



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

– Hadjarai nets, a bird control method –

I. Context

1. Name of the innovation

Hadjarai nets, a bird control method

2. Country – Region

Chad: Batha region

3. Organization

Farmers' groups

4. Who is the innovator?

Hadjarai (a Chadian ethnic group) farmers

5. Actors involved

Farmers and technicians from plant protection services

6. Starting date

Very old, but recently improved and recommended as an alternative to chemical treatment in certain situations

7. Type of innovation

Technological (indigenous)

II. Key concepts

8. Summary

There are three traditional bird control methods in Chad: Ngambaï nets, Massa nets and Hadjarai nets. Hadjarai nets, which seem the most effective and promising, are made with nylon thread (fishing net twine no. 40-45). Sugar is used or the threads are soaked to make them stiff as they are being worked. Bamboo or eucalyptus poles of an appropriate length for the net are used to hold it open. The birds are caught by a team of men – a leader and three or four trapper assistants. The fields are protected by staking out the birds' sleeping perches in the trees around them. On a moonless night, as the birds start to sleep, the team leader enters the sleeping area followed by his assistants in single file. When the leader sees a branch occupied by birds he signals to his assistants, who crouch under the branch, so that he can climb onto their shoulders. They then stand up so that he is close to the branch. He quickly unfurls the net and closes it over the birds. The startled birds try to fly off, but get caught in the net. When the men come back from the hunt, the women take the already dead birds and lay them out in the open air to prevent them from going bad. They at once start to pluck them in the cool of the evening, since the birds quickly go bad if their feathers are left on them. The birds are pre-cooked as soon as they have been plucked. Their catching benefits the whole household. The price of a net ranges from CFAF 50,000 to 60,000 and it can last for up to ten years if it is well looked after.

9. What problems does this innovation seek to solve?

Pressure from birds is a persistent threat throughout the Sahelian and sub-Saharan regions, where farmers constantly suffer from the negative effects of these pests and resulting food insecurity. There are two types of bird trapping: "commercial" trapping and trapping as a bird control method. This innovation seeks to reduce damage from birds to cereal crops. After the departure of the Joint Anti-Locust and Anti-Aviarian Organization (OCLALAV) in 1979 following events in Chad, the Government ceased any major bird control interventions. Crop damage from grain-eating birds ranges from 20 to 50 per cent, depending on region (cf. Directorate of Plant Protection, 1990 report). This situation is a very real threat if no steps are taken. Given the high cost of chemical control, the aim is to find an appropriate, effective method that poses no threat to the environment.

10. Factors for successful replication

- Little wind and a calm, stable sleeping place
- Best time to trap birds in their sleeping place: November/April on moonless nights with no other light in their sleeping place
- Dark clothes
- No communication between individuals within the sleeping area, or only by whistling in imitation of bird calls
- To avoid problems, truth and honesty (values associated with Hadjarai ethnic traditions) are vital

11. Main results

The Directorate of Plant Protection took up the research on the various trapping methods carried out by Wim C. Mullié in 1989, focusing this time on three methods: Ngambaï nets, Massa nets and Hadjarai nets. Hadjarai nets seem the most effective and promising of the three, despite their limitations. For commercial trapping, they enable a team of four to prepare and pre-cook three 100-kg sacks (with 8,500 to 9,000 birds per sack). The best period for trapping birds in their sleeping place is between November and April.

12. Target group(s)

- Poor farmers
- Women
- Young people

13. Difficulties encountered

- Lack of market outlets in some areas where the inhabitants do not eat birds and do not know how to use them for other purposes
- Unreliable preservation
- Hard work trapping the birds at night, entailing many risks (wild animals, snakes, scorpions etc.)
- Plucking and pre-cooking are tasks requiring considerable labour

14. Financial aspects

- The price of a net ranges from CFAF 50,000 to 60,000
- Foodstuffs:
 - Monetary return (the market price of a sack of pre-cooked birds ranges from CFAF 20,000 to 40,000)
 - Household consumption (fresh and dried meat)
 - Fertilizer for various crops

III. Technical aspects

15.

A Hadjaraï net is simply made of a fine-mesh net and two bamboo or eucalyptus poles. The poles are joined at the base with a strong cord and the sides of the net are threaded onto the poles. While looking for the birds' sleeping place, the net is folded away and put in a bag.

The technical aspects of bird control are:

- Reduced uncontrolled use of avicides
- Avoidance of environmental degradation
- Possibility of decentralized intervention with unsophisticated techniques at the village or local level
- Working materials available locally

IV. Further information

16. Key contacts

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17. Internet link

18. Key documents

For documents on bird control training, contact Ousman Awada Madani, Directorate of Plant Protection