

# 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 November 11-20 2024-month climate condition and its impacts over the river catchment across the country and highlights the November 21-31, 2024 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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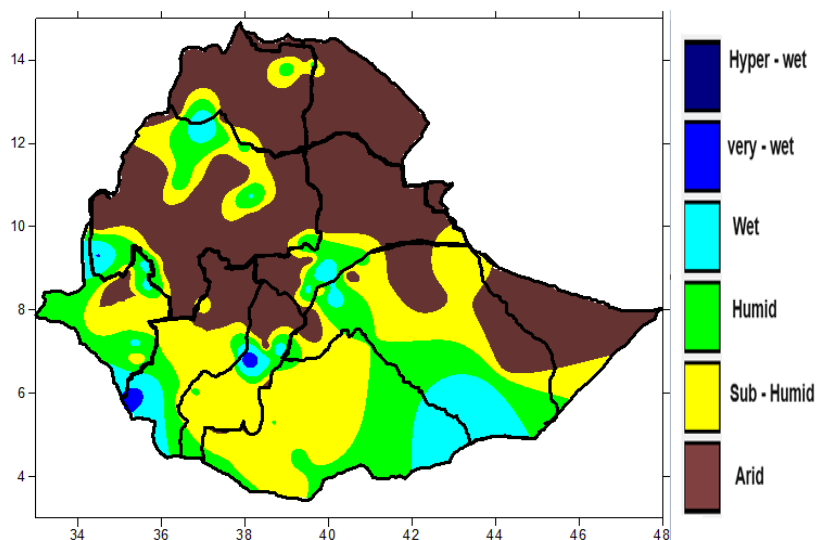
## 1. *Introduction*

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.

### **Hydro Meteorological Impact Assessment November 11-20, 2024**

During the 2<sup>nd</sup> ten day of November most Baro Akobo, Genale Dawa, wabi shebele, middle and lower Omo Gibe, central Rift valley, Wabe Shebelle, upper and lower Abay, and few area of lower Tekeze basins received humid to wet conditions. In order to this it had a positive role in improving the water capacity of watershed that benefit from Bega moisture. On the other hand due to wet moisture of upper Wabe Shebelle leads to flooding at lower wabe shebele at shinele zone over Shebelle River. The rest most of Afar Danakil, Awash, Ogaden, Tekeze, Middle Baro Akobo, and Middle Abay basins were under dry condition.





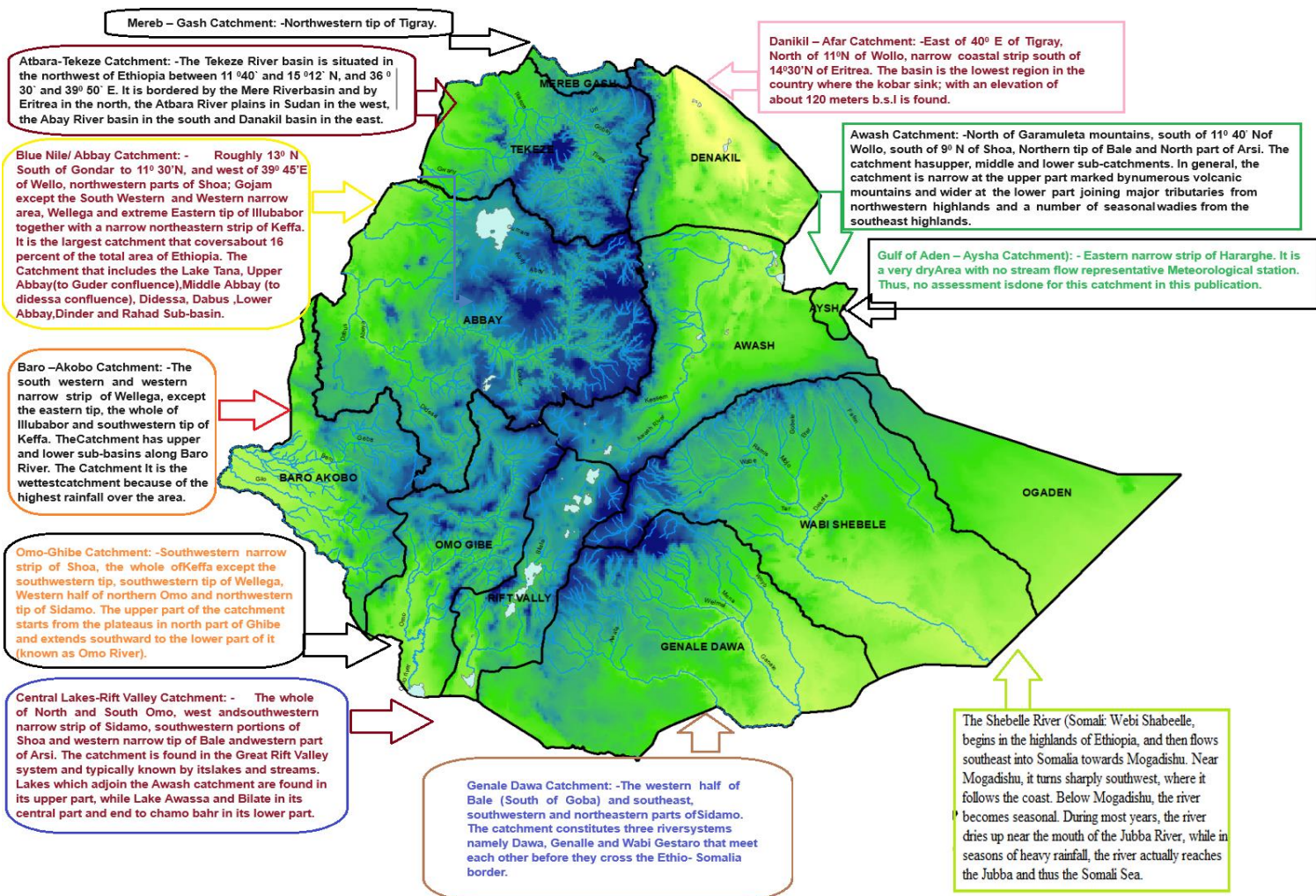
*Figure 1 Dekedal Hydro Meteorological Assessments from November 11-20, 2024*

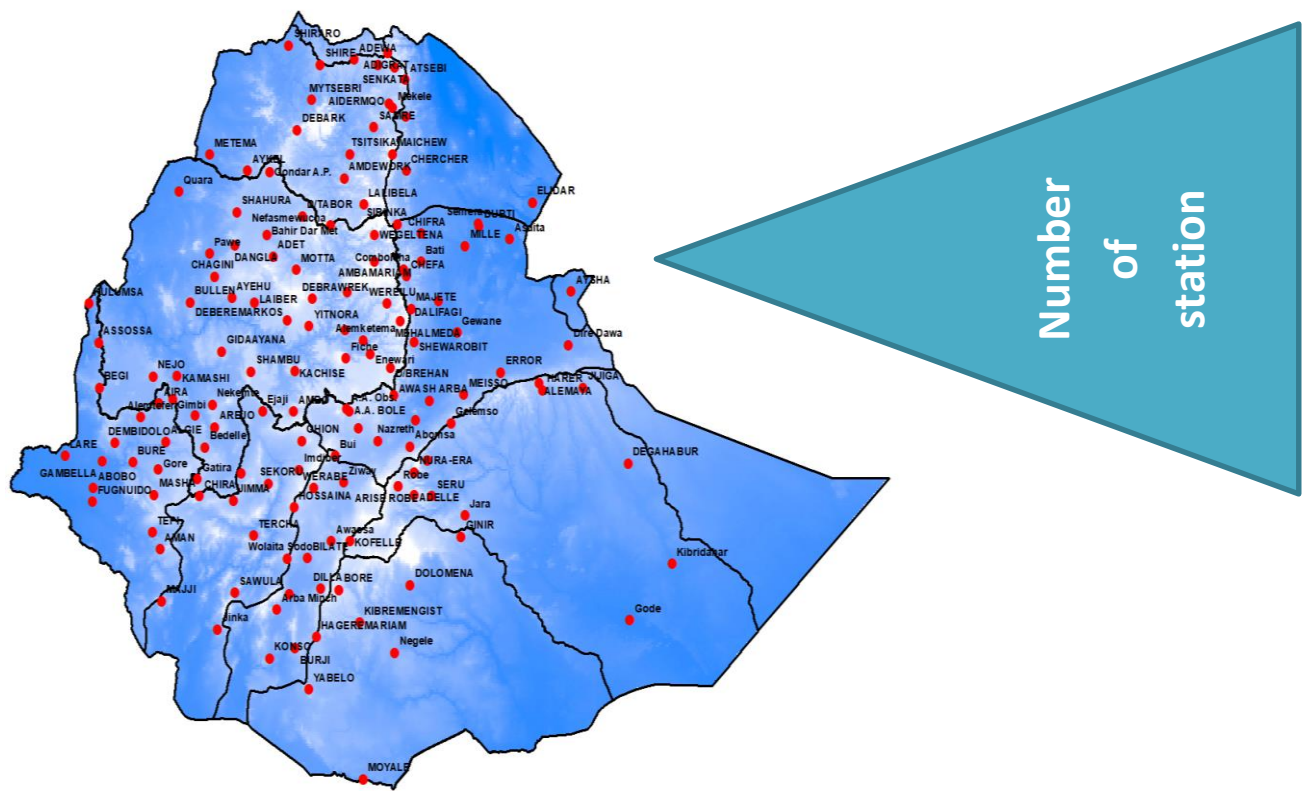
## 1.2 Hydro Meteorological Impact Outlook for November 21 -31, 2024

The next ten days of November 3<sup>rd</sup> Decade will humidity to wet over most of the Baro Akobo, Genale Dawa, Middle and Lower Omo Gibe, Wabe Shebele and central Rift Valley. This situation will be have a positive side in terms of empowering the irrigation and power generation dams to have a consistent and suitable water supply. It is recommended to make earliest preparations to collect and store the available rain water spatially arid and semi-arid area. The rest most of Tekeze, awash, Aysha, and also Merebgash basins will be under dry condition.









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