



# Establishing and managing waterpoints for village livestock

A guide for rural extension workers  
in the sudano-sahelian zone



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# **Agrodok 27**

## **Establishing and managing waterpoints for village livestock**

**A guide for rural extension workers in the  
sudano-sahelian zone**

By:  
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First edition, 2000

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# Foreword

The purpose of this guide is to help farming communities in the sudano-sahelian zone to finance, install and manage waterpoints for their village herds. The guide is written particularly for extensionists working in livestock water projects in this zone. It outlines in detail a method being used by the Dpgt rural development and land use project in North Cameroon since 1994, with extensionists working under the auspices of the Cameroon Ministry of Agriculture and the cotton company Sodecoton. This is a programme sponsored by the French agencies *Agence française de développement* and *Fonds français d'aide et de coopération*.

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Maroua, June 2000

The author

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# 1 Introduction: The need for a waterpoint in the village

In the sudano-sahelian zone, farmers and stockkeepers have to contest with difficult climatic conditions, ranging from floods and waterlogging in the rainy season to unreliable rains and heavy evaporation of surface water in the dry season.



*Fig. 1.1: Carrying water for family consumption.*

The supply of water, be it for the family or its animals, is proving to be one of the heaviest burdens borne by rural populations in the region. Any village in this area today that can boast of year-round access to an adequate supply of good quality water can consider itself privileged.

Traditional practices in this domain are being severely tested. This is particularly the case when it comes to watering livestock, and livestock holders have so far come up with only partial solutions. These include the drawing of water by hand (Figure 1.2), provisional wells offering only temporary respite, and seasonal migration. In addition, to take the example of North Cameroon often to be quoted in this Agrodok, there



was considerable investment in village water supplies in the region in the course of the 1980's, including the excavation of ponds by Minepia (the Ministry for Livestock, Fisheries and Animal Industry), the drilling and rehabilitation of 2000 boreholes by Vergnet/FORACO, and the installation of 700 retention systems in the Mandara mountains, by the diocese development committee and the Group of organisations working on catchment development. This investment certainly resulted in progress, but it has not been able to satisfy all of these villages' water requirements.



*Fig. 1.2: Traditional well with clay drinking trough at Kerawa (North Cameroon).*

It is a fact that insecure water supplies encourage out-migration and pose major obstacles to development. Any organisation seeking to make sustainable improvements to local natural resources will have to address the question of water supplies for pastoralists.

If we pinpoint waterpoint management as a priority issue, it for two reasons:

- ▶ If there are no banking facilities in rural areas, producers will be obliged to invest their savings in their livestock. Unfortunately the lack of waterpoints for four or five months of the year forces them either to limit the size of their herds, or fall back on semi-nomadic strategies. The movement of stock is so laden with risk, with

animals disappearing, falling prey to disease or racketeering, that some communities, including the Peuls, have given up their transhumance strategies in the face of heavy losses. They now prefer simply to draw water for their animals at local wells; others have simply left their villages, to resettle in areas where water is less of a problem.

The difficulty of watering stock slows or prevents the expansion of herds, and this has a direct impact on stockkeepers' capacity to set aside savings or make "insurance provisions" against the different hazards they encounter: drought, famine, unforeseen costs... In the event of a drought the lack of water security can end in disaster, as happened in 1983–1984 in the Extreme North province of Cameroon, where a third of the livestock was lost.

- During the 1980s, again in North Cameroon, Minepia's water services and other agencies installed about a hundred different facilities for watering stock. Most of these projects (ponds, dams or boreholes) were technically well-designed, but no plans had been made to pursue the installation process beyond the construction stage. The continuing management of the facilities had not been considered.

Today these facilities are no longer maintained, and gradually, as they silt up, their water storage capacity is falling. They dry up earlier every year. With few exceptions access to the water is uncontrolled; cattle, goats, sheep, donkeys and horses wade into the water, and the waterholes are becoming sources of infection. All the stockkeepers complain, but, given the high cost and the difficulty of rehabilitating such facilities, it is rare for any initiative to be taken by the community to improve matters. On the contrary, as water becomes scarce the conflicts between different groups of users increase (stockkeepers, fishermen, growers).

Technical investment is not sufficient. Users also need to be empowered to manage independently any facilities made available to them. In North Cameroon only 13% of the 210 ponds and water catchments in the cotton zone have user regulations, and only 11% of the water

facilities have any form of management committee. In 86% of the cases the animals drink by wading into the water (Figure 1.3).



Fig. 1.3: Stock (cattle and sheep) with direct access to the water.

Artificial waterpoints are seen as everyone's property when it comes to watering animals – and nobody's when it comes to maintaining them.

It is therefore important, before contemplating any waterhole creation programme, to be able to prepare the users for the work of maintaining and managing the facility, and to train field workers in the appropriate extension techniques.

The method proposed here involves four stages, each of which are explained in the chapters which follow:

- The decision to establish a new, or renovate an existing waterpoint in the village;
- The organisation of the partnerships necessary to fund the project;
- The construction/installation of the waterpoint;
- Its management.

- The method presented in this guide should not be seen as a set of decisions "to be got across" in the village. It is rather a framework, which extensionists should adopt as a guide when helping the future users in their discussions and decision-making.
- All decisions should be given time, and be discussed and "matured" before finally being approved by users. Extensionists should never stand in their place and decide for them on the different management options available.
- Surface water is not generally drinkable. It is only underground water, and particularly water from the deeper aquifers, that is safe for human consumption. Waterholes can therefore only be recommended as a source of drinking water for livestock.

# 2 Stage one: Reaching agreement on a waterpoint in the village

Villages typically request help with a waterpoint in the following circumstances: seasonal migration is creating too many problems; there are not enough sources of water; water drawing techniques can no longer satisfy local demand; because of watering difficulties, the herd cannot be expanded; this is encouraging families to leave the village; some of the waterpoints are drying up...

If it seems that the rehabilitation or creation of a waterpoint would be a good solution to the problems perceived by a large proportion of the inhabitants of one or several villages, the extensionist should carry out a simple five-part “feasibility exercise” with the potential users of the future waterpoint.

This should involve:

- Part 1: understanding local livestock watering practices;
- Part 2: choosing the best site for the waterpoint (in the case of a new installation);
- Part 3: assessing the scale and cost of the installation;
- Part 4: the financial implications of a new or rehabilitated waterpoint;
- Part 5: managing the waterpoint.

## 2.1 Part 1: Understanding local livestock watering practices

There is a crucial phase in the extensionist’s approach: it is the period spent observing how agro-pastoralists organise and carry out the watering of their stock, by herd and by family, with respect to the seasons and their rights of access and passage.