

# Designing Innovations Platforms to Support Ecological Intensification of Plantain Production in Côte d'Ivoire



## Introduction

In a context of strong pressure on natural resources, ecological intensification (Griffon, 2014) is an issue which requires the establishment of agro-ecological innovations. In our case, we consider introduction of disease resistant improved varieties (Côte et al., 2010) in Côte d'Ivoire as an agro-ecological innovation.

## Objective

We analyze how Plantain Innovation Platforms (5 platforms) could structure the innovation process and generate agro-ecological innovation through the West Africa Agricultural Productivity Program (WAAPP) set up in Côte d'Ivoire.

## Conceptual Framework

We use the conceptual framework of Innovation Systems (Lundvall, 2005; Hall, 2005; Touzard et al. 2015) to show to what extent the platforms are efficient tools to support agro-ecological innovations.

This analytical framework helps to characterize the functioning of the innovation platforms: components, actors, interactions (Röling, 2009).

The design of the PIP includes 4 components of Sectorial System of the innovation (SSI) (Malerba, 2005) (see figure 1).

## Assumption

In regard to this conceptual framework, the capacity of PIP to support agro-ecological innovations processes implies the structure of Innovation Systems (value chain, ...), and that the PIP coordinate these three challenges: (i) socio-technological, (ii) institutional and (iii) organizational.

## Research Method

Using focus group discussion & semi-structured interviews

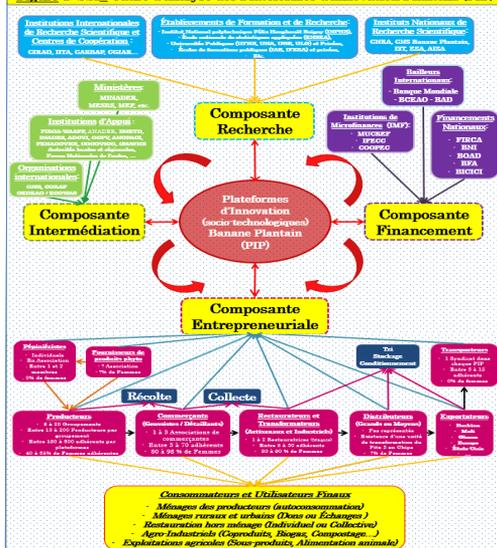
- o Surveys carried out among institutions, researchers and other to identify and analyze the Innovation Process. (N = 30)
- o Surveys with innovation platforms (PIP) heads or stakeholders in five regions of Côte d'Ivoire (Abengourou, Issia, Agboville, Adzopé, Soubré) to assess the effectiveness of each PIP. (N = 15)

## Results

- **R1: Effect on the structuring of the four components of the Sectorial System of the Innovation (SSI) (Figure 1)**
  - Re-Orienting the research projects (private, public) in the selection of varieties adapted to the local needs;
  - Enhanced coordination between the 4 components of the plantain sector for Innovation system improvement (contractors).
- **R2: Effect on the introduction of new varieties of plantain and techniques on agro-ecological intensification**
  - Organization and introduction of three new varieties of plantain test: Pita 3, Fhia 21 in 2012, and Big Ebanga in 2014;
  - Adoption by producers' groups of new cropping techniques of banana plantain through farmer field school ;
  - Dissemination of crop without fertilizer or pesticides in plantations of plantain in the new area (fallows);
  - Accelerated training, learning and also the professionalization of the nurseryman business in each area / region.
- **R3: Effect on the research and innovation policies**
  - Strengthen the capacity of producers to make new technical choices to support endogenous innovations;
  - Re-orientation of public policy in the selection of new varieties to be introduced in link with consumer preference.

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Figure 1: SSI. Cadre d'analyse des Plateformes d'Innovation Plantain (PIP)



## CONCLUSION

Designing and establishing Innovations Platforms of Plantain (PIP) generate new knowledge on variety which could contribute to re-orienting and supporting innovation policies in the plantain sector in Côte d'Ivoire.

The participatory choice and selection of the new plantain varieties (Pita 3, Fhia 21 and after Big Ebanga) intensifies yield in associated cropping system and contributes to increase the cultivated area without increasing the using of chemical inputs (pesticides, ...).

## REFERENCES

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