

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 December 1-10 2024-month climate condition and its impacts over the river catchment across the country and highlights the December 11-20, 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 December 1-10, 2024

During 1st ten day of December most of the river basin experienced Arid moisture condition inline to this Baro Akobo, Abay, Omo Gibe, central Rift valley, Genale Dawa, Awash and upper Wabe Shebele. This condition leads to reduce water capacity of the basins, however pocket area of middle Abay and BaroAkobo performed semi humid moisture condition.



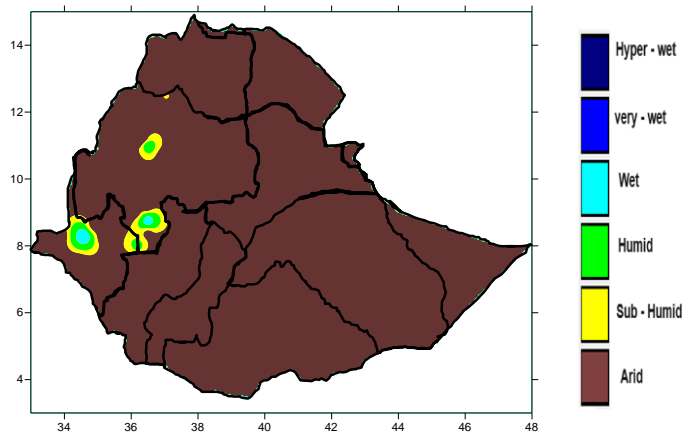
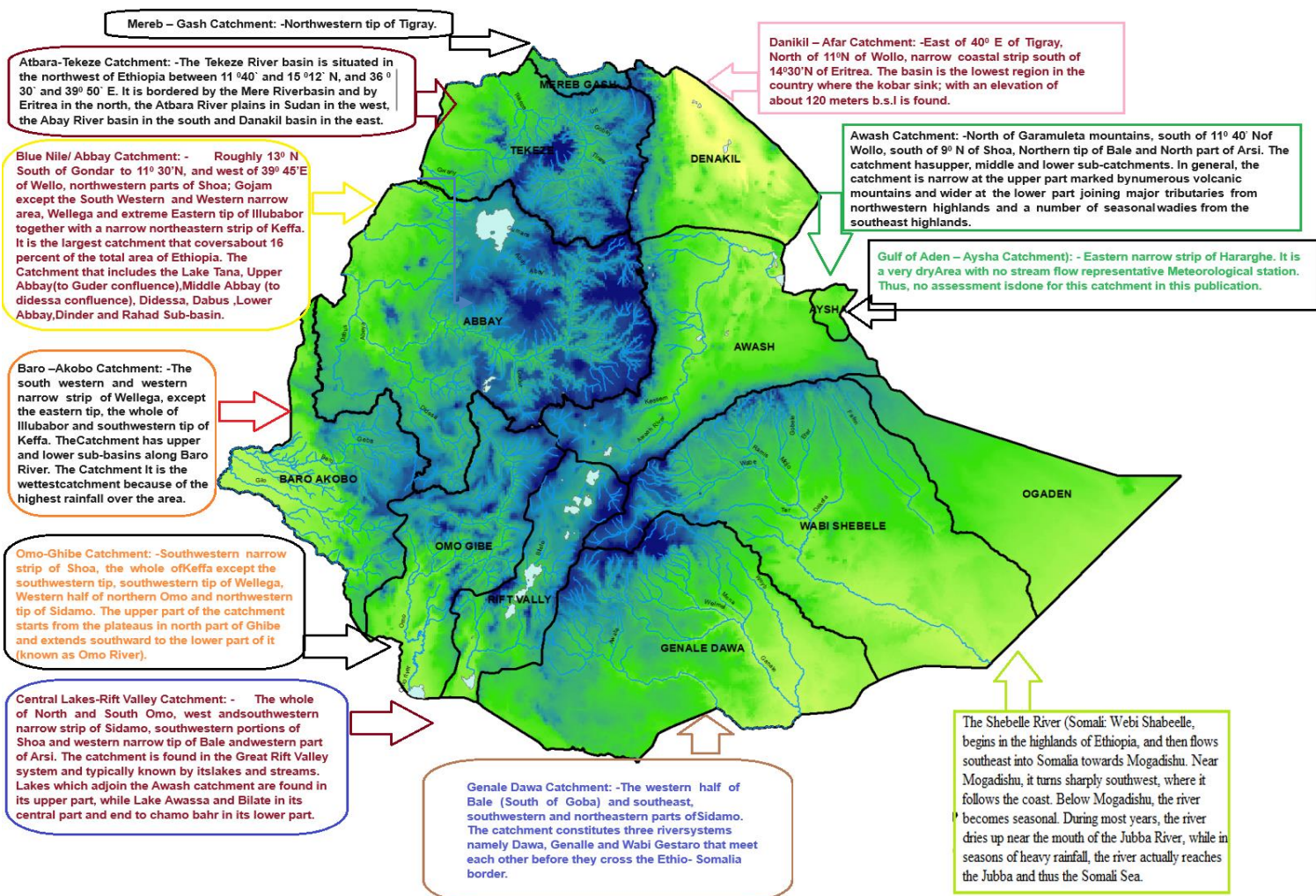


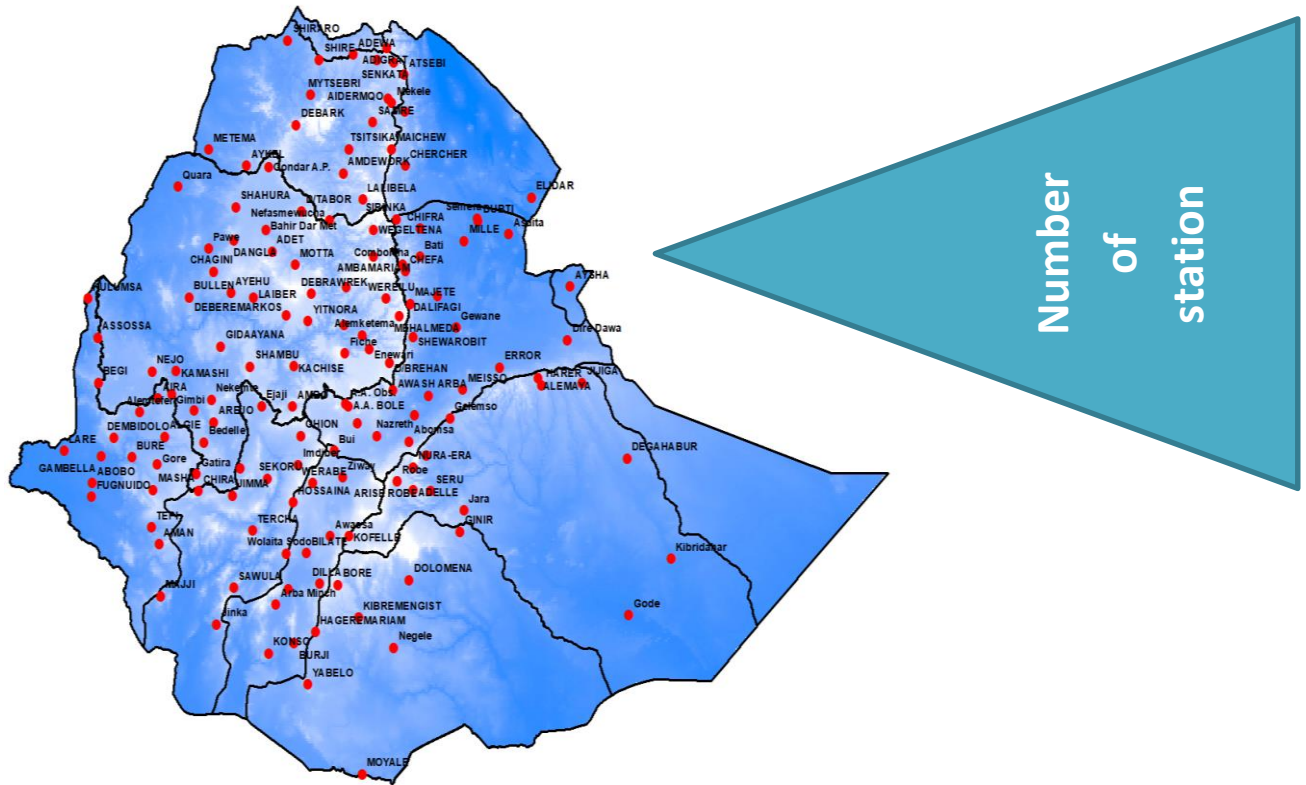
Figure 1 Dekedal Hydro Meteorological Assessments from December 1-10, 2024

1.2 Hydro Meteorological Impact Outlook for December 11-20, 2024

The next ten days of December 2nd decade most of the river basin will Arid moisture condition, line to this most of Awash, Afar Danakil, Wabe shebele, Genale Dawa, Tekeze, Abay Ogaden, Mereb Gash, and Aysha, however few place of Baro Akobo, middle and lower Omo Gibe, Central rift valley will have semi humid condition. Therefore the utility of water properly and keep from contaminate and wastage of it.







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