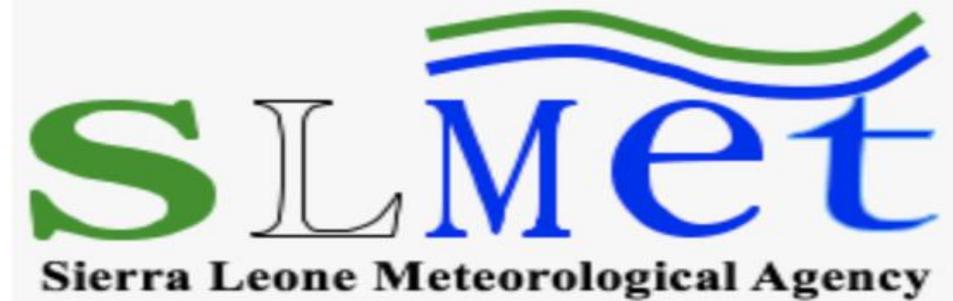
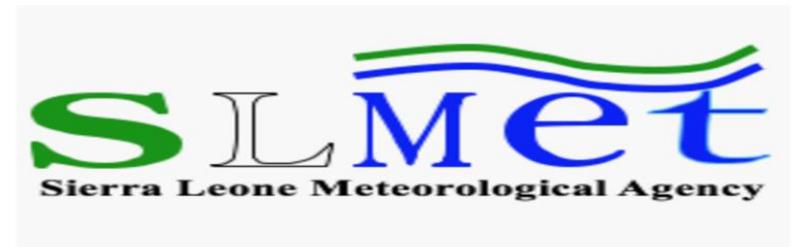


**2025 Seasonal Forecast of agro-climatic
Characteristics of the rainy seasonal for
Sierra Leone**

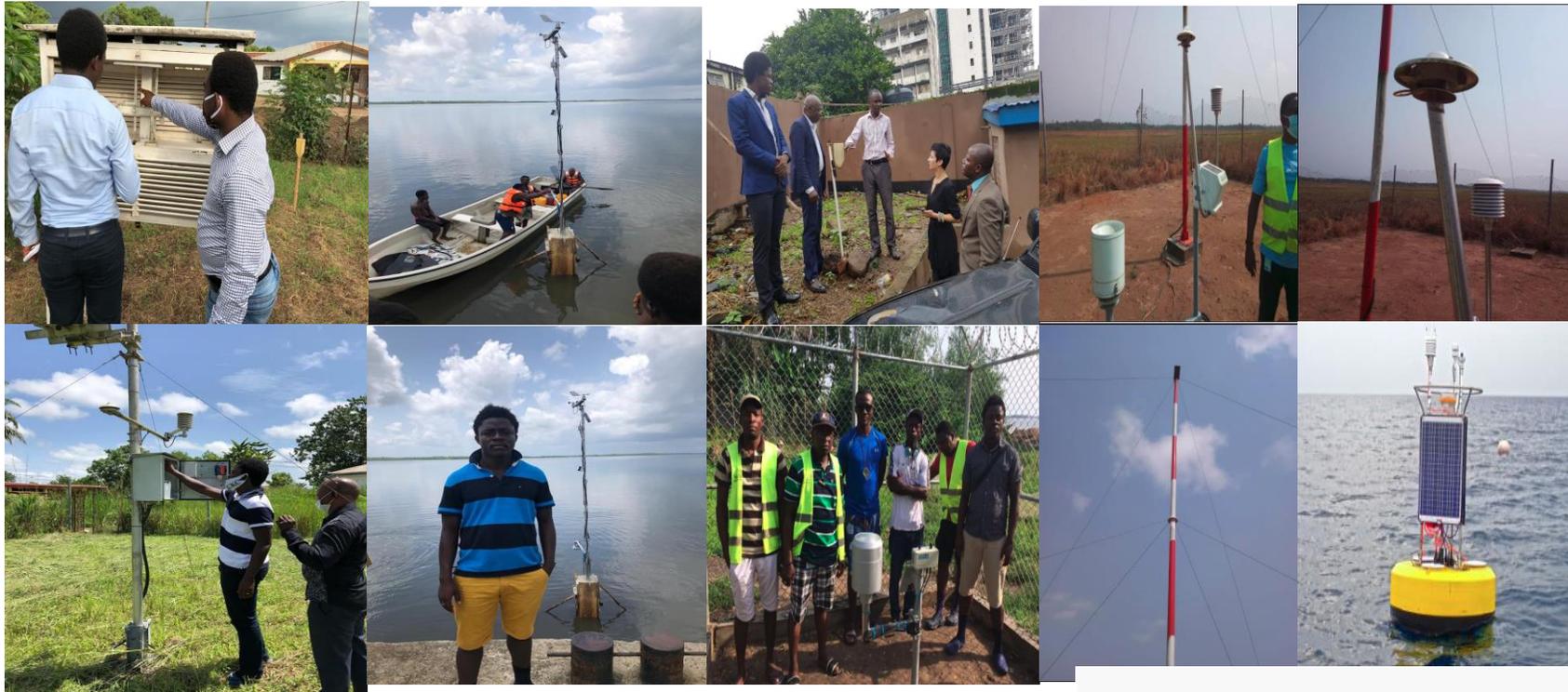


OUTLINE

- Weather station Observation Network
- Tools/models used for the prediction
- 2025 Seasonal Outlook
- Climatic risk
- Recommendations



OBSERVATION NETWORKS



TOOLS/MODELS USED FOR THE PREDICTION

CLIMATE PREDICTABILITY TOOL

Evaluating seasonal climate predictability
Designed for MOS applications

Copyright 2002-2020 International Research Institute for Climate and Society

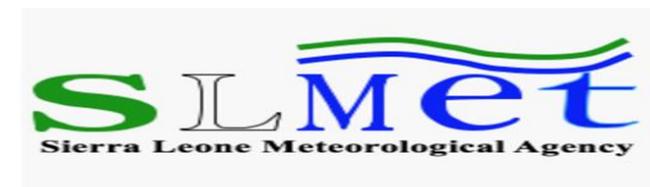
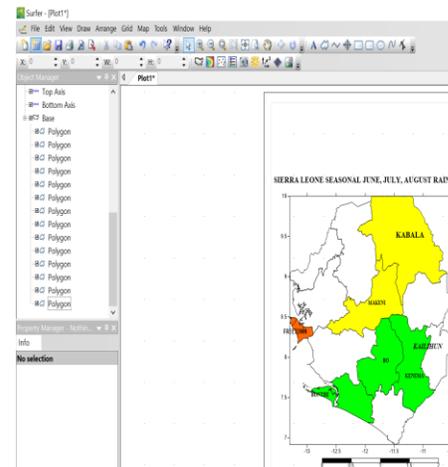
The International Research Institute for Climate and Society

Actions	11	4	1	-0.889	19	4	4	0.115
	11	4	2	-0.888	19	4	4	0.115
	11	4	3	0.888	19	4	4	0.115
	11	4	4	0.114	19	4	4	0.115
	12	1	1	-0.891	19	4	4	0.115
	12	2	1	-0.894	19	4	4	0.115
	12	2	2	0.895	19	4	4	0.115
	12	3	1	-0.822	19	4	4	0.115
	12	3	2	-0.828	19	4	4	0.115
	12	3	3	0.197	19	4	4	0.115
	12	4	1	-0.825	19	4	4	0.115
	12	4	2	0.889	19	4	4	0.115
	12	4	3	0.884	19	4	4	0.115
	12	4	4	0.129	12	4	4	0.129
	13	1	1	-0.871	12	4	4	0.129
	13	1	2	0.866	12	4	4	0.129

The 2025 seasonal forecast is based on:

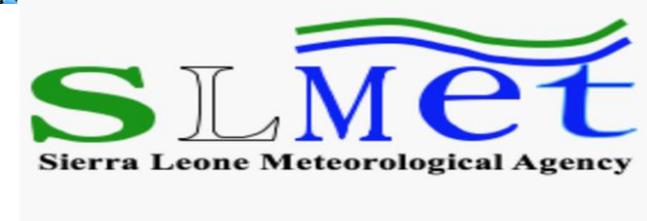
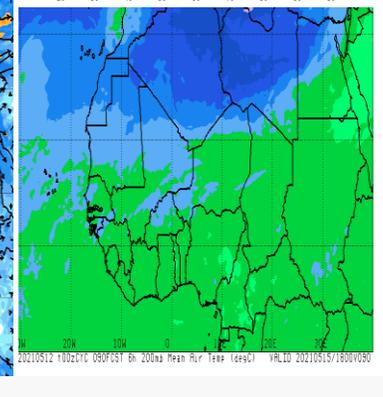
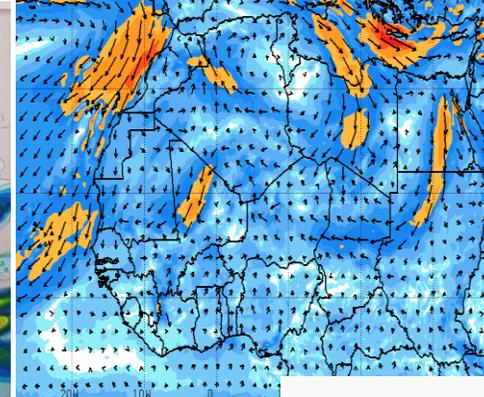
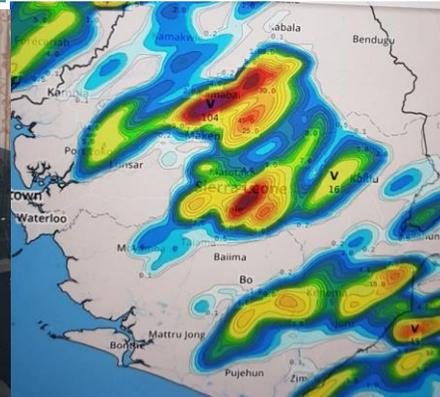
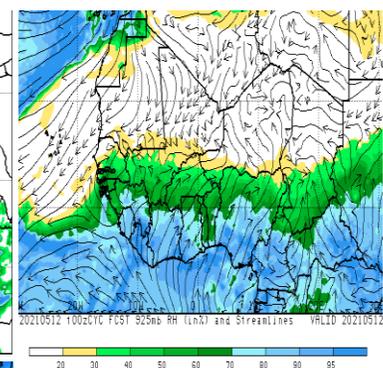
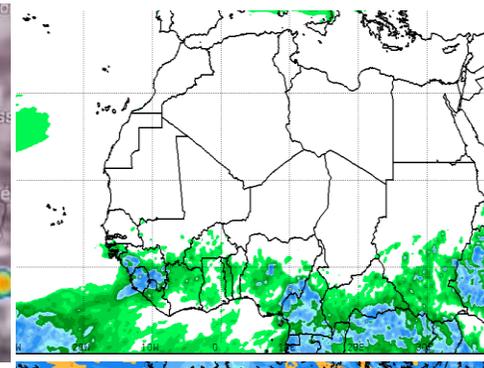
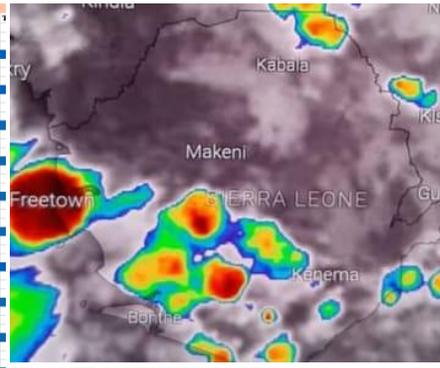
- the current configuration and future of Ocean Surface Temperature (TSO)
- **SLMet** forecasting tool output
- forecast from major world centers outputs of statistical and dynamic models
- expert knowledge of the dynamics and characteristic of the climate in the region.
- years data was used (1994 -2024)
- **Trained data from 1994- 2022**

Spreadsheet application showing a grid of data columns labeled X1 through X6.



MODEL OUTPUT (PROCESSED DATA)

KENEMA						
Date	Time (hrs)	Rainfall/mm	Temperature/°C	Wind Speed (m/s)	Wind Direction	Date
20/11/2020	09:00		25°	0.7	North-West (NW)	20/11/2020
20/11/2020	15:00		32°	1.2	South-East	20/11/2020
20/11/2020	17:00		33°	0.7	South-East	20/11/2020
21/11/2020	09:00		25°	0.7	North-East	21/11/2020
21/11/2020	12:00		31°	0.5	South-East	21/11/2020
21/11/2020	17:00		32°	0.8	South-East	21/11/2020
22/11/2020	09:00		25°	0.7	North-East	22/11/2020
22/11/2020	12:00		31°	0.5	South-East	22/11/2020
22/11/2020	17:00		32°	0.8	South-East	22/11/2020
23/11/2020	09:00		26°	0.7	South-East	23/11/2020
23/11/2020	12:00		32°	0.7	South-East	23/11/2020
23/11/2020	17:00		32°	0.7	North-West	23/11/2020
24/11/2020	09:00		25°	0.7	North-East	24/11/2020
24/11/2020	12:00		30°	0.7	North-West	24/11/2020
24/11/2020	17:00		31°	0.7	North-West	24/11/2020
25/11/2020	09:00		25°	0.7	South-East	25/11/2020
25/11/2020	12:00		29°	0.7	North	25/11/2020
25/11/2020	17:00		33°	0.7	South-West	25/11/2020
26/11/2020	09:00		24°	0.7	North-West	26/11/2020
26/11/2020	12:00		31°	1.7	South-West	26/11/2020
26/11/2020	17:00		32°	0.7	South-West	26/11/2020
27/11/2020	09:00		25°	0.7	South-West	27/11/2020
27/11/2020	12:00		31°	0.7	South-East	27/11/2020
27/11/2020	17:00		32°	1.2	North-East	27/11/2020
28/11/2020	09:00		25°	0.7	South-East	28/11/2020
28/11/2020	12:00		30°	1	North-East	28/11/2020
28/11/2020	17:00		29°	1	South-West	28/11/2020
29/11/2020	09:00		26°	0.7	North-East	29/11/2020
29/11/2020	12:00		32°	1.2	West	29/11/2020
29/11/2020	17:00		32°	1.2	West	29/11/2020



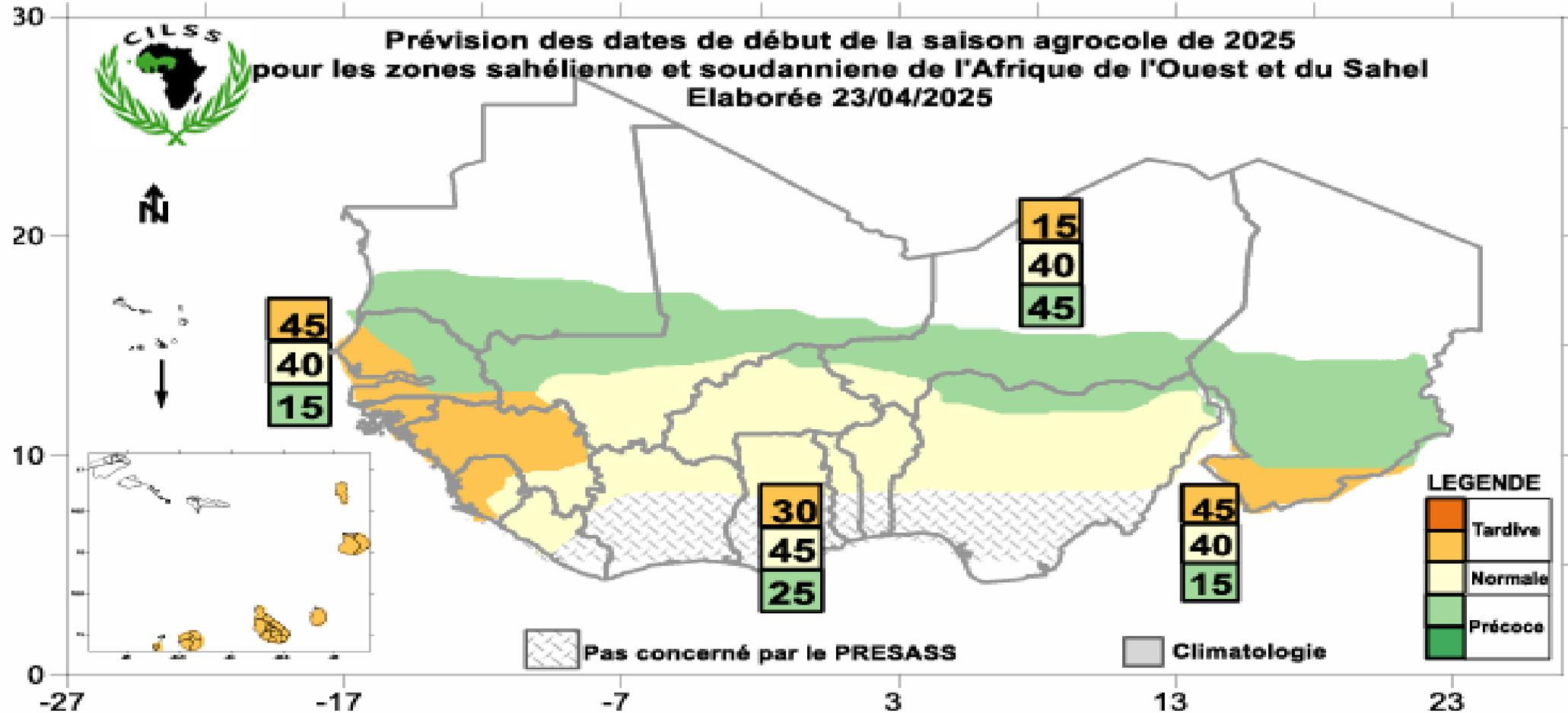
SESSION 2: AGROMET

Agro-Perspectives

- Onset/start of rain
- Cessation/End of rain
- Dry spell at the onset/start of rains
- Dry spell towards the cessation/end of the rains

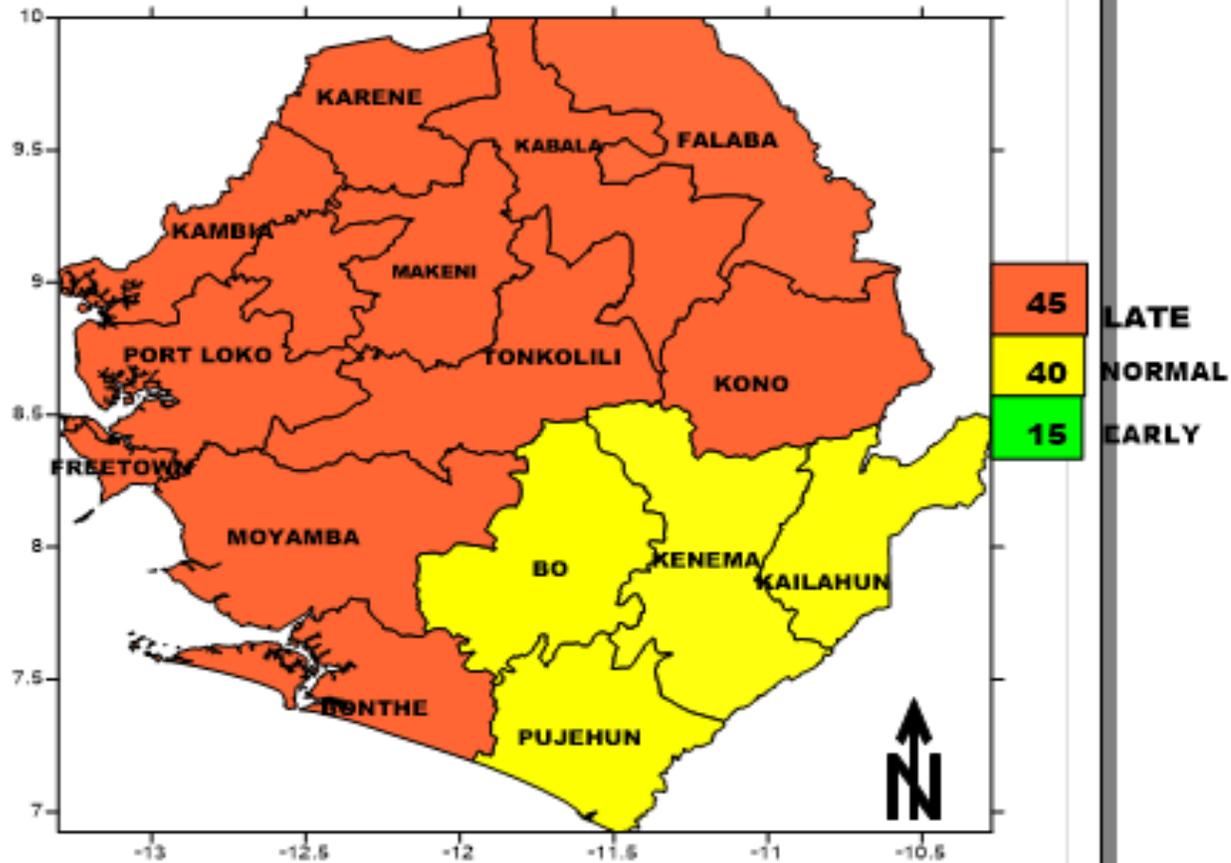


Onset/start of rain – Regional Outlook



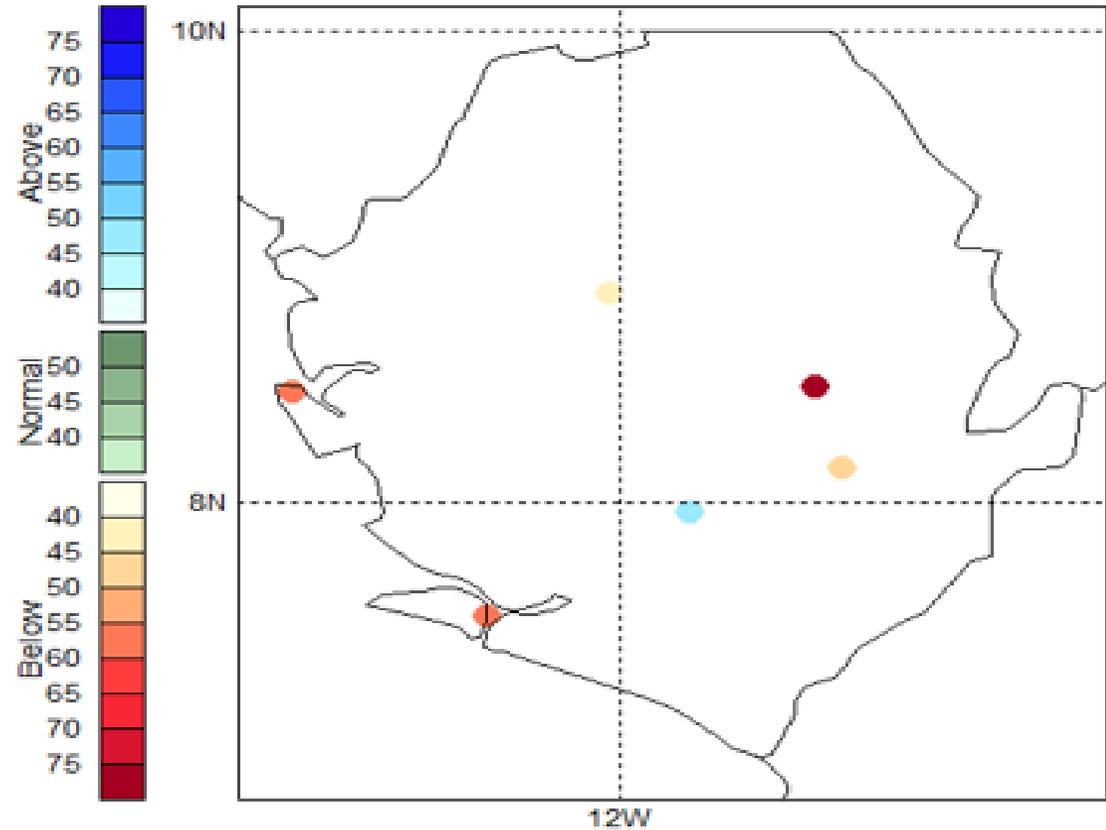
ONSET OF RAINFALL FOR AGRICULTURAL SEASON

ONSET OF RAIN FOR AGRICULTURAL SEASON ACROSS SIERRA LEONE



Station:
Forecast: 2025

Probabilistic forecasts



HIGHLIGHTS FOR THE ONSET OF RAINFALL FOR THE AGRICULTURAL SEASON

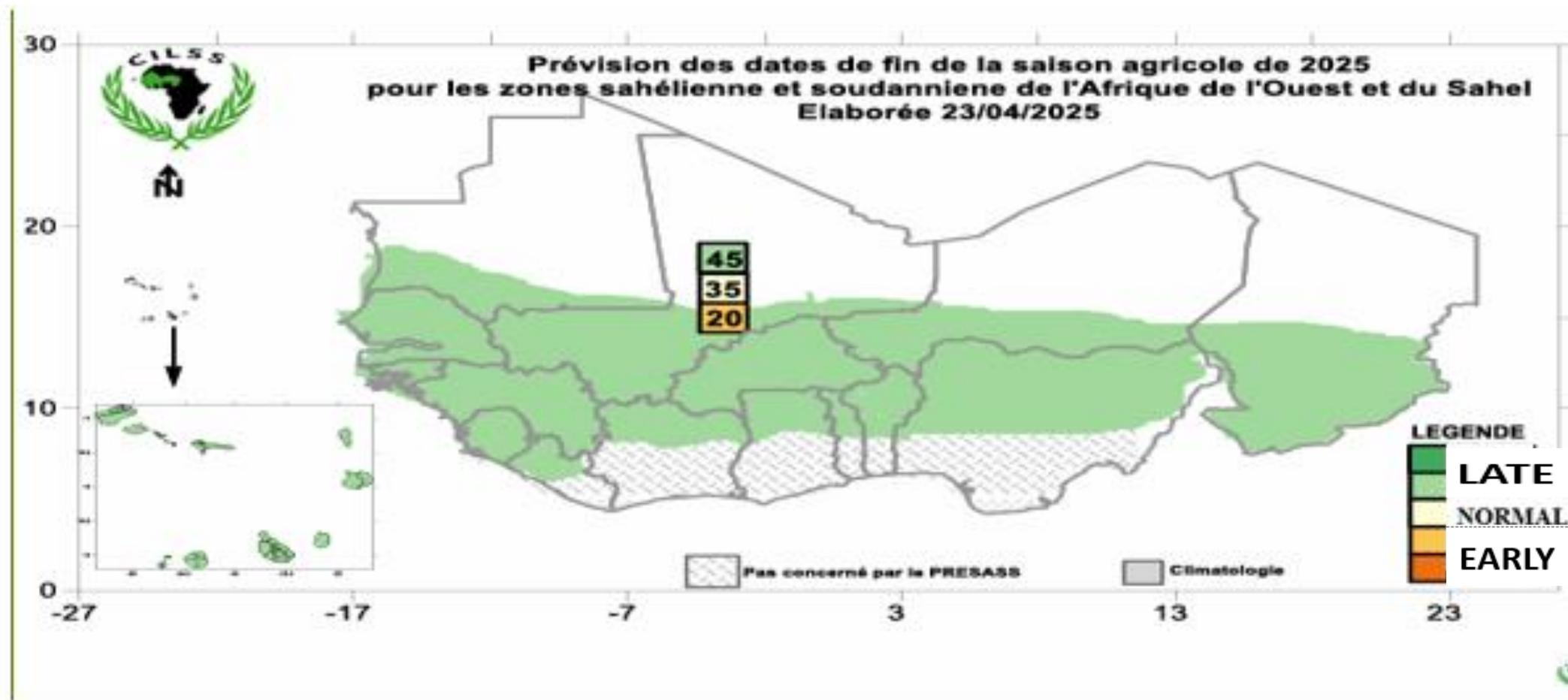
- Kabala- Late onset
- Kono – Late onset
- Kailahun – Normal onset
- Kenema – Normal onset
- Bo – Normal onset
- Bonthe – Late onset
- Port Loko – Late onset
- Freetown – Late onset
- Makeni – Late onset
- Pujehun – Normal onset
- Karene – Late onset
- Falaba – Late onset
- Kambia – Late onset
- Tonkolili – Late onset
- Moyamba – Late onset

Agro-Perspective

- ❑ Onset/start of rain
- ❑ **Cessation/End of rain**
- ❑ Dry spell at the onset/start of rains
- ❑ Dry spell towards the cessation/end of the rains

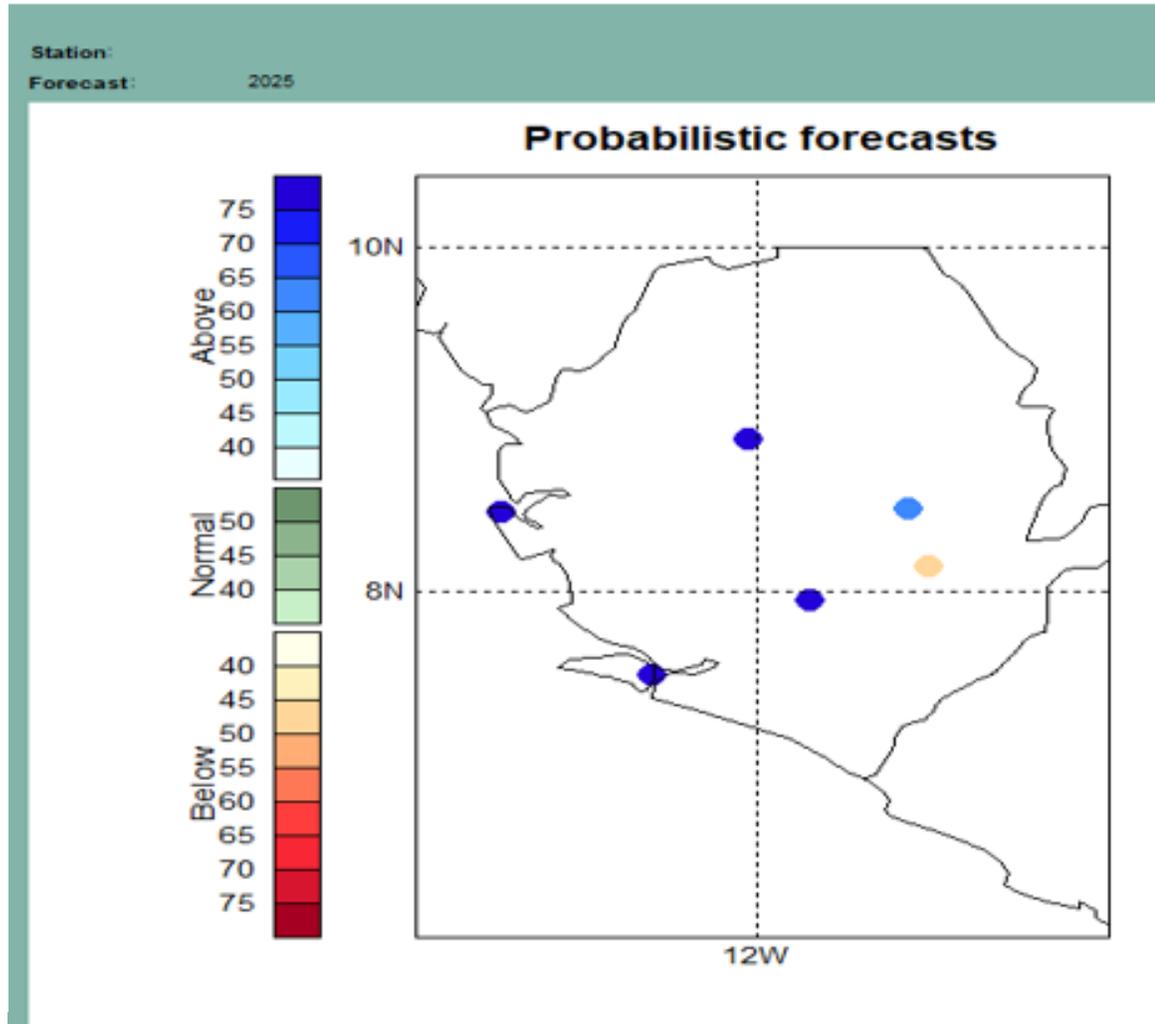
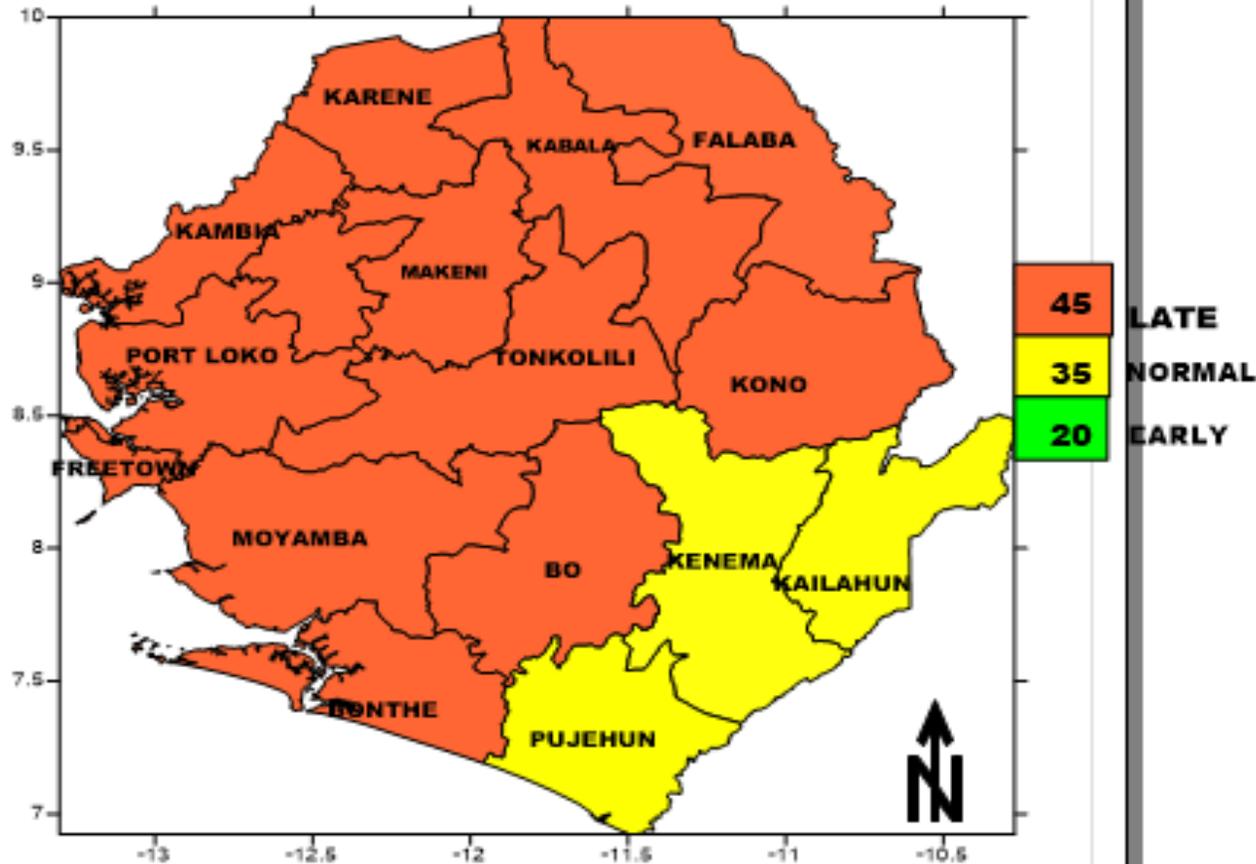


Cessation/End of rain – Regional Outlook



CESSATION/END OF RAINFALL FOR AGRICULTURAL SEASON

END/CESSATION OF RAIN FOR AGRICULTURAL SEASON ACROSS SIERRA LEONE



HIGHLIGHTS FOR THE CESSATION/END OF RAINFALL FOR THE AGRICULTURAL SEASON

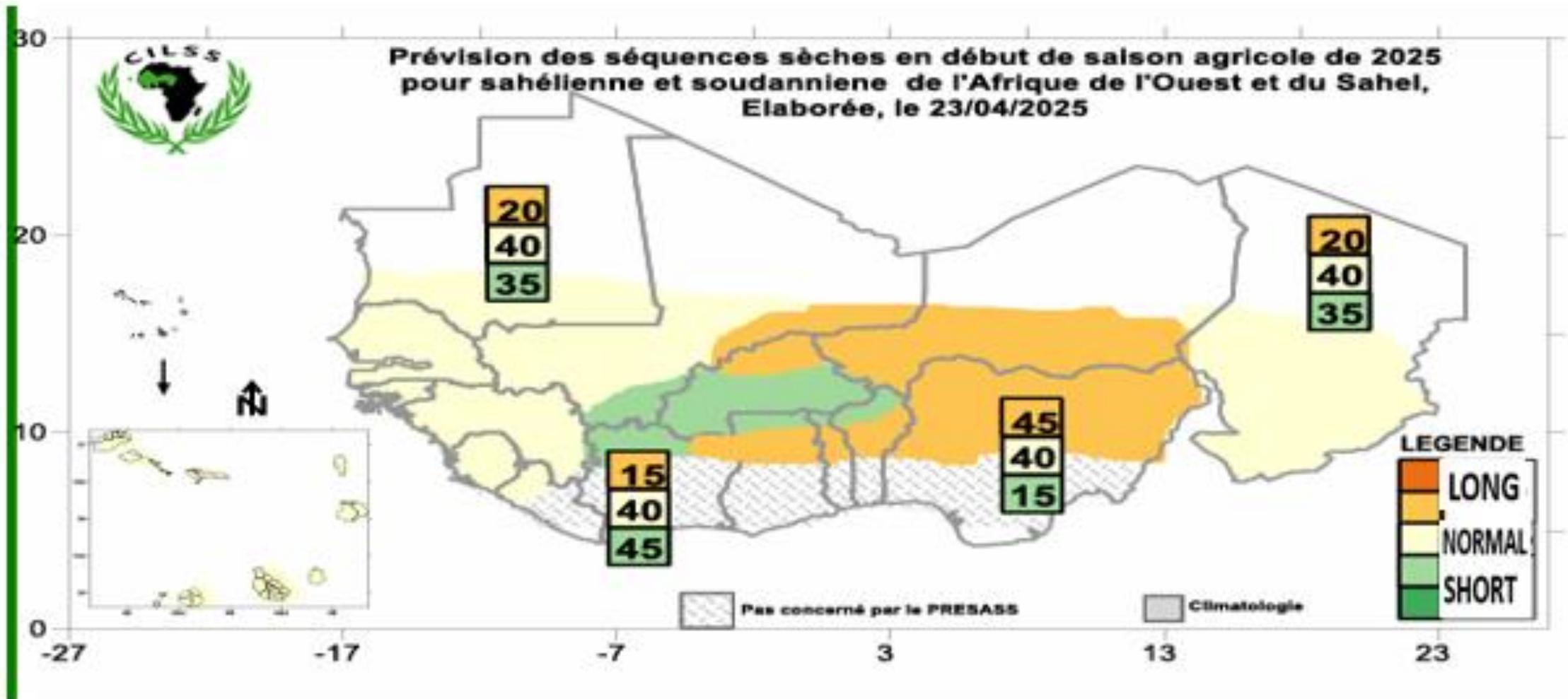
- Kabala- Late onset
- Kono – Late onset
- Kailahun – Normal onset
- Kenema – Normal onset
- Bo – Late onset
- Bonthe – Late onset
- Port Loko – Late onset
- Freetown – Late onset
- Makeni – Late onset
- Pujehun – Normal onset
- Karene – Late onset
- Falaba – Late onset
- Kambia – Late onset
- Tonkolili – Late onset
- Moyamba – Late

Agro-Perspective

- Onset/start of rain
- Cessation/End of rain
- Length of Dry spell at the onset/start of rains**
- Length of Dry spell towards the cessation/end of the rains

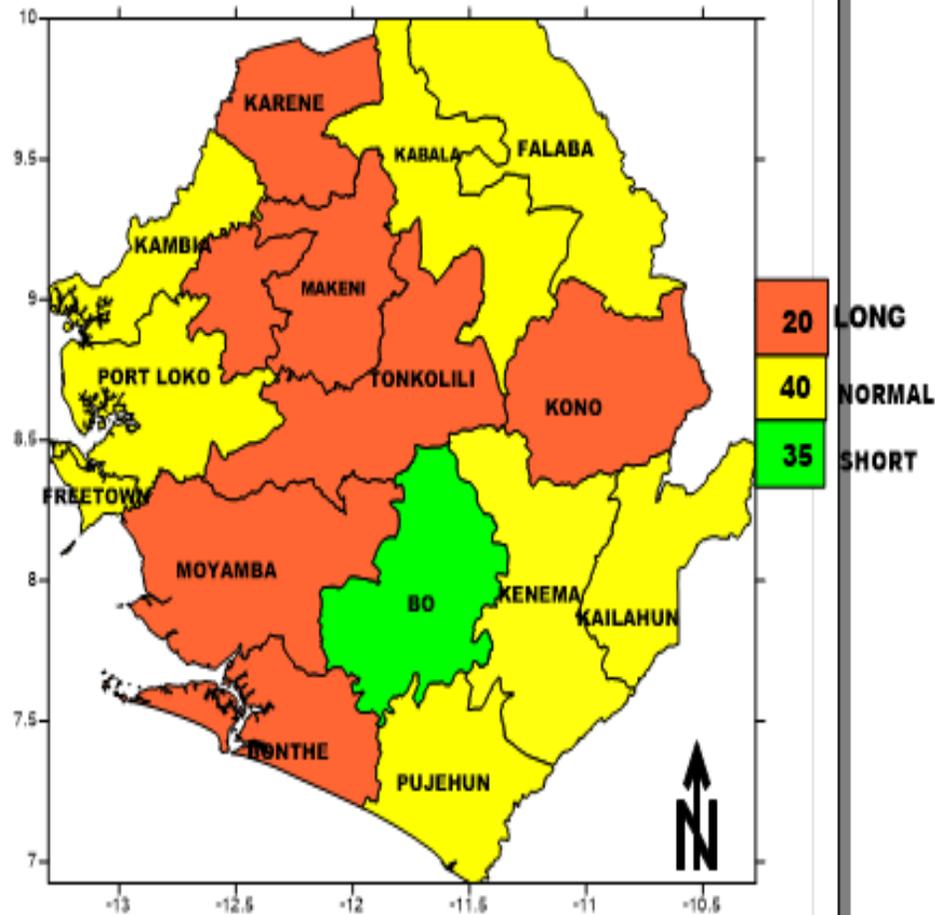


Length of Dry Spell at the onset of 2025 season – Regional Outlook



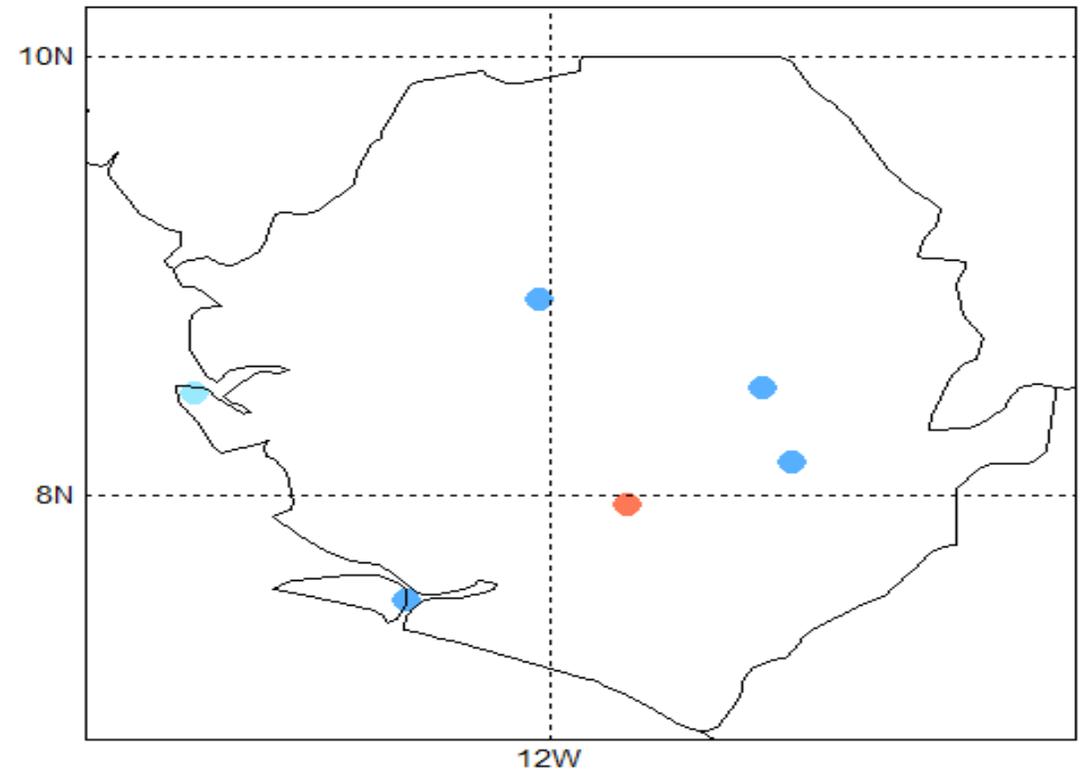
LENGTH OF DRY SPELL AT THE BEGINNING OF THE AGRICULTURAL SEASON

LENGTH OF DRY SPELL AT THE BEGINING OF RAIN FOR AGRICULTURAL SEASON ACROSS SIERRA LEONE



Station:
Forecast: 2020

Probabilistic forecasts



HIGHLIGHTS FOR LENGTH OF DRY SPELL AT THE BEGINNING OF THE AGRICULTURAL SEASON

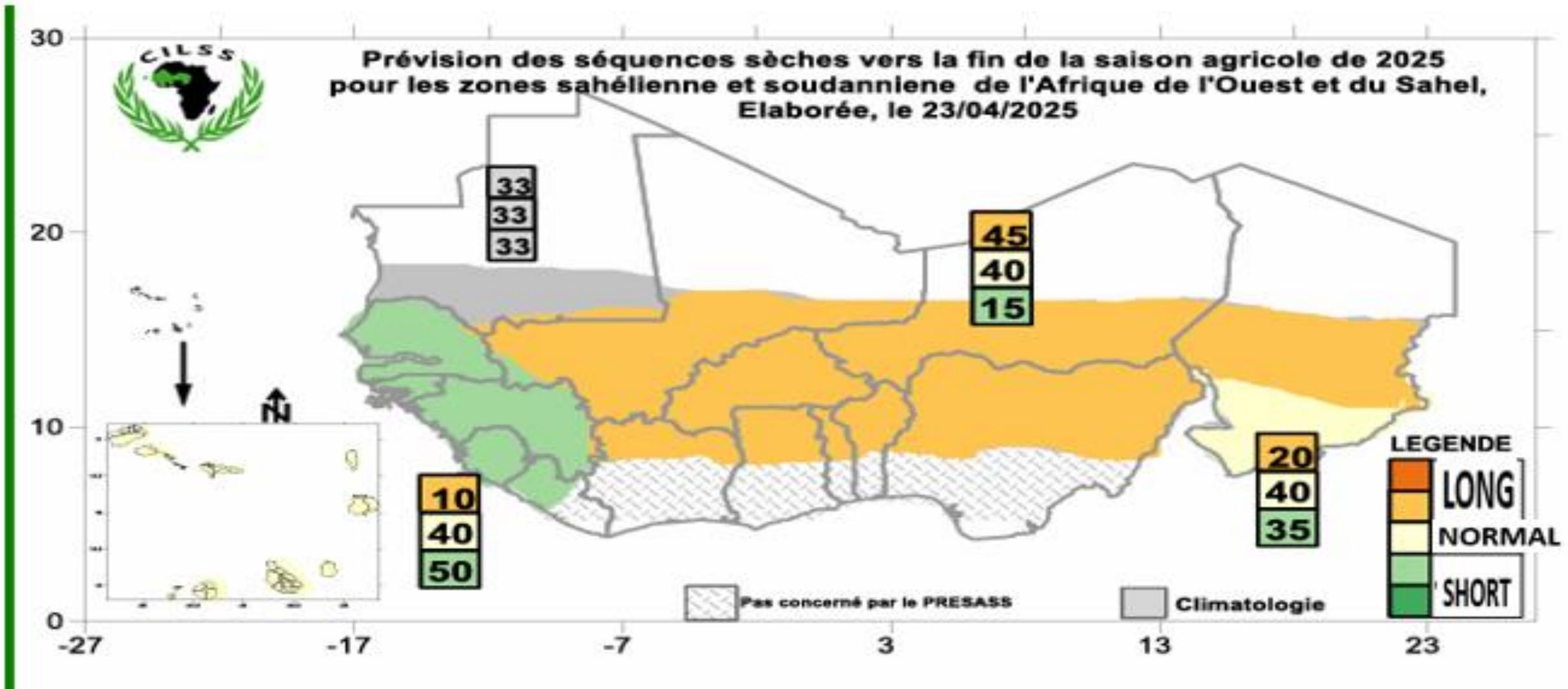
- Kabala- Normal
- Kono – Long
- Kailahun – Normal
- Kenema – Normal
- Bo – Short
- Bonthe – – Long
- Port Loko – Normal
- Freetown – Normal
- Makeni – Long
- Pujehun – Normal
- Karene – Long
- Falaba – Normal
- Kambia – Normal
- Tonkolili – Long
- Moyamba – Long

Agro-Perspective

- Onset/start of rain
- Cessation/End of rain
- Dry spell at the onset/start of rains
- Dry spell towards the cessation/end of the rains**

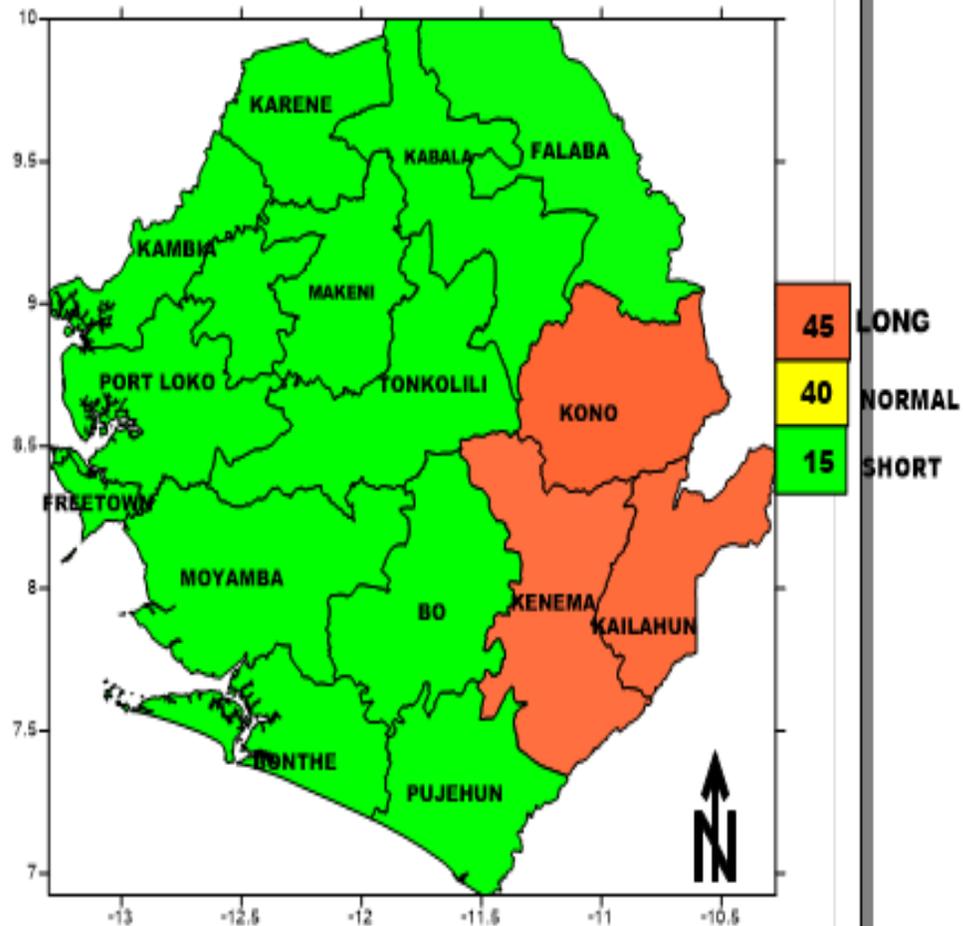


Length of Dry Spell towards the end of 2025 season – Regional Outlook

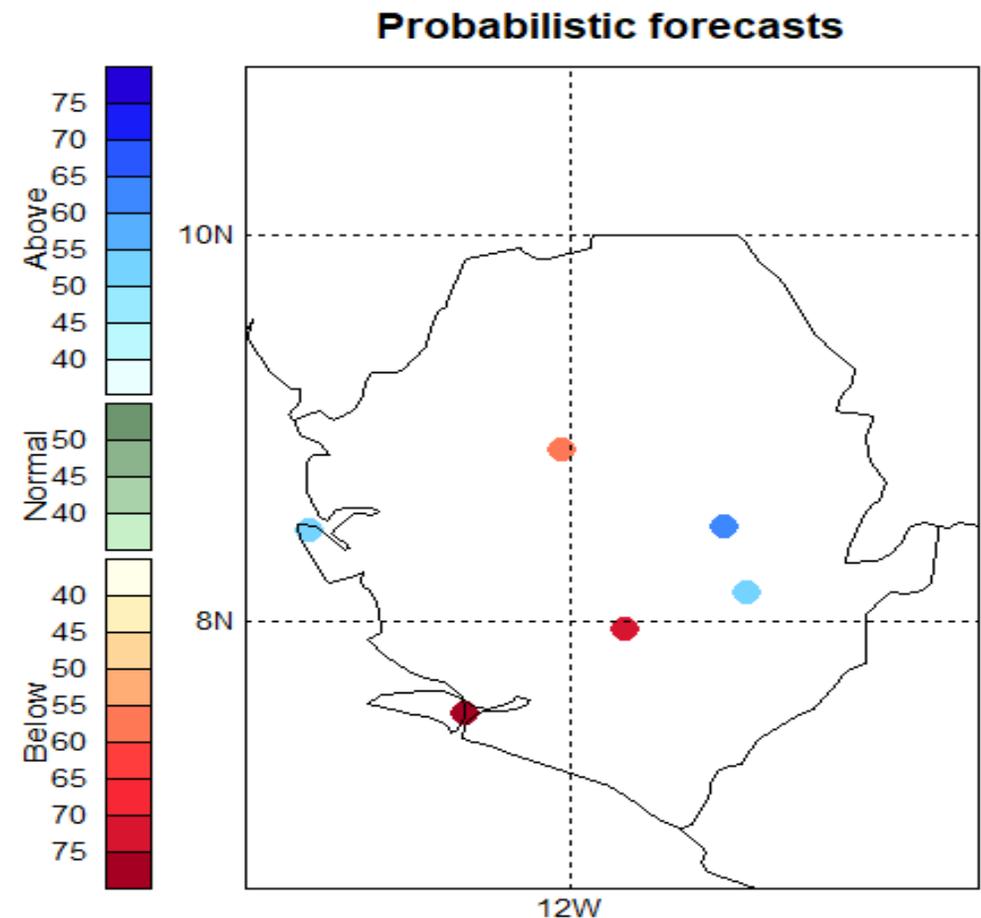


LENGTH OF DRY SPELL TOWARDS THE END OF THE AGRICULTURAL SEASON

LENGTH OF DRY SPELL TOWARDS THE END OF THE AGRICULTURAL SEASON ACROSS SIERRA LEONE



Station:
Forecast: 2025



HIGHLIGHTS FOR LENGTH OF DRY SPELL TOWARDS THE END OF THE AGRICULTURAL SEASON

- Kabala- Short
- Kono – Long
- Kailahun – Long
- Kenema – Long
- Bo – Short
- Bonthe – – Short
- Port Loko – Short
- Freetown – Short
- Makeni – Short
- Pujehun – Short
- Karene – Short
- Falaba – Short
- Kambia – Short
- Tonkolili – Short
- Moyamba – Short

RECOMMENDATION

- Strengthen communication of the seasonal forecast, daily weather forecast, weather alert etc..
- Strengthen the monitoring and response capacity in charge of flood monitoring, disaster risk reduction and humanitarian aid
- Avoid uncontrolled occupation of flood-prone areas
- Clear sewer channels to facilitate evacuation of rain water
- Monitor dam water levels and maintenance dams where necessary
- Raise awareness and disseminate warning on diseases and climate sensitive germs
- Avoid contact with contaminated water
- Prevent diseases by vaccinating population and animals
- Support the control of malaria
- Invest more in high-yielding crops
- Set up systems for the collection and conservation of runoff water
- Support farmers access to improved varieties