Regional Workshop on CropWatch Innovative Cooperation Programme

“Advancing satellite-based crop monitoring to increase resilience in the face of global food insecurity.”

2-5 July 2024 Abuja, Nigeria

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KOUANDA Nongamanégré

July 2024
Agriculture in Burkina Faso

- It accounts for 32% of the country's gross domestic product (GDP) and employs 82% of the working population.
- Subsistence farming.
- Currently being mechanized;
- Nevertheless, cotton, cashew nuts, mangoes and sesame are export products, generating incomes for producers.
Agriculture in Burkina Faso

- **Hot dry season**: March
- **Rainy season**: June, October
- **Cool dry season**: February

Vegetables

Vegetables
Main Crops in Burkina Faso

**Principal cereal and cash crops production from 2015 to 2022**

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Source: DGSS, 2023

- **Cashew nuts tree**
- **Mango tree**
- **Onion plot**
- **Tomato plot**

Vegetables
Main Crops in Burkina Faso

And soon...

Vine

Cocoa

Pineapple
Main Crops in Burkina Faso

Main crops pests

FAW

Damage on corn

fruit flies
Main Crops in Burkina Faso

Main crops pests

Amrasca biguttula

Damage on coton

Granivorous birds

Quelea Quelea in rice plot
Main Crops in Burkina Faso

Main crops pests

South American tomato leafminer

Tomato field completely destroyed by *Tuta absoluta*

Trapping of *Tuta absoluta* for 3 days
Main Crops in Burkina Faso

Main crops pests

Maruca vitrata

Desert locust
Main Crops in Burkina Faso

Main crops diseases

- Mango disiccation, mainly due to *Lasiodiplodia theobromae*
- Altenariose, *Alternaria sp*
- Corn streak, *Cicadulina mbila*
Internal monitoring system

SG & Agriculture Minister

DRARAH SRPV SPPV

- Individual producers or their organizations
- Plant health monitoring units

DPVC
- Prospections
- Vérification
- Investigation/PRA
- Reporting

IPPC

CLCPRO

CILSS/ECOWAS

INERA
Universities
- Prospections
- Identification
- Reporting (Papers)

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Existed agricultural projects related to remote sensing

The SIGMAT System: The ASYCUDA Journey in West Africa

Facilitating Cross-Border Transit Trade

Figure 1. Map Showing ECOWAS Member States

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Existed agricultural projects related to remote sensing

- Drone acquisition for phytosanitary surveillance and treatment by DPVC
- Drone pilot training

Crop surveillance drones

Crop protection by drone
Current problems

• phytosanitary issues: lack of effective tools for monitoring crop pests, excessive use of pesticides against crop pests (environmental risks and risks for human and animal health);

• rainfall not well distributed in time and space;

• land degradation;

• climate challenges;

• production factors (inputs: fertilizers, quality seeds, mechanization);

• low agricultural industrialization;

• insecurity;

• food insecurity;

• lack in technological knowledges;

• etc.
Requirements and expectation

Requirements

• water mobilization;
• invest in the agricultural input and processing industry;
• provide high-performance monitoring tools;
• sensitize/strengthen stakeholders' capacities in pest control and the use of agricultural pesticides.

Expectation

• provide high-performance tools for plant health monitoring;
• access to data and technologies;
• set up a post-training support framework for improved collaboration and mastery of monitoring tools.
Thank you!