



Food and Agriculture
Organization of the
United Nations



GLOBAL SOIL
PARTNERSHIP



2015
International
Year of Soils

Priorities for sustainable soil management in Burkina Faso

Dr Zacharia Gnankambary

Bureau National des Sols (BUNASOLS)

Global Soil Partnership Focal point



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Outlook

1. General presentation of Burkina Faso

- ✓ Agriculture
- ✓ Climatic zones
- ✓ Main soil types

2. Priorities for sustainable soil management

- ✓ Adoption of technologies
- ✓ Support
- ✓ Acces to intrants
- ✓ land tenure
- ✓ Capacity development

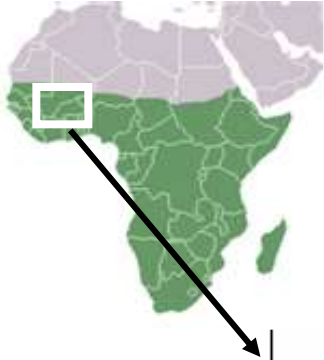
Burkina Faso : Figure of Agriculture

- Contributes for **40%** GDP
- Population relying on agriculture: **92.1%**
- Largely dependent on climatic conditions (**>90% of rain-fed land**)
- Oriented towards :
 - **food crops** (maize, sorghum and millet : make up 90% of the staple diet)
 - **cash crops** (**cotton**, cowpea, sesame)
- **Traditional** : extensive - low mechanization and low use of fertilizers apart from cotton

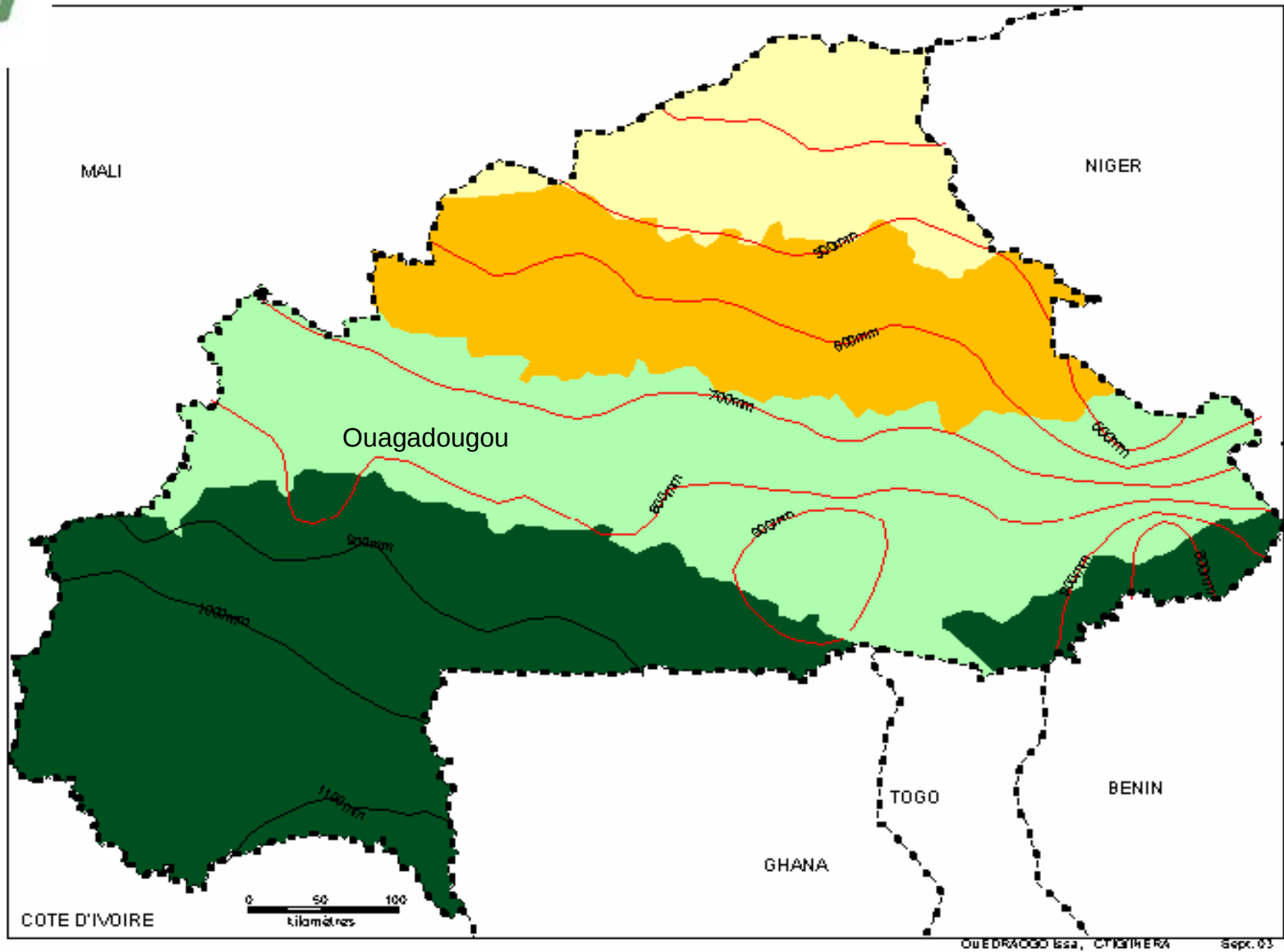
- Mainly small farmer systems; family agriculture
- High pressure on land resources (due to e.g.: population growth , migration, gold mining development)

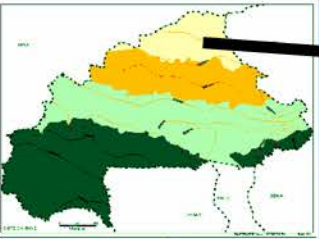
Land uses :

Arable land (% of land area)	17.7
Agricultural land (% of land area)	39.8
Permanent cropland (% of land area)	0.2
Irrigated land (% of cropland)	0.5
Forest area (% of land area)	24.8
Nationally protected areas (% of land area)	14.0



Burkina Faso: Climatic zones



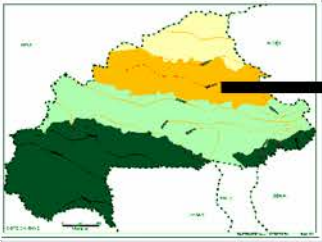


North Sahelian zone

(<500mm; high temperatures)

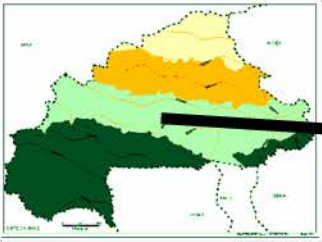
Arboraceous and scrubby steppes





South Sahelian zone
(500 to 700 mm)
Scrubby savanna



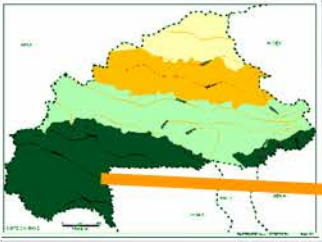


North Sudanese zone

(700 to 900 mm)

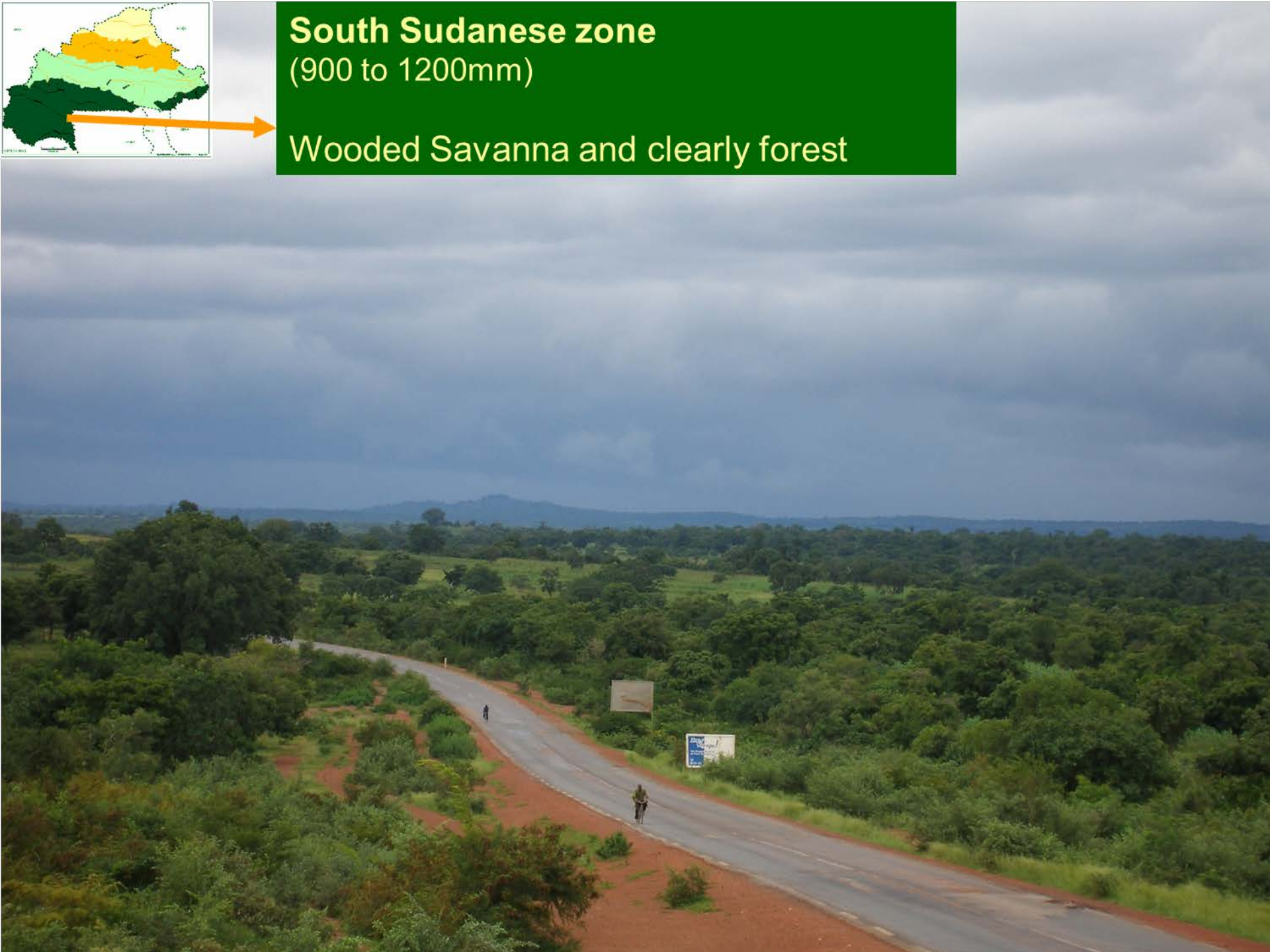
Wooded and arboraceous Savanna





South Sudanese zone
(900 to 1200mm)

Wooded Savanna and clearly forest



Soil types (WRB)

Arenosols

Lixisols

Cambisols

Luvisols

Ferralsols

Planosols

Fluvisols

Plinthosols

Gleysols

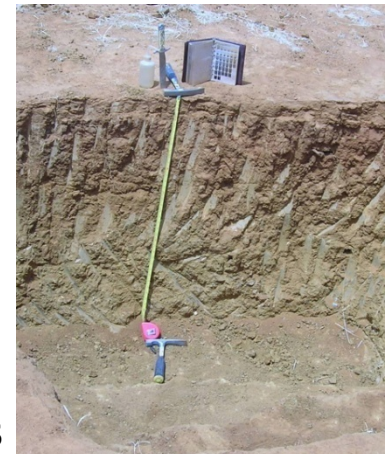
Solonetz

Leptosols

Vertisols



Sols ferrallitiques



sols bruns subarides

Soil types : CPCS / WRB 2006

Soil type (CPCS 1967)	Tentative for correlation WRB 2006	Area (%)
Sols ferrugineux tropicaux lessivés et peu lessivés sur matériaux sablo-argileux ou argilo-sableux	plinthosols, planosols, lixisols , arénosols	39,79
Sols peu évolués d'érosions sur matériau gravillonnaire	leptosols, fluvisols, plinthosols, lixisols arénosols.	26,03
Sols hydromorphes minéraux à pseudogley sur matériau à texture variée	gleysols , fluvisols	12,71
Vertisols sur alluvions ou matériau argileux	vertisols	5,19

Soil types : CPCS / WRB 2006

Soil type (CPCS 1967)	Tentative for correlation WRB 2006	Area (%)
Sols sodiques à structure dégradée, Solonetz sur matériau argilo-sableux à sableux	solonetz , planosols	4,88
Sols bruns eutrophes tropicaux sur matériau argileux	cambisols	4,83
Sols minéraux bruts, lithosols sur roches diverses et cuirassés	plinthosols épipétriens leptosols lithiques	2,50
Sols bruns subarides vertiques	cambisols, lixisols, arénoles, fluvisols	2,14
Sols ferrallitiques moyennement dessaturés sur matériau sablo-argileux	lixisols, ferralsols luvisols	1,92

Les sols peu évolués d'érosions sur matériau gravillonnaire

(leptosols, fluvisols, plinthosols, lixisols arénosols)

26,2 %

Sols ferrugineux tropicaux lessivés et peu lessivés

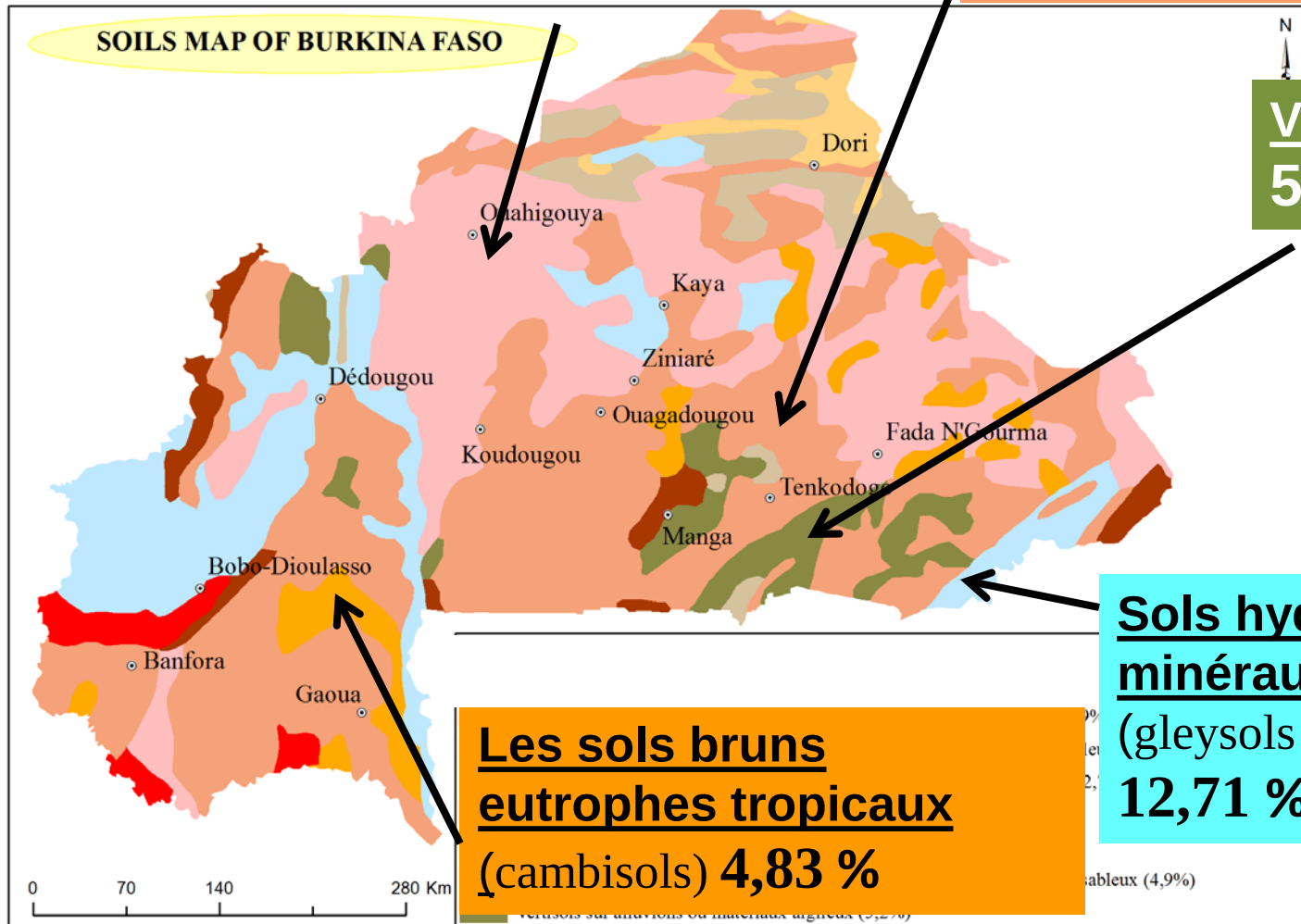
(plinthosols, planosols, lixisols , arénosols)

39,1 %

Vertisols
5,8 %

Sols hydromorphes
minéraux à pseudogley
(gleysols , fluvisols)
12,71 %

Les sols bruns
eutrophes tropicaux
(cambisols) **4,83 %**



2- Priorities for sustainable soil management

1) Increase the adoption rates of techniques and technologies on soil management that have been developed

- Improved seeds
- Organic matter in combination with inorganic fertilizers and rock phosphate
- Fertilizer microdosing
- Crop Diversification – mixed/inter cropping
- soil & water management measures
- Water harvesting & supplementary irrigation
- Association tree/crop

2) Optimizing / Updating fertilizer rate application for main crops

Recommend methods of crop fertilization which take into account soil types and financial conditions

3) Support

Mecanisation

Compostage (enriched with Burkina rock phosphate)

4) Acces to intrants

distribution

availability

price

Acces to credit (e;g warrantage)

5) Legislation on the land tenure

Properties on agricultural land

6) Capacity development

Actors (Scientists, extensions, farmers,)

knowledge sharing through synergic action and
networks

Examples of Soil and water conservation techniques in Burkina





**Maize-cowpea intercropping at
Dohoun, Burkina Faso**

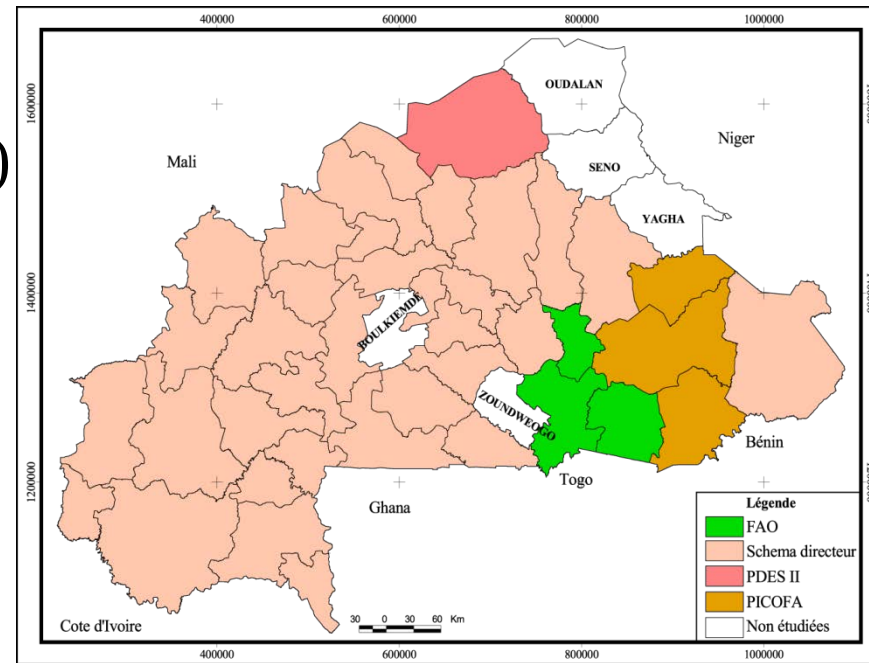


Microdose of mineral fertilizer

Other needs

Soil information data

1. To finalize the pedological mapping for the country at the scale of 1/100 000 (3 provinces remained) and to fine tuning at the scale of 1/50 000; and Training on utilisation of new tools for soil survey
2. Aggregate soil fertility data
e.g. on interactive map
(simple model for decision support)





THANK YOU

