



INSTITUT SENEGALAIS DE RECHERCHES AGRICOLES



CENTRE D'ÉTUDE RÉGIONAL POUR L'AMÉLIORATION DE
L'ADAPTATION À LA SÉCHERESSE



LABORATOIRE NATIONAL SUR LES PRODUCTIFS VÉGÉTALES

CONTRIBUTION OF ISRA TO THE MANAGEMENT OF PLANT GENETIC RESOURCES IN SENEGAL

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Montpellier, March 23-25, 2015

PLAN

- **Management of agrobiodiversity at ISRA**
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 - * **Past agrobiodiversity repertoire (situation before 2010)**
 - * **Actual politics and on-going initiatives**
- **Cases studies**
 - * **Fonio**
 - * **Pearl millet**
- **On going building of managerial Genebanks**
- **Monitoring expectations**

MANAGEMENT OF AGROBIODIVERSITY AT ISRA

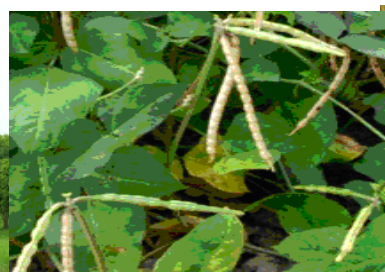
Past agrobiodiversity repertoire: situation before 2010

- plant collections are established and managed only by the concerned breeder or researcher
- Unreliable conservation units and systems (no tracability, storing rooms & electric system inappropriate, lost of many accessions & varieties, etc.)
- No identified *in situ* conservation farms
- insufficient scientific human resources & lack of seeds technologists

MANAGEMENT OF AGROBIODIVERSITY AT ISRA

Existing collections

- Cereals: drylands crops (millets sorghum, fonio), rice
- Leguminous: Cowpea, peanut, sesam
- Vegetables and fruits: Onions, Patatoes, bananas, pineapple
- Trees: baobab, Acacia
- Biofuels plants: Ricinus, Jatropha and Sunflower



Management of agrobiodiversity at ISRA

- **Some specific cases :**

- * **Sorghum:** In ICRISAT sorghum collection = 242 senegalese accessions from Saint Louis (Fleuve, Ferlo), Kaolack & Fatick (Sine Saloum), Ziguinchor & Kolda (Casamance) & Tambacounda



- * **Pearl millet:** 243 local pearl millet accessions collected between 1992 & 1993



- * **Fonio:** 64 fonio accessions collected in 2003

- * **Cowpea:** 247 & 28 local cowpea accessions collected respectfully between 1953 & 1960 & in 2003

- etc.



MANAGEMENT OF AGROBIODIVERSITY AT ISRA

- **Several sites of conservation, but any reliable**

Bambey

CERAAS

URCI

CDH

CRA Saint-Louis

CRZ Kolda

- **Institutionnel groups: one on the management on plant genetic resources, another on biotechnologies**

POLITICS AND ON-GOING INITIATIVES

- **Seed Capital Reconstruction Program**
- **Agrobiodiversity management and valorization (Waapp 2A)**
- **PAPSEN (promote production of vegetables in the middle Peanut Bassin and of fruits in South)**
- **Local Rice Autosufficiency**
- **Local Onion Autosufficiency**
- **Promote potatoes value chain through a local seeds production (in vitro production and on-farm multiplication)**
- **Agroforestry conservation and restoration (parks, classified forests, reserve)**

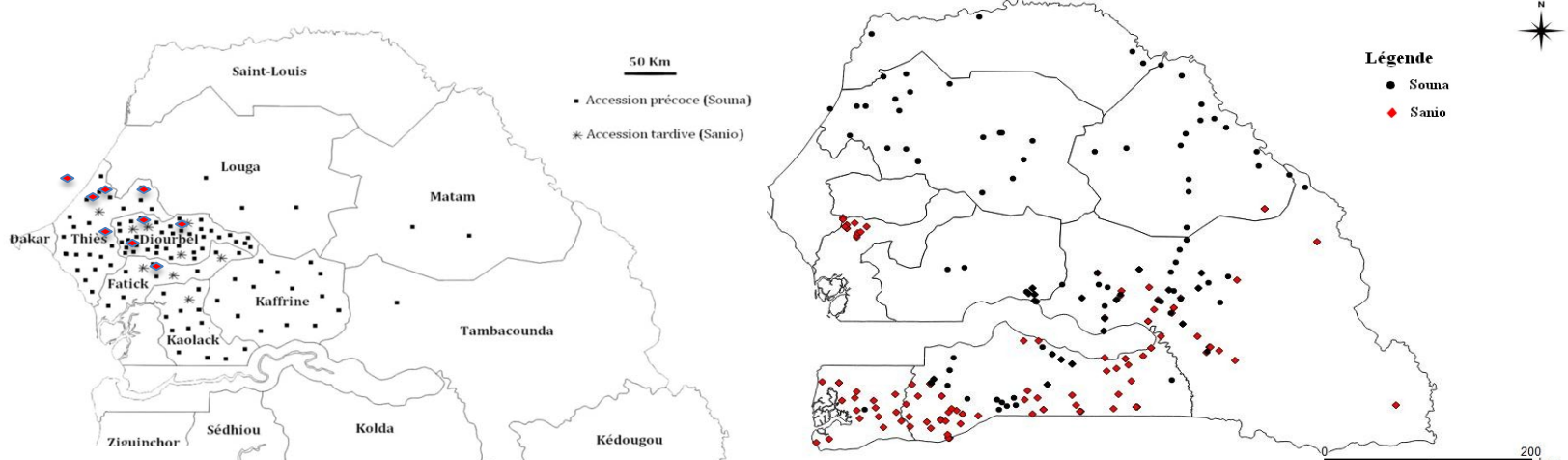
CASE STUDIES

• Fonio & pearl millet WAAPP project overviews

Coordonnées
Code de C...

Flux géographiques du fonio au niveau de la zone d'étude

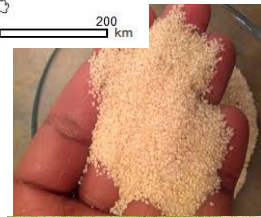
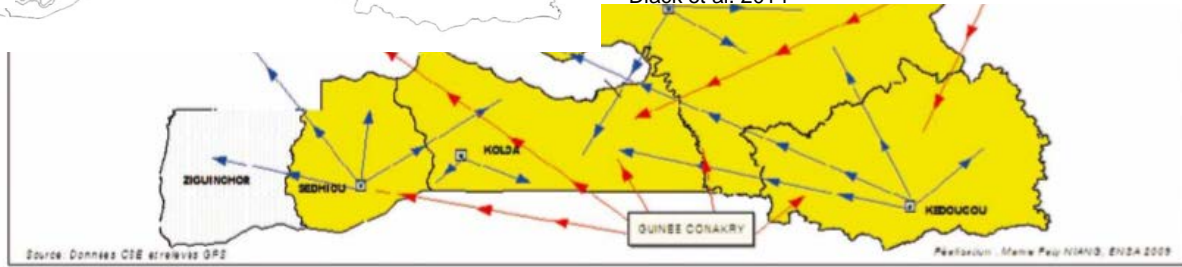
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Diack et al. 2014

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Diack et al. 2014



-Training activities : PH.D. and Master II students

CASE STUDIES

•Fonio & pearl millet WAAPP project overviews

Regional & international partnership / Links

- IRD (Adeline Barnaud, Yves Vigouroux, etc.)
- CIRAD (Claire Billot, etc.)
- link with regional project in terms of procedures and data exploitation (ARCAD)

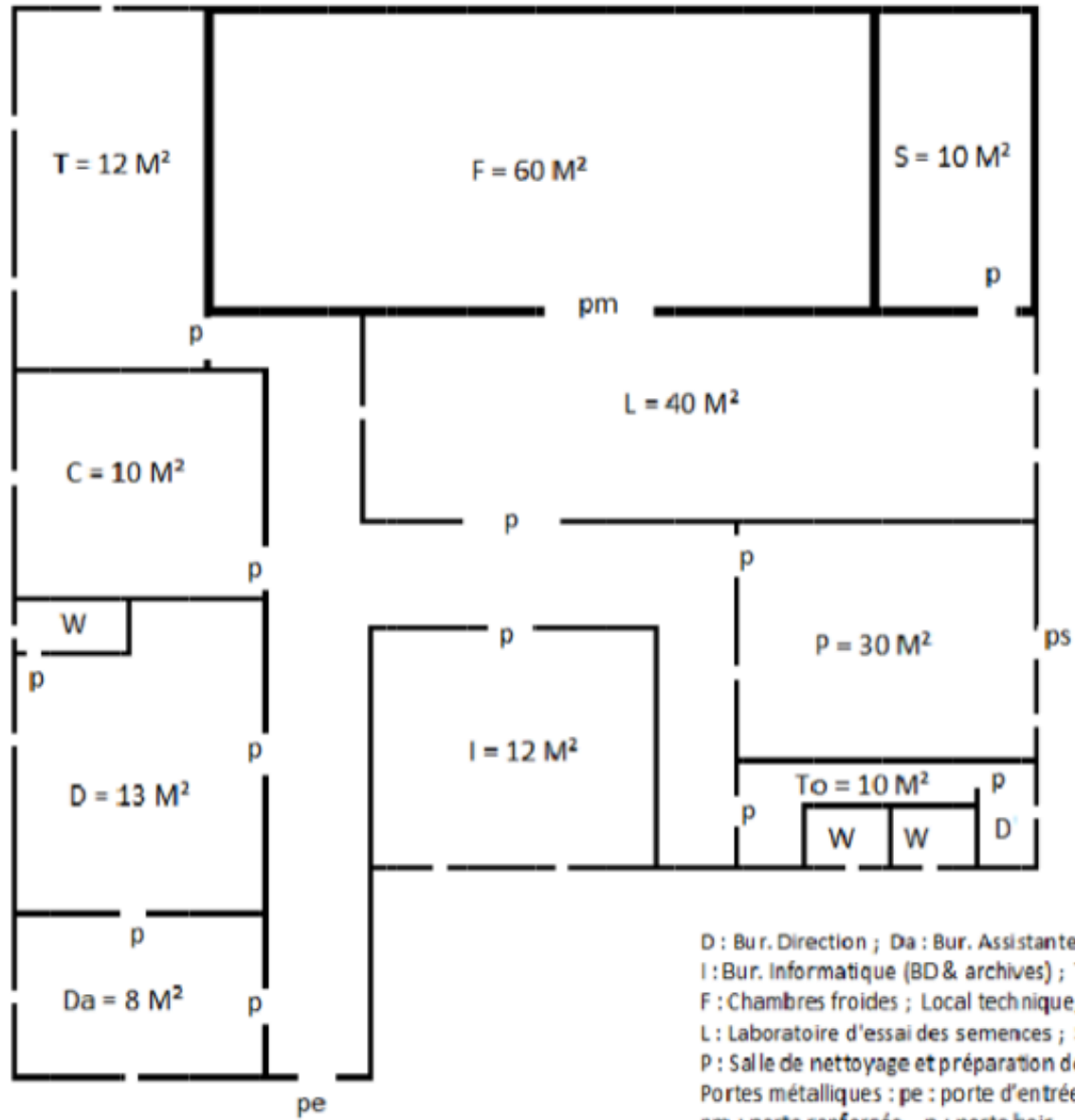
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D : Bur. Direction ; Da : Bur. Assistante ; Bur. C : Chercheurs
 I : Bur. Informatique (BD & archives) ; To : Sanitaires
 F : Chambres froides ; Local technique, machines
 L : Laboratoire d'essai des semences ; S : Salle de Séchage
 P : Salle de nettoyage et préparation des semences
 Portes métalliques : pe : porte d'entrée ; ps : porte de service ;
 pm : porte renforcée. p : porte bois

EXPECTATIONS / MAIN MONITORING QUESTIONS

- Urgent needs of seeds technologists to maintain collections**
- Have clear politics on resources exploitation, shared of IP, rights, seeds exchanges,**
- Favored in situ and on-farm conservation**
- Local knowledges and rights**



Thank for your attention