



– International Fund for Agricultural Development –
– Identifying and sharing innovation in Western and Central Africa –

– Domestication of *Cassia tora* –

I. Context

1. Name of the innovation

Domestication of *Cassia tora*

2. Country – Region

Niger: Maradi Region, Aguié Department

3. Organization

Project for the Promotion of Local Initiatives for Development in Aguié (PPILDA)

4. Who is the innovator?

PPILDA

5. Actors involved

Project team and beneficiaries (including women)

6. Starting date

2006

7. Type of innovation

Technical

II. Key concepts

8. Summary

Farmers in the Aguié Department often face food difficulties during the hoeing period. With a view to easing this problem, they applied for support from the project for the domestication of various vegetable plants that grow wild and are used in their diet. With a view to furthering this local innovation, the Support to Farmer Initiative and Innovation Project (PAIIP)/Aguié supported the applicants in the domestication particularly of *Cassia tora*. The aim is to domesticate this species through the identification of an optimal production density and the multiplication of seed in order to help reduce food difficulties during lean periods. The PPILDA carried out consolidation of advances and wide-scale promotion of the innovation.

9. What problems does this innovation seek to solve?

Domestication of *Cassia tora* leads to:

- A local increase in the quantities of this vegetable in lean periods
- Local availability of leafy vegetables and seed
- An improvement in women's income through the sale of dried or green leaves
- An improvement in the nutritional quality of farmers' meals (studies have shown that this species contains considerable nutritional elements)

10. Factors for successful replication

Several factors favour replication of this innovation, particularly:

- The traditional seed distribution system based on barter or the informal network
- The possibility of conserving dried leaves for a relatively long period (up to 12 months)
- The introduction of this crop into farmer extension mechanisms (farmer initiative plots and plant genetic diversity fields)
- The regeneration capacity of the species
- The importance and contribution of this crop to household diet
- Staggered harvests if adequate field maintenance is carried out: the leaves can be harvested up to nine times in each four-month growing season

11. Main results

- Contribution to food security and nutritional quality
- Increased income through the sale of leafy vegetables and seed: calculations based on yields of leaves and seeds of this species have shown that a net profit of between CFAF 15,818 and 66,050 can be obtained
- Major capacity for adoption by all social categories
- Edible leaves obtained within less than two months of sowing
- Intercropping with cereals, which immediately makes it possible to write off the costs of the organic manure applied
- Less disturbing species for the crops with which it is intercropped
- Less demanding species in terms of organic manure

12. Target group(s)

All social categories, especially women

13. Difficulties encountered

Conditions that may hamper adoption of this innovation are:

- Damage by livestock and caterpillars
- Lack of water at the start of the season
- The low requirements of the species in terms of organic manure

14. Financial aspects

The costs of the innovation are as follows:

- Seed (3 kg x CFAF 2,000): CFAF 6,000
 - Field maintenance (2 working days x CFAF 2,500): CFAF 5,000
- Total: CFAF 11,000

III. Technical aspects

15.

Production of *Cassia tora* encompasses the following stages:

- Purchase of seed
- Application of manure and preparation of the plot in May
- Sowing in June, with 5 to 10 seeds per sowing hole at a distance of 0.5 m x 0.5 m when sown alone (as a household crop) or in combination with other crops
- Hoeing and thinning out two weeks after sowing
- First harvesting of leaves when the seedlings have reached 20 to 30 cm
- Further harvestings as required
- Harvesting of seeds when ripe

IV. Further information

16. Key contacts

Name	Organization	E-mail
Guéro Chaibou	PPILDA	gueromag@yahoo.fr
Saley Kanta	PPILDA	saleykan@yahoo.fr
Mahamane Adamou	PPILDA	mamaneadamou@yahoo.fr

17. Internet link

FIDAFRIQUE network, above addresses or ppilda@intnet.ne

18. Key documents (document title + link or contact or address)