

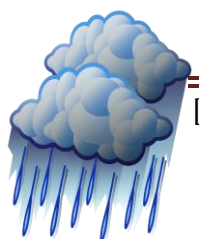
Dekedal Hydro Meteorology



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 October 21-31 2024-month climate condition and its impacts over the river catchment across the country and highlights the November 1-10, 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.



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 October, 21-31 ,2024

During the 3rd ten day of October most Omo Gibe, central Rift valley, Genale Dawa, WabeShebele, Abay, Ogaden, upper and middle Baro Akobo, upper Awash, lower Tekeze basins received humid to very wet conditions. Therefore the analysed hydro meteorological data indicate that it had a positive role in improving the water capacity of watershed that benefit from Bega moisture benefited and the other part also. On the other hand mostly Afar Danakil, upper Tekeze, lower BaroAkobo, upper eastern part of Abay basins the remains was under dry condition.



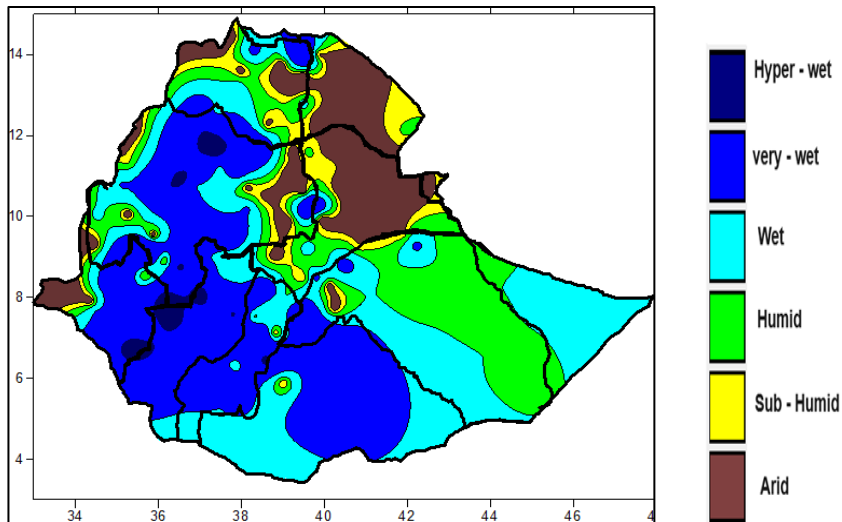
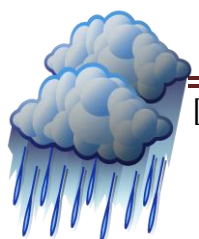
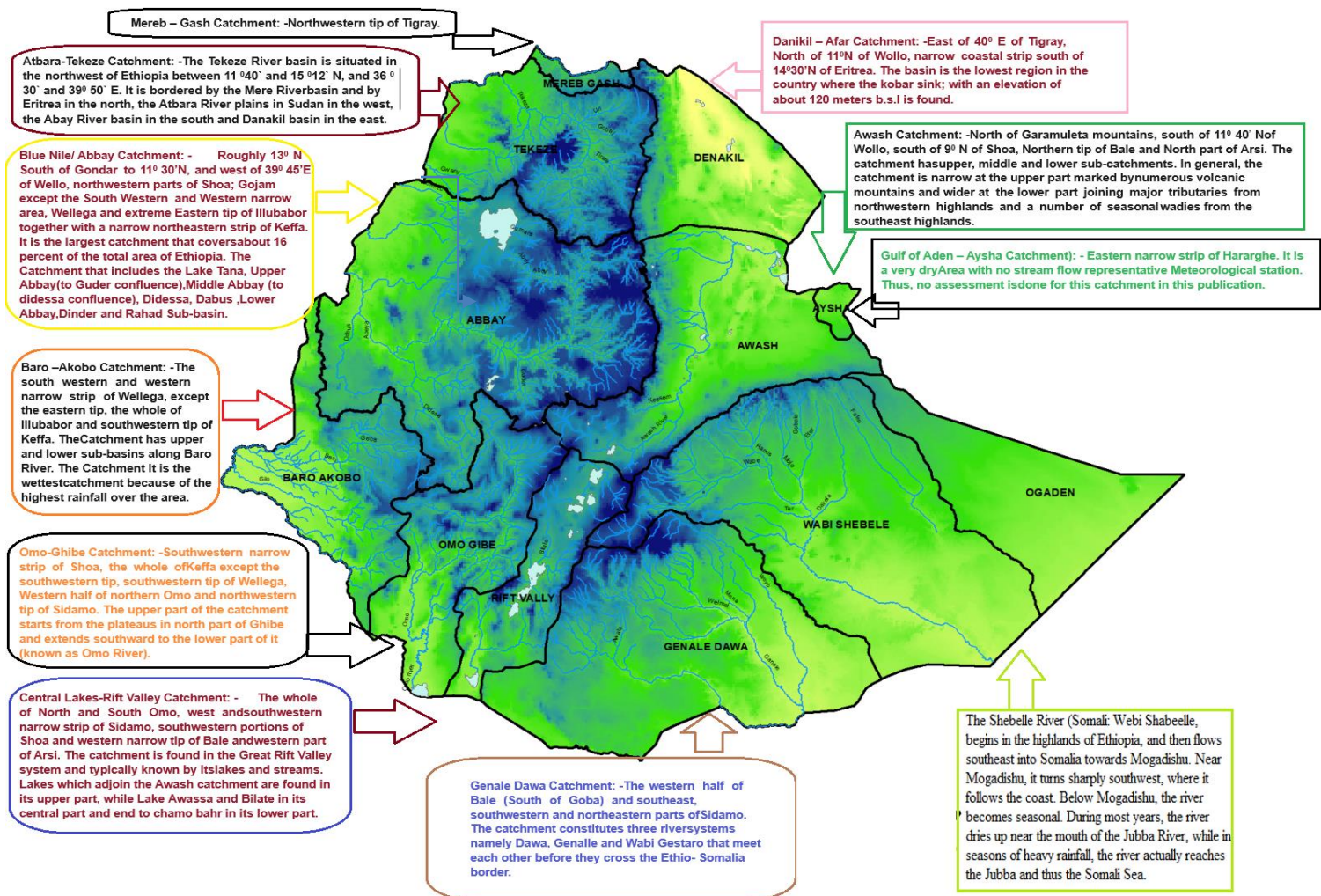


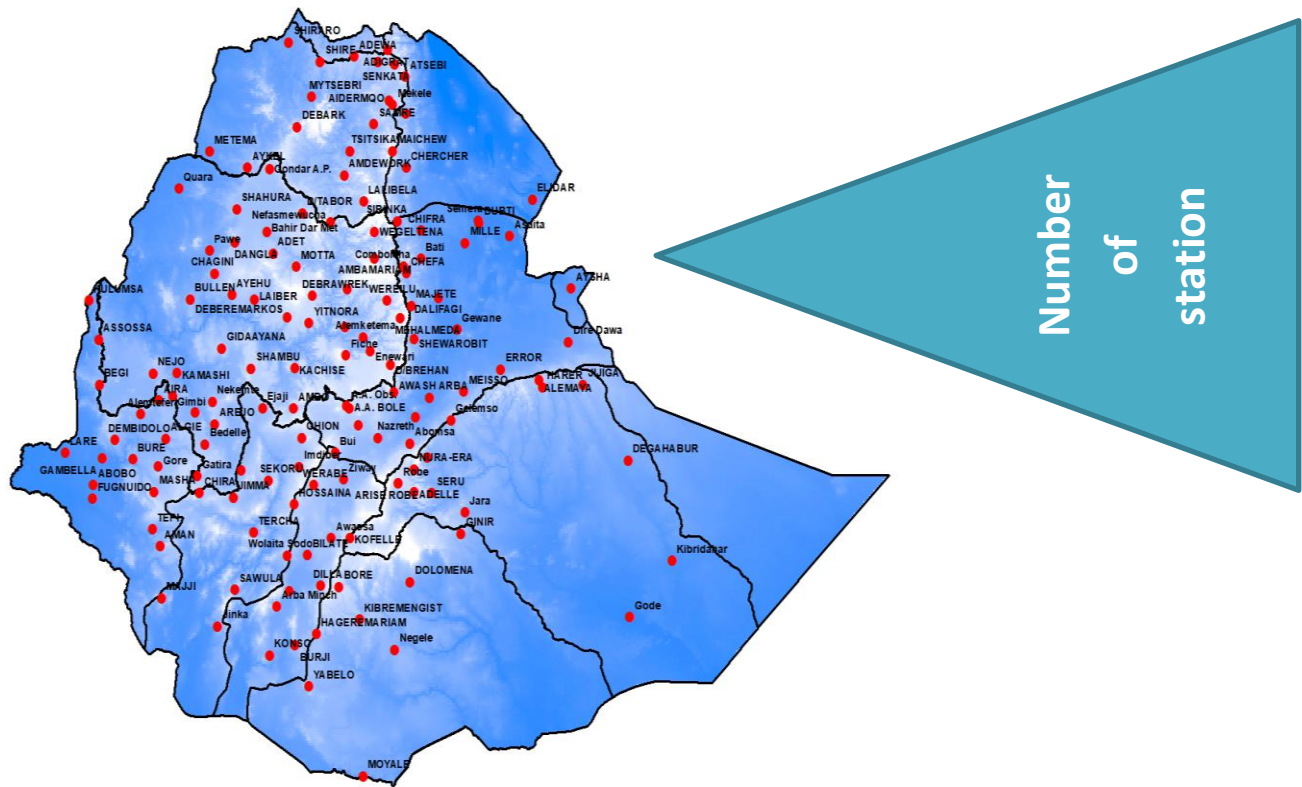
Figure 1 Dekedal Hydro Meteorological Assessments from October 21-31, 2024

1.2 Hydro Meteorological Impact Outlook for November 1-10, 2024

The next ten days of November 1st decade will humid to wet over most of the GenaleDawa, Omo Gibe, Baro Akobo, Middle Abay, middle and lower central Rift Valley, basins. In addition to middle and lower Tekeze and upper and middle Awash will be sub humid. This situation will be of great importance to water sustainable uses. And also, it will have a positive side in terms of enabling the irrigation and power generation dams to have a reliable and sufficient water supply during the dry months of the coming dry season. On the other hand most of AfarDenakil, upper Tekeze and lower Awash will be dry air condition.







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