to reduce vulnerability to high evaporation rates.</li> </ul>



Mereb – Gash Catchment: -Northwestern tip of Tigray.

Atbara-Tekeze Catchment: -The Tekeze River basin is situated in the northwest of Ethiopia between 11°40' and 15°12' N, and 36°30' and 39°50' E. It is bordered by the Mere Riverbasin and by Eritrea in the north, the Atbara River plains in Sudan in the west, the Abay River basin in the south and Danakil basin in the east.

Blue Nile/ Abbay Catchment: - Roughly 13° N South of Gondar to 11° 30'N, and west of 39° 45'E of Wollo, northwestern parts of Shoa; Gojam except the South Western and Western narrow area, Wellega and extreme Eastern tip of Illubabor together with a narrow northeastern strip of Keffa. It is the largest catchment that covers about 16 percent of the total area of Ethiopia. The Catchment that includes the Lake Tana, Upper Abbay (to Guder confluence), Middle Abbay (to didessa confluence), Didedsa, Dabus, Lower Abbay, Dinder and Rahad Sub-basin.

Baro –Akobo Catchment: -The south western and western narrow strip of Wellega, except the eastern tip, the whole of Illubabor and southwestern tip of Keffa. The Catchment has upper and lower sub-basins along Baro River. The Catchment It is the wettest catchment because of the highest rainfall over the area.

Omo-Ghibe Catchment: -Southwestern narrow strip of Shoa, the whole of Keffa except the southwestern tip, southwestern tip of Wellega, Western half of northern Omo and northwestern tip of Sidamo. The upper part of the catchment starts from the plateaus in north part of Ghibe and extends southward to the lower part of it (known as Omo River).

Central Lakes-Rift Valley Catchment: - The whole of North and South Omo, west and southwestern narrow strip of Sidamo, southwestern portions of Shoa and western narrow tip of Bale and western part of Arsi. The catchment is found in the Great Rift Valley system and typically known by its lakes and streams. Lakes which adjoin the Awash catchment are found in its upper part, while Lake Awassa and Bilate in its central part and end to chamo bahr in its lower part.

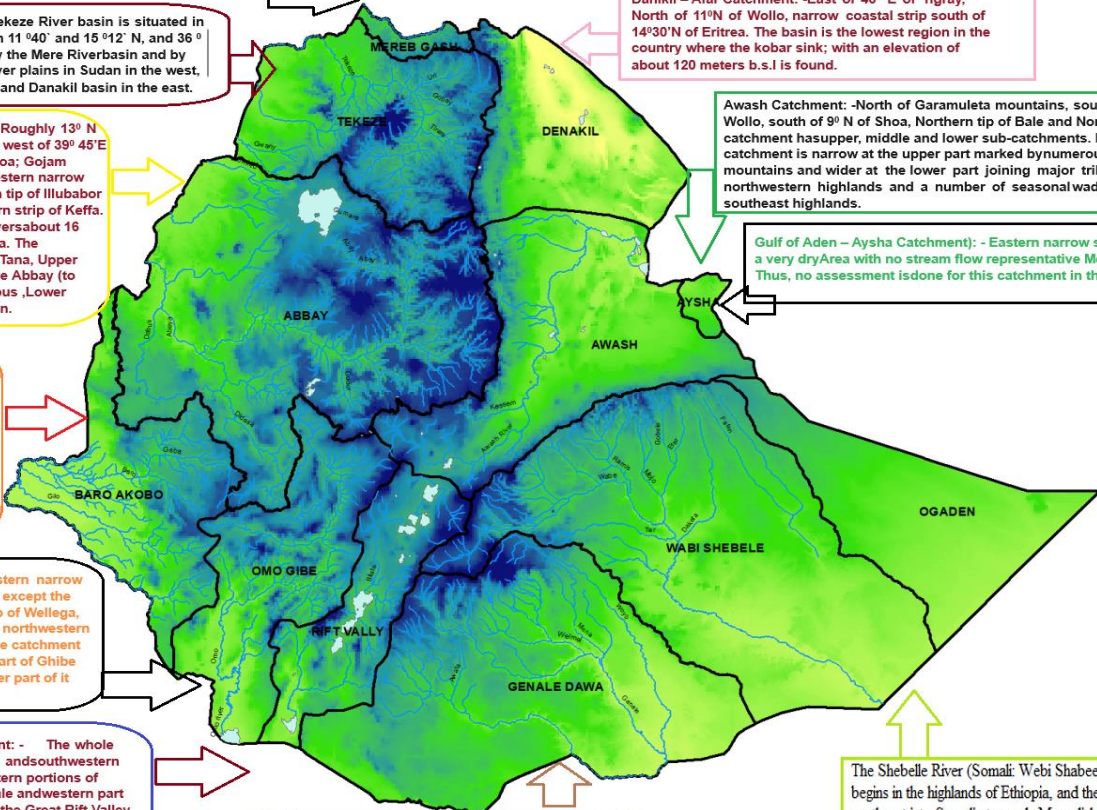
Genale Dawa Catchment: -The western half of Bale (South of Goba) and southeast, southwestern and northeastern parts of Sidamo. The catchment constitutes three riversystems namely Dawa, Genalle and Wabi Gestaro that meet each other before they cross the Ethio- Somalia border.

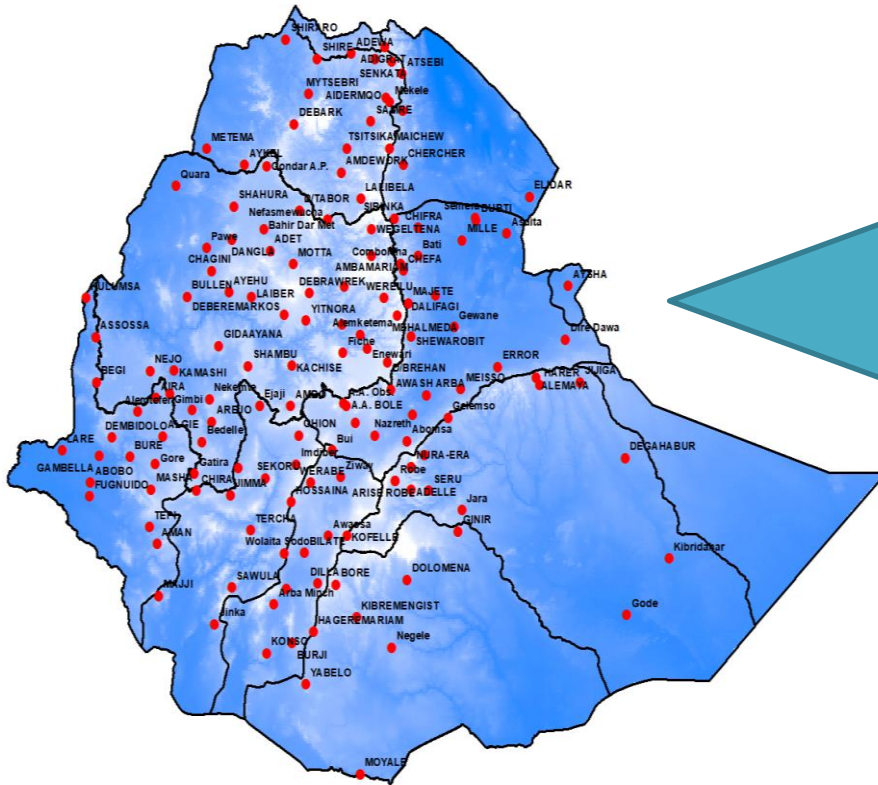
Danakil – Afar Catchment: -East of 40° E of Tigray, North of 11°N of Wollo, narrow coastal strip south of 14°30'N of Eritrea. The basin is the lowest region in the country where the kobar sink; with an elevation of about 120 meters b.s.l is found.

Awash Catchment: -North of Garamuleta mountains, south of 11° 40' Nof Wollo, south of 9° N of Shoa, Northern tip of Bale and North part of Arsi. The catchment has upper, middle and lower sub-catchments. In general, the catchment is narrow at the upper part marked by numerous volcanic mountains and wider at the lower part joining major tributaries from northwestern highlands and a number of seasonal wadies from the southeast highlands.

Gulf of Aden – Aysha Catchment): - Eastern narrow strip of Hararghe. It is a very dry Area with no stream flow representative Meteorological station. Thus, no assessment is done for this catchment in this publication.

The Shebelle River (Somali: Webi Shabeelle, begins in the highlands of Ethiopia, and then flows southeast into Somalia towards Mogadishu. Near Mogadishu, it turns sharply southwest, where it follows the coast. Below Mogadishu, the river becomes seasonal. During most years, the river dries up near the mouth of the Jubba River, while in seasons of heavy rainfall, the river actually reaches the Jubba and thus the Somali Sea.





Number  
of  
station



[EMI]

