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**OBSERVATOIRE NATIONAL SUR
LES CHANGEMENTS CLIMATIQUES**

DIRECTION GENERALE

REPUBLIC OF CAMEROON

Peace-Work-Fatherland

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ON CLIMATE CHANGE**

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BULLETIN N°192

**Forecasts and Dekadal Climate Alerts for the
Period from 21st to 30th June 2024**



21st June, 2024

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I Introduction

This dekadal climate **early warning bulletin n° 192** is obtained by exploiting spatial data collected from major international centres involved in day-to-day follow-up of climate science, notably: the International Research Institute for Climate and Society (IRI) of the University of Columbia (USA); the National Oceanic and Atmospheric Administration (NOAA, USA); AccuWeather (American Weather Forecasting Agency, USA); the regional Agro-Hydro-Meteorology centre (AGRHYMET), spatial data from 1979 to 2022, relating to Ocean Surface Temperature (OST) in the Atlantic and Pacific, El-Niño/La Nina episode intensities in the Pacific, rainfall and temperature data from local stations. Finally, NOCC would like to express its gratitude to all these international Institutions as well as the National Center for Meteorology for the goodwill demonstrated in sharing data.

This bulletin highlights the historical climatic conditions from 1979 to 2022, as well as the climatic forecasts for all the five Agro-ecological zones of Cameroon for the dekad from 21st to 30th June 2024. This early warning brief further underscores the risks, threats and potential impacts expected in the different socio-economic development sectors of Cameroon. This bulletin also makes an assessment of the forecasts made for the previous dekad from **11th to 20th June 2024**.

II. Forecast Summary

II.1. For Temperature

II.1.1. Maximum Temperature:

The following localities have a high probability of experiencing an increase in mean maximum temperature compared to historical averages for the same period from 1979 to 2022. They include:

- Tibati, Banyo and Betare Gongo, in the **Adamawa region**;
- Mbalmayo, Nanga-Eboko, Nkoteng, Ngoro, Bafia, Mbaka, Yoko and Ayo, in the **Centre region**;
- Lomie, Batouri, Ngoyla, Belabo, Koso, Bertoua and Mintoum, in the **East region**;
- Sangmelima, Zoetele and Ambam, in the **South region**;
- Ako and Audu, in the **North West region**;
- Bazou, Koutaba, Makam, Fouban and Foubot, in the **West region**;
- Kumba, Buea and Idenau, in the **South West region**;
- Yabassi, Ndokiti, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Loum, Penja, Douala, Dizangue and Nkondjock, in the **Littoral region**.

NB1: This dekad from 21st to 30th June 2024 will be marked by extremely hot weather in some localities in the North and Far North regions, with maximum temperatures ranging between 33 and 40°C.

II.1.2. Minimum Temperature

The following localities have a high probability of experiencing a decrease in minimum temperature compared to the historical mean recorded during the same period from 1979 to 2022. They include:

- Mokolo, Gamboura and Mora, in the **Far North region**;
- Rey-Bouba, Tchollire, Garoua, Touboro, Poli and Guider in the **North region**;
- Kognoli, Dota, Tignere, Ngaoundal, Nass Arao, Mbakaou and Mbe, in the **Adamawa region**;
- Betare-Oya and Garoua-Boulai, in the **East region**;
- Bangangte, Mbouda, Dschang, Bana, Bafoussam, Fouban, Bangoum, Foubot, Babadjou, Bamendjing, Bafou, Bandjoun, Batie and Bafang, in the **West region**.

NB2: This dekad from 21st to 30th June 2024 will be marked by the persistence of a few hot nights in certain localities in the Sudano-Sahelian and bimodal rainforest zones due to minimum temperatures ranging between 24 and 27°C.

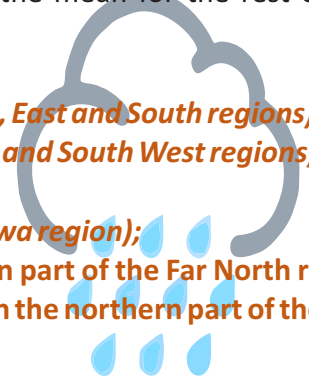


II.2. For Rainfall

This dekad (from 21st to 30th June 2024) will be marked by rainfall amounts below the mean recorded during the previous dekad in the Sudano-Sahelian zone and around the mean for the rest of the national territory.

NB3: This dekad, from 21st to 30th June 2024 will be marked by:

- A gradual onset of the short dry season in the Bimodal rainforest zone (Centre, East and South regions);
- A continuation of the rainy season in the Monomodal rainforest zone (Littoral and South West regions);
- A continuation of the rainy season in the Western Highlands zone;
- A continuation of the rainy season in the Guinea high savannah zone (Adamawa region);
- An effective installation of the rainy season in the North region, the southern part of the Far North region and a gradual onset of the rainy season in the central part as well sporadic rain in the northern part of the said region (Makary, Blangoua, Kousseri, etc.).



III. Details of climate forecasts for the five agro-ecological zones for the period from 21st to 30th June 2024

1) For Rainfall

a) In the Sudano-Sahelian zone

This dekad (from 21st to 30th June 2024) will be marked by:

* Rainfall amounts between **55 and 110mm** in the localities of Poli, Rey-Bouba, Touboro, Garoua, Pitoa, Guider and Lagdo, in the **North region**;

* Rainfall amounts between **35 and 100mm** in the southern part of the **Far North region**, notably in Kaele, Maroua, Bogo, Gamboura, etc.

b) In the Guinea high savannah zone

This dekad (from 21st to 30th June 2024) will be marked by rainfall amounts between **40 and 140mm** in the localities of Dota, Kongolo, Ngaoundere, Tignere, Tibati, Banyo and Meiganga in the **Guinea High Savannah zone (Adamawa region)**.

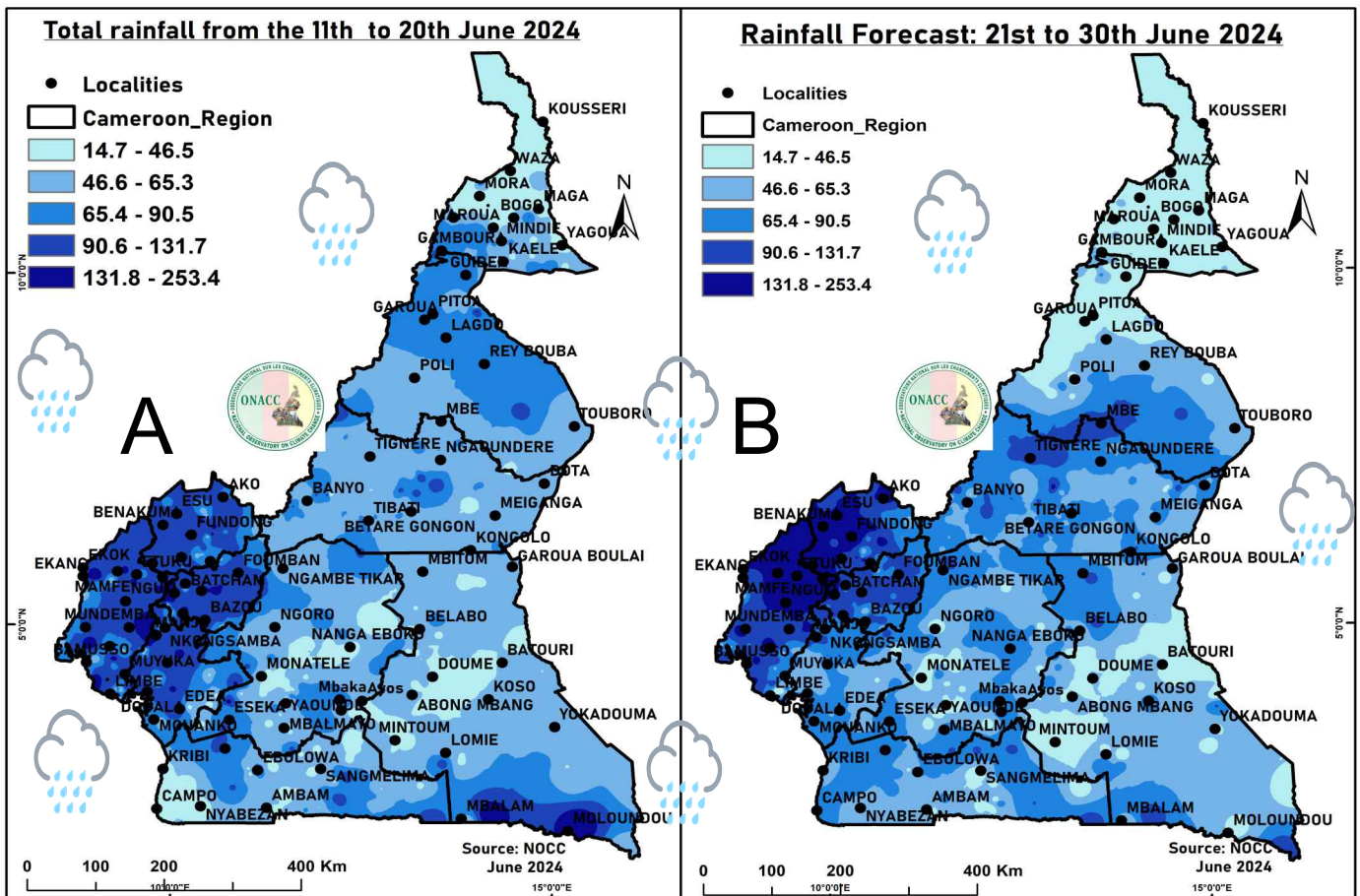


Figure 1: Variations in rainfall amounts during the current dekad (b) compared to that recorded during the period June 11-20, 2024 (a)
Source : NOCC, June 2024

c) In the Bimodal rain forest zone

For the dekad from 21st to 30th June 2024, we expect:

- * Rainfall amounts between **15 and 65mm** in Eseka, Obala, Ngambe Tikar, Bafia, Yaounde, Monatele, Ngoro, etc.; between **66 and 90 mm** in Ntui, Nanga Eboko, Akonolinga, Mbalmayo, etc. in the **Centre region**;
- * Rainfall amounts between **15 and 60mm** in Doume, Bertoua, Batouri, Dimako Garoua-Boulai, Yokadouma, Moloundou, Betare Oya, Mambele, Abong-Mbang; between **65 and 95mm** in Belabo, Mbalam, Mbitom and Lomie, in the **East region**;
- * Rainfall amounts between **15 and 95mm** in Djoum, Zoetele, Akom II, Ebolowa, Campo, Kribi, Lolodorf, Sangmelima, Ambam, Nyabizan, etc., in the **South region**.

d) In the Western highlands zone

The dekad from 21st to 30th June 2024 will be marked by:

- * Rainfall amounts between **65 and 145mm** in Bazou, Bangangte, Mbouda, Fouban, Foubot, Batcham, Batie, Bafoussam, etc, in the **West region**;
- * Rainfall amounts between **90 and 250mm** in Fundong, Ndop, Esu, Benakuma, Ako, Bamenda, etc., in the **North West region**.

e) In the Monomodal rain forest zone: This dekad from 21st to 30th June 2024 will be marked by:

- * Rainfall amounts between **90 and 250mm** in the localities of Idenau, Mundemba, Mamfe, Bamusso, Tiko, Kumba, Buea, Limbe, etc, in the **South West region**;
- Rainfall amounts between **45 and 90mm** in Mouanko, Penja, Mbanga, Baptek, Douala, Loum, Yabassi, Dizangue, Nkongsamba, Edea and Manjo in the **Littoral region**.

NB 4: This dekad, from 21st to 30th June 2024 will be marked by a continuity of:

- A gradual onset of the short dry season in the Bimodal rainforest zone (Centre, East and South regions);
- A continuation of the rainy season in the Monomodal rain forest zone (Littoral and South West regions);
- A continuation of the rainy season in the Western Highlands zone;
- A continuation of the rainy season in the Guinea high savannah zone (Adamawa region);
- An effective installation of the rainy season in the North region, the southern part of the Far North region and a gradual onset of the rainy season in the central part as well sporadic rain in the northern part of the said region (Makary, Blangoua, Kousseri, etc.).

2) For Temperatures

a) For Maximum Temperature

- *Based on the historical average of maximum temperatures recorded during this same dekad over the period 1979 to 2022, notably 40.3°C in the Far North Region; 40.6°C in the North Region; 34.1°C in the Adamawa Region; 34.7°C in the Centre Region; 33.9°C in the South Region; 34.8°C in the East Region; 33.5°C in the West Region; 32.9°C in the North West Region; 32.8°C in the South West Region and 32.2°C in the Littoral Region, for the dekad from 21st to 30th June 2024, we expect maximum temperatures:*

- Around the historical average recorded from 1979 to 2022 in Waza, Kousseri, Maga, Bogo and Mindif; below the historical average in Kaele, Mokolo, Makary, Maroua, Mora, Gamboura and Yagoua, in the **Far North region**;
- Around the historical average recorded from 1979 to 2022 in Pitoa, Touboro, Guider, Dembo, Tchollire, Rey-Bouba, Lagdo, Garoua and Poli, in the **North region**;
- Above the historical average recorded from 1979 to 2022 in Tibati, Banyo, Betare Gongo and Yimbere; below the historical average in Ngaou Mbol, Dota, Mbakaou, Ngaoundal, Nassarao, Meiganga, Mbe, Kognoli, Tignere and Ngaoundere, in the **Adamawa region**;
- Above the historical average recorded from 1979 to 2022 in Mbalmayo, Nanga-Eboko, Monatele, Nkoteng, Ntui, Mbandjock, Akonolinga, Ngambe Tikar, Ngoro, Bafia, Mbaka, Yoko and Ayo; around the historical average in Obala, Eseka and Yaounde, in the **Centre region**;

- Above the historical average recorded from 1979 to 2022 in Mbitom, Lomie, Mbalam, Mindourou, Yokadouma, Ngoyla, Libongo, Belabo, Doume, Batouri, Abong-Mbang, Koso, Bertoua and Mintoum; around the historical average in Moloundou, Mambele, Dimako, Betare-Oya and Kika; below the historical average in Kongolo and Garoua-Boulai, in the **East region**;
- Above the historical average recorded from 1979 to 2022 in Sangmelima, Zoetele and Ambam; around the historical average in Djoum, Minkoumou, Ebolowa, Nyabizan, Kribi and Akom II; below the historical average in Campo and Lolodorf, in the **South region**;
- Above the historical average recorded from 1979 to 2022 in Nwa, Ako and Audu; around the historical average in Munkep, Furu-Awa, Fundong, Ndop, Bali, Widikum, Kumbo, Santa, Nkambe, Bambalang, Benakuma, Bamenda and Wum; below the historical average in Esu, in the **North West region**;
- Above the historical average recorded from 1979 to 2022 in Bazou, Koutaba, Makam, Fouban and Foubot; around the historical average in Tonga, Bangangte, Fongo-Tongo, Maniou, Bafang, Bafoussam, Bafou, Dschang, Batcham and Mbouda, in the **West region**;
- Above the historical average recorded from 1979 to 2022 in Buea, Kumba and Idenau; around the historical average in Babong, Mamfe, Mundemba, Ekok, Kumbe Balue, Bamusso, Dikome Bafaw, Muyuka, Eyumojock, Ekondo Titi, Tiko, Limbe, Bakogo, Etuku, Dikome Balue, Fontem and Nguti, in the **South West region**;
- Above the historical average recorded from 1979 to 2022 in Yabassi, Ndokiti, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Loum, Penja, Douala, Dizangue and Nkondjock; around the historical average in Yakanda, Baptek and Edea, in the **Littoral region**.

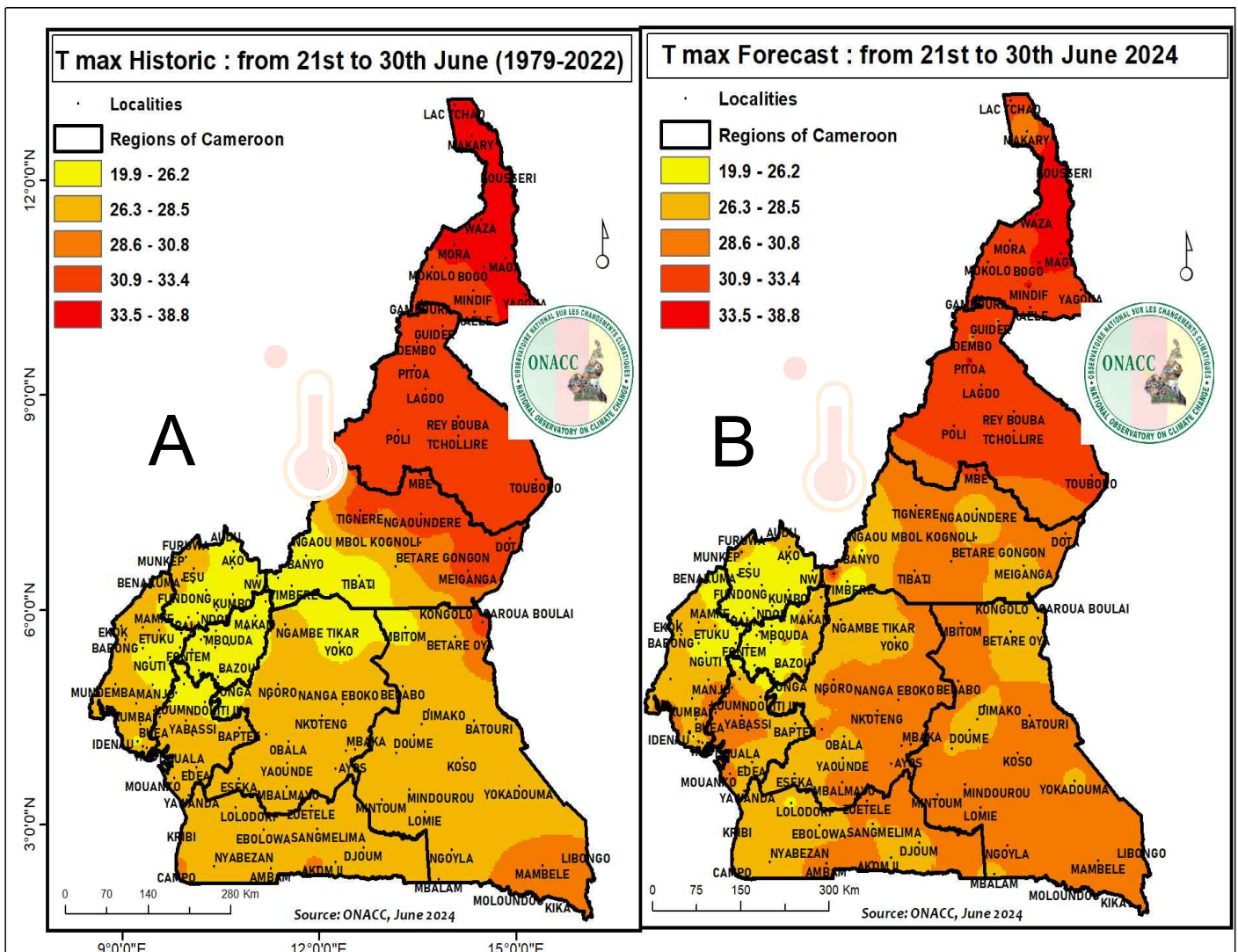


Figure 2: Variations in average maximum temperatures for the current dekad (b) compared to those registered for the same period from 1979 to 2022; (a) Source: NOCC, June 2024

Based on the difference between the mean maximum temperatures recorded during the dekad from 11th to 20th June 2024, for the dekad from 21st to 30th June 2024, we expect maximum temperatures:

- Around the average recorded during the dekad from 11th to 20th June 2024 in Mokolo, Maroua, Mora, Mindif, Gamboura, Kousseri, Waza, Maga and Bogo;
- below the average in Yagoua, Makary and Kaele, in the **Far North region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Poli, Touboro, Dembo, Tchollire, Guider, Garoua, Lagdo, Pitoa and Rey-Bouba, in the **North region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Betare Gongo, Ngaoundal, Ngaoundere, Tignere, Tibati, Mbe, Mbakaou, Nass Arao, Yimbere, Banyo and Ngaou Mbol; below the average in Kognoli, Meiganga and Dota, in the **Adamawa region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Batouri, Belabo, Bertoua, Abong-Mbang, Ngoyla, Mintoum, Lomie, Mindourou, Mbitom, Moloundou, Mambele, Koso, Libongo and Kika; below the average in Garoua-Boulai, Mbalam, Yokadouma, Kongolo, Betare-Oya, Dimako and Doume, in the **East region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Ayos, Mbaka, Ngoro, Nanga-Eboko, Mbalmayo, Nkoteng, Yoko, Monatele, Ntui, Bafia, Akonolinga, Mbandjock and Yaounde; below the average in Obala, Ngambe Tikar and Eseka, in the **Centre region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Akom II, Ambam, Zoetele, Djoum, Minkoumou, Campo, Nyabizan and Ebolowa; below the average in Kribi, Lolodorf and Sangmelima, in the **South region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Munkep, Furu-Awa, Ndop, Esu, Kumbo, Santa, Nkambe, Bambalang, Bamenda, Fundong, Bali, Benakuma, Audu, Widikum and Wum; below the average in Nwa and Ako, in the **North West region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Foumban, Foubot, Bangangte, Koutaba, Bafoussam, Dschang, Bafang, Tonga, Batcham, Bazou, and Mbouda, in the **West region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Kumba, Buea, Idenau, Mundemba, Babong, Kumbe Balue, Bamusso, Dikome Bafaw, Etuku, Muyuka, Eyumojock, Ekondo Titi, Fontem, Tiko, Limbe, Bakogo, Nguti, Dikome Balue and Mamfe; below the average in Mundemba, Benakuma and Ekok, in the **South West region**;
- Around the average recorded during the dekad from 11th to 20th June 2024 in Douala, Mouanko, Ndokiti, Yabassi, Loum, Dibombari, Nkongsamba, Manjo, Melong, Penja, Ndokama, Dizangue, Nkondjock, Mbanga, Baptek and Edea, in the **Littoral region**.

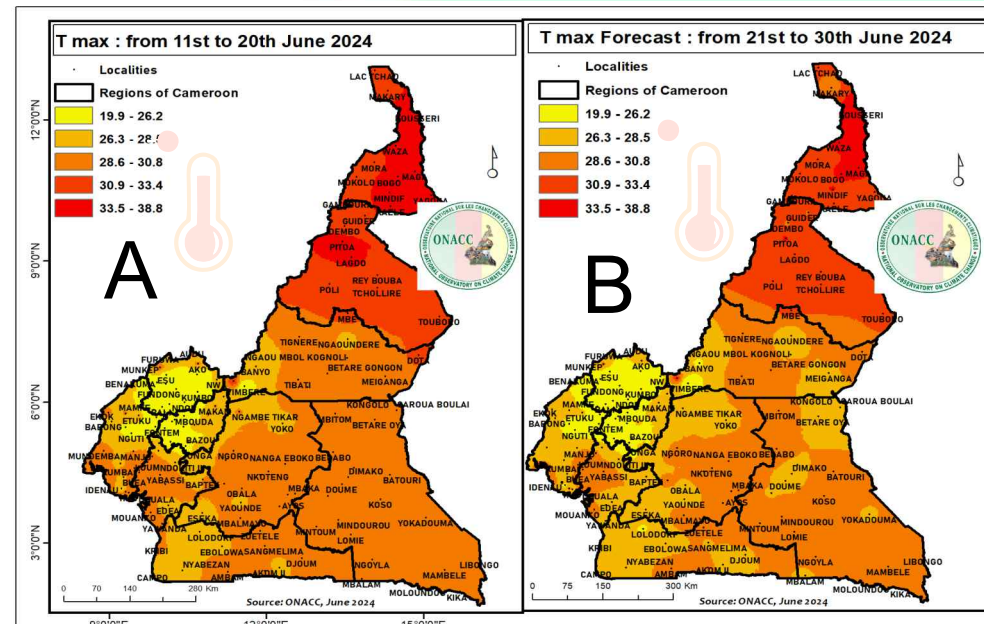


Figure 3: Variations in average maximum temperatures for the dekad from 21st to 30th June 2024 (b) compared to those recorded for the dekad from 11th to 20th June 2024 (a). Source: NOCC, June 2024



Alerts for maximum temperature

During this dekad from 21st to 30th June 2024, particular attention should be paid to localities that have a very high probability of experiencing an increase in maximum temperature compared to their historical averages for the same period from 1979 to 2022. They include:

- Tibati, Banyo and Betare Gongo, in the **Adamawa region**;
- Mbalmayo, Nanga-Eboko, Nkoteng, Ngoro, Bafia, Mbaka, Yoko and Ayos, in the **Centre region**;
- Lomie, Batouri, Ngoyla, Belabo, Koso, Bertoua and Mintoum, in the **East region**;
- Sangmelima, Zoetele and Ambam, in the **South region**;
- Ako and Audu, in the **North West region**;
- Bazou, Koutaba, Makam, Foumban and Foubot, in the **West region**;
- Kumba, Buea and Idenau, in the **South West region**;
- Yabassi, Ndokiti, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Loum, Penja, Douala, Dizangue and Nkondjock, in the **Littoral region**.



b) Minimum Temperature

Based on the historical average of minimum temperatures recorded during this same dekad over the period 1979 to 2022, notably 19.1°C in the Far North Region; 19.5°C in the North Region; 15.8°C in the Adamawa Region; 17.1°C in the Centre Region; 17.5°C in the South Region; 17.5°C in the East Region; 15°C in the West Region; 15°C in the North West Region; 20.3°C in the South West Region and 21.3°C in the Littoral Region, for the dekad from 21st to 30th June 2024, we expect minimum temperatures

- Below the historical mean recorded during the same period from 1979 to 2022 in Mokolo, Gamboura and Mora; around the historical mean in Kousseri, Bogo, Maroua, Waza, Maga, Yagoua, Makary, Mindif and Kaele, in the **Far North region**;
- Below the historical mean recorded during the same period from 1979 to 2022 in Rey-Bouba, Tchollire, Garoua, Touboro, Poli and Guider; around the historical mean in Dembo, Pitoa and Lagdo, in the **North region**;
- Below the historical mean recorded during the same period from 1979 to 2022 in Kognoli, Dota, Tignere, Ngaoundal, Nass Arao, Mbakaou and Mbe; around the historical mean in Banyo, Betare Gongon, Ngaou Mbol and Yimbere; above the historical mean in Tibati, Ngaoundere and Meiganga, in the **Adamawa region**;
- Above the historical mean recorded during the same period from 1979 to 2022 in Akonolinga, Obala, Nkoteng, Monatele, Ngoro, Yaounde, Ngambe Tikar, Mbalmayo, Yoko, Bafia, Mbandjock, Eseka and Nanga-Eboko, in the **Centre region**;
- Below the historical mean recorded during the same period from 1979 to 2022 in Betare-Oya and Garoua-Boulai; around the historical mean in Kongolo, Belabo, Dimako, Batouri, Lomie, Mbalam, Doume, and Kika, Mbitom, Koso, Yokadouma, Abong-Mbang, Mintoum, Mambele, Libongo, Bertoua, Moloundou and Ngoyla, in the **East region**;
- Above the historical mean recorded during the same period from 1979 to 2022 in Lolodorf, Kribi, Campo, Akom II, Ebolowa, Sangmelima, Zoetele, Minkoumou, Nyabizan, Ambam and Djoum, in the **South region**;
- Around the historical mean recorded during the same period from 1979 to 2022 in Bangangte, Mbouda, Dschang, Bana, Bafoussam, Foumban, Bangoum, Fountbot, Babadjou, Bamendjing, Bafou, Bandjoun, Batie and Bafang; above the historical mean in Magba, Bazou, Bagam, Batcham, Makam, Koutaba, Kekem and Tonga, in the **West region**;

- Around the historical mean recorded during the same period from 1979 to 2022 in Esu, Bali, Kumbo, Ndop, Nkambe, Wum, Bamenda, Benakuma, Santa, Munkep, Bamessing and Fundong; above the historical mean in Nwa, Furu-Awa, Audu and Ako, in the **North West region**;
- Around the historical mean recorded during the same period from 1979 to 2022 in Tiko, Dikome Bafaw, Fontem, Limbe, Eyumojock, Mamfe, Dikome Balue, Buea, Bakogo, Ekang, Bamusso, Mundemba, Etuku, Ekok, Babong, Kumba, Nguti and Idenau, in the **South-West region**;
- Above the historical mean recorded during the same period from 1979 to 2022 in Nkongsamba, Ndokama, Yingui, Baptek Douala, Dizangue, Edea, Mouanko, Yabassi, Nyanon, Ngambe, Mbanga, Penja, Ndokiti, Nkondjo, Loum and Manjo, in the **Littoral region**.

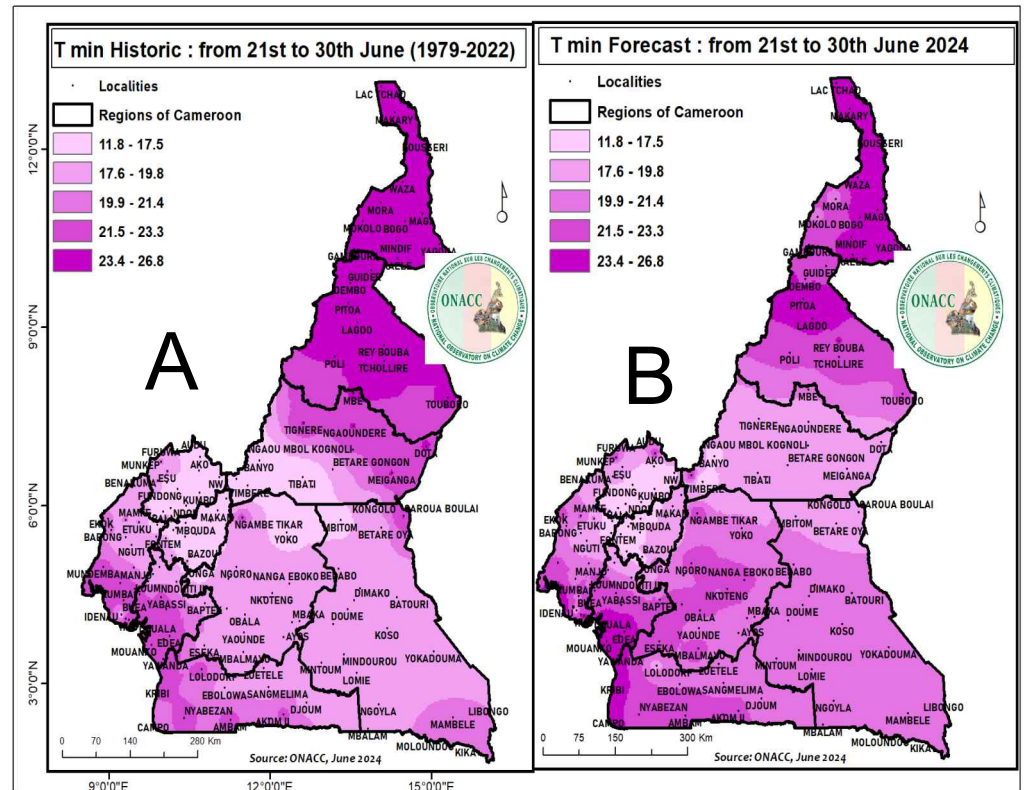


Figure 4: Variation in mean minimum temperatures for the current dekad (21-30 June 2024) (b) compared to historical averages from 1979 to 2022 (a)
Source: NOCC, June 2024

Based on the difference between the average minimum temperatures recorded during the dekad from 11th to 20th June 2024, for the dekad from 21st to 30th June 2024, we expect minimum temperatures:

- Around the mean recorded during the dekad from 11th to 20th June 2024 in Gamboura, Maga, Bogu, Maroua, Waza, Mora, Yagoua, Mokolo, Makary, Mindif, Kousseri and Kaele, in the **Far North region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Guider, Dembo, Rey-Bouba Lagdo, Garoua, Poli, Pitoa, Touboro and Tchollire in the **North region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Ngaoundere, Meiganga, Banyo, Ngaou Mbol, Nass Arao, Yimbere, Mbe, Mbakaou, Dota, Kognoli, Betare Gongo, Tibati and Tignere, in the **Adamawa region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Yaounde, Nkoteng, Nanga-Eboko, Ayos, Ngambe Tikar, Mbalmayo, Obala, Eseka, Mbaka, Bafia, Ngoro, Monatele, Mbandjock and Akonolinga and Yoko, in the **Centre region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Mbitom, Ngoyla, Mintoum, Betare-Oya, Libongo, Kika, Mambele, Doume, Yokadouma, Garoua-Boulai, Abong-Mbang, Bertoua, Mbalam, Kongolo, Koso, Lomie, Batouri, Moloundou, Belabo and Dimako, in the **East region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Djoum, Campo, Kribi, Akom II, Nyabizan, Sangmelima, Ebolowa, Zoetele, Lolodorf, Minkoumou and Ambam, in the **South region**;
- Below the mean recorded during the dekad from 11th to 20th June 2024 in Bafoussam, Bafang, Bangangte, Foumban, Dschang, Bandjoun, Koutaba, Mbouda, Foubot, Babadjou, Bamendjing, Batie, Bazou, Tonga, Batcham, Magba, Bafou, Bagam, Kekem, Makam and Fongo-Tongo, in the **West region**;

- Around the mean recorded during the dekad from 11th to 20th June 2024 in Bamenda, Nkum, Bamessing, Benakuma, Audu, Santa, Bali, Fundong, Ako, Esu, Munkep, Furu Awa, Wum, Ndop, Kumbo, Nwa, in the **North West region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Ekok, Mundemba, Limbe, Etuku, Bamusso, Eyumojock, Balue, Idenau, Kumba, Buea, Dikome Bafaw, Fontem, Mamfe, Ekan, Tiko, Dikome Bakogo and Nguti, in the **South-West region**;
- Around the mean recorded during the dekad from 11th to 20th June 2024 in Ndokama, Ndokiti, Yingui, Nkongsamba, Yabassi, Manjo, Edea, Mouanko, Bapte, Dizangue, Douala, Nyanon, Ngambe, Penja, Loum and Mbanga, in the **Littoral region**.

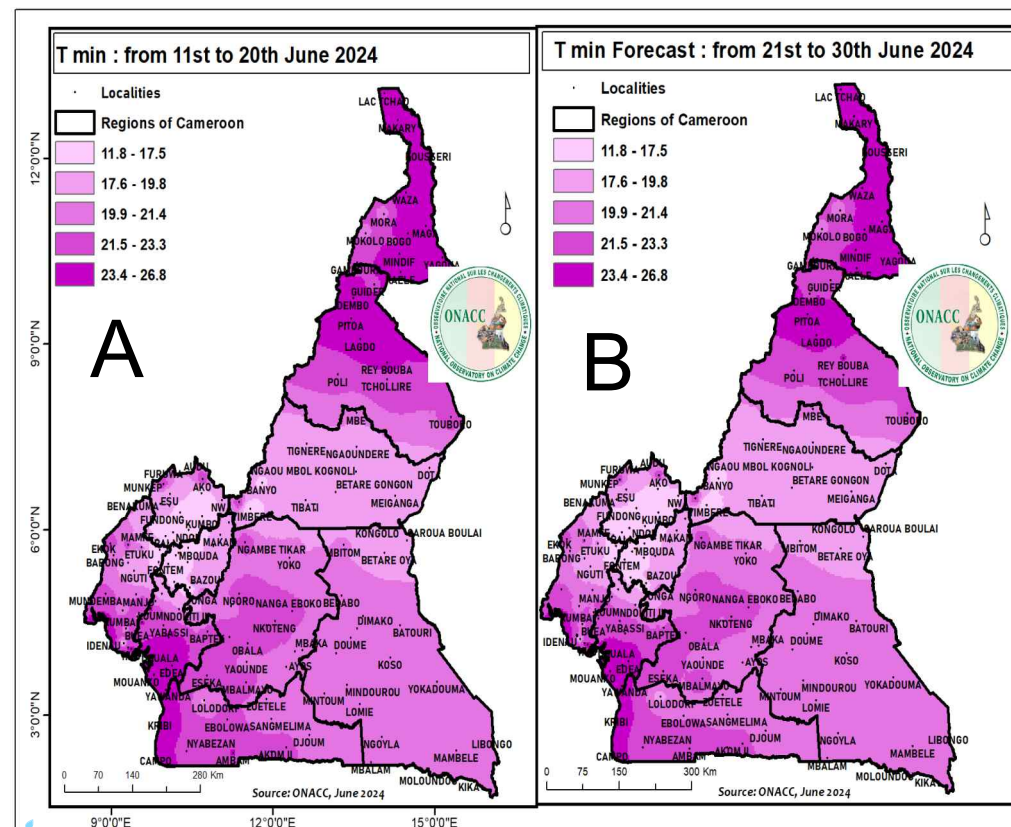


Figure 5: Variations in minimum temperatures for the current dekad (b) compared to those recorded in the dekad from 11th to 20th June 2024 (a). Source: NOCC, June 2024

Alerts for minimum temperatures



During this dekad from 21st to 30th June 2024, particular attention should be paid to the localities that have a very high probability of experiencing a decrease in minimum temperature compared to their historical values for the same period from 1979 to 2022. They include:

- Mokolo, Gamboura and Mora, in the **Far North region**;
- Rey-Bouba, Tchollire, Garoua, Touboro, Poli and Guider in the **North region**;
- Kognoli, Dota, Tignere, Ngaoundal, Nass Arao, Mbakaou and Mbe, in the **Adamawa region**;
- Betare-Oya and Garoua-Boulai, in the **East region**;
- Bangangte, Mbouda, Dschang, Bana, Bafoussam, Foumban, Bangoum, Foubot, Babadjou, Bamendjing, Bafou, Bandjoun, Batie and Bafang, in the **West region**.u and Bamendjing, in the **West region**.

IV. Risks and potential impacts on socio-economic sectors



a) *In the agricultural sector:*

A risk of recording:

Degradation and destruction of plantations like banana, palm, and rubber, as well as fruit trees, due to heavy rains and strong winds in the Guinea high savannah, bimodal rainforest, Western Highlands, and monomodal rainforest zones.

Scarcity of water resources for highly dependent crops (off-season crops) in the Far-North region.



b) *In the health sector: A high risk of recording:*

A high risk of recording:

- an increase in the number of cases of respiratory diseases as a result of the humidity in the south of the country;
- a proliferation of breeding grounds for malaria mosquitoes in the south of the country;
- cases of discomfort, though moderate compared to the previous three dekads, due to thermal discomfort, especially among the elderly, pregnant women, and people suffering from general pathologies (diabetes, hypertension, etc.) in the Sudano-Sahelian zone;
- an increase in the cases of water-borne diarrhoeal diseases, particularly cholera, in many localities in the far south of the country, especially the coastal strip and the major conurbations (Douala, Yaounde, Kribi, Bafoussam, etc);
- risk of injury and trauma due to lightning strikes during the rainy periods that characterise the onset of the rainy season in the Sudano-Sahelian zone;

V. Risks and potential impacts on socio-economic sectors

c) In the environment and biodiversity sector:

A high risk of recording:

- floods in certain localities in the South (Kribi, Ebolowa, Lolodorf, etc.), Littoral (Douala, Edea, Nkongsamba etc.), Centre (Yaounde), North West (Bamenda, Mbengwi, Ako, Nkoroni, Batibo, Numben, Widikum) and South West (Limbe, Tiko, Buea) regions, due to heavy and/or abundant rainfall concentrated over a very short period compared to the norm;
- falling trees as a result of heavy rain, accompanied by violent winds, lightning and hail in localities in the Sudano-Sahelian zone, Bimodal rainforest zone, the Western Highlands zone, the Monomodal rainforest zone and the Guinea high savannah zone;
- landslides in certain localities in the Menoua and Bamboutos Divisions (West Region), in the Lebialem Division (South West Region) and the Bui and Boyo Divisions (North West region).

d) In the water and energy sector:

A high risk of recording cases of:

- destruction of electrical power transmission and regulation infrastructure (poles, cables, transformers, etc.) in the Guinea high savannah zone, the far southern part of the country and the Sudano-Sahelian zone, due to heavy rainfall, accompanied by violent winds, lightning and falling trees;
- Contamination of water collection points by contaminated run-off water in the southern part of the country.



e) In the livestock sector:

loss of livestock in certain localities in the Far North region, as a result of heat stress and lack of water;

- loss of livestock in summit shelters located in the Sudano-Sahelian zone, due to electrical discharges (lightning) that are a feature of the rains at the onset of the season in the southern part of the said agro-ecological zone.



f) In the public works sector:

A very high risk of recording

- Destruction of crossing structures (bridges, culverts) in many localities of the bimodal rainforest, the monomodal rainforest and the Western highlands zones, due to heavy and abundant rainfall;
- deterioration and destruction of unpaved roads in many localities in the far southern part of the country, due to erosion during the predicted heavy and intense rainfall.



g) In the public security sector

A risk of conflicts between farmers, between farmers and livestock breeders and between livestock breeders, in the Far North (Zina, Logone Birni, Makary, Yagoua, Yagoua, Maga etc.), over access to water resources and grazing land.



h) In the Urban sector

- A risk of persistent hot weather (heat islands) in highly urbanised areas (large conurbations: the urban centres of Douala, Maroua, Kribi, Limbe, etc.), leading to discomfort among vulnerable people (children, the elderly, pregnant women, etc.).
- Destruction of dwellings and public buildings in many localities in the Western Highlands zone, the Bimodal rain forest zone, the Monomodal rain forest zone and the Guinea high savannah zone, due to heavy rain accompanied by violent winds, lightning and even hail, especially in the North region due to the strong convection in the lower atmosphere, which is still warm as the rainy season gradually gets underway;



ALERTS !!!

Risk type	Region	Locality to be likely affected	Most probable period of occurrence	Expected situation of key determinant
<p>Flooding</p>	Littoral	<i>Douala IV, II&V</i>	24-26	<i>Rainfall(45-200mm)</i>
	Northwest	<i>Bamenda/Fundong/Ajung/Ako</i>	21-25	<i>Rainfall(90-240mm)</i>
		<i>Nkor/Santa/Batibo/Kumbo</i>	23-25	
	Southwest	<i>Limbe/Buea/Bamusso</i>	29-30	<i>Rainfall(90-235mm)</i>
	West	<i>Dschang</i>	21-25	<i>Rainfall(80-235mm)</i>
	Far North	<i>Maga/Gamboura</i>	22-25	<i>Rainfall(15-140mm)</i>
	North	<i>Garoua/Lagdo /Touboro</i>	24-26	<i>Rainfall(30-195mm)</i>
	Adamawa	<i>Karna Manga/ Mbang-Mboum</i>	24-25	<i>Rainfall(40-245mm)</i>
		<i>Nguessek Ngao/ Ngaoundjoum</i>	23-25	
	Centre	<i>Yaounde center, Nkolbisson</i>	24-26	<i>Rainfall(20-100mm)</i>
Thunderstorms and Lightning	West	<i>Mifi, Bamboutos, Menoua, Noun</i>	21-30	<i>High convective uplifts</i>
	Far-North & North	<i>Central & Southern sections</i>		
<p>Violent winds</p>	Far-North	<i>Central and southern parts of the region</i>	21-30	Wind speed
	North	<i>Across the region</i>		Reaching 14.1m/s
<p>Extreme heat Events</p>	Far-North	<i>Isolated cases across the region, with peaks in around the northern fringes of the region & Dardao</i>	21-30	<i>Maximum temperatures reaching 40.2°C</i>
	North	<i>Isolated cases across the regions, with peaks in Sorombeo, Figuil, Garoua, Guirvidig, & Gogoleme</i>	21-30	<i>Maximum temperatures reaching 39.5°C</i>
<p>Water resource related conflicts</p>	North & Far-North	<i>Arable/ pastoral zones, transhumance corridors, and most probable in the Logone et Chari Division.</i>	21-30	<i>Continuity of rainy season at the central and Southern parts of the zone and sporadic rains around the northern limits</i>



VI. Key Messages

Message 1: High risk of heavy rain accompanied by violent winds, lightning and hailstones in the North region, the Western Highlands and the Guinea High Savannah zone;

Message 2: Risk of flooding in certain areas in the southern part of the country, notably in the major conurbations (Kumbo, Limbe, Buea, Douala, Dschang, Bamenda, etc.).

Message 3: Risk of destruction of dwellings and public buildings in many localities in the Sudano-Sahelian zone, due to rain accompanied by violent winds, lightning, and even hail;

Message 4: Risk of destruction of electricity transmission and regulation infrastructure (poles, cables, transformers, etc.) in the Sudano-Sahelian zone, Guinea high savannah zone, and in the far south of the country, due to heavy rains, accompanied by violent winds and lightning, as well as falling trees;

Key message 5: Risk of flooding in certain localities in the South (Kribi), North West (Mbengwi, Batibo, Numben, Kumbo, etc.), and South West (Limbe, Buea, etc.) regions, due to heavy and/or abundant rainfall, concentrated over very short periods compared to the norm.

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VII. Some Recommendations



In the Agriculture sector, to:

- It is highly recommended that:

- For the populations in the far south of the country, including the Centre, South, Littoral, Southwest, Northwest, West, and East regions, they should comply with the recommendations of the agricultural calendar provided by the NOCC for the execution of agricultural activities.
- For the populations in the Adamaoua region, they should comply with the recommendations of the NOCC's agricultural calendar for the start of planting with respect to the 2024 growing season.



• ***In the Health sector, continue to:*** It is strongly recommended that people;

- Wear nose plugs regularly outside homes, especially in urban areas with heavy road traffic, to avoid inhaling dust particles in the air;
- Rehydrate at regular intervals;
- Air and ventilate living areas as much as possible;
- Avoid the accumulation of household waste in neighbourhoods;
- Regularly put on warm clothes and drink hot drinks like tea, etc. to protect oneself against night-time cold in the Guinea high savannah and Western highland zones.

In the Water and Energy sector, to continue:



- Regular sampling, analyses and treatment of drinking water at catchment points and water supply points before distribution to households;
- Regular use of basic techniques (filtering, boiling, etc.) to make drinking water potable at the household level.

In the Urban Sector:

It is strongly recommended for populations in Monomodal and Bimodal Rainfall Forest Zones, as well as in the Highlands Plateau Zone:

To reduce or avoid crossing flooded channels during heavy rains.

To avoid taking shelter under trees, walking near cables and electric poles during thunderstorms, as there is a risk of being struck by lightning.