



The Regional Multidisciplinary Platform
“Rural communities, Environment and Climate
in West Africa”

<http://ppr-srec.org/>

The Regional Multidisciplinary Platform

“Rural communities, Environment and Climate in West Africa”

A platform managed by and international Board



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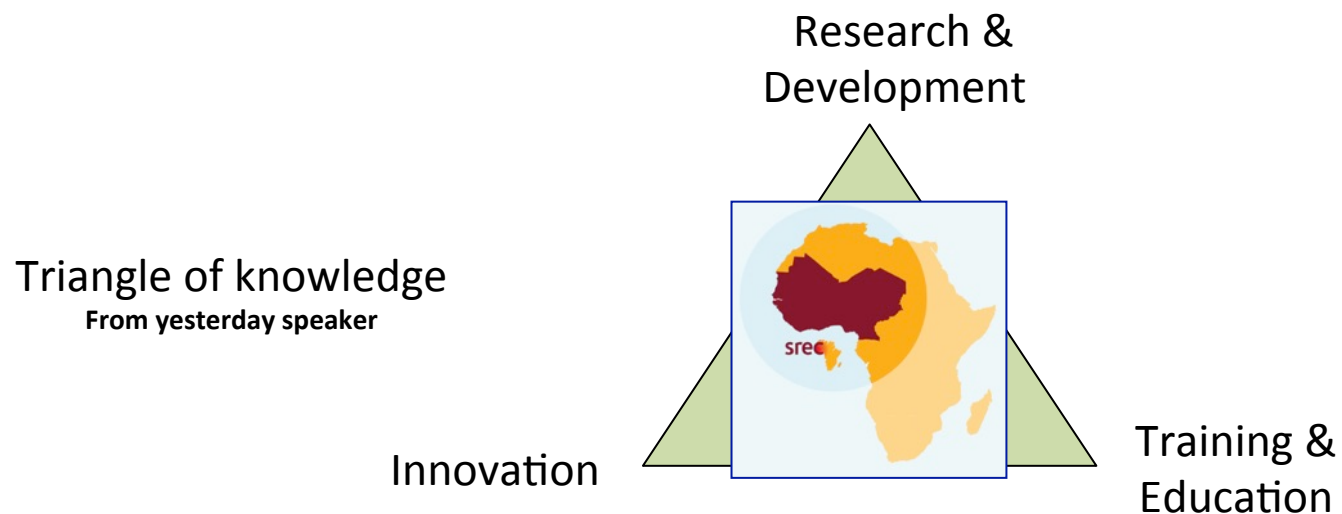
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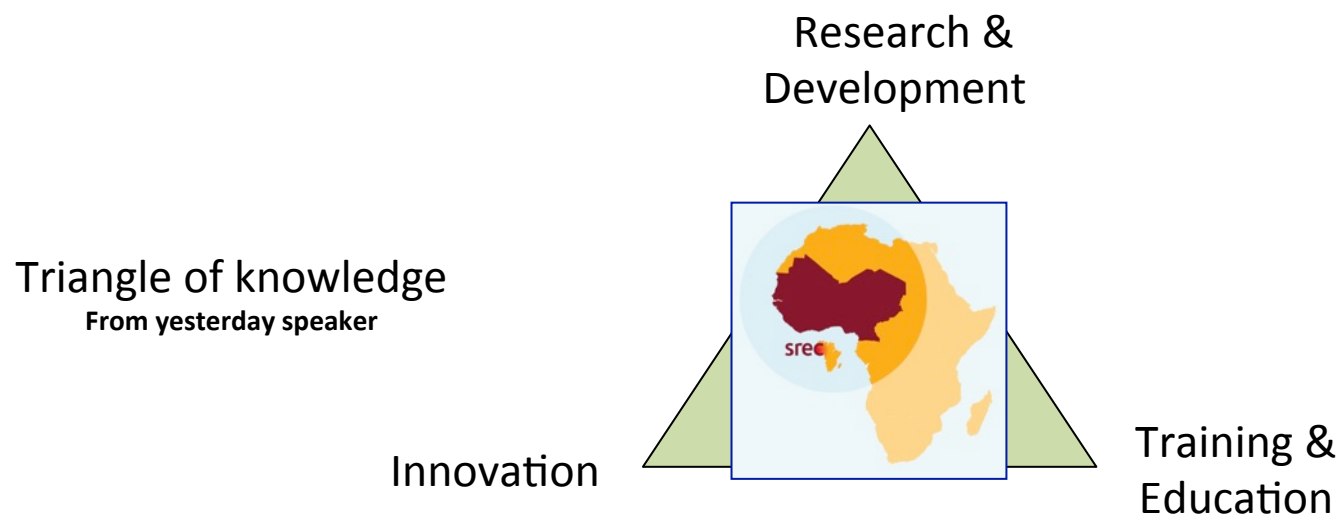
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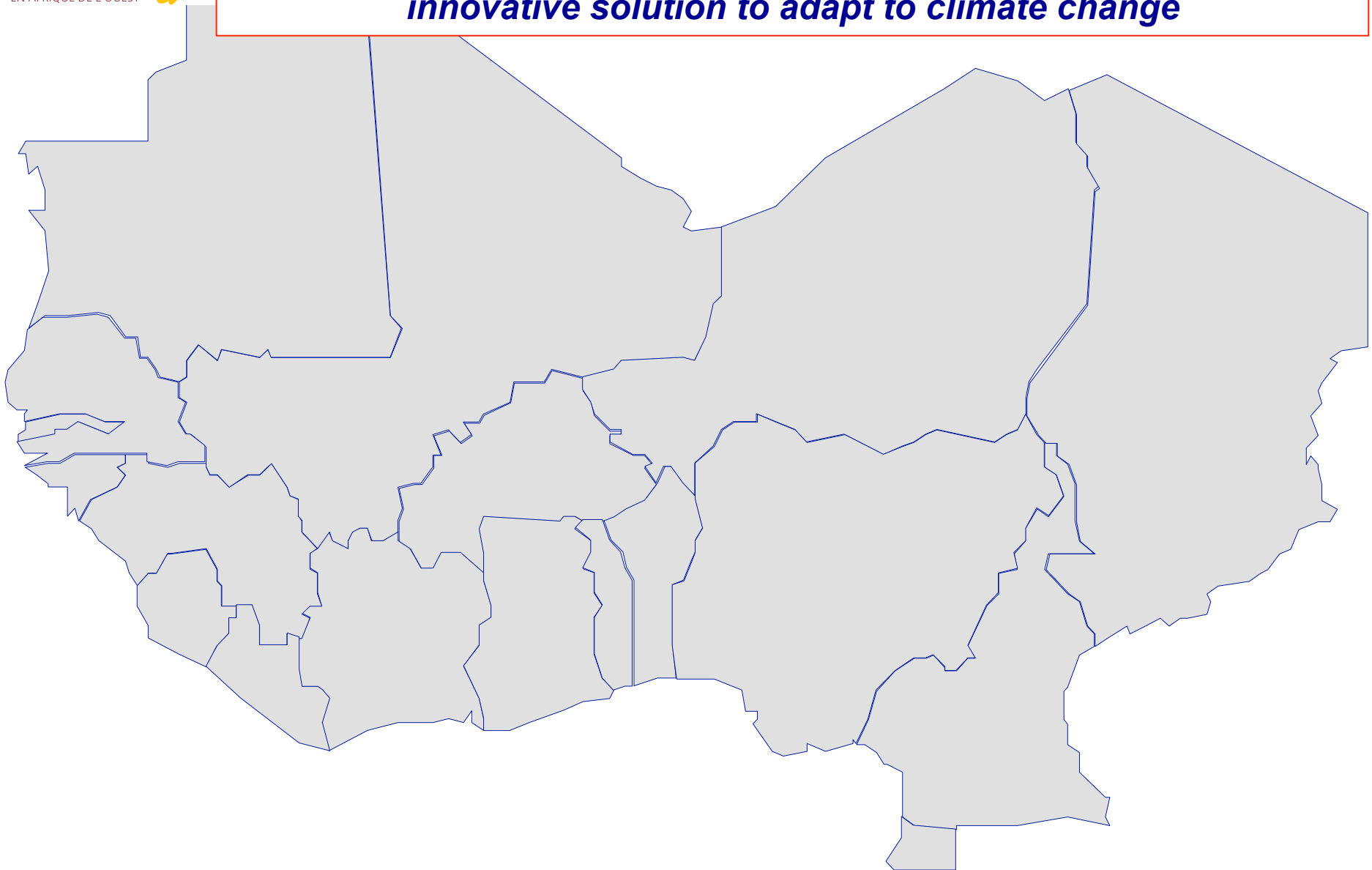
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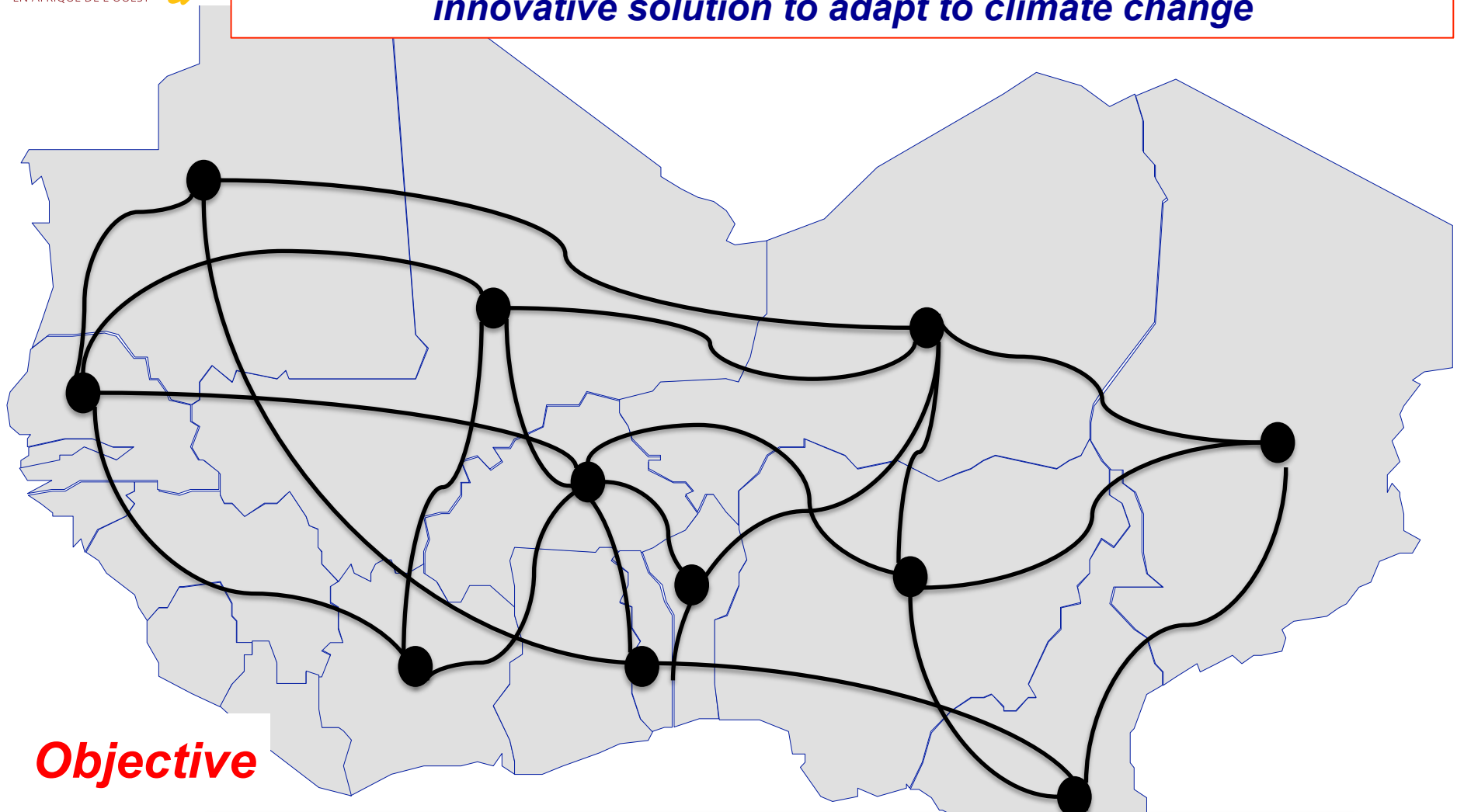


Integrated and multidisciplinary researches for the resilience of rural communities and natural resources in West Africa to promote innovative solution to adapt to climate change

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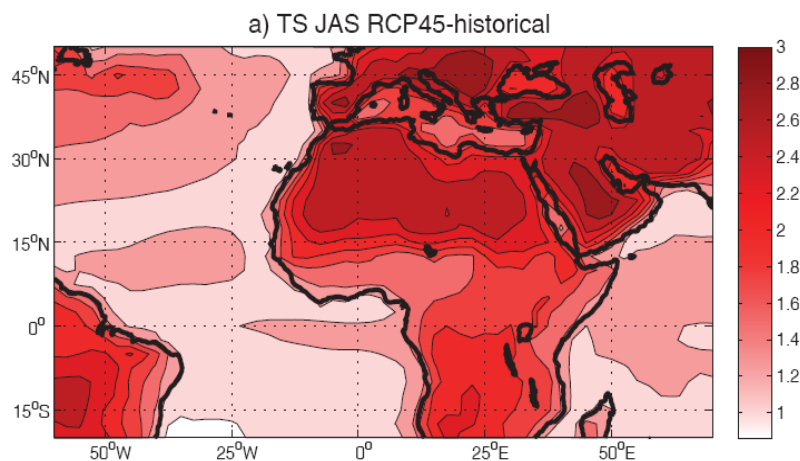
Objective

Networking for a better synergy of the diverse expertises in West Africa

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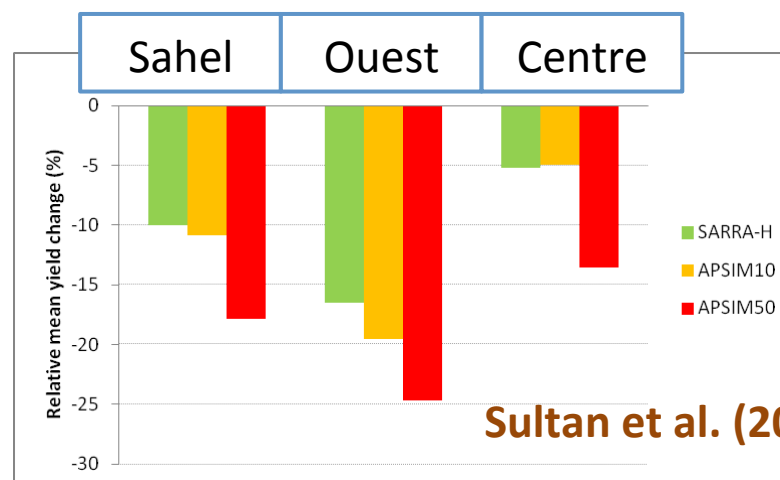
Networking for a better synergy of the diverse expertises in West Africa

➤ Why synergies and multi-disciplinarity are needed ?



Food security and conservation of natural resources in West Africa

- A region with fast demographic growth
- A region highly sensitive to climatic variations
- A shared challenge for food security, conservation of the environment and climate change
- A challenge at national and regional scale

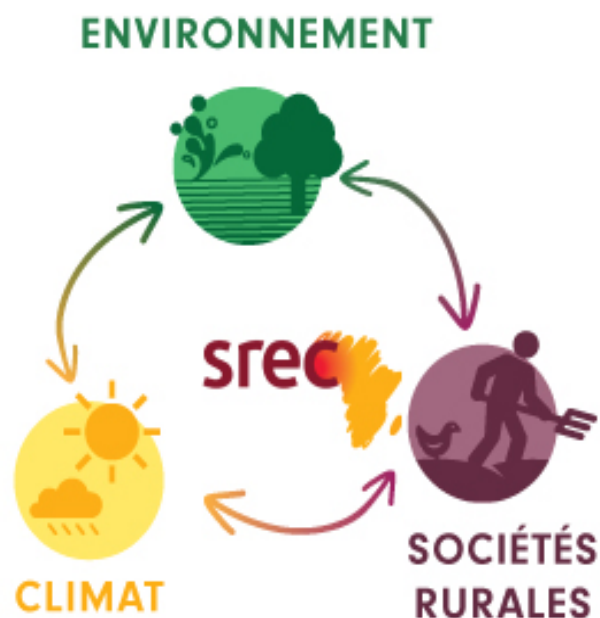


Sultan et al. (2014)

Objective

Networking for a better synergy of the diverse expertises in West Africa

FAVORISER de NOUVELLES CONNAISSANCES
pour L'INNOVATION et la FORMATION



Une recherche pluridisciplinaire
Intégrée au niveau régional

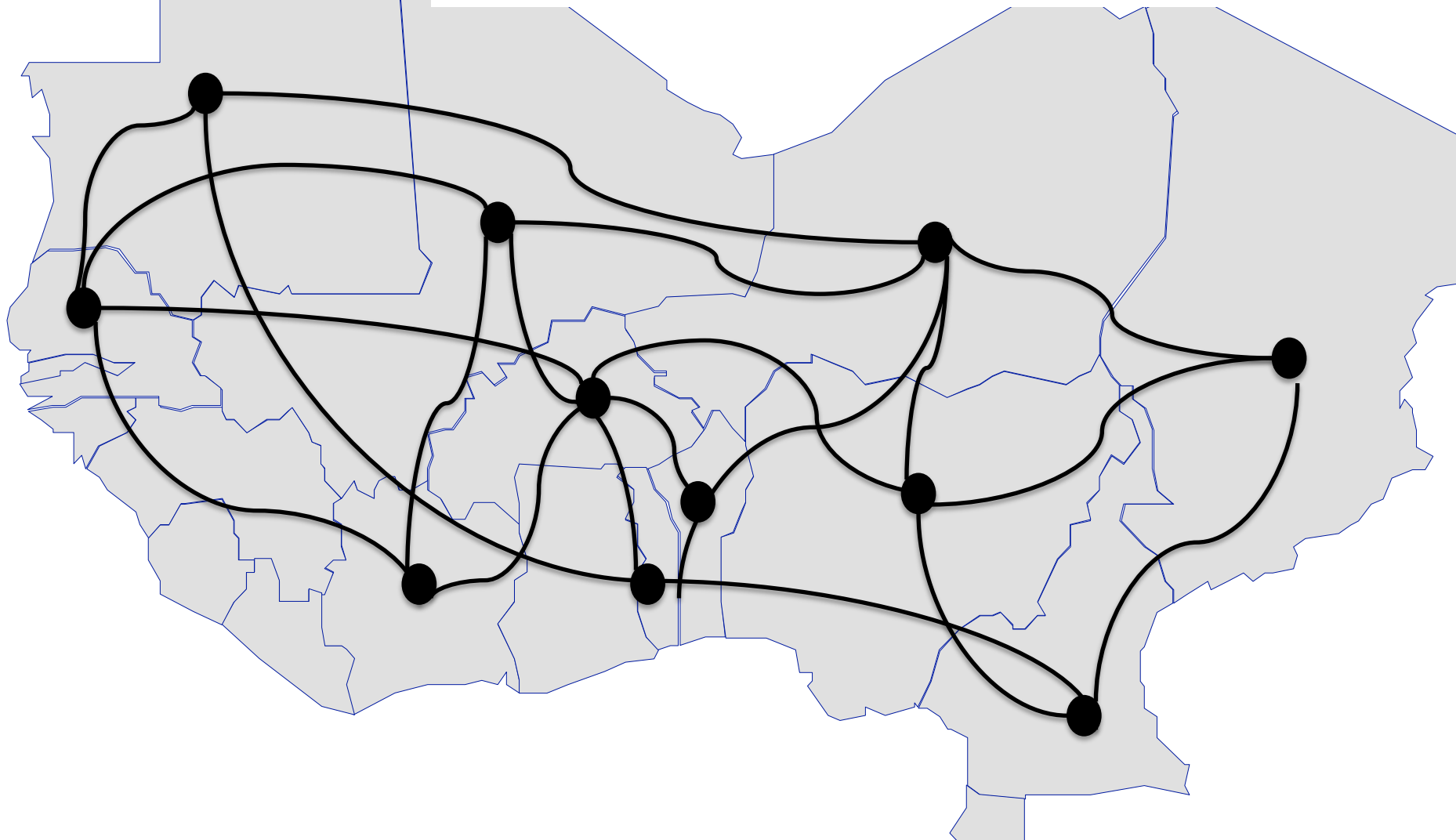
**RENFORCER
LES INTERFACES**



Fournir de l'expertise aux décideurs
et utilisateurs de la recherche

Networking for a better synergy of the diverse expertises in West Africa

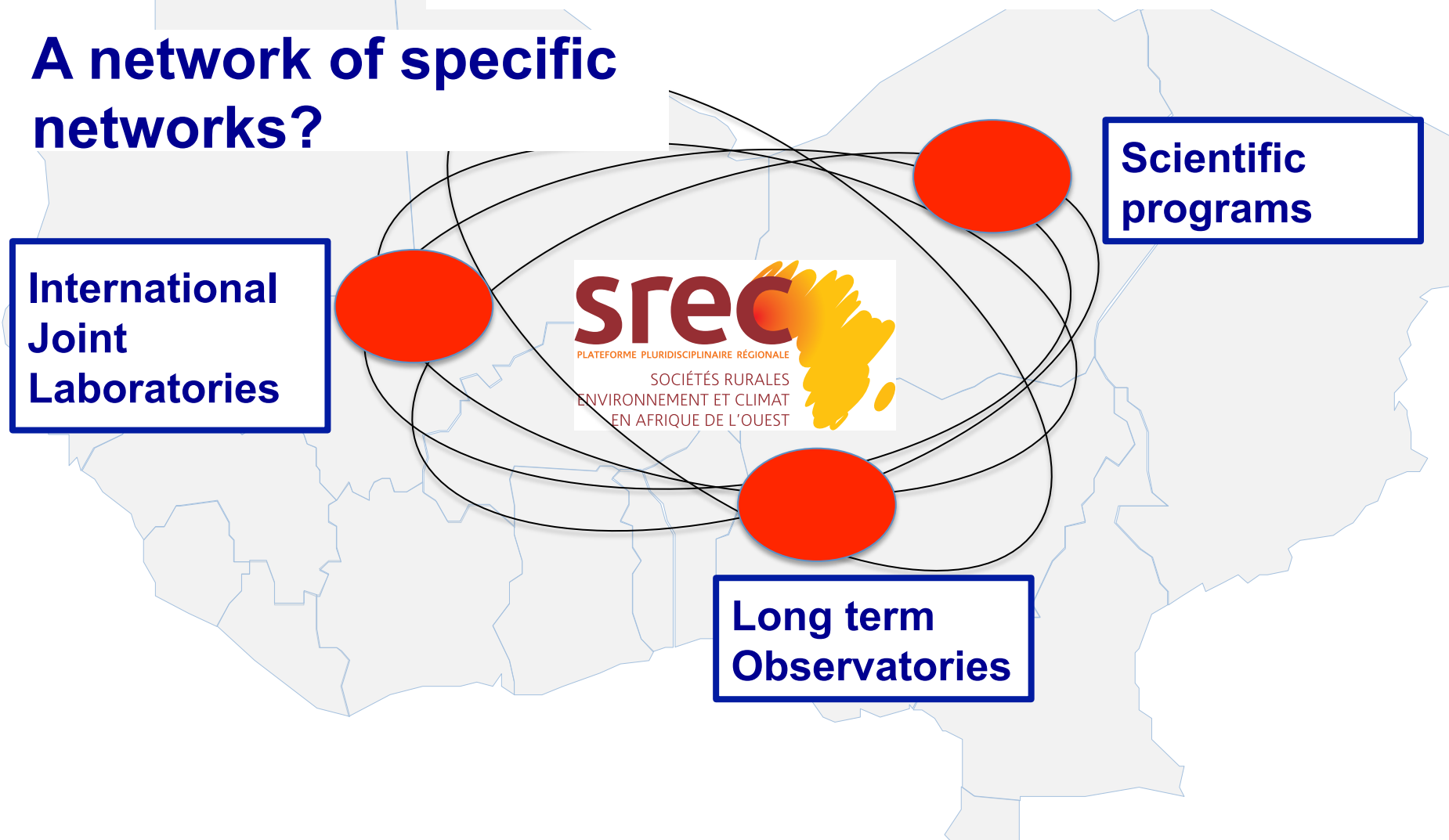
➤ How the network is organized ?



Networking for a better synergy of the diverse expertises in West Africa

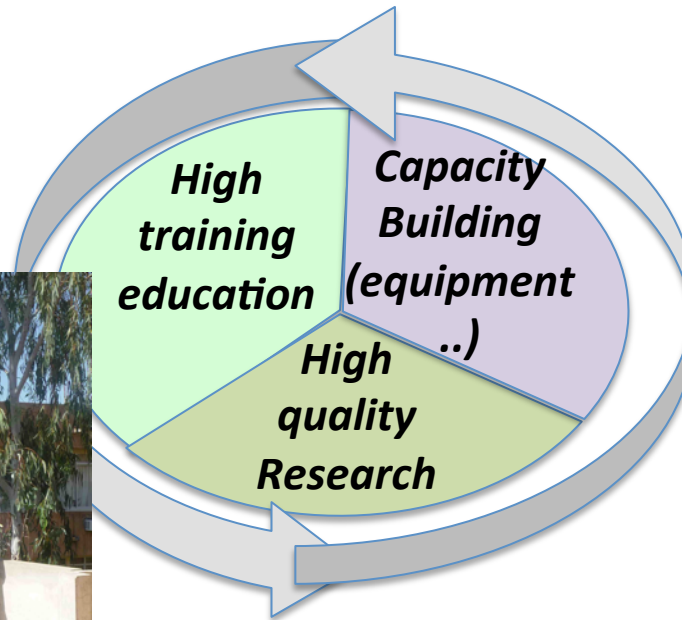
➤ **How the network is organized ?**

A network of specific networks?



➤ How the network is organized ?

International joint Laboratories



➤ How the network is organized ?

International joint Laboratories

➤ Plant & Soil Sciences

Soil science for agricultural production and environment
preservation



Research on plants and microbial diversity from the
genes to the ecosystems

An Integrative approach from the lab to the fields on
plant pathogens



➤ How the network is organized ?

International joint Laboratories

➤ Climate Science



Climate, atmosphere and ocean of West Africa and Eastern Atlantic

➤ Water Science

Hydrological models to output robust forecasts of water resources



➤ How the network is organized ?

International joint Laboratories

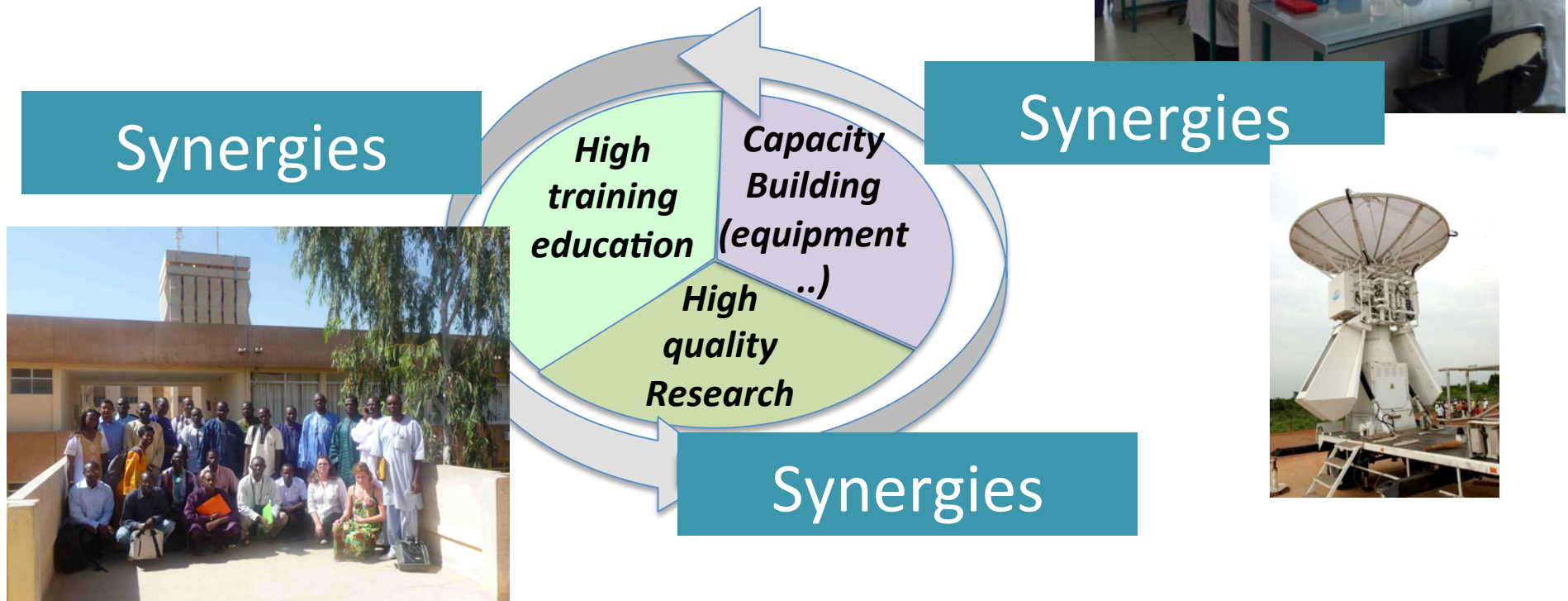
➤ Biodiversity & Social Science



**Public policies of biodiversity conservation
and sustainable development**

➤ How the network is organized ?

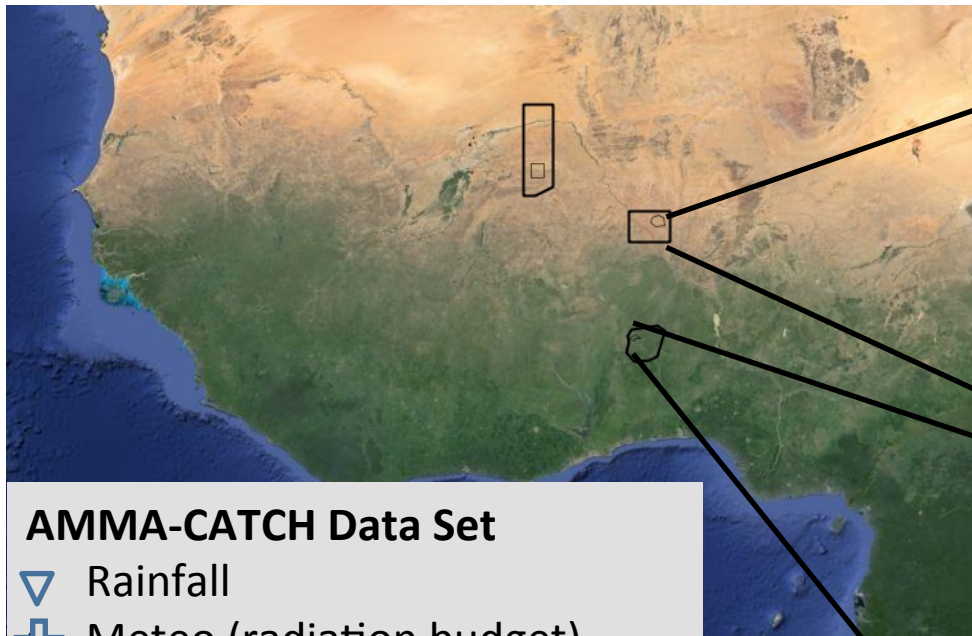
International joint Laboratories



Long Term Observatories

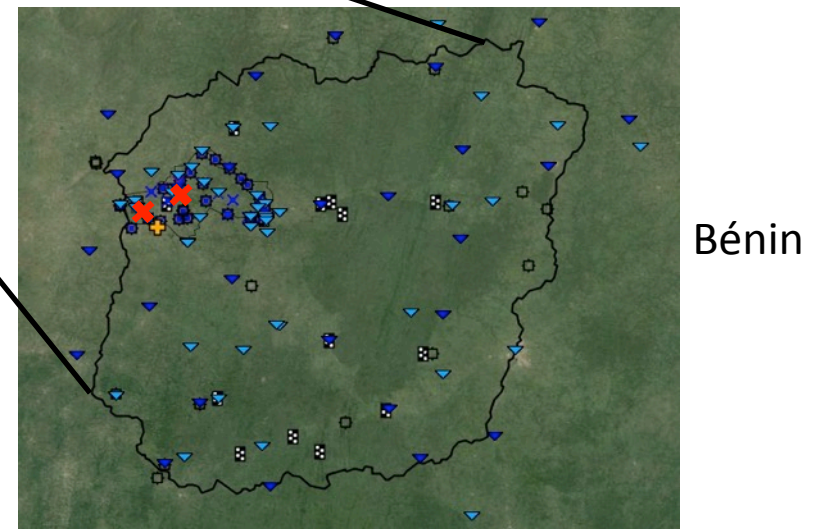
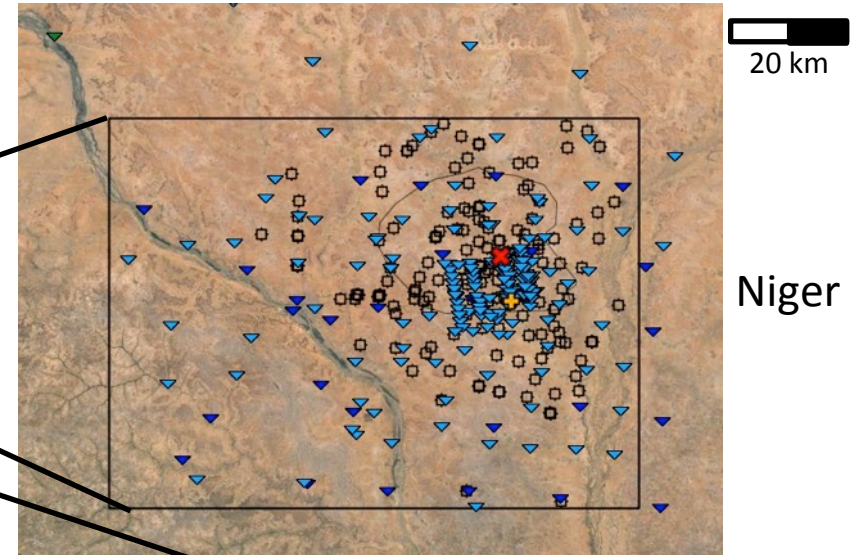
AMMA-CATCH Observing System

3 mesoscale sites ($\approx 10\,000\text{ km}^2$)



AMMA-CATCH Data Set

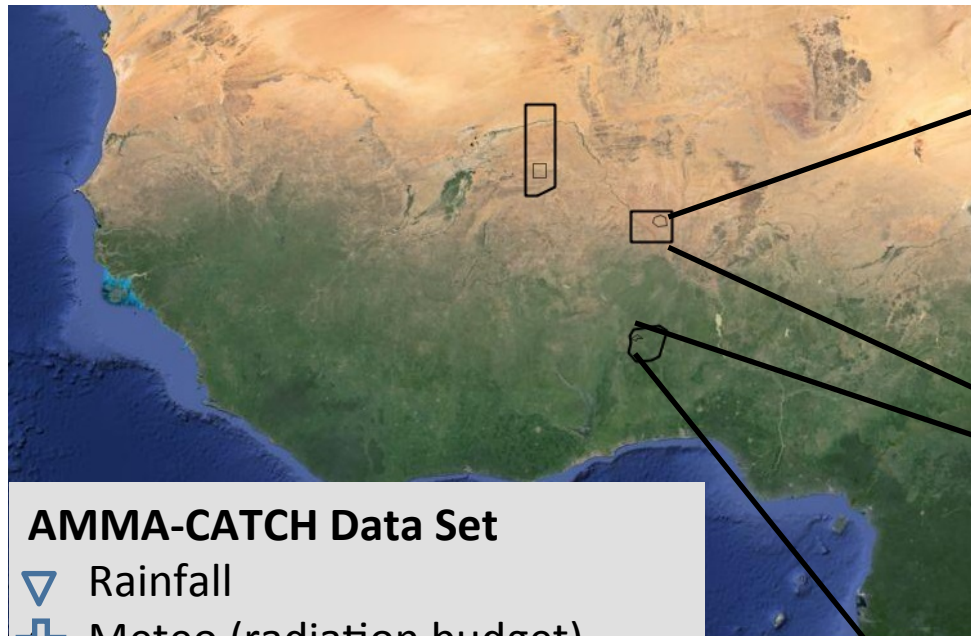
- ▽ Rainfall
- + Meteo (radiation budget)
- ⊗ Evapotranspiration fluxes
- ◇ Soil moisture
- ◻ Groundwater
- ▣ Runoff
- Vegetation



Long Term Observatories

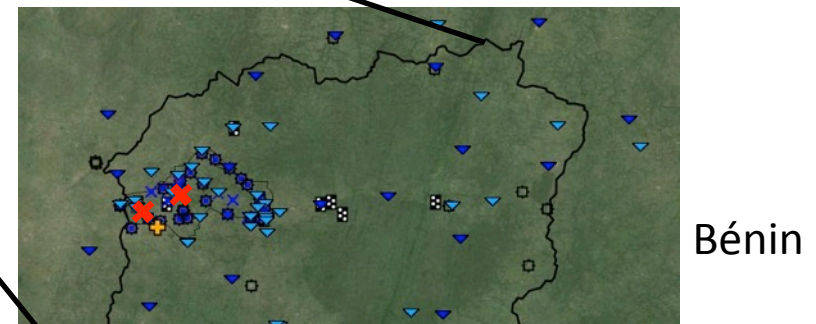
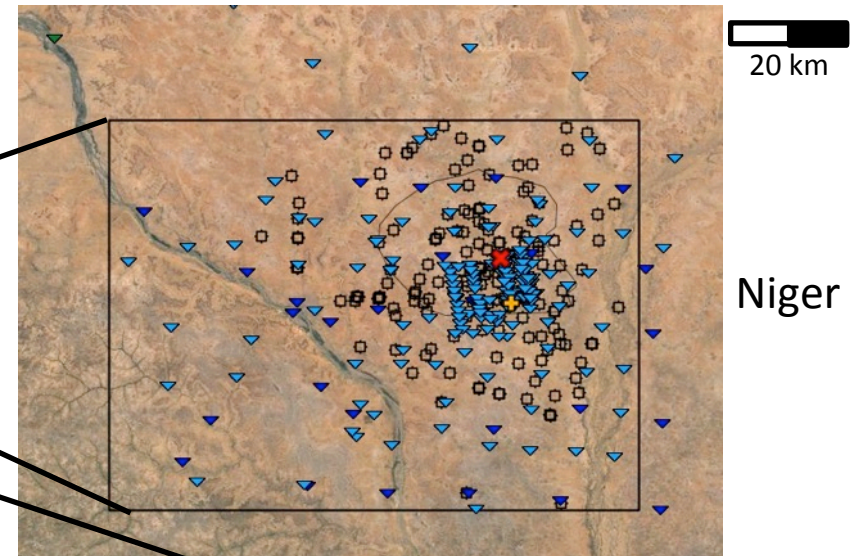
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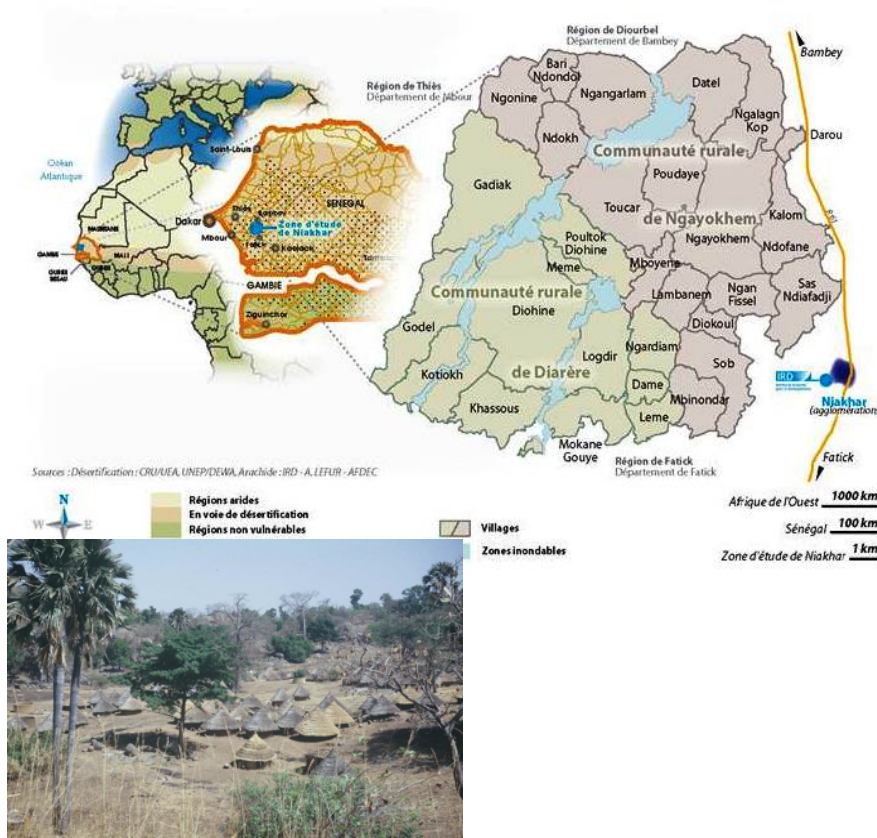


Synergies for scientific issues on West African Monsoon

Long Term Observatories

Ecological monitoring of Niakhar Observatory (Senegal) *integrate environmental information and population health*

50 years of data collected



Experience an ecological monitoring system during **the last 50 years**:

- An initial assessment and careful monitoring of natural resources (water, soil, wood),
- Monitoring and analysis of climatic and atmospheric factors to micro-local scales;
- Monitoring the fertility of land, land use and crop yields,
- Survey of demographic and health of the population



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Synergies for long lasting
Surveillance System on
Demographic, health and
environment

Networking for a better synergy of the diverse expertises in West Africa

ITC needs

Basic needs

- High connectivity quality (speed, stable, 24/24, 7/7), everywhere

Research – development

- Storage capacities, security
- Access to computing resources: climate models, crop models
- Analytical capacities, Bio- informatics, statistics
- Data sharing, Open access, interoperability Data base

Training education

- MOOC, streaming

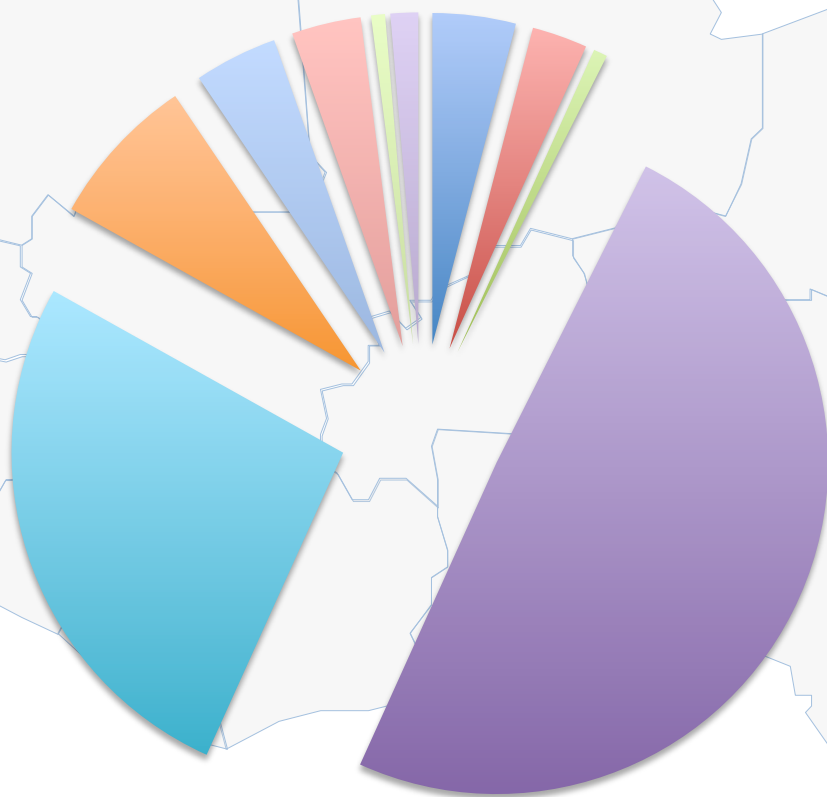
Networking

- Connection & access to other networks: WASCAL, Aghrymet, ..
- Visio-conference

Who is going to be impacted by ITC developments ?

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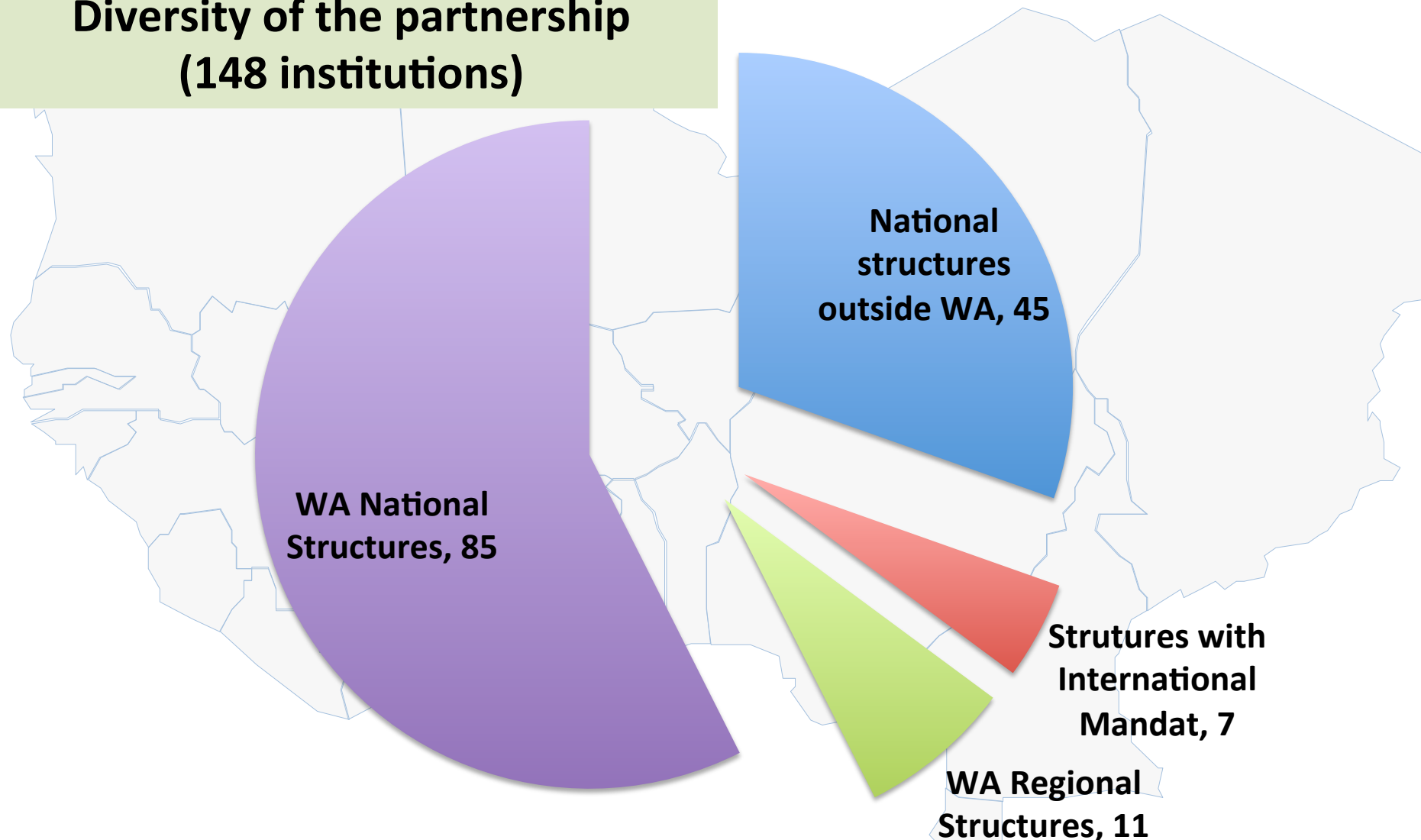
Diversity of the partnership (148 institutions)



- Agencies
- Association
- CGIAR
- Higher Education organization
- Research organization
- Dep from Ministeries
- Famers organization
- NGO
- Private compagnies
- Others network

Who is going to be impacted by ITC developments ?

**Diversity of the partnership
(148 institutions)**



To strengthen the contribution of the network in in the International Agenda



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**SUSTAINABLE
DEVELOPMENT GOALS**
17 GOALS TO TRANSFORM OUR WORLD





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Thank you for your attention