

FDRE

Ministry of Water and Energy

EMI

**Bio Meteorology and Insurance Index Desk**



Climate Information  
For  
The Health Sector

**2023 August Monthly Assessment**

**AUGUST- 2023**

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## Foreword

This "Climate Information for the Health Sector" Bulletin has been designed to convey essential information regarding the monitoring of human comfort conditions based on the analysis of temperature and humidity data and also for the monitoring of Malaria outbreak areas based on the analysis of temperature and precipitation data. Since the monitoring of temperature and rainfall over a given area can be used to assess the likelihood of outbreak of Malaria with a lag of two months, this information can be an important for early warning tool if used judiciously.

The major objective of this bulletin is in line with the Ethiopia Meteorological Institute strategy of diversifying climate application products to the basic developmental sectors (such as the Health, the water, the agricultural sector etc...). This bulletin can be a very important source of information to Health professionals engaged in the monitoring of Public Health, to Tourism Agents and institutions who advise tourists regarding the comfort conditions of the places to be visited by the tourists and to the researcher who is interested in the field of Bio-Climatology.

We have the opinion that careful and continuous use of this bulletin can benefit to the improvement of early warning and preparedness in the Health sector.

Meanwhile, your comments and constructive suggestions are highly appreciated to make the objective of this bulletin a success, This same bulletin can be accessed online at: [http://www.ethiomet.gov.et/bulletins/health\\_bulletins](http://www.ethiomet.gov.et/bulletins/health_bulletins)

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# 1. Weather Assessment of previous Dekade

## 1.1. RTH Conditions for Malaria transmission during August first dekad of 2023

According to the collected and analyzed climate data during the first dekad of August, As illustrated in figure 1, favorable climate conditions for the breeding and developments of mosquito vector for malaria transmission were observed over most parts of Western Amhara, Western and Central Oromia, Northern SNNPR, Eastern Gambela and Benshangul Gumuz regions.

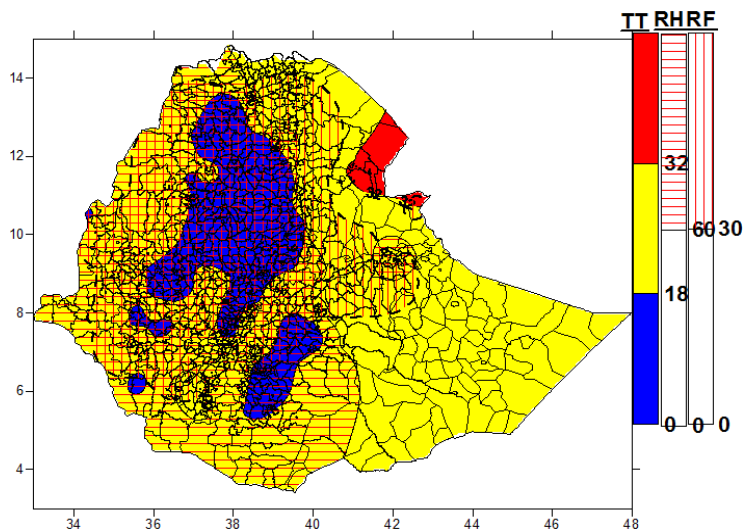


Fig 1:- malaria pron areas during 1st dekad of August 2023.

## 2. THI Conditions during August 2023

### 2.1 THI for Human

As a result of Temperature-Humidity Index (THI) analysis, during the first dekad of August heat stress was observed over few places in the lowland parts of Benshangul, Gambela, Somali and Afar regions and which contributes 8% of the recorded stations. Whereas the rest most parts of the country (87% of the recorded stations) experienced comfortable and moderately comfortable weather conditions

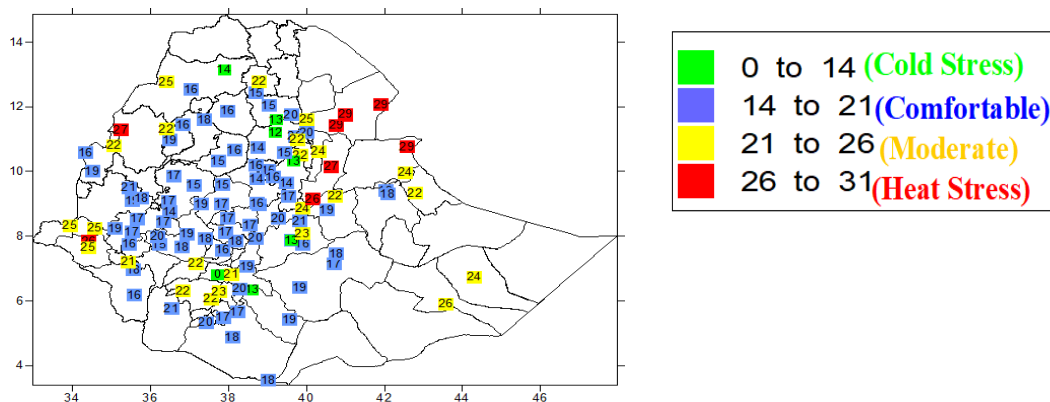


Fig 2; THI for human August 1st DK 2023

## 2.2. THI for Cattle.

According to the collected meteorological data of August 2023, moderate heat stress for Cattle's was observed in Afar region. The rest parts of the country were experienced mild to Non-stress conditions.

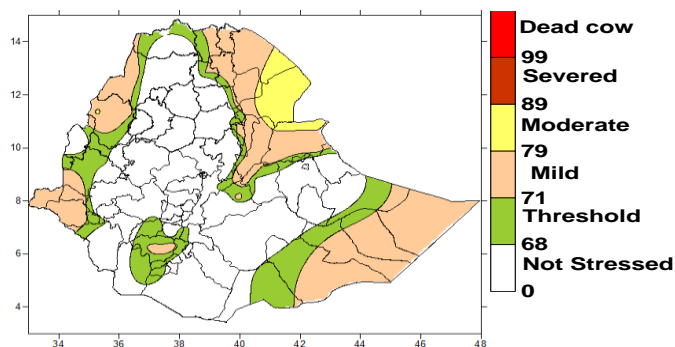


Fig 3:- THI values for Cattle's during the 1st dekad of August 2023.

## 3. Expected Weather Impacts on health for first dekad of August 2023

### 3.1. Expected Mosquito breeding suitable areas

During the coming second dekad of August favourable climate condition for Mosquito breeding and development will expected over most parts of Kiremt rainfall benefiting areas such as Western and Central pocket areas of Oromia, Northern SNNPR, some pocket areas of Gambela region, most parts of Western and border of Eastern Amhara and Benishangul Gumuz regions will suitable for mosquito breeding and development. Therefore, the concerned bodies are advised to avoid the exposure of the community to mosquitoes through ensuring clean environment and using Mosquitoes nets. All measurements of controlling mechanism for vector distribution must be applied.

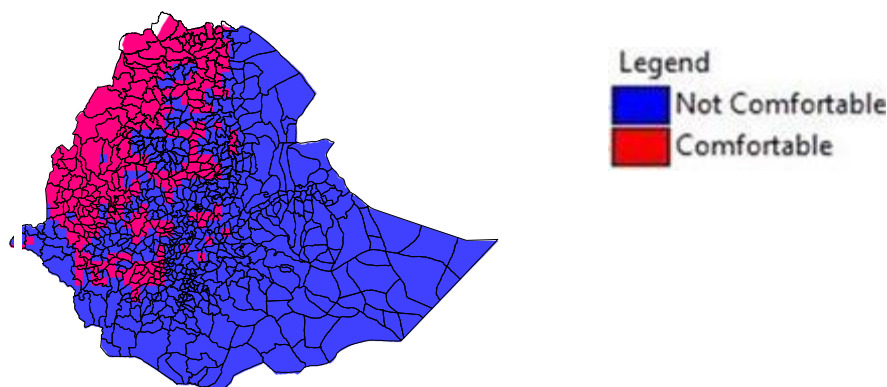


Fig 4: Suitable weather condition for malaria vector for August 2nd dekad 2023

### 3.2 Temperature Humidity Index (THI)

#### 3.2.1 THI for Cattle

During the coming second decade of August 2023, sever heat stress will expected over northern Afar in non-dairy cattle's. whereas Mild to moderate heat stress condition for both dairy and non-dairy Cattle's will expected over Afar, Somali, Benshangul gumuz, Western border of Amhara, Southern SNNPR and Gambela regions. While the rest highland portion of the country will expect to be under none stress conditions.

Generally we advise to perform heat stress reducing mechanisms for cattle's like making a shade, Providing Drinking, Conduct Monitoring, control, and surveillance of animal diseases over the severe stress expected areas.

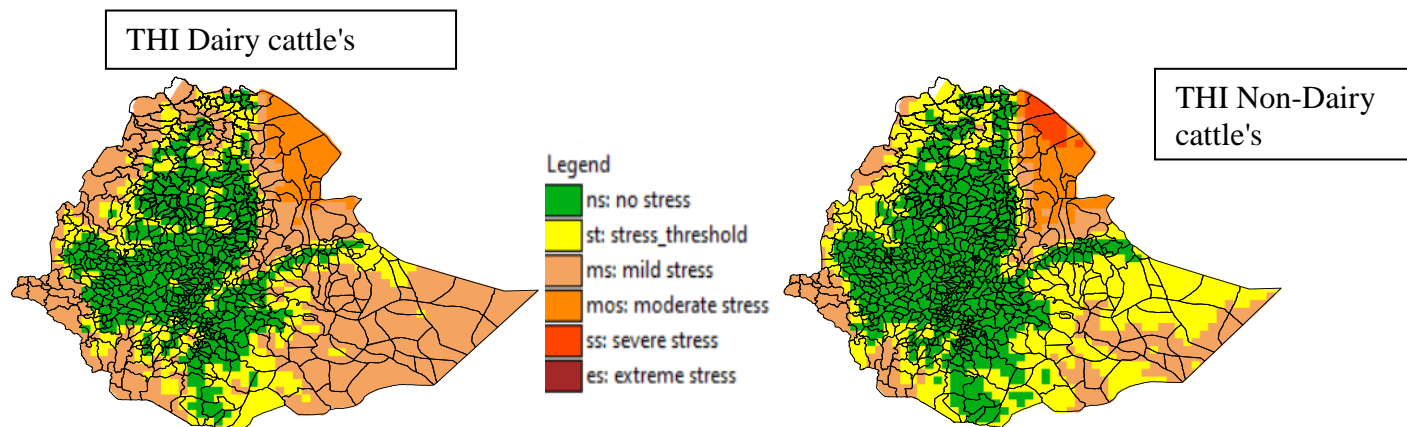


Fig 5: THI condition for Diary and Non-diary Cattles

### 3.2.2 THI for Human

During the coming second dekad of August 2023, 50% up to 100% uncomfortable weather conditions will expect over Afar. and also hot and humid uncomfortable conditions will expect over Somali, Gambela, Lowlands of Western Amhara and lowlands of Southern SNNPR regions of the country. The rest most parts of the country will be under comfortable weather conditions.

For the coming ten days, in Afar region northern parts residents reduce exposure of heat and make all measuring mechanisms of heat stress like Drink more water than usual, light-colored clothing and sunscreen, Take cool showers or baths to cool down, Avoid overdressing,

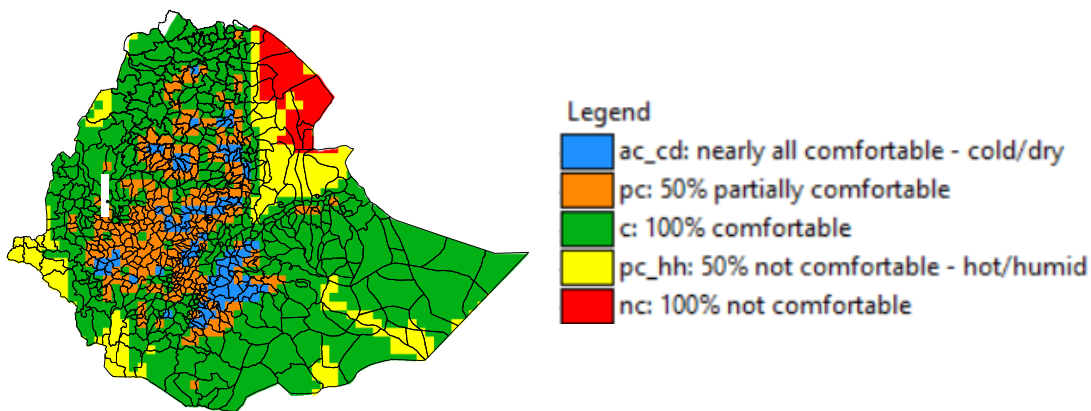


Fig 6 : THI for Human August 2nd dekad 2023.

