



# *Climate Services for Food Security in West Africa and the Sahel*

*By Dr Seydou B. TRAORE,  
ClimSA project manager, AGRHYMET CCR AOS*

*ClimSA Side event at COP29, Baku  
IGAD Pavillon,  
11 November 2024.*

**WWW.CILSS.int : Un autre Sahel est possible**





# Outline

- **Introduction**
  - The CILLS/AGRHYMET Food security Early Warning System
  - The ClimSA program
- **Climate services provided to rural communities in Burkina Faso**
- **Some feedbacks from farmers**



# Introduction

## The CILLS/AGRHYMET Food security Early Warning

- **Seasonal forecasting of the main characteristics of the rainy seasons**
- **Operational monitoring of the rainy seasons**
- **Food security vulnerability assessment**



**ClimSA**

INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



[www.climsa.org](http://www.climsa.org)

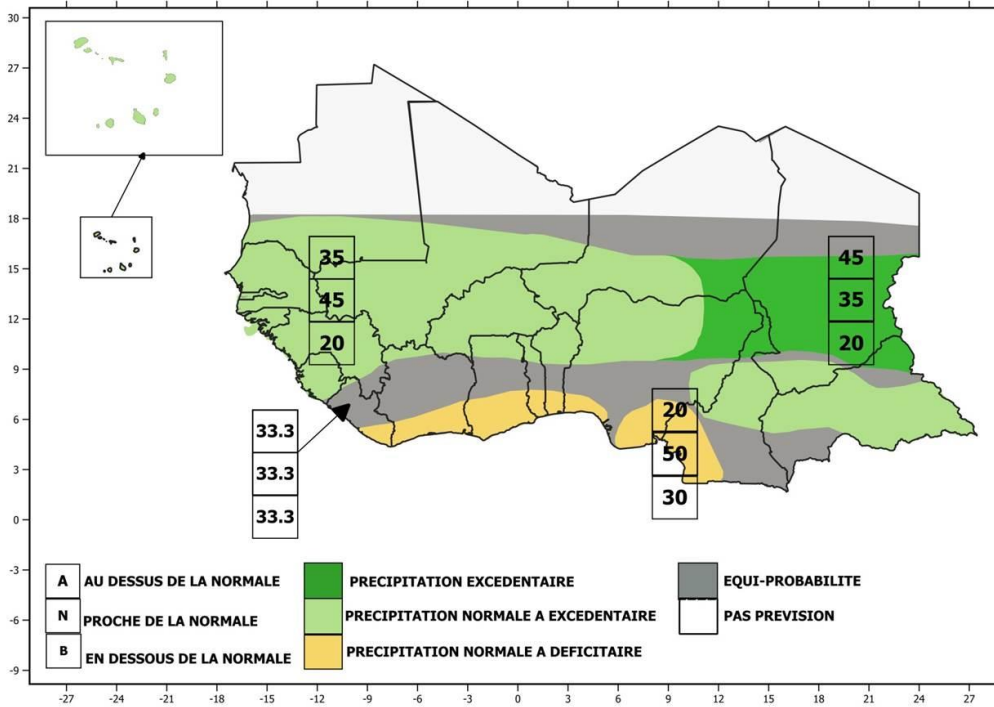


# Seasonal forecasting of the main characteristic seasons

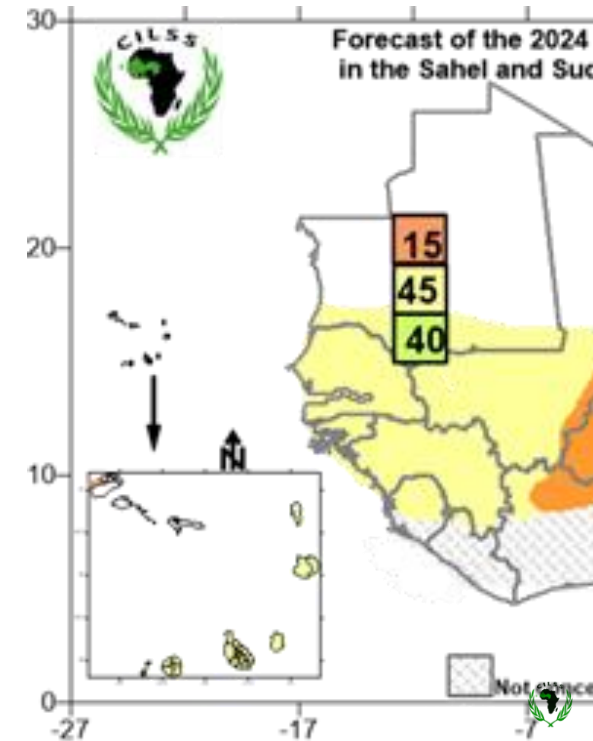
## Cumulative Rainfall amounts



PREVISION SAISONNIERE DES PRECIPITATIONS  
POUR LA REGION SOUDANO-SAHELIENNES  
VALABLE POUR JUILLET-AOUT-SEPTEMBRE 2024  
ELABOREE LE 5 JUILLET 2024



## Onset dates of



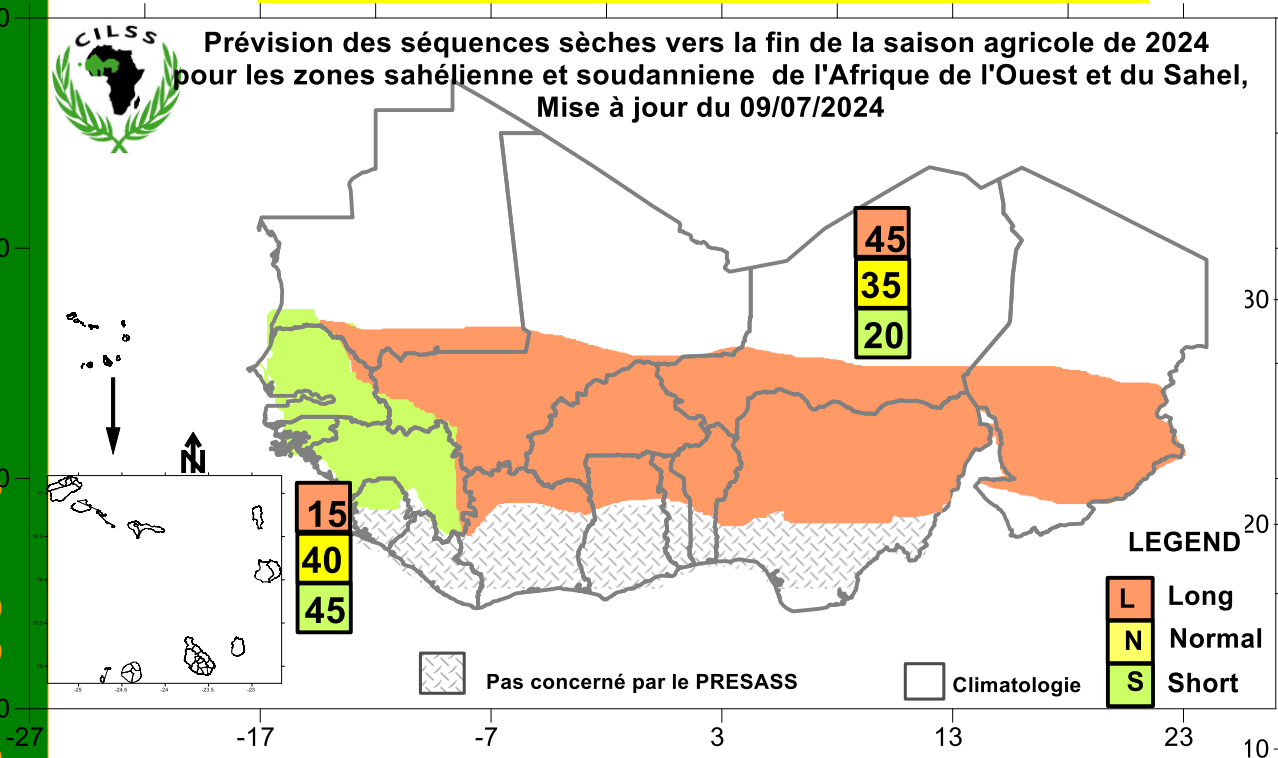
WWW.CILSS.int : Un autre Sahel est possible



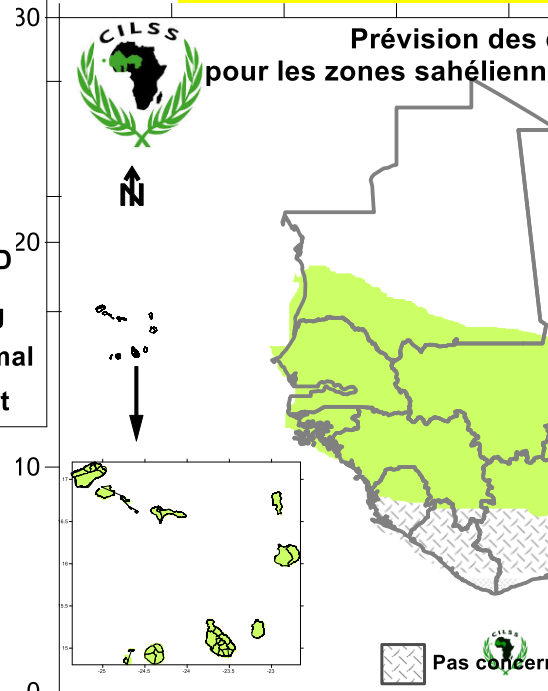
# Seasonal forecasting of the main characteristic seasons

WWW.CILSS.int : Un autre Sahel est possible

## Longest dry spell durations



## Cessation d...



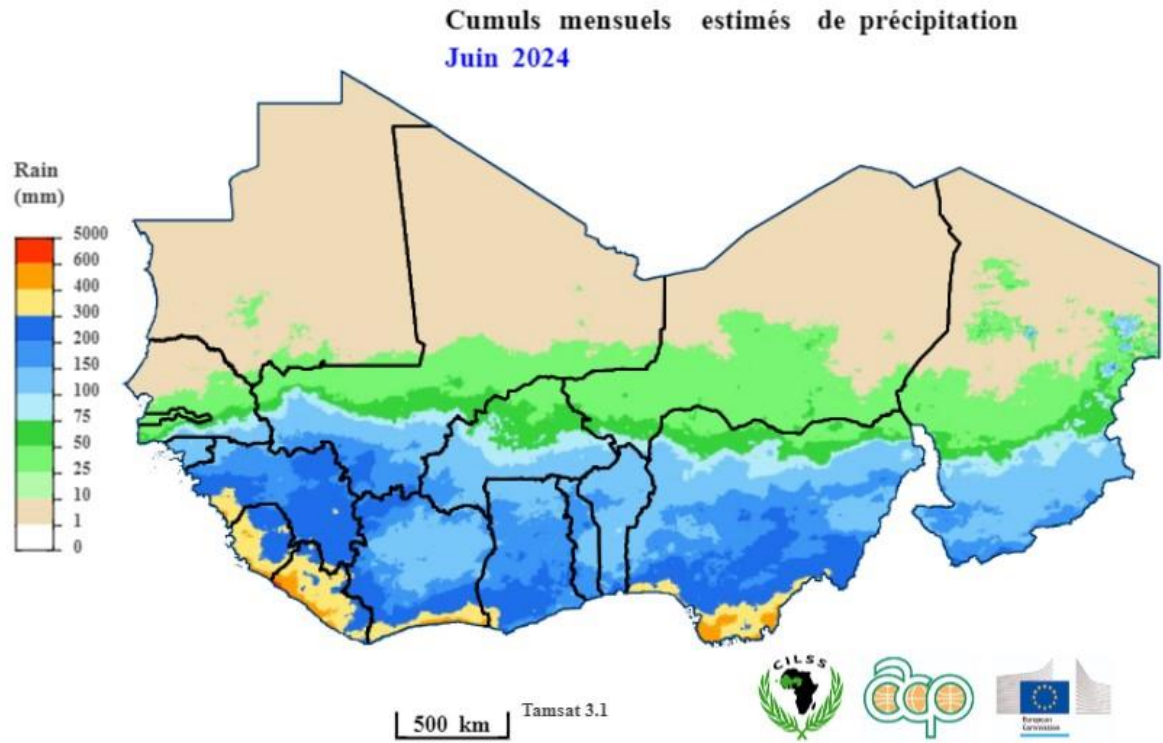




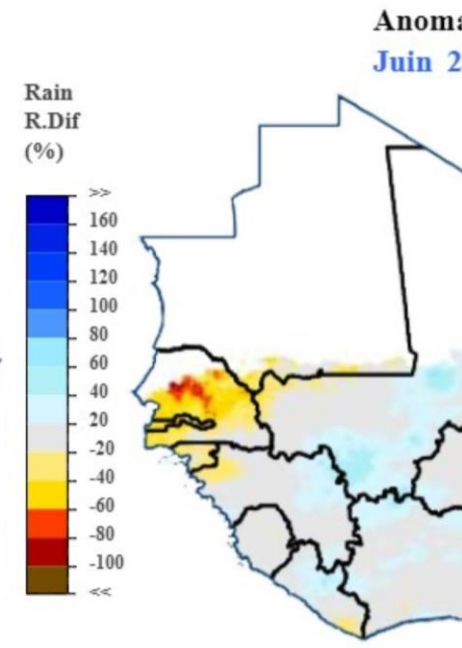
WWW.CILSS.int : Un autre Sahel est possible

# Operational monitoring of the rainy season

## Monthly cumulative rainfall



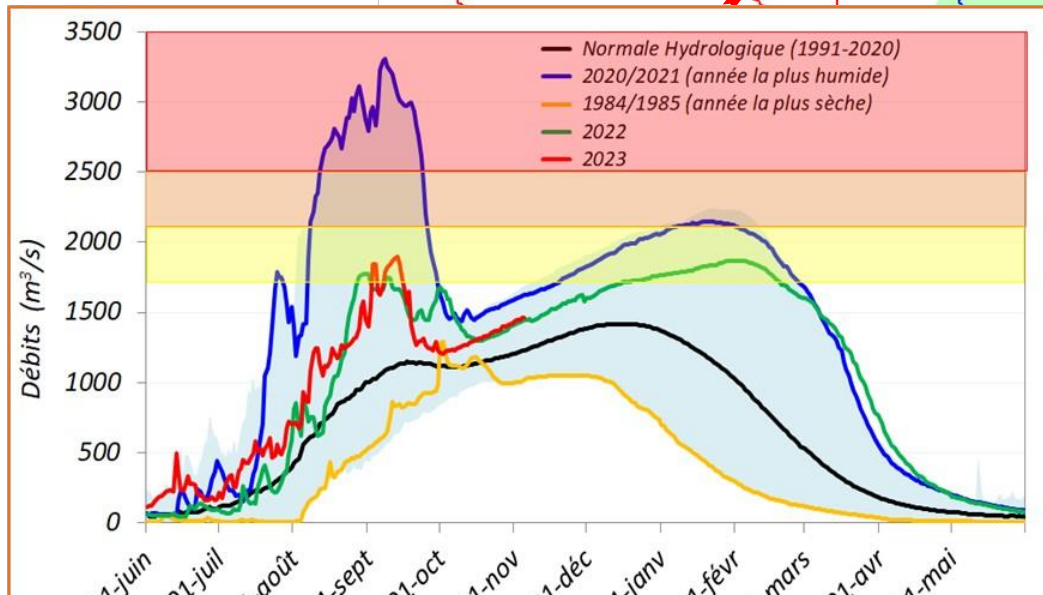
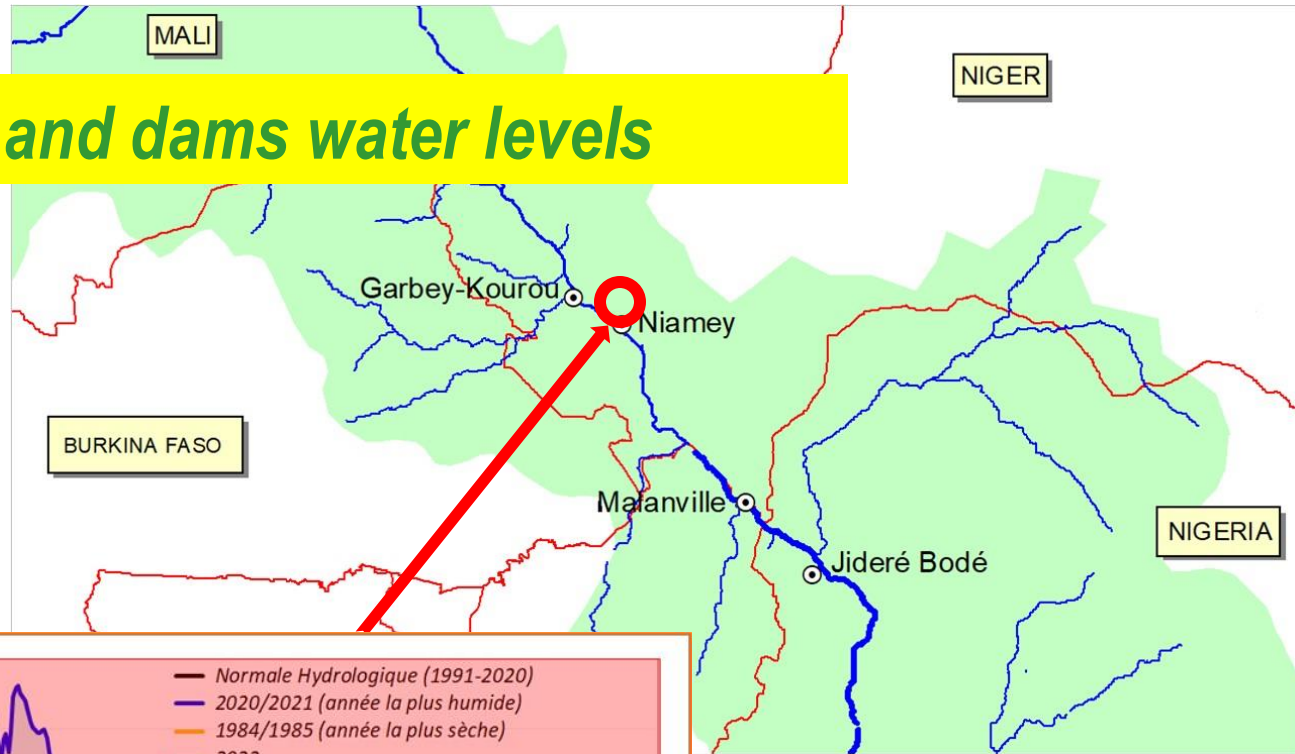
## Monthly r





# Operational monitoring of the rainy season

## Rivers and dams water levels







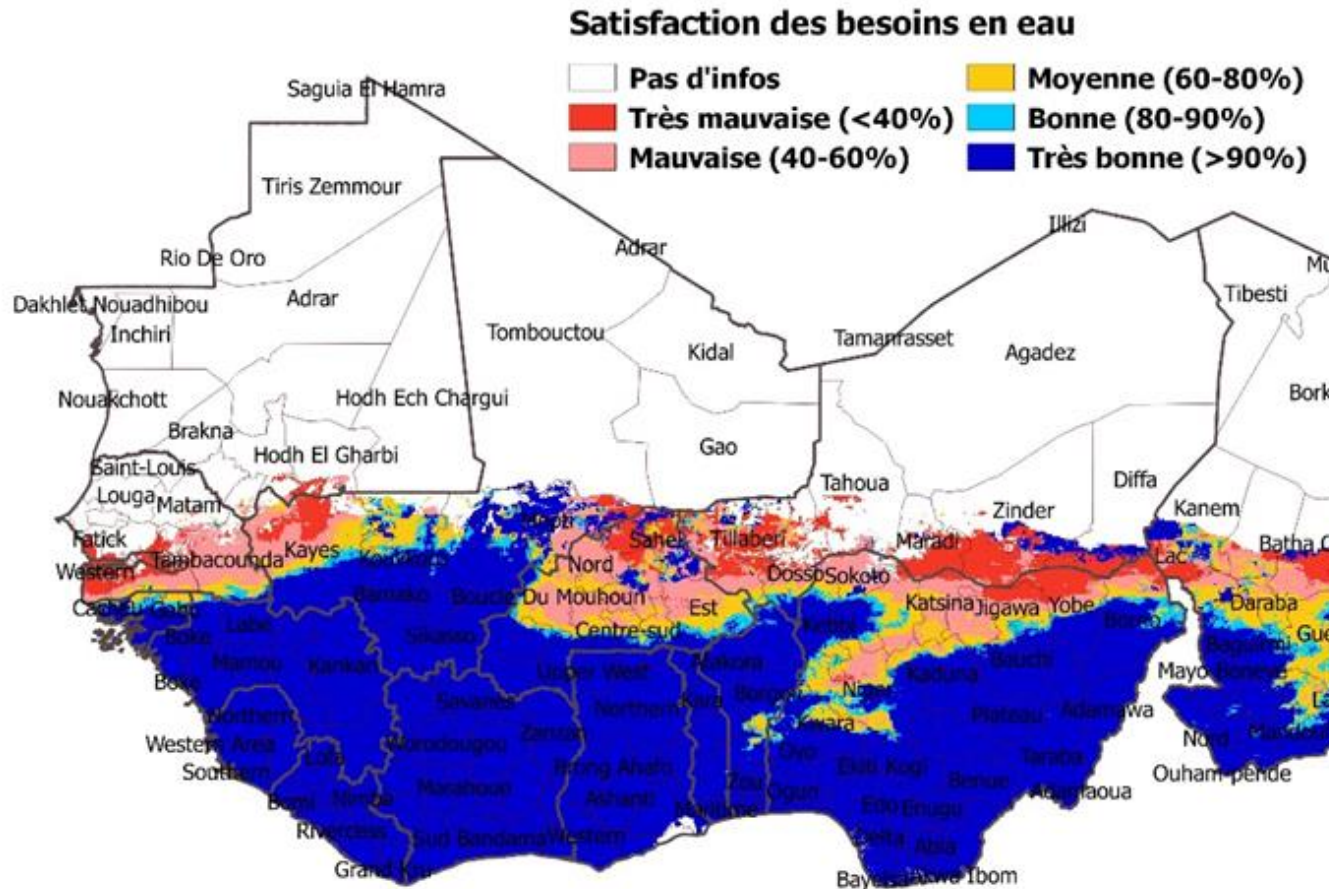
# Operational monitoring of the rainy s

WWW.CILSS.int : Un autre Sahel est possible

## Crop Water requirement satisfaction



Santo Antao  
Sao  
Braja  
Naio



Simulation: SARRA-O

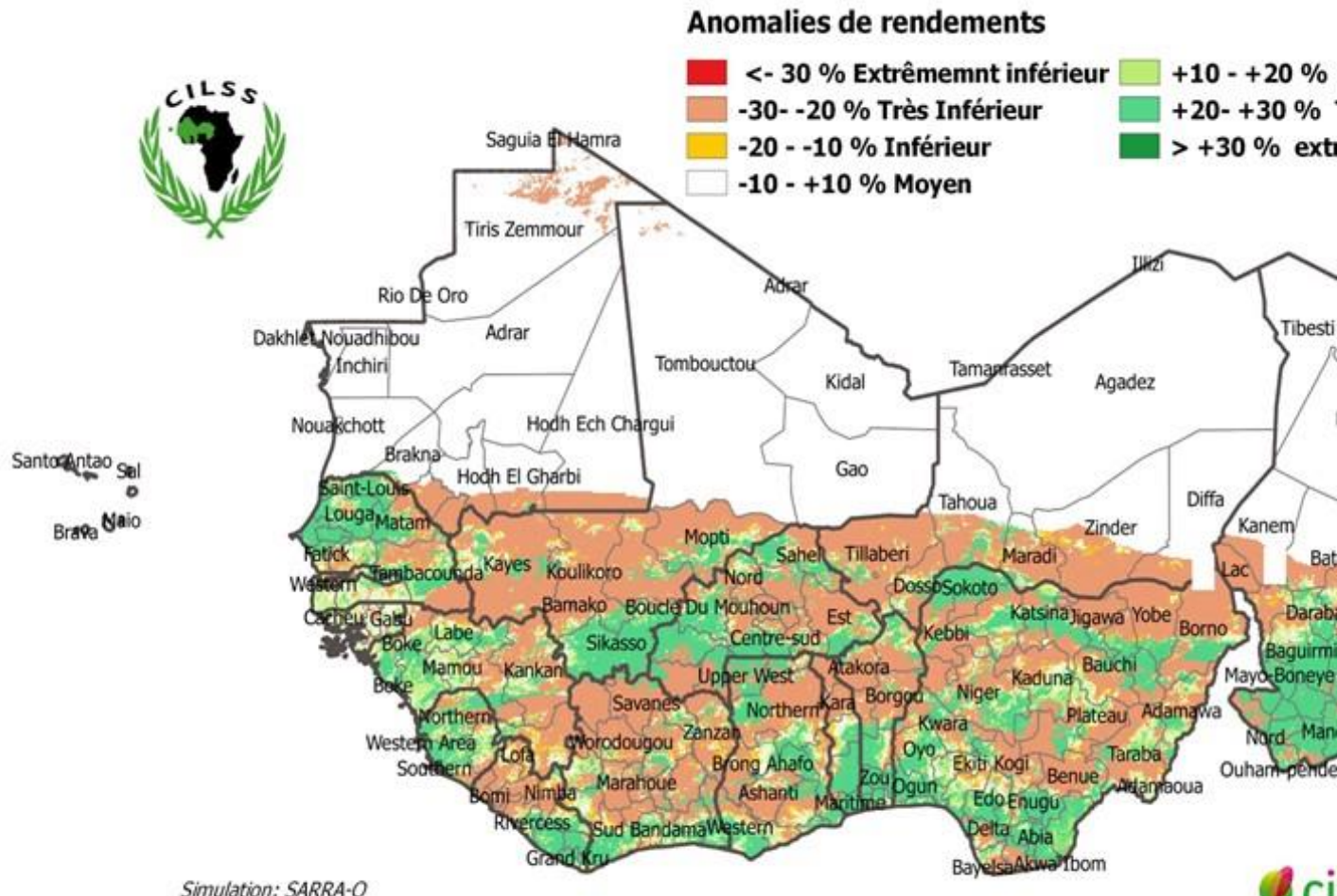




# Operational monitoring of the rainy season

## Crop yield forecasting

WWW.CILSS.int : Un autre Sahel est possible



Simulation: SARRA-O

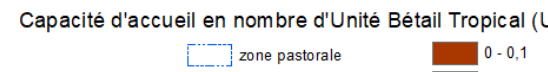
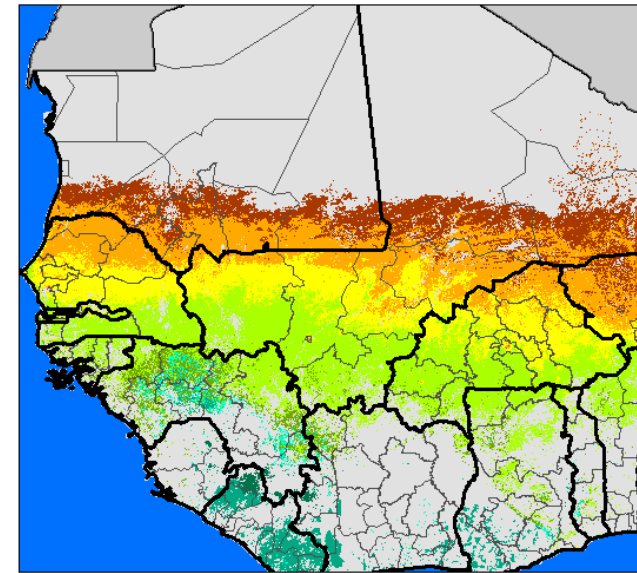
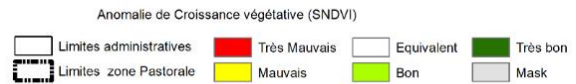
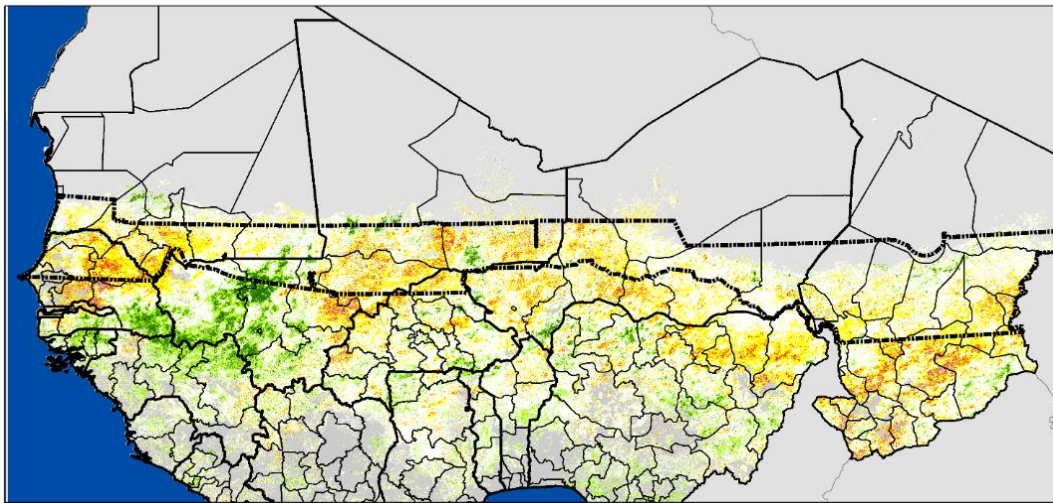




WWW.CILSS.int : Un autre Sahel est possible

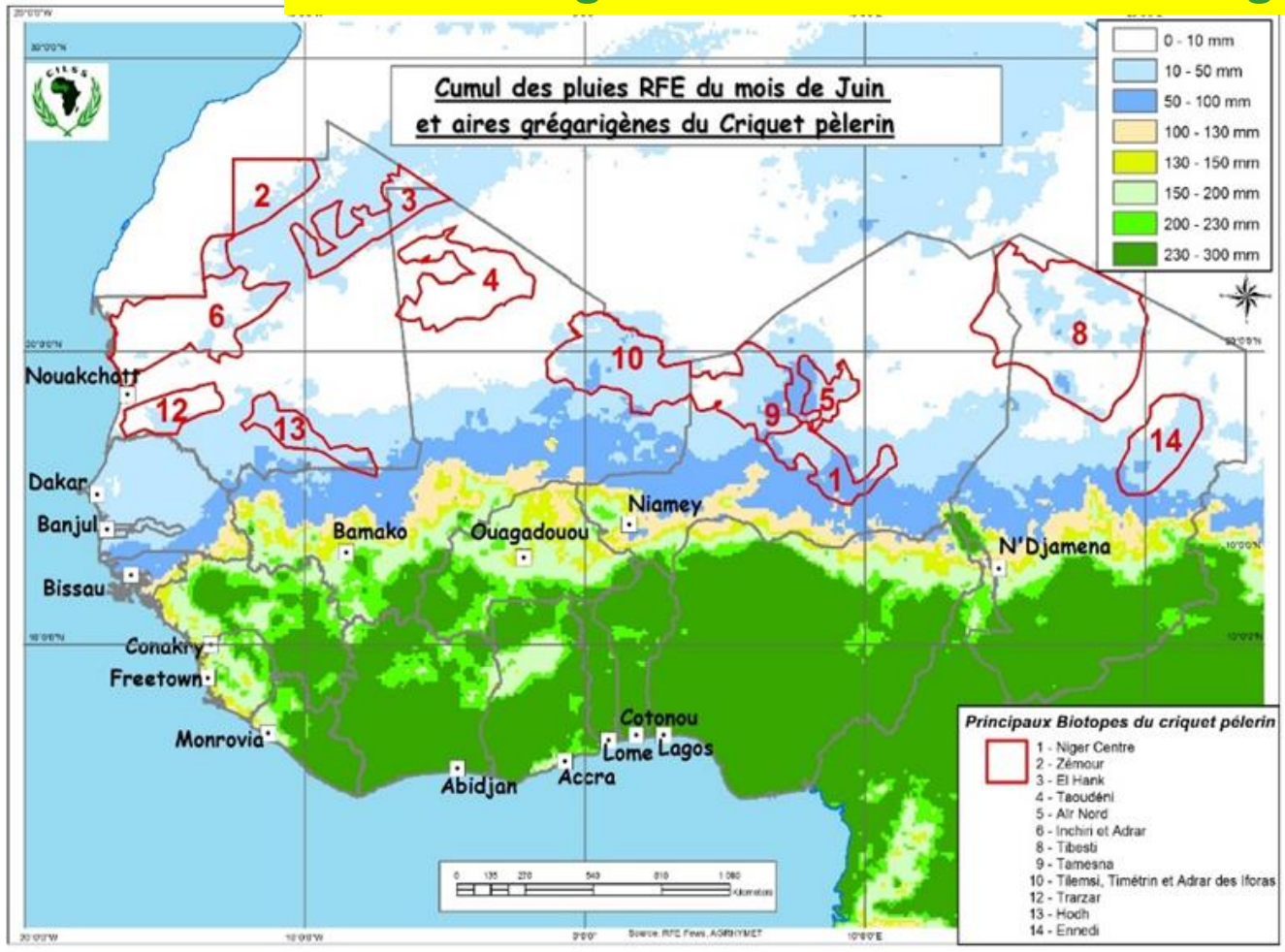
# Operational monitoring of the rainy s

*Vegetation indices and potential biomass availability for l*



# Operational monitoring of the rainy s

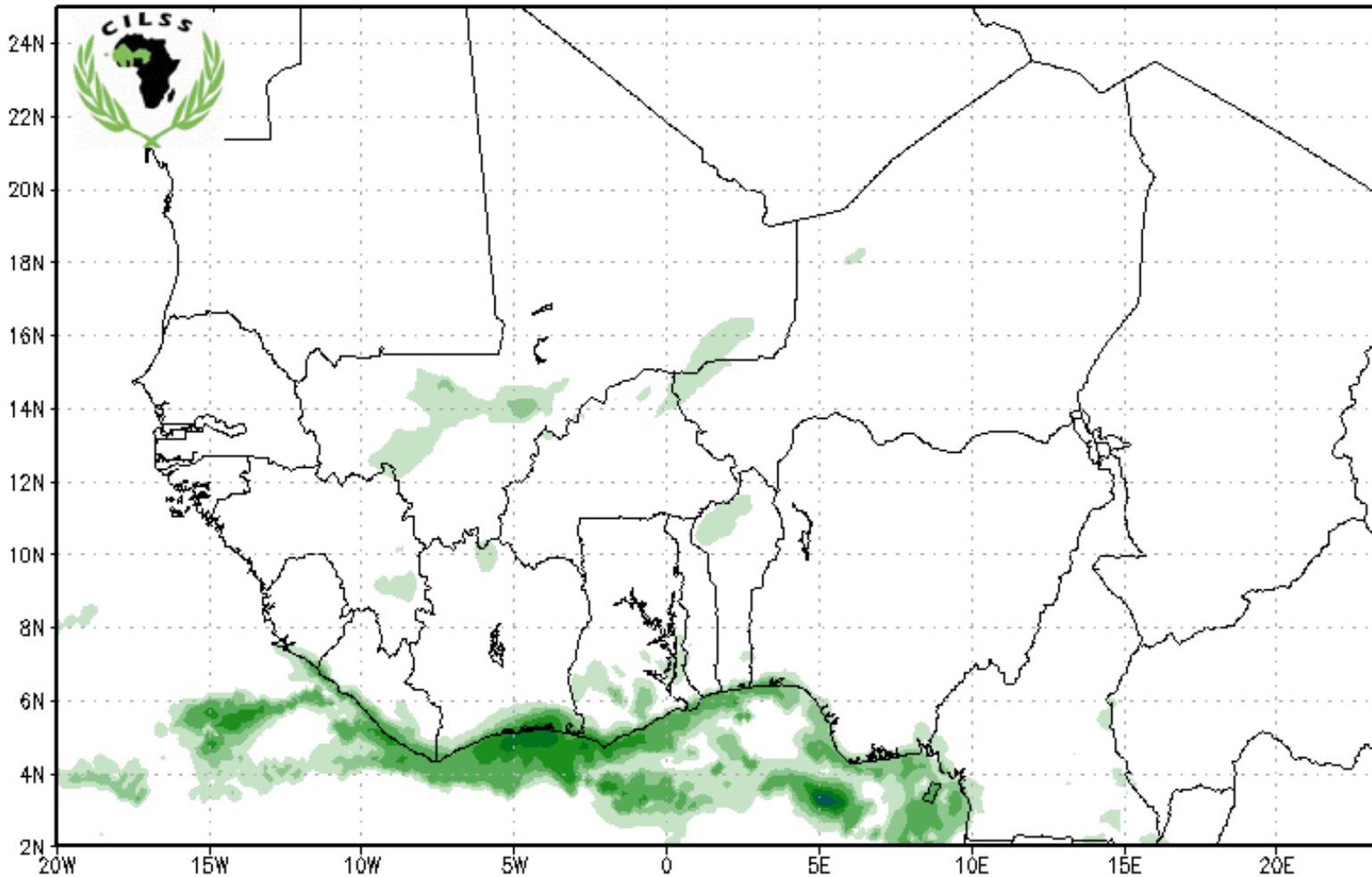
## Monitoring desert Locust breeding areas



WWW.CILSS.int : Un autre Sahel est possible

# Operational monitoring of the rainy

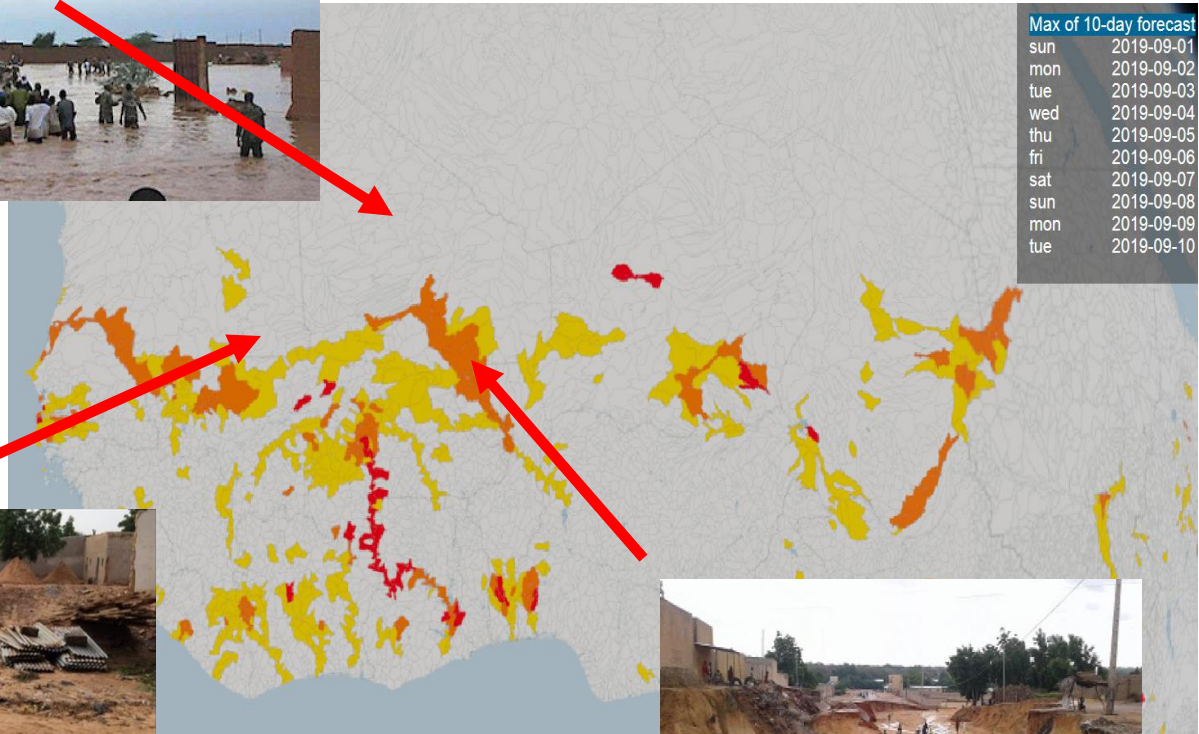
*Daily and 10 day weather forecasting*



# Operational monitoring of the rainy

WWW.CILSS.int : Un autre Sahel est possible !

## 10 Day Flood forecasting



# The ClimSA Program

## Overall objective

- **Contribute to foster sustainable development by strengthening the climate services value chain at the regional, national and sub-national levels**

## Specific Objectives

- **Improve interaction between the users, researchers and providers of climate information;**
- **Enhance provision of climate services at regional and national levels (CSIS);**
- **Improve access to climate information;**
- **Enhance capacity to generate and use climate information and products**
- **Strengthen climate-informed decision-making processes at regional and national levels.**



**ClimSA**

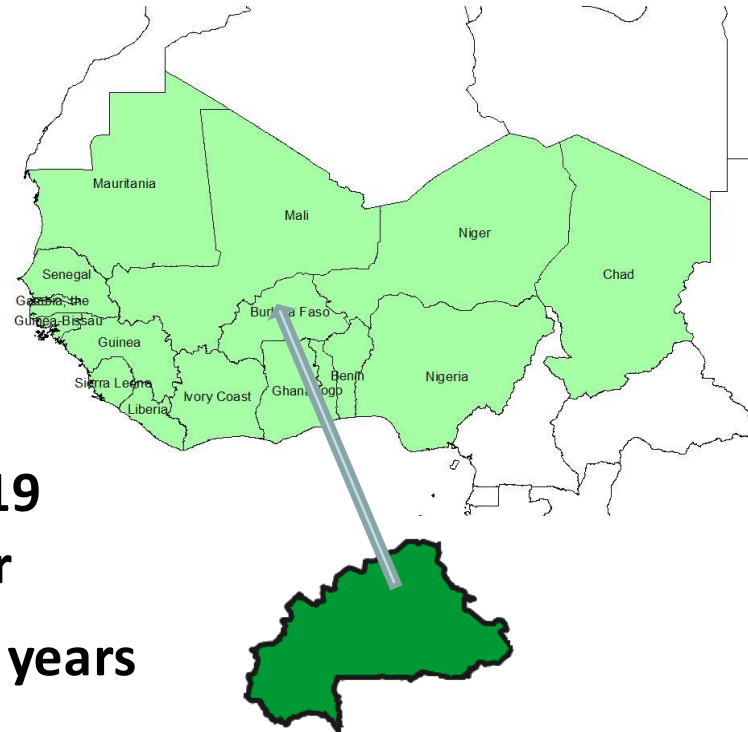
INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



# The ClimSA Program

## Intervention zone and budget

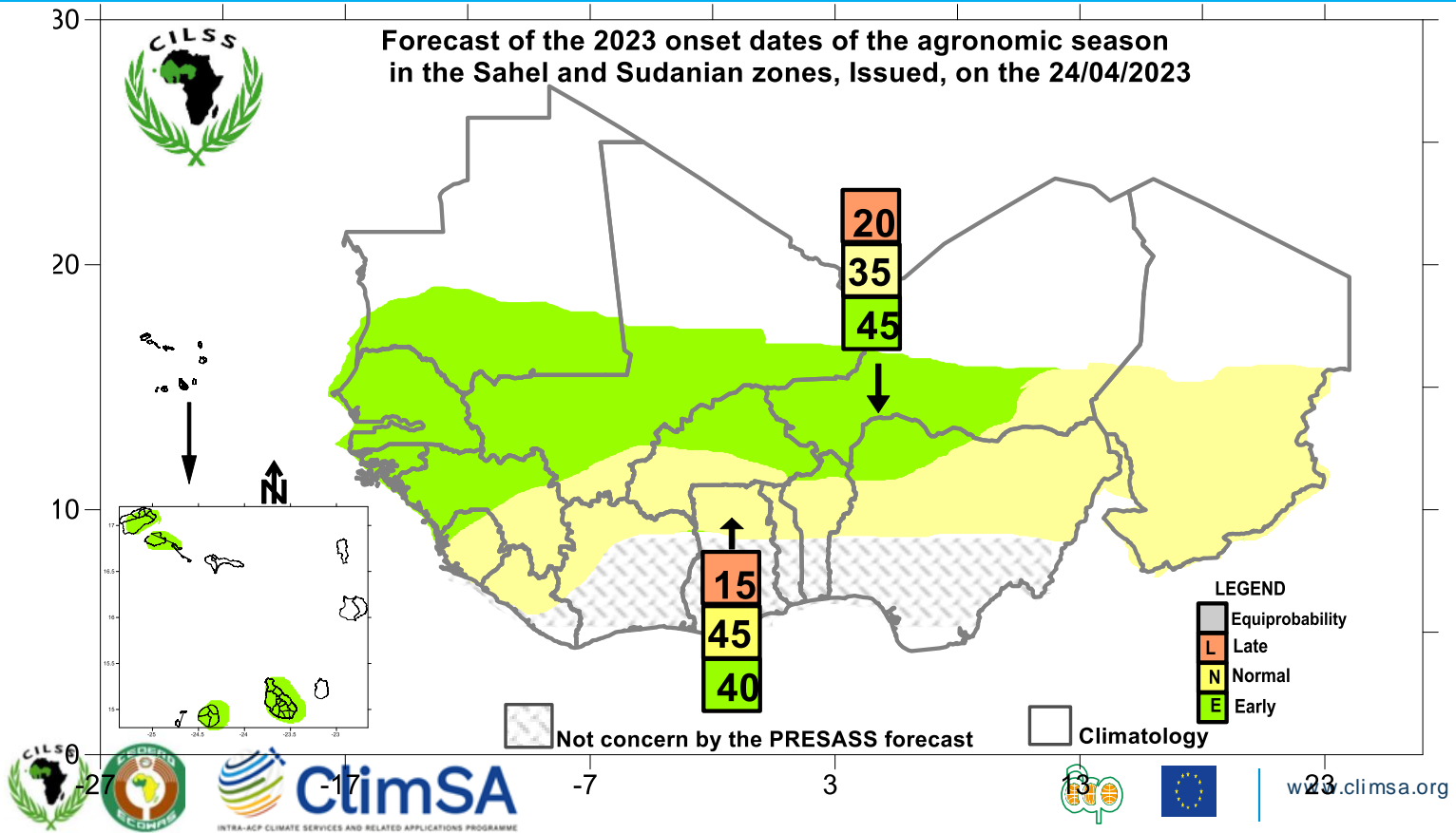
- 17 Countries (15 ECOWAS + Mauritania and Chad)
- 1 Pilot country : Burkina Faso
- Initial grant signed in December 2019 between AGRHYMET and EUD Niger
- Total Budget : 8 millions euros for 4 years
- 1 year no cost extension request submitted





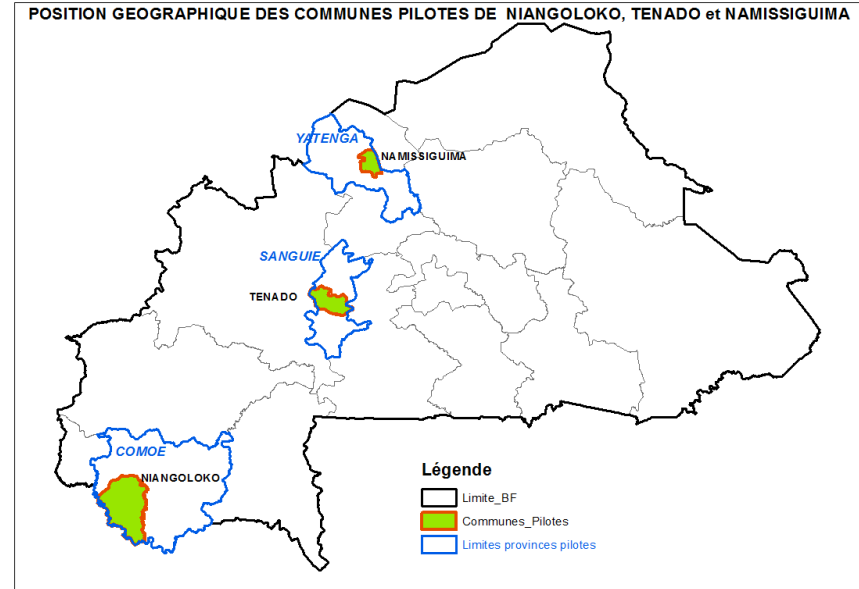
# Climate services for rural communities in Burkina Faso

Forecast of onset dates of the rainy season at the regional level issued during the PRESASS RCOF.



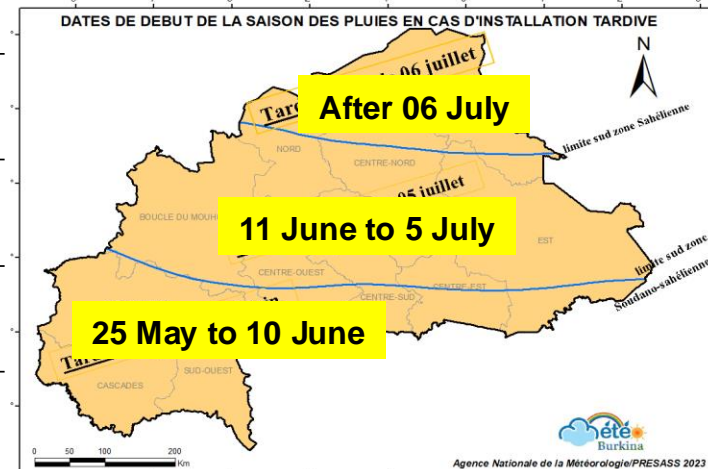
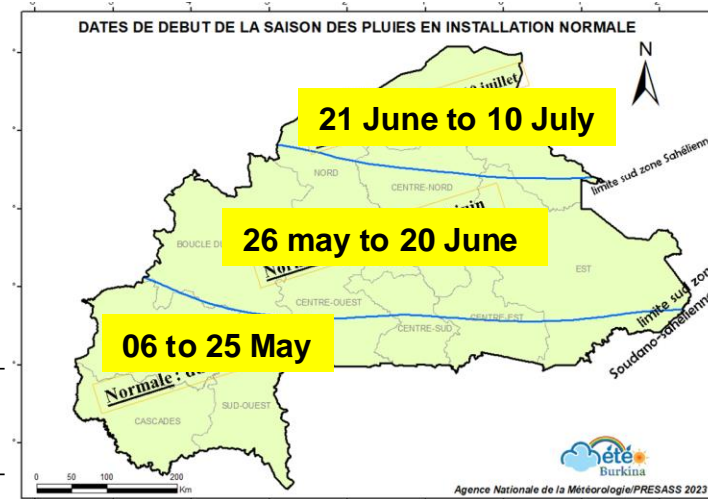
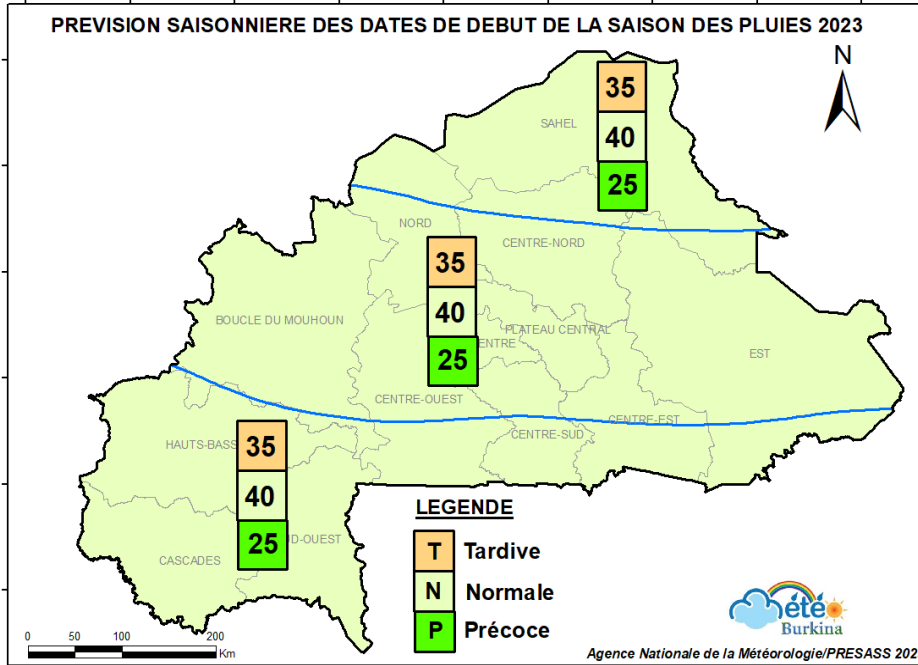
# Climate services for rural communities in Burkina Faso

- Since 2021, partnership with the Burkina Faso National Meteorological Agency (ANAM) to produce and communicate agrometeorological information to farmers in 3 pilot rural communities in Burkina Faso
- Namissiguima : in the Sahelian zone
- Ténado : in the Sudano-Sahelian zone
- Niangoloko : in the Sudanian zone



# Climate services for rural communities in Burkina Faso

Forecast of average to late onset dates of the rainy season throughout the country.



WWW.CILSS.int : Un autre Sahel est possible !



ClimSA

INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



www.climsa.org

# Climate services for rural communities in Burkina Faso

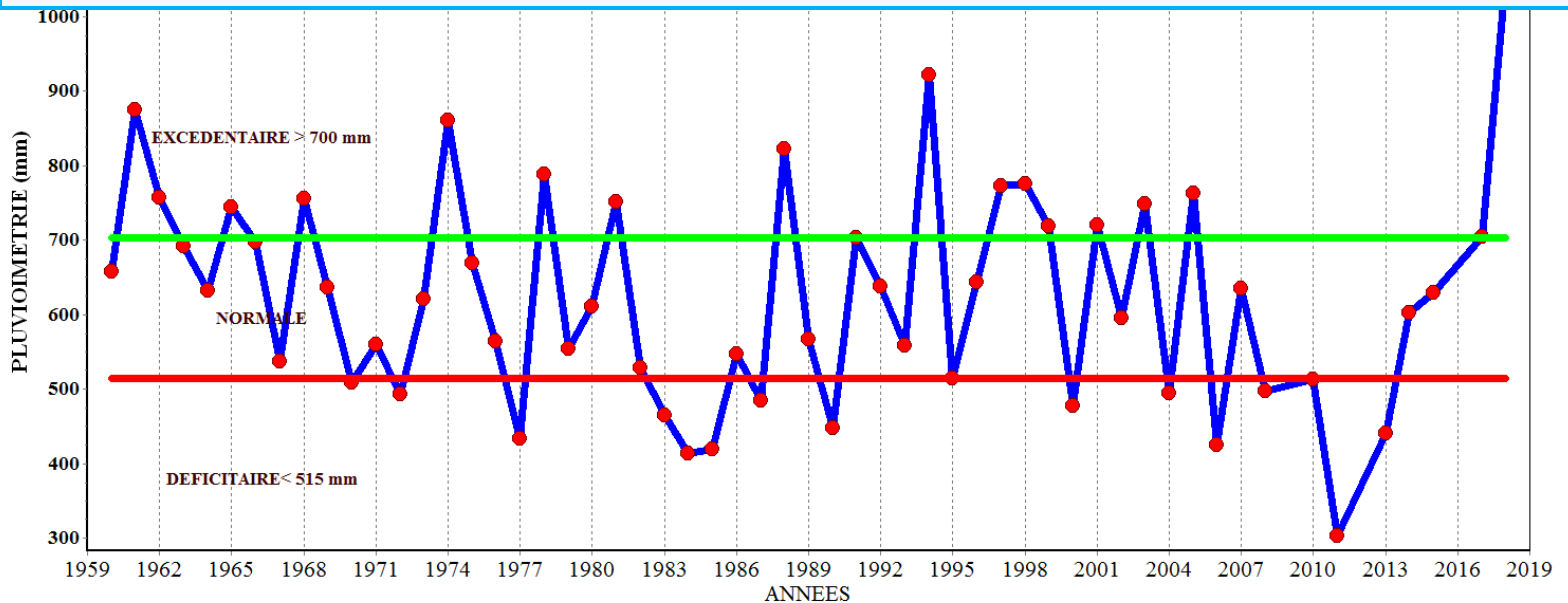
Communication workshops with farmers and extension workers



# Climate services for rural communities in Burkina Faso

Communication workshops with farmers and extension workers

Time series of cumulative seasonal rainfall at a given location: Average : 500-700 mm



Agence Nationale de la Météorologie

# Climate services for rural communities in Burkina Faso

- Provision of rain gauges and smartphones to farmers of these rural communities to collect data and also receive meteorological information and advices via:
  - Community radios
  - SMS and WhatsApp messages in French and local languages
- Field visits during the season to discuss with farmers on the usefulness of the provided information



# Climate services for rural communities in Burkina Faso

Sample agrometeorological bulletins sent every day to the community radios, extension workers and contact farmers

- Past 24 hour observed temperatures and rainfall
- Upcoming Temperature and rainfall forecast
- Agrometeorological advices



## Conseils agrométéorologiques :

Au regard des conditions météorologiques passées et de la prévision annoncée, les activités agricoles qui peuvent être conseillées aux producteurs de Namissiguima et des villages environnants sont :

- mettre l'accent sur les labours des superficies réservées aux cultures de maïs, arachides et niébé ;
- s'activer pour terminer les semis de maïs en privilégiant les variétés précoces (KPB ou KPJ) et les légumineuses avant le 10 août ;
- pour les cultures de sorgho ou de maïs en montaison et ou en tallage, l'apport d'urée doit être suspendu ;

# Climate services for rural communities in Burkina Faso

## Farmers' feedback

- The information helps plan activities for the season and also day to day farming operations
- Always wait for meteorological information before undertaking activities like
  - Sowing
  - Fertilizer or pesticide use
  - Hiring field workers
  - This helps save time, energy and money
- Discussion groups on meteorological information during social gatherings



**ClimSA**

INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



[www.climsa.org](http://www.climsa.org)



# Climate services for rural communities in Burkina Faso

## Farmers' feedback



Mr SOMA and Mr BAYILI farmers at Niangoloko and Tenado



**WWW.CILSS.int : Un autre Sahel est possible**



**Thank you for your attention**

