Agriculture as a Driver for Sanitation

CREPA's Experience (*Burkina Faso*)

Presented by Lucia Henry

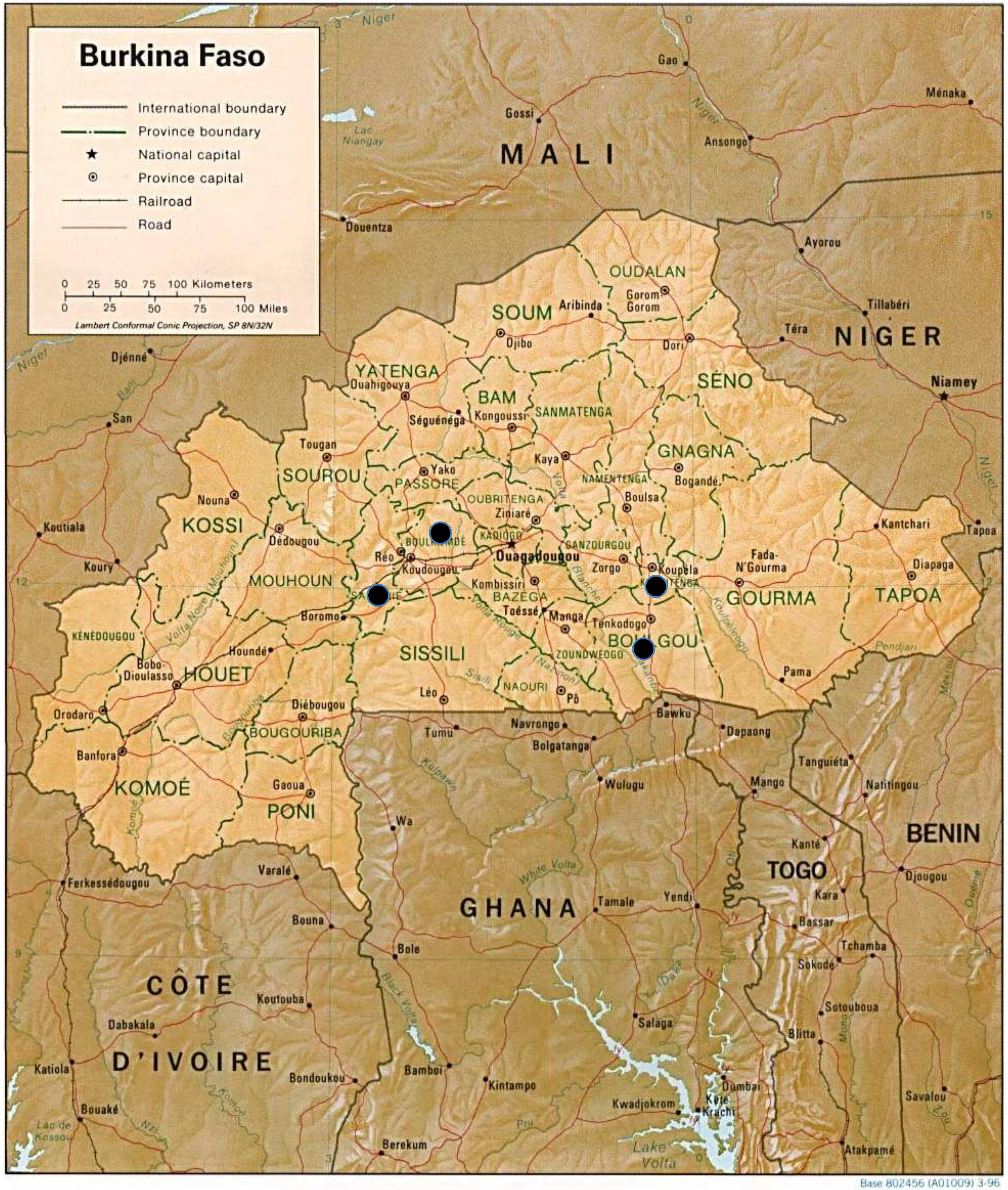
20 July 2011 Seminar at AfricaSan3 (Kigali, Rwanda) on Linkages between Agriculture and Productive Sanitation: Scaling up Ecosan in Africa

http://www.susana.org/lang-en/meetings/side-events/173-side-events/572-july-2011-seminar-at-africasan3-by-sei-on-behalf-of-susana

Large scale projects in Burkina Faso

ECOSAN_EU 2+3+4

ECOSAN_EU 1


Burkina Faso
International boundary
Province boundary
National capital
Province capital
Railroad
Road
0 25 50 75 100 Kilometers
0 25 50 75 100 Miles
Lambert Conformal Conic Projection, SP 8N/32N
MALI
NIGER
GHANA
TOGO
BENIN
CÔTE D'IVOIRE
Ouagadougou
Niamey
OUDALAN
SOUM
SÉNO
YATENGA
BAM
SANMATENGA
GNAGNA
SOUROU
PASSORÉ
KOSSI
OUBRITENGA
MOUHOUN
GOURMA
TAPOA
SISSILI
BAZÈGA
KÉNÉDOUGOU
HOUET
BOUGOURIBA
KOMOÉ
PONI
ZOUNDWÉOGO
NAOURI
GANZOURGOU
NAMENTENGA
Base 802456 (A01009) 3-96

Overview

1. 2 EU (Food Facility) funded projects (EU_2 and EU_3)
2. Linking agriculture with sanitation
3. Agriculture used as a driver for sanitation
4. Appropriate in communities where subsistence farming is high
5. Hurdle: making the practice of reuse of excreta acceptable

EU_2: Improving agricultural production in 30 villages in Kourittenga by using sanitized excreta as fertilizers

- EU food security funding (Food Facility)
- 3 years (March 2008 – August 2011)
- €1,5 million
- Kourittenga – one of the most densely populated provinces in Burkina Fas0
- Very poor soils

Objective:

Integration of EcoSan and soil and water conservation techniques to improve food production in 30 villages

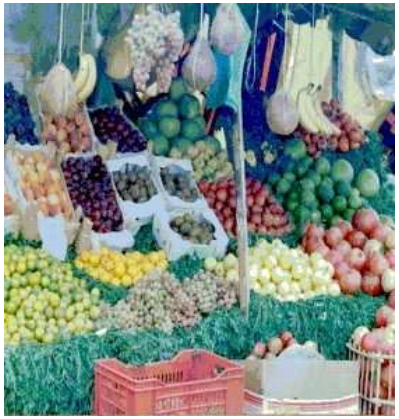
EU_3: Reducing food insecurity in 24 villages in central-east and west by using sanitized excreta as fertilizer

- EU food security (Food Facility)
- 22 months (January 2010 – Oct 2011)
- €2,1 million
- 3 provinces (Boulgou, Boulkiemdé & Sanguié) in Burkina Faso
- Impoverished and vulnerable populations (rising costs of food)
- Very poor soils

Objective:

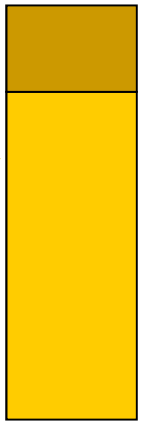
Use of EcoSan fertilizers to increase agricultural productivity and decrease food prices in 24 villages

NPK content in excreta

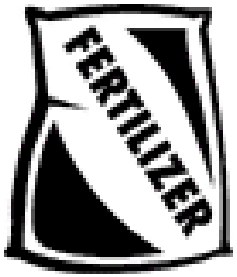


N = 2,8 kg
P = 0,4 kg
K ~ 1,3 kg
Per person/ per year

N = 2,8 kg
P = 0,4 kg
K ~ 1,3 kg
Per person/per year



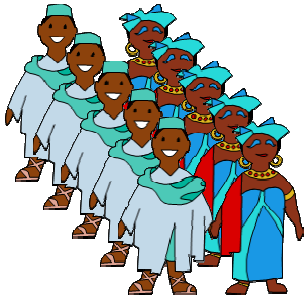
≈



~10 kg chemical fertilizer

Bottom line: economics

1 person **1 family of 10** **Pop.: 15.6 million**



~US$8 **US$80** **US$ 125 million**

Main Activities

- Sensitisation sessions for target groups and local authorities
- Construction/ installation of urinals and EcoSan latrines for the collection and sanitization of human excreta
- Train, using practical and participative approaches, farmers and other actors in the target area, on the EcoSan approach
- Conduct agronomic tests on cereals and market crops with beneficiaries

Training of farmers with supervision from Agricultural Extension Workers

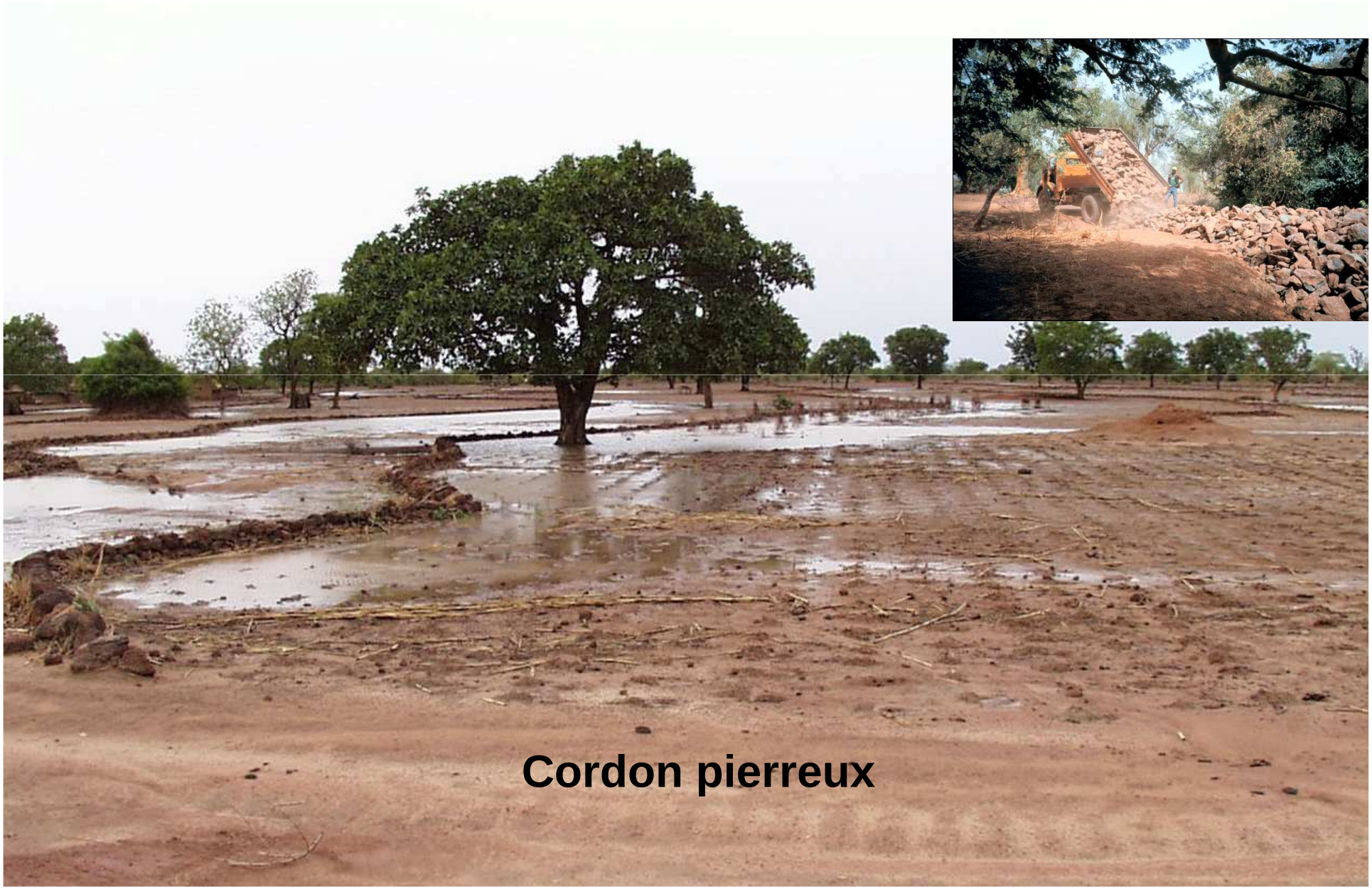
Training of farmers with supervision from Agricultural Extension Workers

Indigenous Water & Soil Conservation (CES) Techniques

Démi-lune

Zaï

Water & Soil Conservation (CES) Techniques



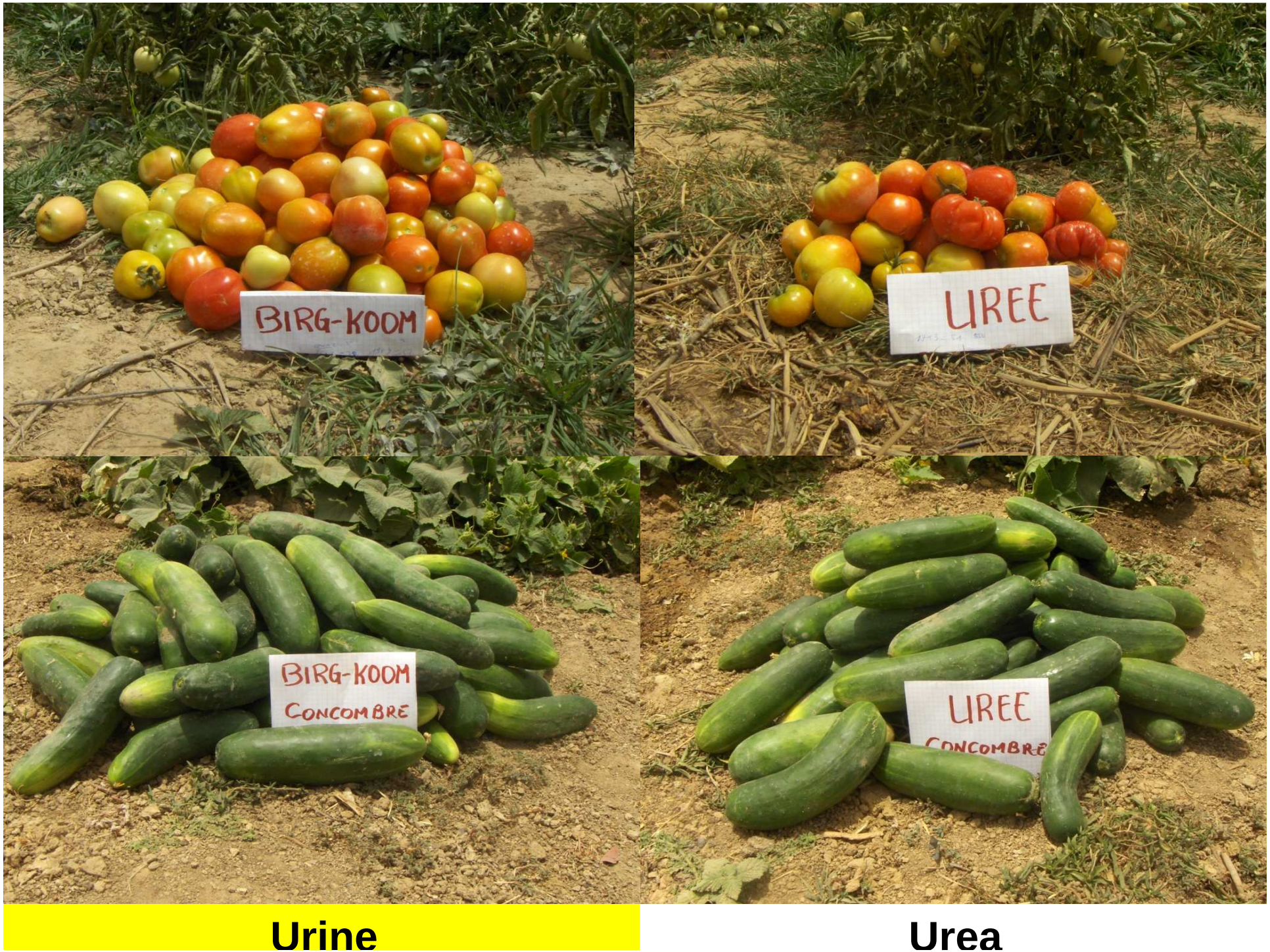
Cordon pierreux

Sensitization of communities

Results

1. Adoption of EcoSan approach by communities
   - Interesting developments
2. 1050 (EU_2) and 1648 (EU_3) sanitation facilities constructed
3. Trained: 1300 farmers (EU_2); 2500 farmers (EU_3)
4. Comparable (and larger yields) of food crops
5. Effect on soil
   - Urine: helps maintain N levels
   - Feces: increases SOM, increases P levels, decreases acidity

Urine **Urea**



Urine **Urea**

Urine

Urea 46%N

Control

Way Forward

1. Main problems associated with scaling up and incorporation into agriculture policy:
   - Buy-in and adoption at national level
   - High turnover of staff (problems with continuity)
2. Repackage in a way that appeals to national government
   - All evidence exists…next step extract and repackage
3. Integration with other sanitation approaches

Thanks for Your Attention

Contact: henry.lucia@reseaucrepa.org