



**- International Fund for Agricultural Development –
– Scouting and Sharing Innovation in Western and Central Africa –**

– Cassava farmer field schools –

I. Background : making farmers experts in cassava cultivation

1. Name of innovation

Cassava farmer field schools (FFSs)

2. Country – Region

Ngaoundéré, Cameroon

3. Organization

Roots and Tubers Market-Driven Development Programme (PNDRT)

4. Who is the innovator?

PNDRT

5. Actors involved

Cassava growers

6. Implementation date

2005

7. Type of innovation

Technological

II. Key issues

8. Summary

The FFS method is a process rather than an objective, based on non-formal education and constituting the first basic resources. The method requires facilitators skilled on the one hand in crop production and protection and on the other in active adult training methods: a trainee is a potential trainer. The method is also based on group discovery learning and experiment, where training takes place in the field during the plant growth cycle and is based on regular observation and analysis of the agroecosystem. The various topics are treated on the basis of the results of the various agroecosystem analyses and the stage in the plant's growth. Each FFS has an expert facilitator skilled in (i) growing the crops according to integrated production and protection (IPP) principles and (ii) adult teaching techniques and group dynamics. During training, stress is laid on basic biological, physiological and chemical processes, and the working language is the one spoken by the majority of participants. In FFSs, farmers basically learn integrated production management and pest control techniques, based on the following principles: (i) ensuring a healthy crop; (ii) preserving natural enemies; (iii) carrying out regular observations; and (iv) being an expert in one's own field. With regard to teaching in FFSs, it should be stressed that it is a participatory discovery learning method in which the plots are the primary teaching resources. To this end: (i) a teaching mechanism is put in place, together with a series of exercises or practical teaching activities for special subjects, always observing the principles of non-formal education; and (ii) an agroecosystem analysis is carried out; this analysis is the most important teaching activity and is based on observation, data gathering and analysis, decision-making, presentation of each group's results and implementation of the decisions.

9. What issues does the innovation address?

- Absence of integrated cassava production and protection
- Reduced yields
- Poor quality of plant material

10. Key success factors for replication

- Non-formal education
- Simplicity of the approach

11. Main results

In the ten FFSs set up by the PNDRT in 2005-2006, 309 farmers from 41 villages (252 women and 57 men) were trained in integrated cassava production and protection techniques. With regard to plant material, 70,842 improved-variety cassava cuttings were produced. During training, the farmers control cassava diseases and pests, and also implement rapid cassava multiplication techniques. With regard to yields, they obtain an average of 25 to 30 tonnes per hectare through the FFSs, compared with 5 to 10 tonnes following traditional farming practices.

The improved cassava cuttings that they produce are sold at CFAF 25 each (for 25-30 cm cuttings), compared with a maximum of CFAF 10 for local varieties.

Integrated production and protection techniques therefore: (i) help to increase yields; (ii) lead to the production of healthy, high-quality plant material, which is also a source of income as well as tubers; (iii) are easy for farmers' organizations to adopt; and (iv) turn cassava farmers, both women and men, into real experts.

12. Target groups

- Poor people
- Young people
- Women

13. Difficulties encountered

- Invasion of FFSs by wandering livestock
- Lethargy of certain groups

14. Financial aspects

The following aspects require financial resources:

- Teaching materials
- Small farming implements
- Clearing, ploughing
- Construction of storage premises
- Monitoring of the FFSs

III. Technical summary

15.

- Identification of the site
- Logging, clearing
- Cleaning, burning
- Ploughing
- Division of the site into three parts: traditional farming practices plot, integrated production and protection plot, special studies plot
- Ridging
- Planting at least three months before the end of the rainy season (planting standard: $\frac{2}{3}$ of the 30-cm cutting in the soil, 45° slant according to the direction of the wind)
- Agroecosystem analysis
- Regular weeding on all plots three months after planting
- Harvesting and comparison of yields

IV. Follow-up

16. Key contacts

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17. Internet link

www.pndrt-cm.org

18. Key documents

- Anthony Youdeowei, Principes de la lutte intégrée: l'obtention de cultures saines [Principles of integrated pest and disease control: obtaining healthy crops].
- Anthony Youdeowei, La lutte intégrée en production des plantes à R & T et des bananiers plantains [Integrated pest and disease control in the production of root and tuber crops and plantains].
- PNDRT, Amélioration de la sécurité alimentaire et des conditions d'existence des populations rurales par le transfert des techniques de production et protection intégrée a travers les champs écoles de producteurs de manioc: cas du Cameroun [Improvement in food security and living conditions of rural inhabitants through the transfer of production and integrated protection techniques in cassava farmer field schools: the case of Cameroon].