



CILSS / AGRHYMET Role in The Reduction of Food Crises and Other Hydroclimatic Disasters in West Africa





Outline

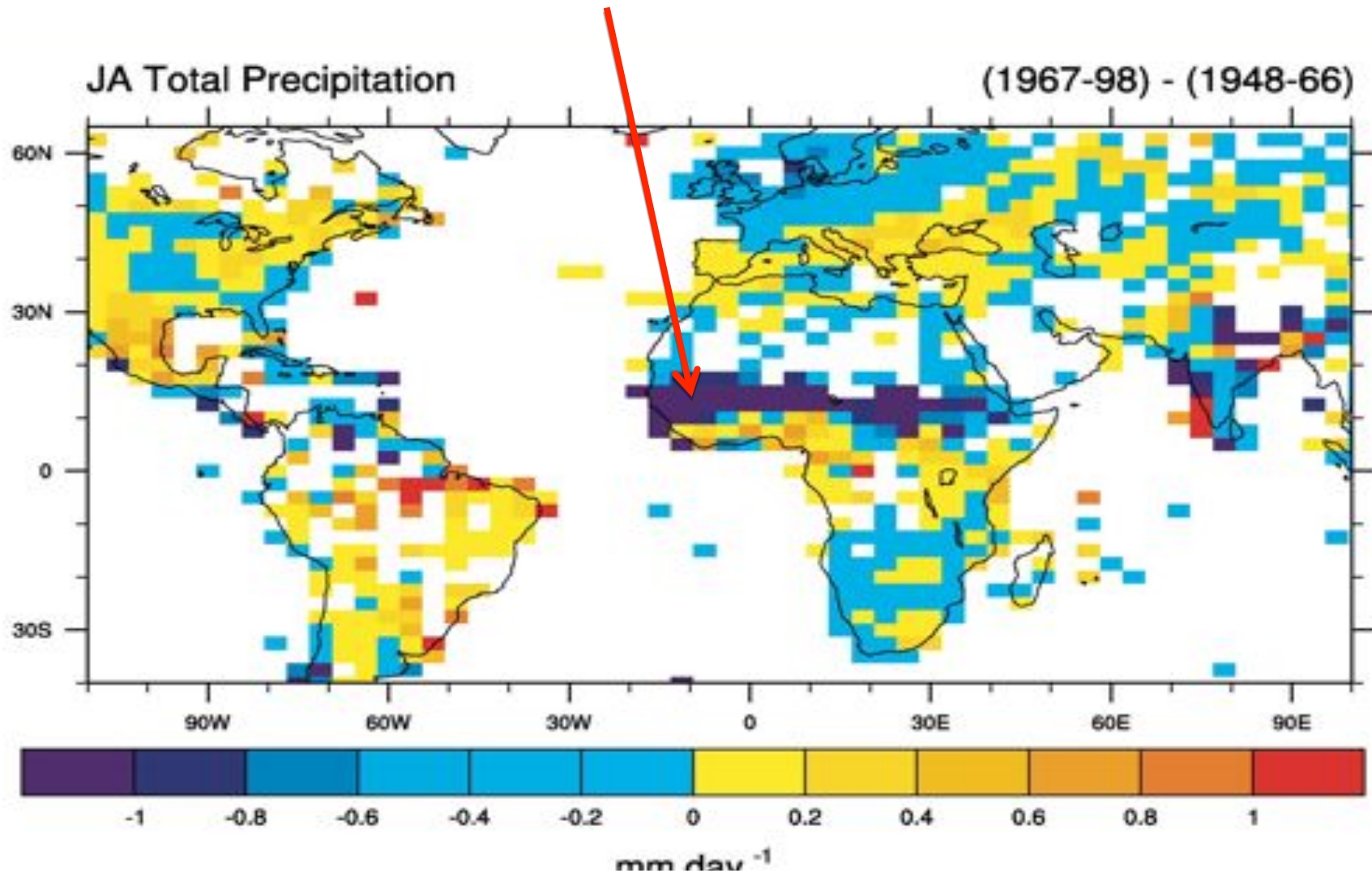
- **Context**
 - The Sahel droughts of the early 1970s and the Creation of CILSS
- **Monitoring and Early Warning**
- **Risk assessment**
- **Copping strategies**
- **Partnerships**



Introduction :

The Sahel Droughts of the 1970s and 1980s

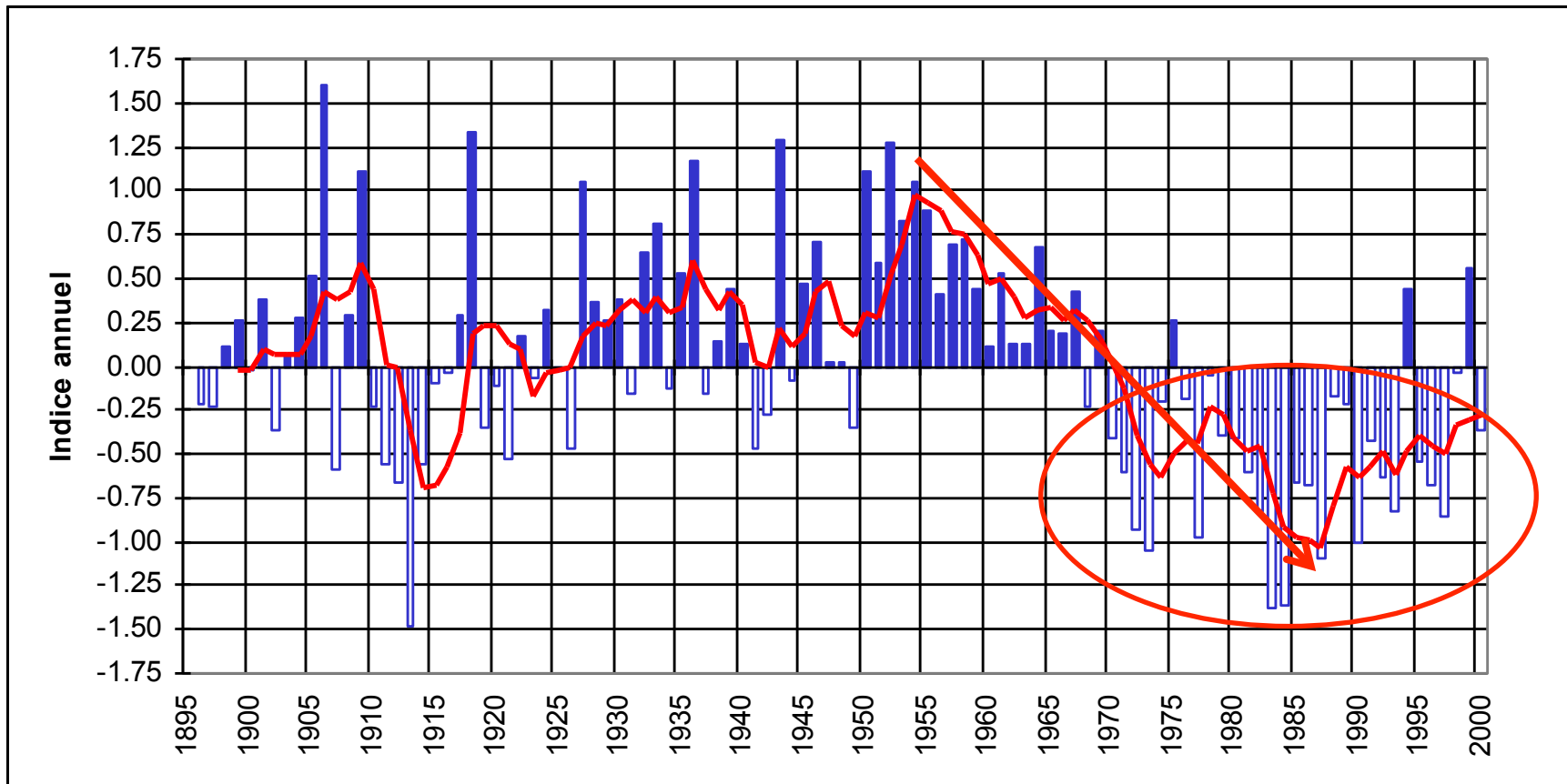
A unique case by their severity and spatial extent





Introduction :

The Sahel Droughts of the 1970s and 1980s





Introduction :

The Sahel Droughts still occurring

Millet field in Niger 11th August 2009





Introduction : The Sahel Droughts

Failed millet field in Niger, September 2009





Introduction : The Sahel Droughts

Rice field in Chad, October 2009



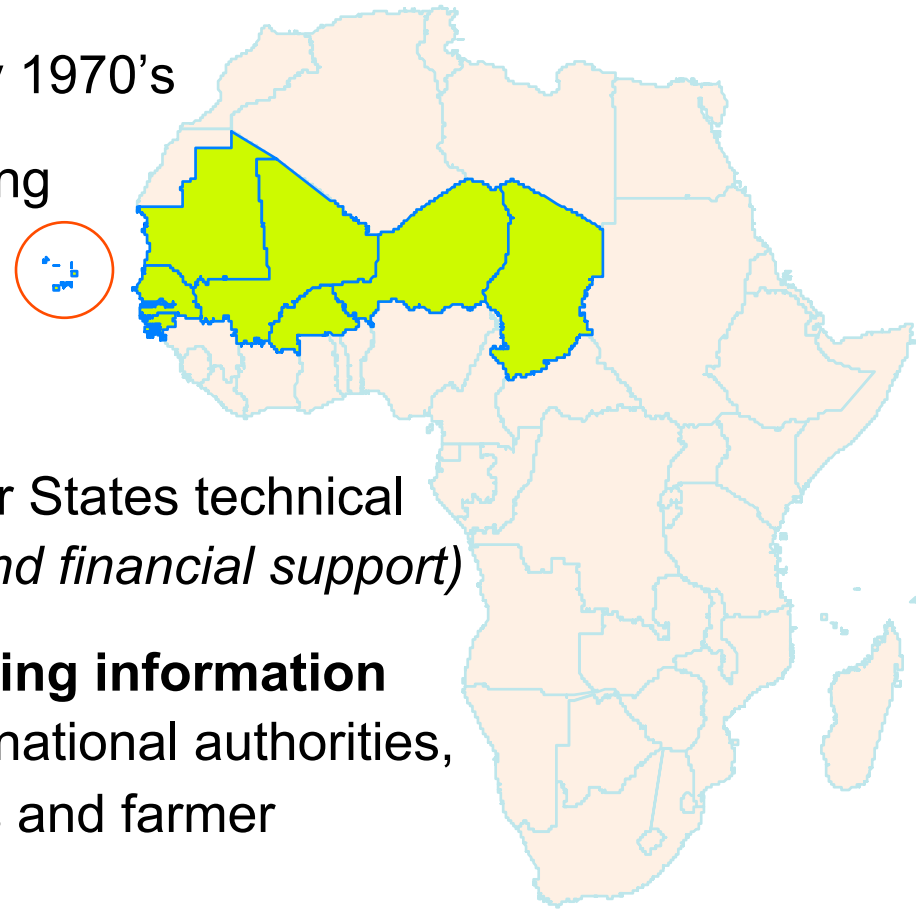


Introduction : The AGRHYMET Regional Center

AGRHYMET, a Specialized Institution of CILSS

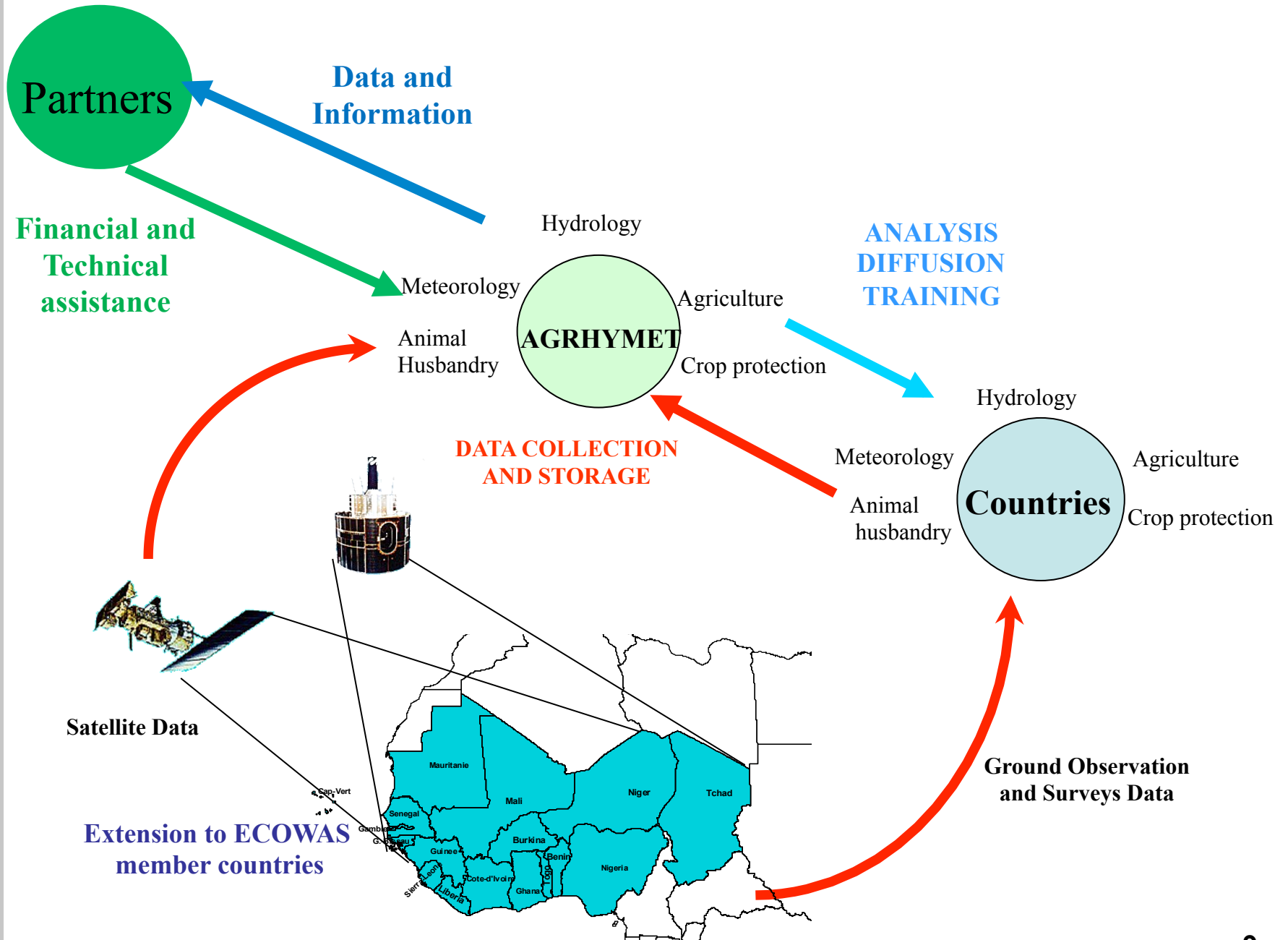
(Cape Verde, Mauritania, Senegal, The Gambia, Guinea Bissau, Mali, Burkina Faso, Niger and Chad)

- **Created in 1974**, following the catastrophic droughts of the early 1970's
- **Mission** : to contribute to achieving sustainable food security and rational natural resource management by :
 - **Capacity building** of member States technical offices (*training, equipment and financial support*)
 - **producing and disseminating information** to various decision makers (national authorities, cooperation partners, NGOs and farmer associations)





Introduction : The AGRHYMET Operating scheme



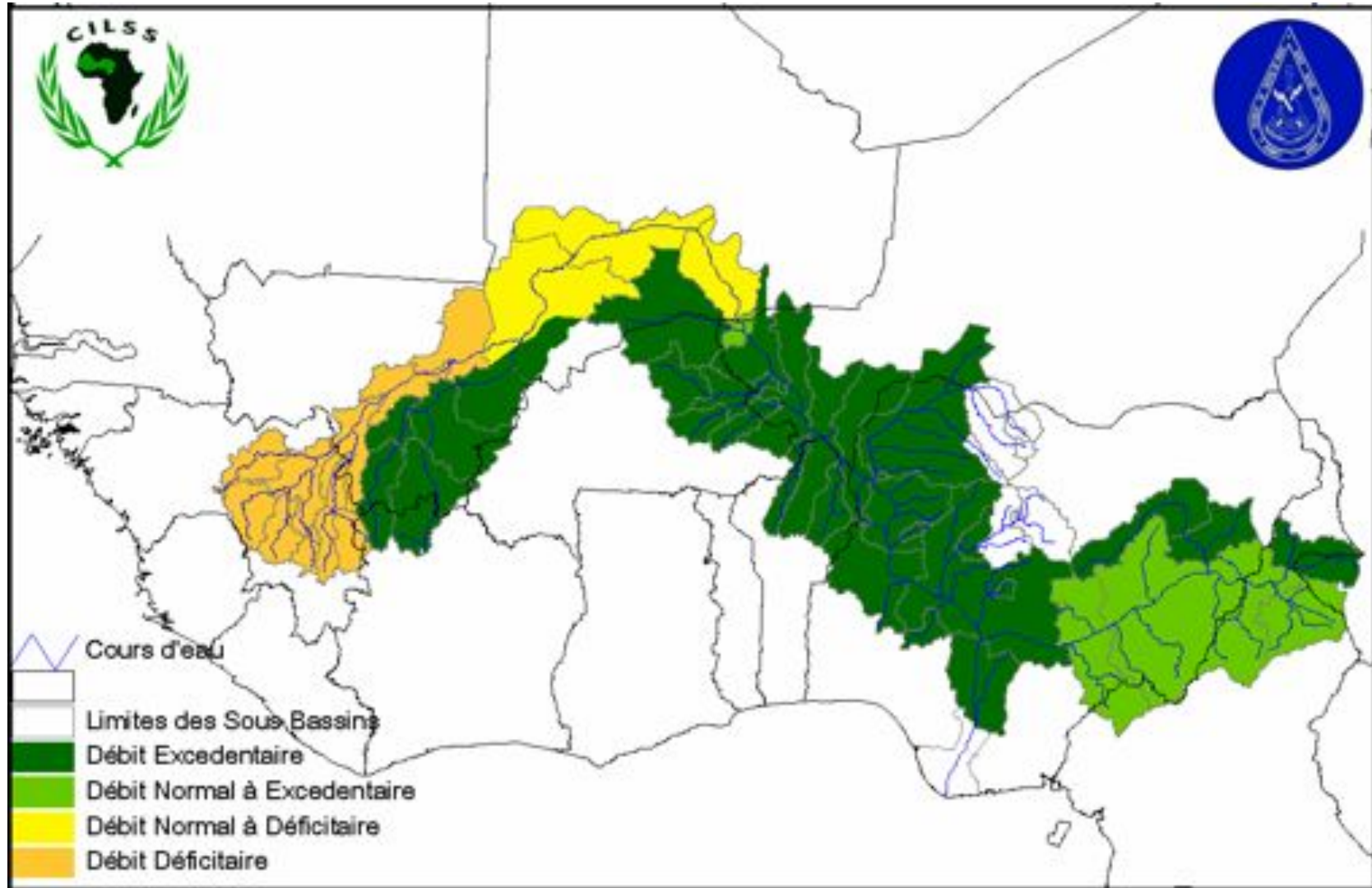


Introduction : The Monitoring & Early Warning System

- **From May to October**
 - Seasonal rainfall and hydrological forecasts (PRESAO),
 - Monitoring the rainfall situation
 - **Monitoring the progress of sowing and the crop water satisfaction (field data and agrometeorological models),**
 - Monitoring the pastures situation (Vegetation Indices),
 - **Crop and biomass yield forecasting (Agrometeorological models),**
 - Identifying risk zones (Synthesis of all the products),
- **In October : Joint pre-harvest assessment missions (CILSS, FEWS NET, FAO, WFP, governments)**
- **Early November : Annual consultative meeting**
 - Targeting vulnerable populations.



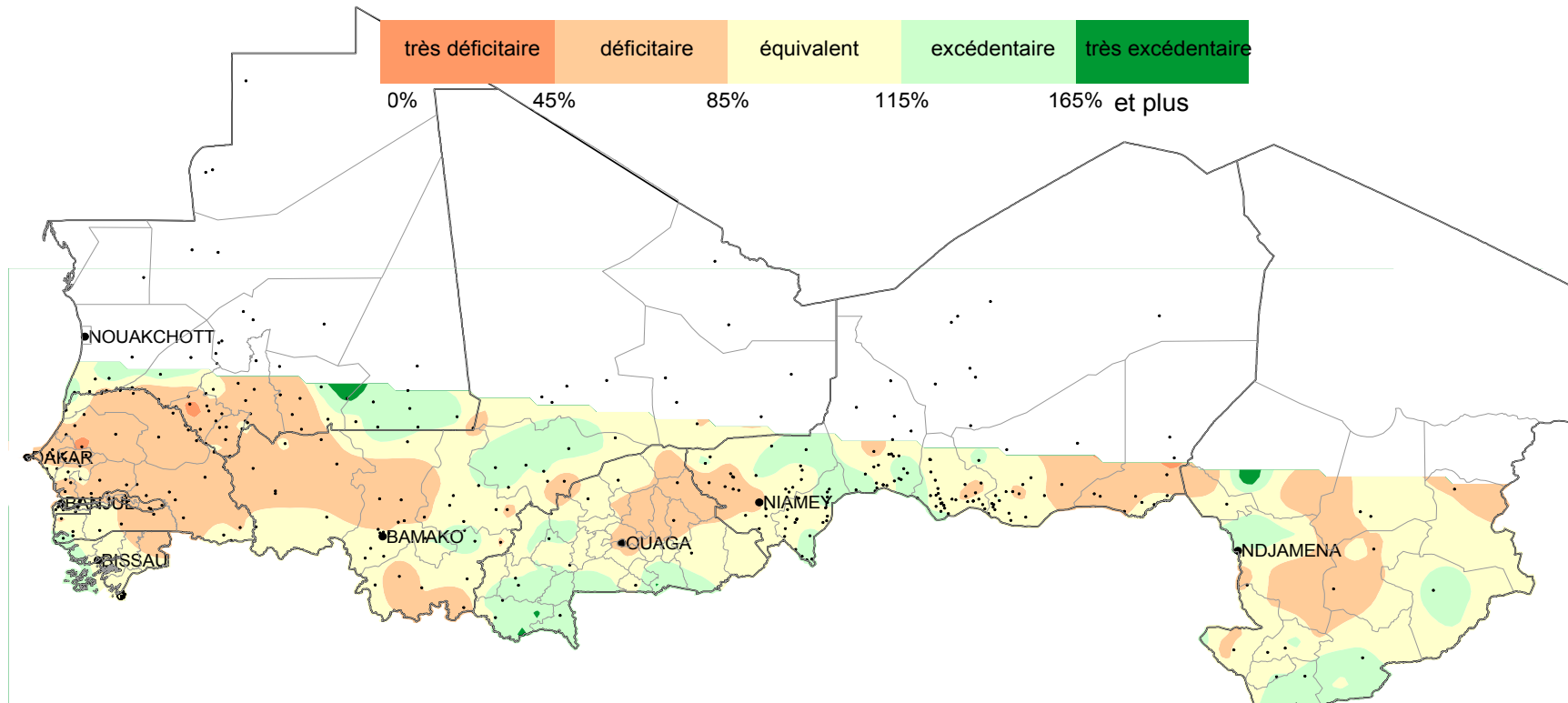
2010 Seasonal Hydrological Forecast





Rainfall Monitoring

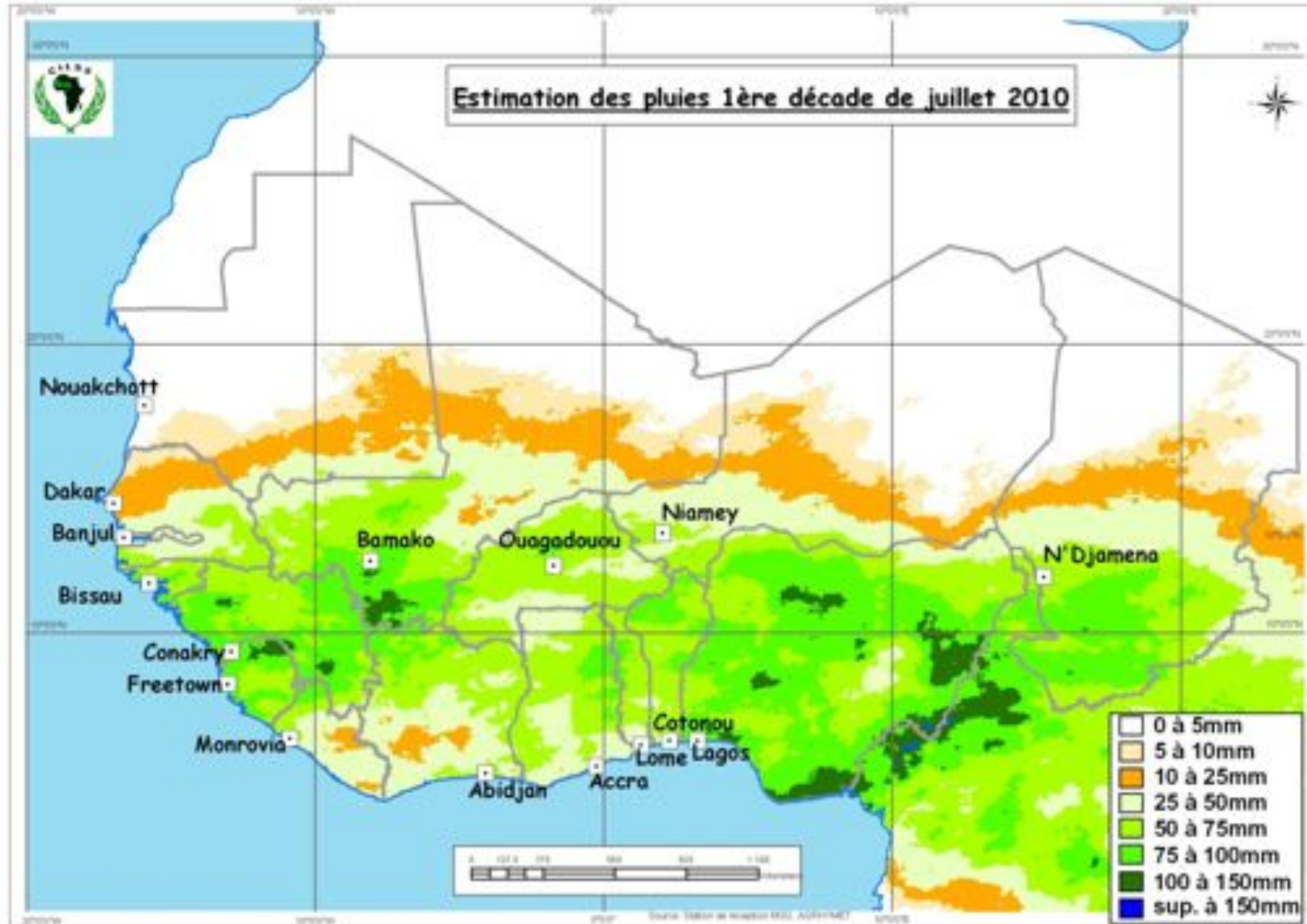
- Ground measurements





Rainfall Monitoring

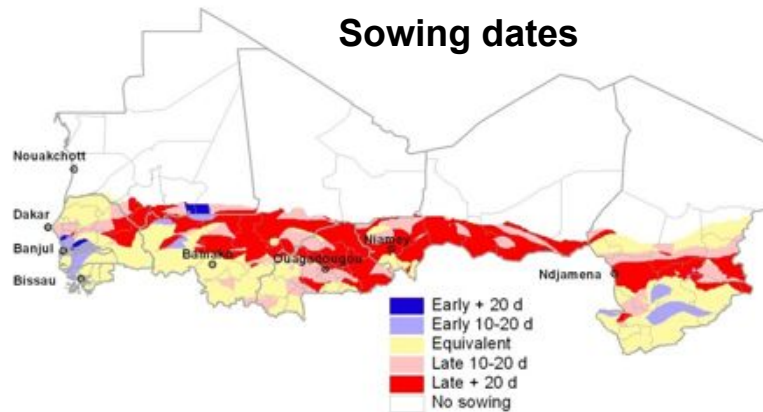
Satellite Estimation



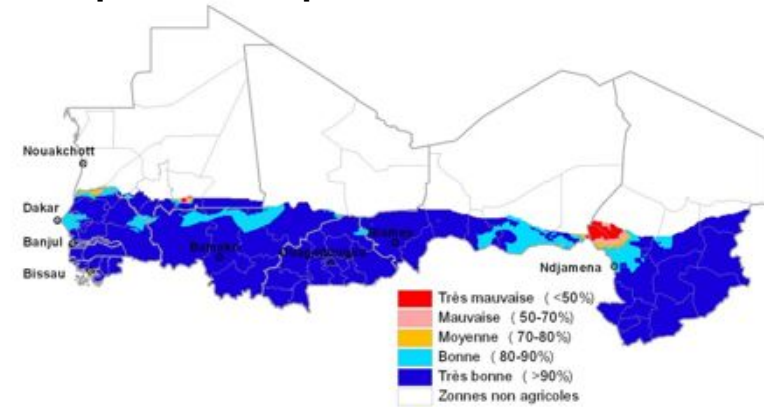


Crop monitoring and forecasting

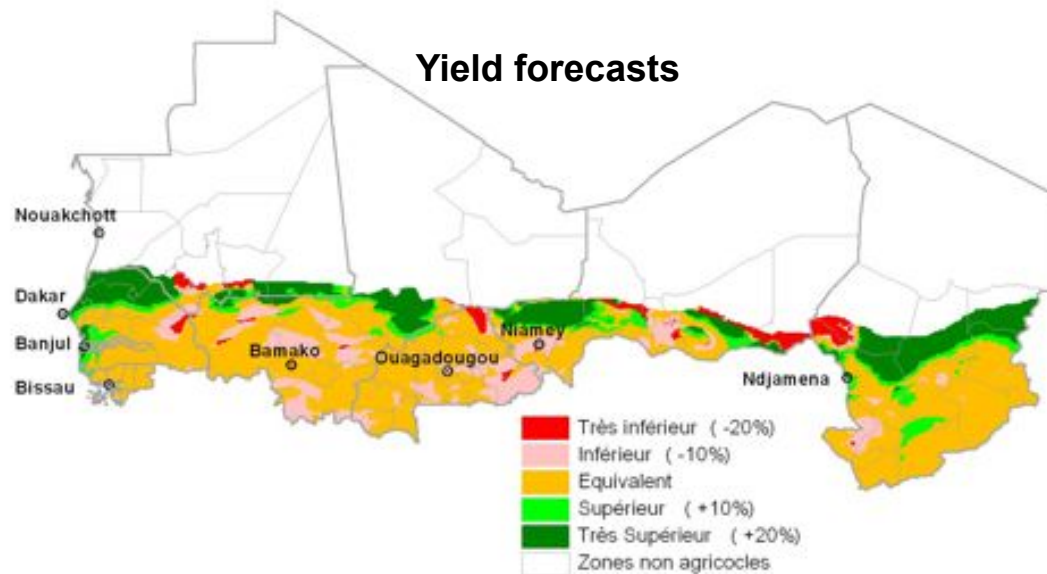
Sowing dates



Crop Water Requirement Satisfaction Index



Yield forecasts



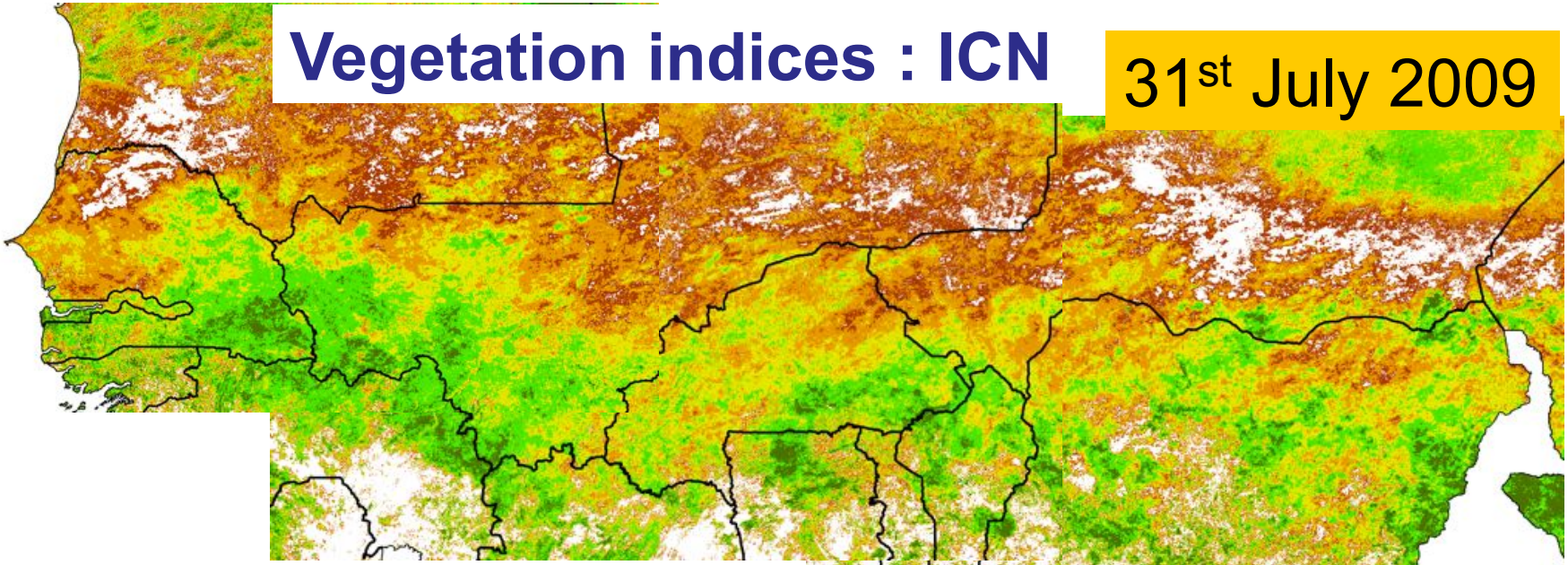


Crops and Pastures Monitoring

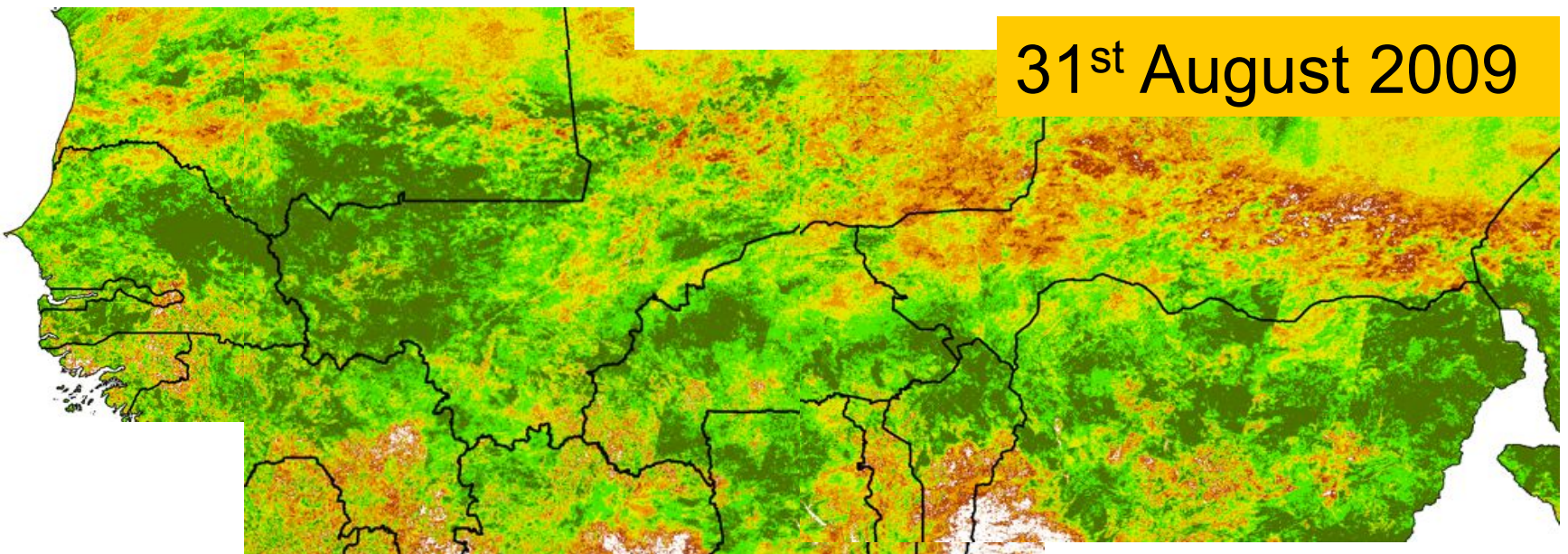
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Vegetation indices : ICN

31st July 2009



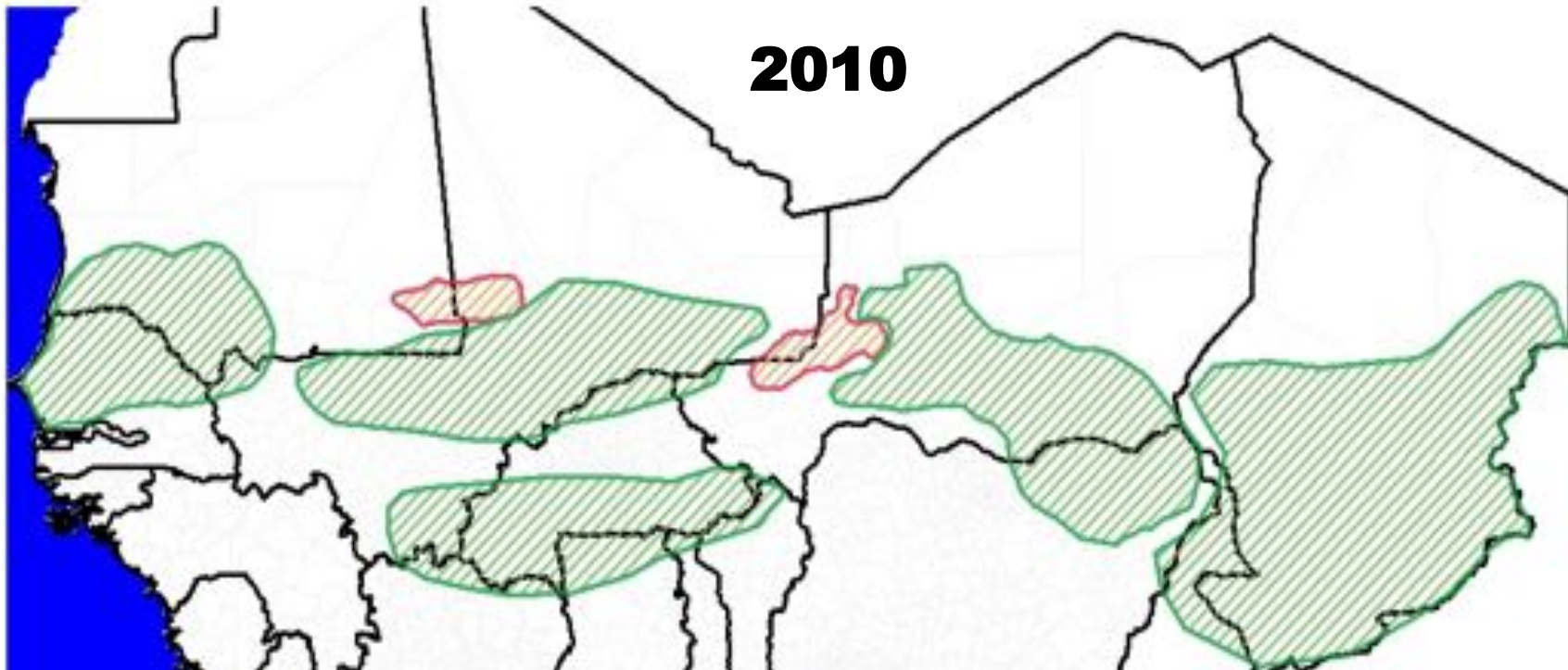
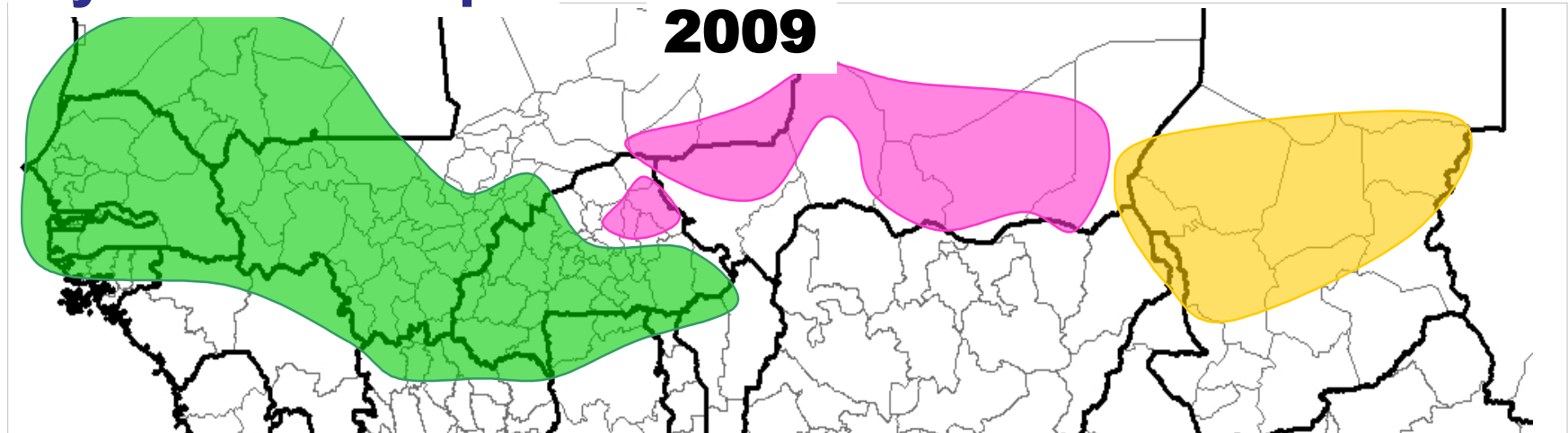
31st August 2009





Crops and Pastures Monitoring

Synthesis maps





Food Security Monitoring

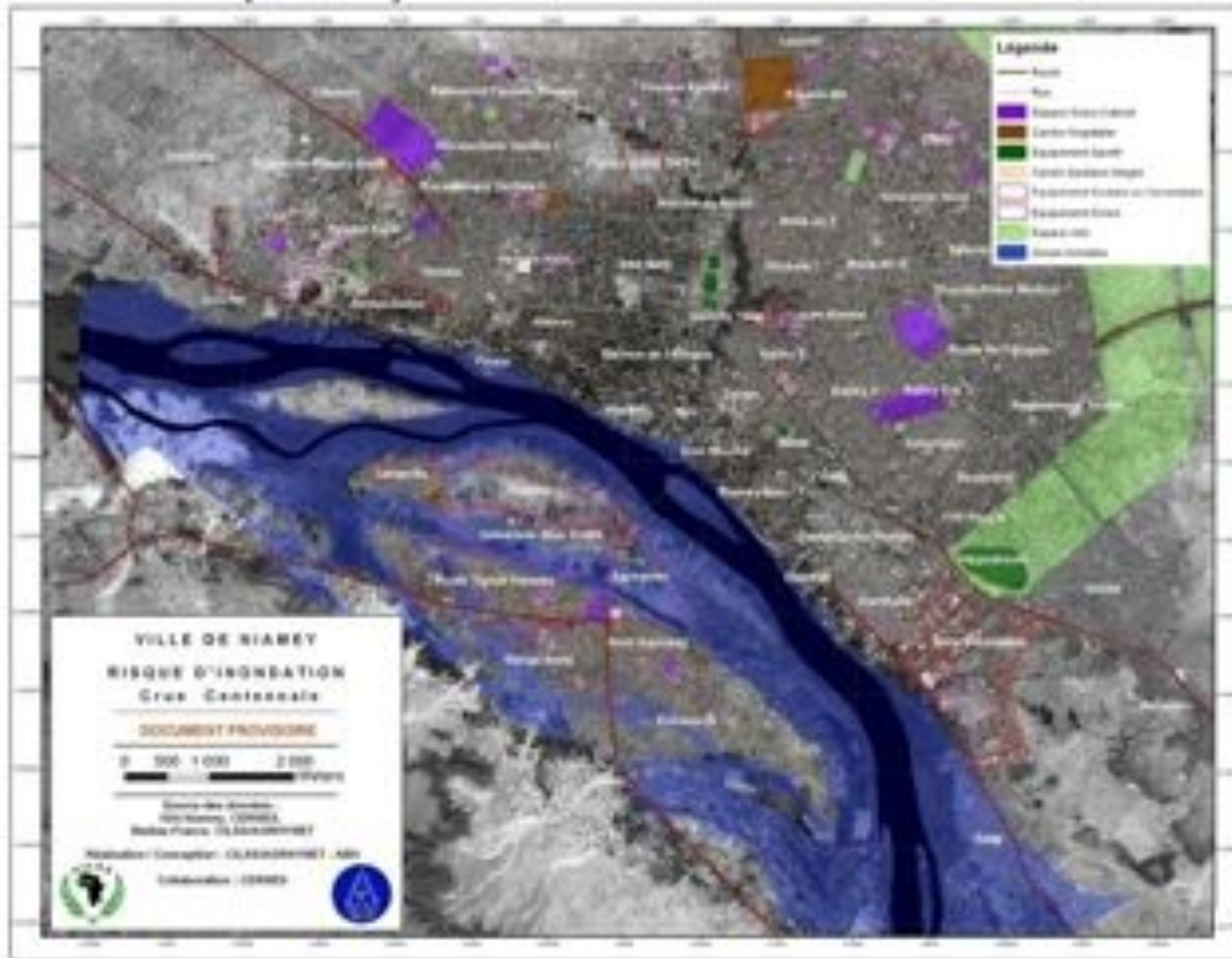
Crop pest control

- Rearing insects for training and laboratory test of pesticides
- Capacity building of national Crop protection offices





Flood Risk Mapping





Adaptation & Coping Strategies

Soil / Water conservation, New Varieties / Species





Adaptation & Coping Strategies

Grass seeding and tree planting on degraded land to improve pastures





Partnerships

- **Technical**

- **National technical services**

- *Meteorology, hydrology, agric. statistics, crop protection, agric. research, etc....*

- **Regional**

- *River Basin Authorities, ACMAD, CORAF/WECARD,*

- **International**

- *FAO, WFP, FEWSNET, USGS, IRI, CIRAD, IRD, JRC, VITO, ICRISAT*

- **Financial**

- **EU, USAID, AfDB, ECOWAS, France, Canada**



Future Prospects

- Continued Data Collection
- Development of new products for seasonal crop monitoring
- Continued capacity building

AGRHYMET is a bridge between technical partners and end users (national technical services and farmers).

- Continued involvement in various international scientific initiatives
 - AMMA (African Monsoon Multidisciplinary Analyses)
 - GMFS (Global Monitoring for Food Security)
 - AMESD (African Monitoring of Environment for Sustainable Development)
- Extension to the other ECOWAS (countries located along the Gulf of Guinea)



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Thank you !