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**BULLETIN N°167**

**Forecasts and Dekadal Climate Alerts for the  
Period of 11th to 20th October 2023**



**11 October, 2023**

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## I Introduction

This **dekadal climate early warning bulletin n° 167** is obtained by exploiting spatial data collected from major international centres involved in day-to-day followup 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 African Centre of Meteorological Applications for Development (ACMAD); Spatial data from 1979 to 2018, 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 2018, as well as the climatic forecasts for all the five Agro-ecological zones of Cameroon, for the period from **11th to 20th October 2023**. This early warning brief further underscores the risks, threats and potential impacts expected in the different socio-economic development sectors of Cameroon. It also makes an assessment of the forecasts made for the previous dekad from **1st to 10th October 2023**.

## 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 2018. They include:

- Tibati, Betare Gongo, Yimbere, Banyo and Nass Arao, in the **Adamawa region**;
- Yoko, Mbalmayo, Bafia, Nanga-Eboko, Monatele, Nkoteng, Obala, Ngoro, Ntui, Mbandjock and Akonolinga in the **Centre region**;
- Libongo, Mambele, Moloundou, Kika, Garoua-Boulai, Ngoyla, Koso, Abong-Mbang, Mbalam, Mintoum, Belabo, Yokadouma, Lomie, Batouri, Betare-Oya and Kongolo, in the **East region**;
- Minkoumou, Zoetele, Ambam, Sangmelima, Nyabizan, Djoum, Kribi, Akom II, OEBolowa, Lolodorf and Campo in the **South region**;
- Furu-Awa, Munkep, Audu and Ako, in the **North-West region**;
- Foubot, Bafang, Maniou, Makenene, Makam and Fouban, in the **West region**;
- Kumbe Balue, Bamusso, Idenau, Mamfe, Kumba, Mundemba, Dikome Bafaw, Etuku, Buea, Dikome Balue, Muyuka, Eyumojock, Ekondo Titi, Babong, Fontem, Tiko and Limbe, in the **South-West region**;
- Douala, Loum, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Penja, Yabassi, Dizangue, Nkondjock and Ndokiti, in the **Littoral region**.

**NB1: This dekad from 11th to 20th October 2023 could be marked by heatwaves in many localities in the Far North and North regions, due to maximum temperatures ranging between 35 and 39°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 2018. They include:

- Mora, Mokolo and Maroua, in the **Far North region**;
- Touboro, in the **North region**;
- Mbe, Tignere, Ngaoundere, Dota and Meiganga in the **Adamawa region**;
- Garoua-Boulai, in the **East region**.

**NB2: This dekad from 11th to 20th October 2023 will be marked by persistent cold nights in many localities in the Far North (Mora, Mokolo etc), Adamawa (Dota, Tchabal Djalingo, Ngaoundere, Mbe, Banyo and Meiganga), West (Foubot, Bazou, Bafoussam, Dschang, Makam and Fouban), North-West (Nkambe, Esu, Bamenda, Ndop, Nwa etc..), Centre (Yaounde, Akonolinga, Mbalmayo, Nkoteng, Bafia, NdiKinimeki, Nanga Eboko etc.), South (Lolodorf, Ebolowa, Ambam, Kye-Ossi, Sangmelima, Djoum, etc.) and East (Garoua-Boulai, Betare Oya, Ndokayo, Gargasali etc.) regions due to minimum temperatures ranging between 13°C and 20°C.**



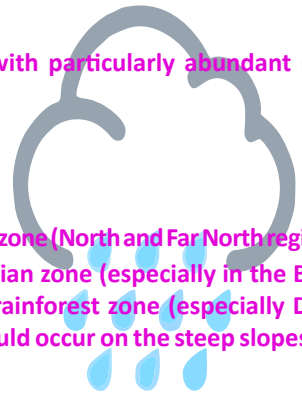
## II.2. For Rainfall

This dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will be marked by an increase in rainfall amounts over the entire national territory, as compared to the previous dekad, except in the Sudano-Sahelian zone.

**NB 3:** This dekad, from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will be marked by:

- Very abundant rainfall in the Bimodal rainforest zone (Centre, South and East regions) with particularly abundant rainfall amounts in the South region and the southern part of the Centre region;
- Abundant rainfall in the Monomodal rainforest zone (Littoral and South West regions);
- Abundant rainfall amounts in the Highlands zone (West and North-West regions);
- Abundant rainfall amounts in the Guinea High Savannah zone (Adamawa region);
- Rainfall amounts below those observed during the previous dekad awaited in the Sudano-Sahelian zone (North and Far North regions).

**NB 4:** Rainfall amounts for this dekad could lead to floods in areas at risk in the Sudano-Sahelian zone (especially in the Benoue basin and the Logone plain), the coastal strip and large agglomerations in the monomodal rainforest zone (especially Douala, Limbe, and Nkongsamba) and the bimodal rainforest zone (Yaounde). In addition, landslides could occur on the steep slopes of the Highlands, Monomodal rainforest zones and in steeper areas of Yaounde.



## III. Climate forecasts for the five agro-ecological zones for the period from 11th to 20th October 2023

### 1) For Rainfall

#### a) In the Sudano-Sahelian zone

This dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will be marked by rainfall amounts ranging between:

- \*20 and 100mm in the localities of Lagdo, Pitoa, Garoua, Poli, Rey Bouba, Touboro, etc, in the **North region**;
- \*20 and 80mm in the localities of Maga, Bogo, Kaele, Yagoua, Maroua, Mindif, Mora, etc, in the **Far North region**.

#### b) In the Guinea high savannah zone

This dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will experience rainfall amounts ranging between **50 and 110mm** in the localities of Kongolo, Tibati, Meiganga, Betare Gongon, Mbakaou, Dota, Ngaoundere, Banyo and Tignere in the Adamawa region;

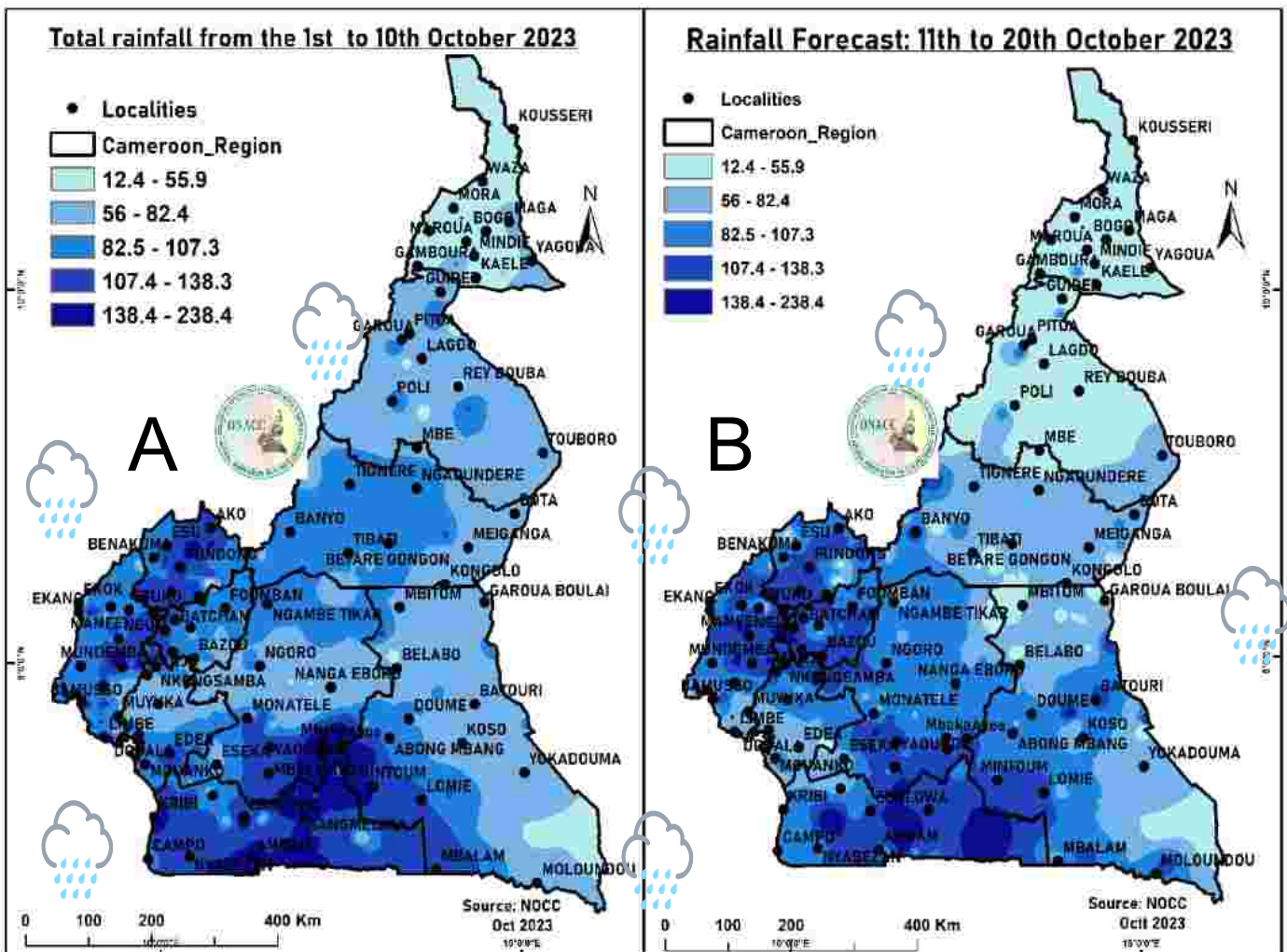


Figure 1: Variations in rainfall amounts during the current dekad (b) compared to that recorded during the period October 1-10, 2023 (a)  
Source : NOCC, October 2023

### c) In the Bimodal rain forest zone

For the dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023, we expect rainfall amounts ranging between:

- \* **50 and 120mm** in Ngoro, Nanga Eboko, Ngambe Tikar, Nkoteng, Ntui; between **120 and 240 mm** in Eseka, Yaounde, Mbalmayo, Nkolmetet, Nkolafamba, Monatele and Mfou in the **Centre region**;
- \* **50 and 140mm** in Mbalam, Koso, Batouri, Doume, Mindourou, Messamena, Ngoyla, Abong-Mbang, Motcheboun, Atok, Nguelemendouka, Bagofit, Angossas, Lomie, Libongo, Mambele, Mbalam and Moloundou in the **East region**;
- \* **100 and 240mm** in Nyabizan, Ebolowa, Campo, Lolodorf, Kribi, Ambam, Sangmelima, Akom II and Zoetele in the **South region**;

### d) In the Western highlands zone

The dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will experience highly abundant rainfall amounts ranging between:

- \* **80 and 140mm** in Dschang, Bazou, Bafoussam, Foubot, Tonga, Mbouda, Bafang, Bangangte, Batcham in the **West region**;
- \* **80 and 140mm** in Benakuma, Fundong, Kumbo, Esu, Ako, Bamenda and Santa in the **North West region**;

### e) In the Monomodal rain forest zone

This dekad from 11<sup>th</sup> to 20<sup>th</sup> October 2023 will be marked by very abundant rainfall amounts between:

- \* **50 and 140mm** in Mutengene, Mundemba, Idenau, Bamusso, Tiko, Kumba, Buea, Limbe, Mamfe, etc in the **South West region**;
- \* **50 and 140mm**, in Loum, Penja, Mbanga, Baptek, Yabassi, Nkongsamba, Edea, Mouanko, Douala, Dizangue and Manjo, in the **Littoral region**.

**NB 5: This dekad, from 11th to 20th October 2023 will be marked by:**

- **Very abundant rainfall in the Bimodal rainforest zone (Centre, South and East regions) with particularly abundant rainfall amounts in the South region and the southern part of the Centre region;**
- **Abundant rainfall in the Monomodal rainforest zone (Littoral and South West regions);**
- **Abundant rainfall amounts in the Highlands zone (West and North-West regions);**
- **Abundant rainfall amounts in the Guinea High Savannah zone (Adamawa region);**
- **Rainfall amounts below those observed during the previous dekad awaited in the Sudano-Sahelian zone (North and Far North regions).**



### **2) For Temperature**

This dekad from 1st to 10th October 2023 will be marked by heatwaves in the Far North and North regions, as well as in a number of localities in the bimodal rainforest zone, notably Mbalmayo and Mbitom. In addition, a number of localities in the Far North region (Kousseri, Waza, Maga, Bogo, Yagoua etc.), the Centre region (Yaounde, Akonolinga, Mbalmayo, Nkoteng, Bafia, Ndikinimeki, Nanga Eboko etc.) could continue experiencing hot nights, while cold nights could still be observed in many localities in the Adamawa (Dota, Tchabal Djalingo, Ngaoundere, Mbe, Banyo and Meiganga); West (Foubot, Bazou, Bafoussam, Dschang, Makam and Fouban) North West (Nkambe, Esu, Bamenda, Ndop, Nwa etc. ), South (Lolodorf, Ebolowa, Ambam, Kye-ossi, Sangmelima, Djoum, etc.), and East (Graroua-Boulai, Betare Oya, Ndokayo, Gargasali etc.) regions due to minimum temperatures ranging between 13°C and 20°C.

### **.a) For Maximum Temperature**

**Based on the historical average of maximum temperatures recorded during this same dekad over the period 1979 to 2018, notably 36°C in the Far North Region; 36.2°C in the North Region; 29.6°C in the Adamawa Region; 29°C in the Centre Region; 28.8°C in the South Region; 28°C in the East Region; 25.5°C in the West Region; 26°C in the North West Region; 28°C in the South West Region and 28.2°C in the Littoral Region, for the dekad from 1st to 10th October 2023, we expect maximum temperatures:**

- Around the historical average recorded from 1979 to 2018 in Bogo, Maroua, Mindif, Kaele, Waza, Kousseri and Gamboura; below the average in Makary, Yagoua, Mokolo and Mora, in the **Far North region**;
- Around the historical average recorded from 1979 to 2018 in Tchollire, Rey-Bouba, Guider, Garoua, Lagdo, Pitoa, Dembo, Touboro and Poli, in the **North region**;
- Above the historical average recorded from 1979 to 2018 in Tibati, Betare Gongo, Yimbere, Banyo and Nass Arao; below the average in Dota, Ngaoundere, Ngaou Mbol, Kognoli, Mbakaou, Ngaoundal, Meiganga and Tignere; around the average in Mbe, in the **Adamawa region**;

- Above the historical average recorded from 1979 to 2018 in Yoko, Mbalmayo, Bafia, Nanga-Eboko, Monatele, Nkoteng, Obala, Ngoro, Ntui, Mbandjock, Akonolinga, Ngambe Tikar, Eseka and Yaounde, in the **Centre region**;
- Above the historical average recorded from 1979 to 2018 in Bertoua, Mindourou, Dimako, Doume Libongo, Mambele, Moloundou, Kika, Ngoyla, Koso, Abong-Mbang, Mbalam, Mintoum, Belabo, Yokadouma, Lomie, Batouri, Betare-Oya and Kongolo; below the average in Garoua-Boulai, in the **East region**;
- Above the historical average recorded from 1979 to 2018 in Minkoumou, Zoetele, Ambam, Sangmelima, Nyabizan, Djoum, Kribi, Akom II, Ebolowa, Lolodorf and Campo, in the **South region**;
- Above the historical average recorded from 1979 to 2018 in Esu, Furu-Awa, Munkep, Audu, Nwa and Ako; around the average in Wum, Ndop, Widikum, Kumbo, Santa, Nkambe, Bambalang, Fundong, Bamenda, Benakuma and Bali, in the **North West region**;
- Above the historical average recorded from 1979 to 2018 in Foumbot, Fongo-Tongo, Bafang, Maniou, Makenene, Makam and Foumban; around the average in Koutaba, Batcham, Bafoussam, Bafou, Dschang, Bazou, Tonga, Bangangte and Mbouda, in the **West region**;
- Above the historical average recorded from 1979 to 2018 in Kumbo Balue, Bamusso, Idenau, Mamfe, Kumba, Mundemba, Dikome Bafaw, Etuku, Buea, Dikome Balue, Muyuka, Eyumojock, Ekondo Titi, Babong, Fontem, Tiko, Limbe, Nguti and Bakogo, in the **South West region**;
- Above the historical average recorded from 1979 to 2018 in Douala, Loum, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Penja, Yabassi, Dizangue, Nkondjock and Ndokiti; around the average in Bapteck and Edea, in the **Littoral region**.

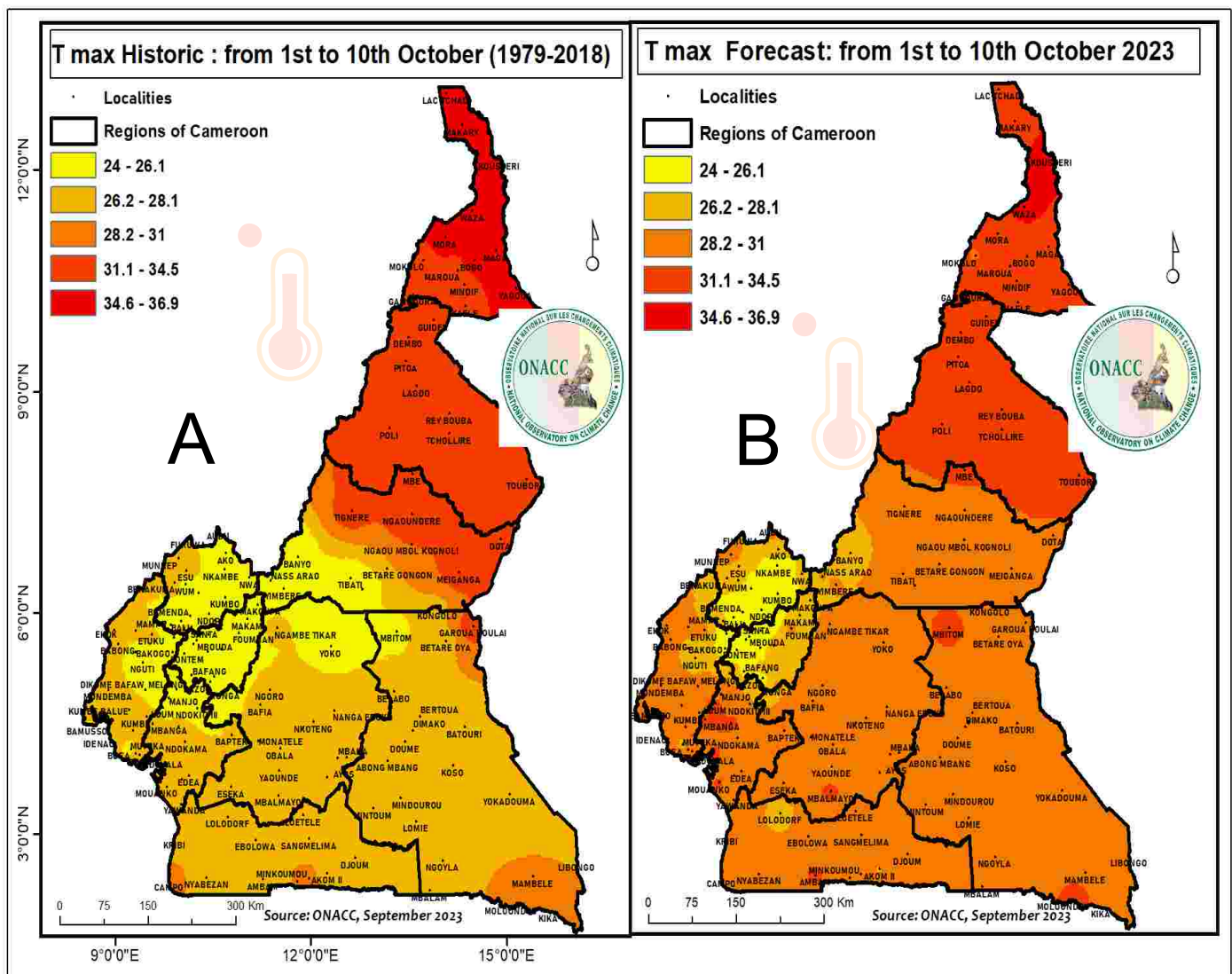


Figure 2: Variations in mean maximum temperatures for the current decade (b) compared to those registered for the same period from 1979 to 2018; (a) Source: NOCC, October 2023



Based on the difference between the mean maximum temperatures recorded during the dekad from 21st to 30th September 2023, for the dekad from 1st to 10th October 2023, we expect maximum temperatures:

- Below the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Yagoua, Mindif, Kousseri, Makary, Waza, Kaele, Gamboura, Maroua and Mora; below the average in Mokolo, Maga and Bogo, in the **Far North region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Dembo, Poli, Rey-Bouba, Lagdo, Pitoa, Garoua, Guider, Touboro and Tchollire, in the **North region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Ngaoundere, Ngaou Mbol, Tignere, Meiganga, Tibati, Betare Gongo, Ngaoundal, Mbakaou, Kognoli, Mbe, Yimbere, Nass Arao and Banyo; the mean at Dota, in the **Adamawa region**;
- Above the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Mbitom; around the average in Moloundou, Mambele, Kika, Abong-Mbang Kongolo, Garoua-Boulai, Betare-Oya, Koso, Dimako, Belabo, Doume, Mintoum, Mbalam, Libongo, Batouri, Yokadouma, Lomie, Mindourou, Ngoyla and Bertoua, in the **East region**;
- Above the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Yoko, Mbalmayo, Eseka and Ngambe Tikar; around the average in Yaounde, Monatele, Nkoteng, Nanga-Eboko, Ayos, Ntui, Bafia, Akonolinga, Mbandjock, Ngoro and Obala, in the **Centre region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Zoetele, Ambam, Minkoumou, Kribi, Djoum, Ebolowa, Campo and Sangmelima; above the average in Lolodorf, Nyabizan and Akom II, in the **South region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Idenau, Bamusso, Fontem, Dikome Bafaw, Ekok, Mundemba, Mamfe, Eyumojock, Ekondo Titi, Dikome Balue, Tiko, Limbe and Muyuka; above the average in Kumba, Kumbe Balue, Buea, Nguti, Etuku and Bakogo, in the **South West region**;
- Above the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Douala, Dibombari, Loum, Nkongsamba, Manjo, Melong, Penja, Yabassi, Ndokama, Mouanko, Dizangue, Nkondjock, Ndokiti, Baptek, Mbanga and Edea, in the **Littoral region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Munkep, Furu-Awa, Wum, Widikum, Kumbo, Santa, Nkambe, Bambalang, Bamenda, Fundong, Bali, Ndop, Esu, Benakuma, Audu and Ako; below the average in Nwa, in the **North West region**;
- Around the average recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Foumban, Bazou, Foumbot, Tonga, Bangangte, Makenene, Makam, Koutaba, Batcham, Bafoussam and Dschang; above the average in Bafang and Mbouda, in the **West region**;

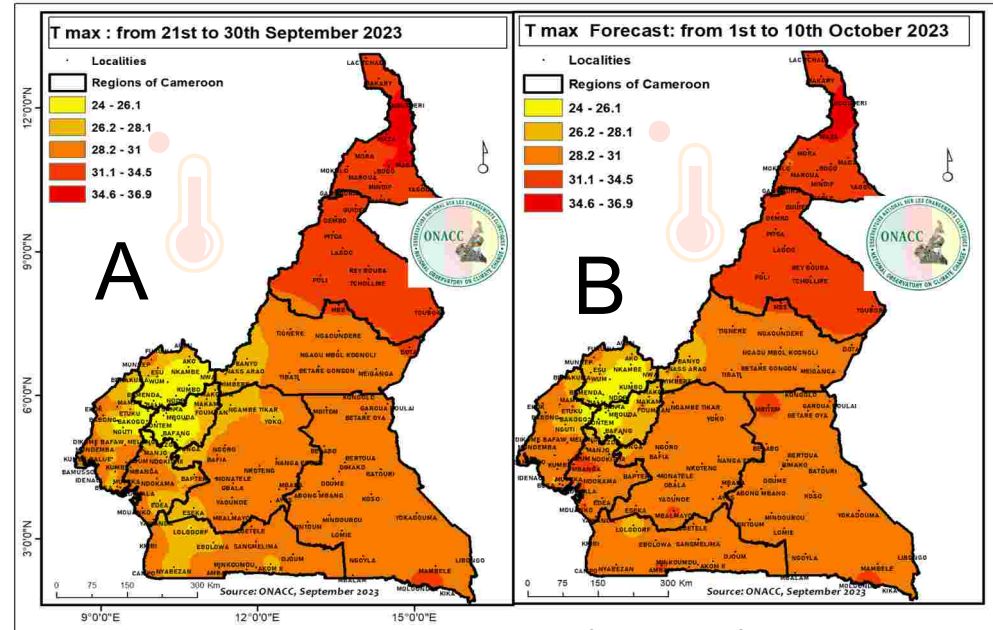


Figure 3: Variation in mean maximum temperatures for the dekad from 1st to 10th October 2023 (b) compared to those recorded for the dekad from 21st to 30th September 2023 (a). Source: NOCC, October 2023



### Alerts for maximum temperature

During this dekad from 1st to 10th October 2023, 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 2018. They include:

- Tibati, Betare Gongo, Yimbere, Banyo and Nass Arao, in the **Adamawa region**;
- Yoko, Mbalmayo, Bafia, Nanga-Eboko, Monatele, Nkoteng, Obala, Ngoro, Ntui, Mbandjock and Akonolinga in the **Centre region**;
- Libongo, Mambele, Moloundou, Kika, Garoua-Boulai, Ngoyla, Koso, Abong-Mbang, Mbalam, Mintoum, Belabo, Yokadouma, Lomie, Batouri, Betare-Oya and Kongolo, in the **East region**;
- Minkoumou, Zoetele, Ambam, Sangmelima, Nyabizan, Djoum, Kribi, Akom II, Ebolowa, Lolodorf and Campo in the **South region**;
- Esu, Furu-Awa, Munkep, Audu, Nwa and Ako, in the **North West region**;
- Foumbot, Bafang, Maniou, Makenene, Makam and Foumban, in the **West region**;
- Kumbe Balue, Bamusso, Idenau, Mamfe, Kumba, Mundemba, Dikome Bafaw, Etuku, Buea, Dikome Balue, Muyuka, Eyumojock, Ekondo Titi, Babong, Fontem, Tiko, Limbe, Nguti and Bakogo, in the **South West region**;
- Douala, Loum, Ndokama, Mouanko, Manjo, Mbanga, Melong, Dibombari, Nkongsamba, Penja, Yabassi, Dizangue, Nkondjock and Ndokiti; around the mean in Baptek and Edea, in the **Littoral region**.



### b) Minimum Temperature

Based on the historical average of minimum temperatures recorded from 1979 to 2018, notably 19.1°C in the Far North Region; 19.5°C in the North; 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 1st to 10th October 2023, we expect minimum temperatures:

- Below the historical mean recorded during the same period from 1979 to 2018 in Mora, Mokolo, Gamboura and Maroua; around the mean in Yagoua, Maga, Bogo, Kaele, Mindif Waza, Kousseri and Makary in the **Far North region**;
- Below the historical mean recorded during the same period from 1979 to 2018 in Guider, Dembo, Touboro and Poli; around the mean in Garoua, Rey-Bouba and Tchollire; around the mean in Lagdo and Pitoa, in the **North region**;
- Below the historical mean recorded during the same period from 1979 to 2018 in Banyo, Mbe, Mbakaou, Meiganga, Tignere, Dota, Ngaoundere, Ngaou Mbol, Kognoli and Ngaoundal; around the mean in Betare Gongon; above the mean in Tibati, Nass Arao and Yimbere, in the **Adamawa region**;
- Around the historical mean recorded during the same period from 1979 to 2018 in Ngambe Tikar; above the mean in Yaounde, Yoko, Bafia, Mbalmayo, Obala, Nkoteng, Akonolinga, Mbandjock, Nanga Eboko, Eseka, Monatele and Ngoro, in the **Centre region**;
- Around the historical mean recorded during the same period from 1979 to 2018 in Kongolo and Betare-Oya; above the mean in Garoua-Boulai, Moloundou, Mbitom, Mbalam, Mambele, Kika, Koso, Libongo, Lomie, Abong-Mbang, Dimako, Ngoyla, Yokadouma, Bertoua, Mindourou, Belabo, Batouri and Doume, in the **East region**;
- Above the historical mean recorded during the same period from 1979 to 2018 in Lolodorf, Campo, Akom II, Sangmelima, Ambam, Nyabizan, Ebolowa, Minkoumou, Kribi, Zoetele and Djoum, in the **South region**;
- Around the historical mean recorded during the same period from 1979 to 2018 in Mbouda, Bagam, Bafou, Batie, Bazou, Bangoum, Bangangte, Bafoussam and Dschang; above the mean in Bandjoun, Makenene, Meniou, Bafang, Batcham, Magba, Babadjou, Bamendjing, Tonga, Fouban, Foubot, Makam and Koutaba, in the **West region**;

- Around the historical mean recorded during the same period from 1979 to 2018 in Nkambe, Munkep, Ndop, Kumbo, Bali, Benakuma, Santa, Bamenda and Bamessing; above the mean in Nwa, Furu-Awa, Esu, Wum, Audu and Ako, in the **North West region**;
- Above the historical mean recorded during the same period from 1979 to 2018 in Idenau, Fontem, Limbe, Eyumojock, Kumba, Dikome Bafaw, Bakogo, Buea, Dikome Balue, Ekang, Tiko, Bamusso, Mundemba, Etuku, Ekok, Nguti, Mamfe and Babong, in the **South West region**;
- Above the historical mean recorded during the same period from 1979 to 2018 in Nyanon, Ngambe, Mbanga, Ndokama, Douala, Edea, Mouanko, Manjo, Yabassi, Loum, Dizangue, Penja and Nkongsamba; above the mean in Ndokiti and Bapteck, in the **Littoral region**.

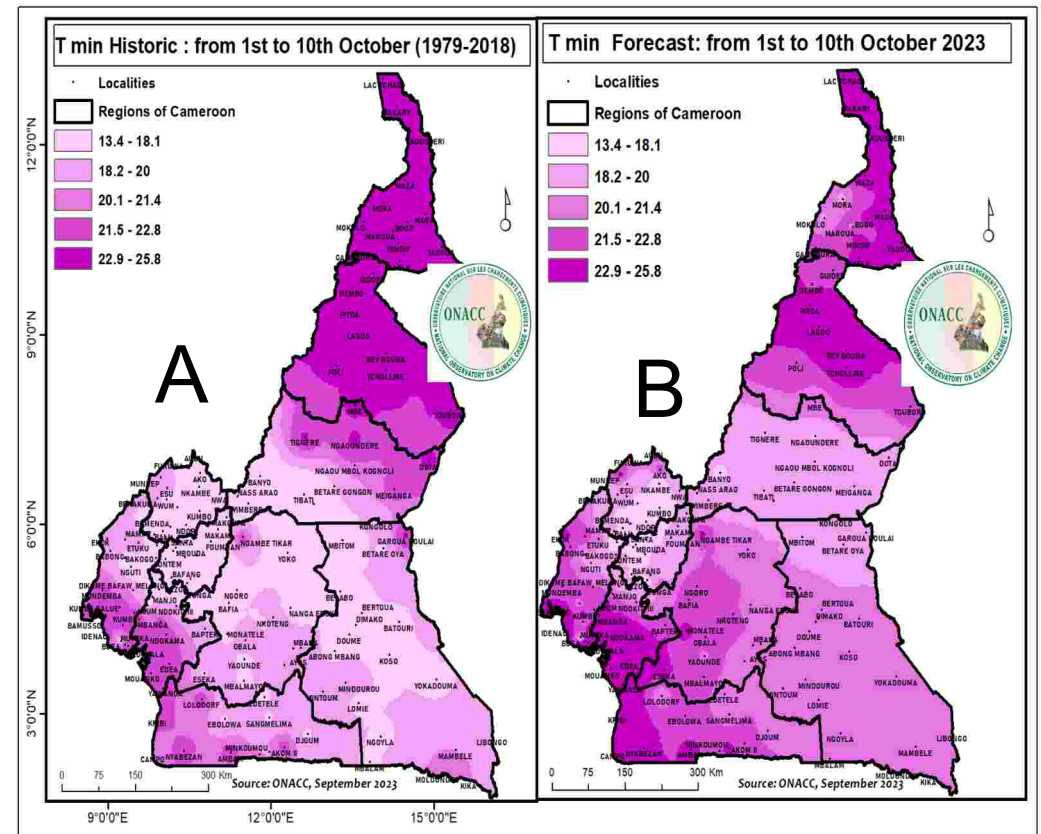


Figure 4: Variation in mean minimum temperatures for the current dekad (1-10 October 2023) (b) compared to historical averages from 1979 to 2018 (a). Source: NOCC, October 2023

- **Based on the difference between the average minimum temperatures recorded during the dekad from 21st to 30th September 2023, for the dekad from 1st to 10th October 2023, we expect minimum temperatures:**

- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Kousseri, Makary, Gamboura, Maroua, Mora, Mokolo and Bogo; above the mean in Waza, Maga, Mindif, Kaele and Yagoua, in the **Far North region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Guider, Lagdo, Pitoa, Dembo, Poli, Garoua and Touboro; above the mean in Rey-Bouba and Tchollire, in the **North region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Nass Arao, Mbakaou, Betare Gongo, Tignere, Banyo, Yimbere, Tibati, Dota and Mbe; above the mean in Ngaoundere, Kognoli, Ngaou Mbol and Meiganga, in the **Adamawa region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Ngoro, Bafia, Ayos, Akonolinga, Mbandjock, Mbaka, Yoko, Eseka, Ngambe Tikar and Monatele; above the mean in Nanga-Eboko, Nkoteng, Yaounde, Obala and Mbalmayo, in the **Centre region**;
- Below the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Garoua-Boulai; around the mean in Abong-Mbang, Mbalam, Betare-Oya, Moloundou, Libongo, Koso, Lomie, Mintoum, Yokadouma, Mambele, Kika, Ngoyla and Mbitom; above the mean in Belabo, Bertoua, Dimako, Kongolo, Batouri, Doume and Mindourou, in the **East region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Campo, Kribi, Djoum, Lolodorf and Zoetele; above the mean in Nyabizan, Akom II, Ambam, Sangmelima, Ebolowa and Minkoumou, in the **South region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Bafang, Fongo-Tongo, Bafou, Bagam, Dschang, Kekem, Batie, Bazou, Mbouda, Bafoussam, Bandjoun, Bangangte, Batcham, Magba, Babadjou, Bamendjing, Tonga, Fouban, Foubot, Makam and Koutaba, in the **West region**;

- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Bamenda, Bali, Munkep, Kumbo, Ndop, Nkum, Santa, Furu Awa, Bamessing, Benakuma, Audu, Ako, Wum and Esu; above the said mean in Nwa, in the **North West region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Dizangue, Penja, Douala, Nyanon, Ngambe, Ndokama, Nkongsamba, Yabassi, Edea, Mouanko, Baptek, Ndokiti, Yingui and Manjo; above the mean in Loum and Mbanga, in the **Littoral region**;
- Around the mean recorded during the dekad from 21<sup>st</sup> to 30<sup>th</sup> September 2023 in Kumba, Ekok, Mundemba, Buea, Dikome Bafaw, Fontem, Limbe, Etuku, Bamusso, Eyumojock, Dikome Balue, Idenau, Ekang, Tiko, Mamfe, Bakogo and Nguti, in the **South-West region**.

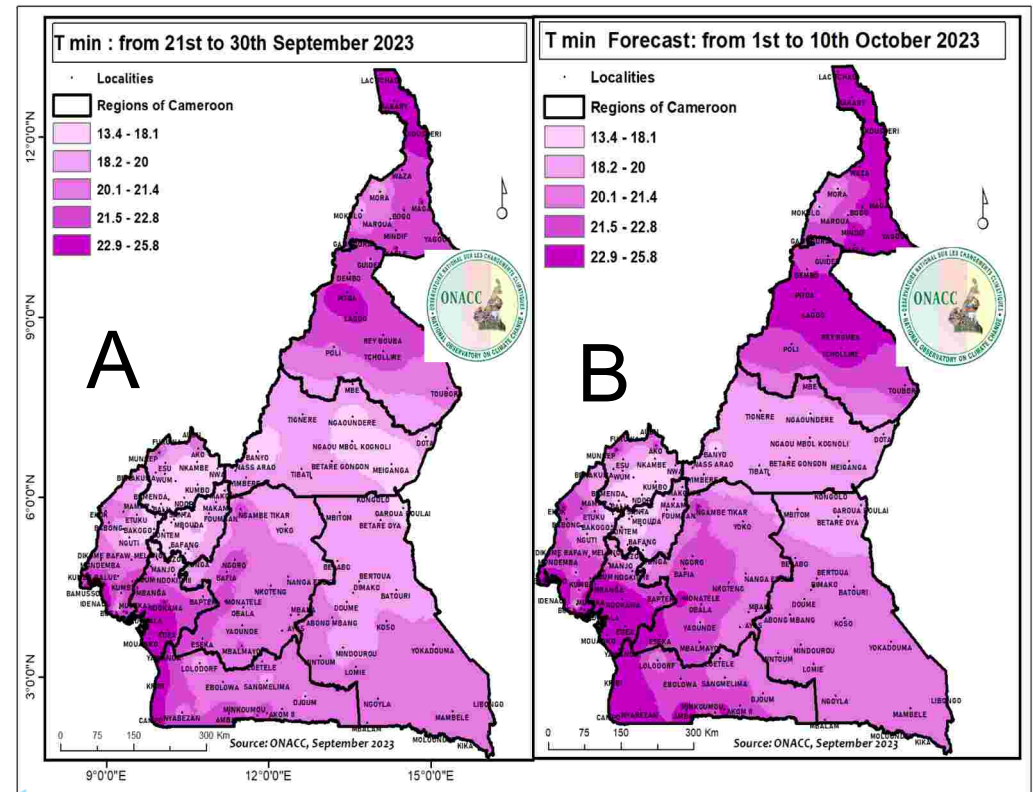


Figure 5: Variations in minimum temperatures for the current dekad (b) compared to those recorded in the dekad from 21st to 30th September (a). Source: NOCC, October 2023



## Alerts for minimum temperatures

During this dekad from 1st to 10th October 2023, 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 2018, which could lead to cold nights. They include:

- Mora, Mokolo, Gamboura and Maroua, in the **Far North region**;
- Guider, Dembo, Touboro and Poli, in the **North region**;
- Banyo, Mbe, Mbakaou, Meiganga, Tignere, Dota, Ngaoundere, Ngaou Mbol, Kognoli and Ngaoundal in the **Adamawa region**



## IV. Risks and potential impacts on socio-economic sectors



**a) In the agricultural sector:** A risk of recording:

Cases of lodging in orchards in the Monomodal rain forest zone (South West and Littoral regions), the Highlands (North West and West regions), the Guinea high savannah, and the Sudano-Sahelian (notably in the North region) zones due to heavy rains accompanied by violent winds;

cases of tuber rot (cassava, cocoyam, etc.) in certain localities in the Monomodal rainforest, Highlands and Bimodal rain forest zones, due to the saturation of the soil with water;

scarcity of water resources for highly dependent crops in the Logone plain, Far North region.



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

cases of cholera in certain localities, especially the large agglomerations of the coastal strip, as well as monitored and high-risk districts in the Sudano-Sahelian zone;

an increase in the number of breeding sites and malaria vectors in many localities in the Monomodal rain forest, Bimodal rain forest and the Western highlands zones.

cases of death by drowning due to floods that could be observed in risky areas of certain localities in the Sudano-Sahelian zone (Far North and North regions), monomodal rain forest zone (Littoral and South West regions), or landslides that could be observed in risky areas of certain localities in the West and North West regions and even in the northern part of the Littoral region;

Cases of death due to the collapse of dwellings as a result of heavy rainfall in certain localities in the Monomodal rainforest and Western highlands zones.

## V. Risks and potential impacts on socio-economic sectors

### **c) In the environment and biodiversity sector:**

A high risk of recording:

Cases of floods in certain agglomerations in the South-West (Limbe, Bamusso, Kumba, Idenau, Buea, etc.), Littoral (Douala, Mouanko, Melong, Manjo, Mbanga, Nkongsamba, Loum, Edea, etc.), Centre (Yaounde), North-West (Babessi and Kumbo), North (Lagdo, Rey Bouba, Garoua etc.), Far-North (Bogo, Mora, Gamboura, Maga, Tchollire, Logone Birni etc.) and South (Kribi, etc.) regions, due to abundant and concentrated rains within a very short period of time;

a very high risk of landslides in the steeply sloping areas of **Nkongsamba, Douala and Manjo (Littoral region), Limbe, Buea, Fontem, Wabane, Njungo (South-West region), Fouban, Dschang, Bafoussam, Bafang, etc. (West region), Bamenda, Boyo, Bui (North-West region)** due to the progressive saturation of the soil with water;

fog, especially in the early morning in the **Bimodal rain forest, Monomodal rain forest and the Western highlands zones**, with a consequent increase in the number of road accidents.

### **d) In the water and energy sector:**

A high risk of recording cases of:

destruction of electricity transmission infrastructure (wooden poles, transformers) in many localities in the **Monomodal rain forest, the Highlands and the Sudano-Sahelian zones**, due to heavy rains predicted, accompanied by violent winds and lightning strikes;

contamination of water catchment points by polluted runoff from floods in the **Monomodal rain forest (South West and Littoral regions), Sudano-Sahelian, Guinea high savannah and Western highland zones**.



### **e) In the livestock sector:**

A high risk of recording cases of:

loss of livestock in some localities in the **Far North, North and North West regions**, due to floods; epizootics, due to the persistence of cold spells at night in many localities in the **West, North West and South West regions** during this period;

poultry and pig loss in certain localities of the **Monomodal rainforest, Sudano-Sahelian and Highland zones** due to floods.



### **f) In the public works sector:**

A high risk of recording:

- degradation and destruction of buildings in many localities in the **Guinea High Savannah zone (Adamawa region), the Monomodal rain forest zone (Littoral and South West regions), the Highlands zone (West and North West regions)**, due to heavy rains accompanied by violent winds and even hail.

degradation or destruction of crossing structures (bridges, culverts, embankments etc.) on paved and heavily trafficked roads in the **Monomodal rain forest, Highlands, Sudano Sahelian and Guinea High Savannah zones and even motorways**, due to heavy rains and abundant rains predicted for this dekad.



## ALERT!!! RISKS OF FLOODS AND LANDSLIDES

Some Hydrometeorological and Geomorphological risks: 11<sup>st</sup> -20<sup>th</sup> October 2023

	Region	Locality to be likely affected	Period with the highest probability of occurrence	Rainfall								
	Littoral	Douala	11, 13&16-19	50-140mm		Flooding	South	Kribi	13 - 18	60-240mm		
		Melong	11-12&15-18				Centre	Yaounde	13&16-20	50-240mm		
		Manjo	13 - 15			West	Bafoussam	11 - 20	80-140mm			
		Edea	16 - 17				Haut-Nkam	11 - 20				
	Koza	15 - 17	Mbouda	11 - 20								
	Makary	15 - 16	Dschang	11 - 20								
		Far North	Logone Birni	12&15-17		30-80mm		Landslides	Northwest	Bamenda	11 - 20	80-140mm
			Blangoua	16-17						Boyo	11 - 20	
			Kousseri	15-17						Bui	11 - 20	
			Maga	12 - 16						Widikum	11 - 20	
		North	Tokombere	12 - 16	50-140mm	Southwest			Fontem	11 - 20		
			Lagdo	12&16-17					Buea	11 - 19		
			Poli	16 - 17					Wabane	11 - 20		
		Adamawa	Tchollire	11-12&16-18					Limbe	11 - 20		
			Garoua	16 - 17					Njungo	11 - 20		
			Ngaoundere	11 - 14					Nsuke-Tombel	11 - 14		
	West	Bafoussam	11 - 13	50-140 mm	Littoral	Nkongsamba	11 - 16					
		Santchou	12&15-18			Manjo	11 - 16					
	Northwest	Bamenda	11 - 16			Nkolbong	11 - 20					
		Babessi	11-13&15-16'			Logbessou	11- 20					
	Southwest	Limbe	13 - 19			50-140mm						
		Mundemba	11 - 16									
		Buea	13 & 18-19									
		Tiko	15 - 20									
		Idenau	15 - 19									

## VI. Key Messages

**Message 1: Risk of floods due to heavy rains in** Douala, Nkongsamba, Manjo, Mbanga, Limbe, Tiko, Kumba, Mutengene, Buea, Limbe, Yaounde, Bamenda;

**Message 2: High risk of landslides due to the progressive saturation of the soil, coupled with steep slopes in the localities** of Bafoussam, Dschang, Foumban, Bamenda, Santa, Widikum, Mamfe, Tiko, Idenau, Bamusso, Nkongsamba.;

**Message 3: Very high risk of an increase in cholera cases in certain large agglomerations** agglomerations in the Monomodal rain forest (Littoral and South West regions), due to the contamination of water points and foodstuffs by contaminated run-off;

**Message 4: Risk of an increase in the number of deaths linked to the collapse of houses**, due to the heavy rains announced in certain localities in the Bimodal rain forest, Monomodal rain forest and the Highland zones;

**Message 5: Risk of recording cases of death by drowning due to floods that could be observed in certain localities of the Monomodal rain forest** (Littoral and South West Regions), or landslides that could be observed in certain localities of the South, West and North West regions and even in the northern part of the Littoral region;

**Message 6: Very high risk of an increase in cases of destruction of electricity transmission infrastructure (wooden poles, transformers)** in many localities in the Bimodal rain forest, Monomodal rain forest, and the Highlands zones, due to the heavy rains predicted, accompanied by violent winds and even lightning;

**Message 7: High risk of increased degradation or destruction of crossing structures (bridges, culverts, embankments, etc.) on heavily trafficked paved roads, and even motorable roads**, in the Bimodal rain forest, Highlands and Sudano Sahelian zones, due to the heavy and abundant rains predicted for this dekad.

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## VII. Some Recommendations



### ***In the Agriculture sector, to:***

It is recommended that the populations of the monomodal rain forest, the Bimodal rain forest and the Highlands zones refer to the 2023 agricultural calendar for the second cropping season, in the southern part of the country for the continuation of their agricultural operations.



### ***In the Health sector, continue to***

- Raise awareness on the need to scrupulously observe basic hygiene prescribed by the Minister of Public Health against cholera in his circular of 9th April 2023, notably the systematic washing of hands with clean water and soap before meals and after the use of latrines, the washing of food with potable water before any consumption, the treatment of water before drinking it and the proper cooking of food;

- Strengthen community surveillance at the level of health centres for the rapid detection of suspected cases of cholera with a view to their immediate treatment;
- Avoid the accumulation of household waste in neighbourhoods;
- Regularly put on warm clothes and drink hot drinks like tea, etc. to protect oneself against the cold;



### ***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.