



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

– Dried and crushed cassava leaves –

I. Background

1. Name of innovation

Dried and crushed cassava leaves

2. Country – Region

Cameroon, Central Africa

3. Organization

- Roots and Tubers Market-Driven Development Programme (PNDRT)
- Taless Dry Food common interest group

4. Who is the innovator?

Taless Dry Food, supported by the PNDRT

5. Actors involved

- Cassava growers
- Cassava processors
- Cassava exporters
- Restaurant owners
- Housewives

6. Implementation date

May 2004

7. Type of innovation

Technological

II. Key issues

8. Summary

Cassava leaves are very rich in proteins and vitamins, especially A and C, and are eaten mainly in certain countries in Central Africa (Democratic Republic of Congo) and Western Africa as vegetables in sauce. Fresh leaves are traditionally ground in mortars and boiled before consumption.

Today the demand for cassava leaves plays a major role in exports, and the leaves are ground in this way and frozen before export. However, exporters face major problems in connection with the cool chain (particularly in terms of high energy costs, high investment costs and breakdowns).

When cassava leaves are dried, they retain their nutritional value and sensory qualities, and can reduce exporters' difficulties and costs. They are thus more easily sold for export in this form.

The cassava leaves produced under this initiative are dried out in improved driers (driven by either gas or hybrid fuel) at between 50° C and 60° C, and then crushed by hand.

9. What issues does the innovation address?

1. Facilitation or lightening of women's work due to its ease of use
2. Reduction in exporters' costs connected with cool chains
3. Reduction in contamination and poisoning risks (thanks to the greater stability of the dried product)
4. Improvement in nutritional aspects (for this type of drying conserves nutritional values)

10. Key success factors for replication

1. Simplicity of the drying process
2. Long conservation of the end product
3. Ease of installation of the wood drier in rural areas with the use of cassava by-products (stalks and peel) as fuel
4. Possibility of setting up small-scale drying units
5. High added value for export

11. Main results

1. Increase in the volume of exports (at least 1 tonne of end product exported to Europe each month)
2. Increase in staff (6 permanent staff and 6 temporary agents)
3. Product much appreciated by African immigrants in Europe
4. Increase in the income of women cassava producers' groups that are partners in the project

12. Target groups

- Housewives
- Exporters
- Producers

13. Difficulties encountered

- Obtaining supplies of raw materials and marketing
- Packaging
- Marketing (for it is a new product)
- Integration of the new product into eating habits

14. Financial aspects

1. The drier represents a major constraint
2. The source of energy may be wood or gas
3. Small drying units are built locally at a cost of between CFAF 500,000 and CFAF 1,000,000, with a capacity of 5 kg to 10 kg of end product every ten hours
4. The cost of energy ranges from CFAF 200 to CFAF 500 depending on the energy source
5. The cost of producing 1 kg of dried cassava leaves in the rainy season is CFAF 2,000

III. Technical summary

15.

Implementation entails the following stages:

1. Reception of the cassava leaves
2. Washing
3. Cutting up
4. Drying
5. Crushing
6. Packaging

IV. Follow-up

16. Key contacts

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17. Internet link

www.pndrt.cm.org

18. Key documents

- J.-F. Rozis, Renewable Energy and Environment Group (GERES). *Drying foodstuffs: techniques, processes, equipment*. Dutch Ministry of Cooperation and Development & Technical Centre for Rural and Agricultural Cooperation, Leiden, Netherlands, Backhuys Publishers, 1997.
- Les richesses du sol [The riches of the soil], ed. A. Bell, O. Mück and B. Schuler, German Foundation for International Development.