

OED Précis



Operations Evaluation Department

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Livestock in Africa: Support for Pastoralists

The World Bank has supported several operations to promote pastoral management and associated agricultural activities in semi-arid areas, mainly in Africa. Experience audited by OED shows that such projects are risky and complex but can succeed when designed in agreement with their beneficiaries. Herders in the three projects are concerned about the degradation of natural resources, which they see as a threat to their livelihood. Under such circumstances, herders prove willing supporters of activities designed to protect and improve their physical environment.*

The audit analyzes livestock projects in Niger and the Central African Republic (CAR), and a rural development project in the Republic of Senegal (see Box). Each was implemented in a different ecological area and had a substantial institutional component aimed at transferring technology to herders' associations. Despite the effects of drought and the weaknesses of parastatals serving livestock and crop farming, project goals at the level of villages and producers' associations were largely met.

Niger: Livestock Project

This was an ambitious project in a pastoral zone with few resources. Its goals were to increase herders' incomes by improving productivity, to ensure producers' participation in managing water and grazing resources, to strengthen the government's Livestock Service, and to increase fattening activities.

The five-year project took ten years to complete because of economic difficulties during the mid-1980s and the effects of the regional drought of 1984-85. It did not meet its initial goals. But it showed that an effective framework can be developed for pastoral development when there is sincere interest by the borrower, the supporting institution, and its staff, and when pastoralists see the benefits of associating.

Some of the project's achievements were considerable. Many strategically-located pastoral associations were established. The project trained 165 first-aid workers, midwives, and veterinarians, and opened eleven literacy centers.

Not enough attention was paid at the design stage to the potential for drought—despite recurring droughts over the last 20 years. During 1984, drought halted most of the project's key planned activities. But the project responded flexibly with measures to help herders and their flocks to survive; these included credit for livestock feed, offered through the herders' associations; a small credit program for herd reconstruction; and a successful dried meat processing operation that was later replicated on a larger scale.

Central African Republic

The project aimed to develop livestock production, improve the nutrition and living conditions of

herders, and strengthen the government's Livestock Service.

Initial project performance was poor, reflecting high turnover, repeated changes in management, complex administrative and financial procedures (involving joint financing by three assistance agencies in three currencies), and the low motivation and poor training of Livestock Service field staff. Staff also had difficulty communicating with herders, most of whose languages and ethnic backgrounds differed from their own. The project had hardly any impact on herders in its first two years, necessitating a major reorientation in its third year.

Once responsibility for drug distribution was transferred from the Livestock Service to a herders' association, animal health results were impressive. At project completion, drug sales to herders were five times the appraisal estimate, and reached about 80 percent of the target population. Rinderpest vaccination campaigns kept animal losses much

**"Performance Audit Report, Niger: Livestock Project; Central Africa Republic: Livestock Development Project; Senegal: Eastern Senegal Rural Development Project", Report No. 12791, February 1994. OED reports are available to Bank Executive Directors and staff from the Internal Documents Unit and from Regional Information Services Centers.*

Project Information

	<i>Approved</i>	<i>Closed</i>	<i>Project cost (credit amount) (\$million)</i>
Niger Livestock	1979	1985	15 (12)
Central African Republic Livestock Development	1979	1986	118(100)
Senegal Eastern Senegal Rural Development	1983	1991	40 (16)

lower than in most neighboring countries, and attracted livestock producers from those countries.

As a result of the health improvements, the CAR's national herd increased from an estimated 900,000 in 1978 to 1.5 million by 1988, while meat production was estimated in 1986 to have grown by 8,000 tons a year. Livestock sales also increased. Producers' income was estimated to have increased for poor and, to a greater extent, rich herders.

The economic rate of return at project completion was estimated at more than 100 percent.

The institution building component transformed the regional private herders' association into a major service organization and the main force in livestock development. The association needs further financial and administrative support, and a broader base to assure its sustainability, but its animal health care system provides a potential model for animal health delivery in other West African countries (see Box).

Institution building failed to develop the Livestock Service into a sustainable entity.

Senegal

The Eastern Senegal Rural Development Project, originally an agricultural project, was redesigned in 1982

to include livestock and pastoral development components.

In the *southern zone* of the project, in an agro-pastoral area, the project focused on cotton and cereal production and on integrating crop and livestock activities, especially through the development of animal traction and improvements in animal health. Maize production increased substantially. Literacy training succeeded. Infrastructural development in village water supply, health posts, and feeder roads exceeded appraisal expectations.

The livestock component in the southern subproject generally succeeded, especially in its vaccination campaigns against several diseases. It created effective farmer/herder associations. Better animal health and closer integration between agricultural and livestock activities helped to raise productivity of both crops and livestock.

In the *north*, a livestock and pastoral development subproject sought to consolidate the achievements of an earlier livestock project which had implemented grazing management plans for herders. The project developed the basis for cooperation among agro-pastoralists in pasture management. It established grazing schemes within limited, carefully delineated areas based on detailed maps and contracts. The project strengthened the

existing 53 herders' associations, incorporated another five associations, and mobilized local participation in other development activities, including the functional literacy program, animal health delivery, and pasture management.

But herders' associations need continuing financial and management support. A premature attempt to transfer responsibility to them resulted not in self-sufficiency but in the abandonment of most herders to their own devices.

The northern subproject was not able to develop a system of local responsibility for water resource management or for broader resource management (forests, bush fires).

The economic rate of return of the Eastern Senegal project overall, expected to be 25 percent overall, was negative, largely because of the collapse of world cotton prices but also because of poor rainfall in several years.

Lessons

Executing changes in sector policy

A shift in emphasis away from sectorwide projects towards national programs of natural resource management, as was supported by both the Senegal and Niger projects, should be accomplished gradually, so as not to jeopardize the support still needed by institutions and activities created by earlier initiatives. Similarly, shifting away from an emphasis on supporting state services towards the promotion of private initiatives needs to be carefully planned.

Role of livestock services

All too often, the government's livestock service is the poor relation within rural ministries and services. In all three projects, the relationship between the project, livestock producers, and the livestock service was a source of concern and friction. Staff of the livestock services

usually had social and cultural backgrounds different from those of herders. Their training was oriented towards animal diseases, with limited attention to the broader issues of range management, access to water and pasture, transhumance and migration.

The audited projects developed different arrangements to avoid relying solely on their respective livestock services:

- In Niger, the project established multidisciplinary pastoral centers to bring a range of activities and services to herders, with the requirement that fewer and better-trained animal health auxiliaries, drawn from the herder communities, be available at the centers.
- The CAR project entrusted the private sector with primary animal health care and with the supply of inputs to herders.
- The Senegal project entrusted activities to a parastatal in one area and to a semi-autonomous agency in another area.

In general, livestock services should play a selective and strategic role, enforcing regulations and providing technical back-up to a wide range of clients.

Promoting herders' associations

One of the best ways to create the basis for sustainable development among pastoralists and agro-pastoralists is to promote the creation and institutional development of herders' associations.

Herders and farmers' associations can successfully take over some of the functions of government services, if carefully established.

Herders' associations are easiest to form and sustain if members have few and real collective interests. In the three projects, the leading collective interests were: potable and stock water; better human and animal health; grazing management; and lit-

Delivering Veterinary Care through a Herders' Association

In 1973 the government created the National Association of Central African Herders (ANEC) to represent livestock producers and provide drugs and animal health care. The Ministry of Agriculture and Livestock reserved the right to supervise ANEC but left its management to elected herders. ANEC operated well but its limited cost recovery was mismanaged, and it became bankrupt by 1978 when the Livestock Development Project (LDP) was appraised.

The Bank had difficulty selecting and appraising an organization to implement the LDP because the Livestock Service was ineffectual and the ANEC was financially weak. The decision was made to strengthen the government livestock service. But after two years of implementation the impact of the project was nil.

In 1981 ANEC's secretary general, a wealthy herder and trained veterinary assistant, prepared a budget proposal and work program for 1981-82, both of which were approved. The project design was revised and the drug sale operation was handed over to ANEC in 1982.

After a weak start, ANEC was remarkably successful in organizing the distribution of drugs to herders. By 1985, 65 percent of the herders in CAR were paying ANEC's annual membership fee. The revolving fund thus accumulated was used to buy drugs for distribution to members. At project completion in 1986, drug sales were completely self-financing and tightly supervised; audit reports confirmed ANEC's financial statements.

eracy programs—especially if targeted to women.

The northern pastoral development subproject in Senegal showed the effectiveness of a long-term, cumulative approach to institution building. Careful preparation, with important contributions from social scientists with reasonably good socio-economic data; continuity of approach; commitment; and suitable personnel were all very important.

Transformation of production systems

In all the projects, the relationship between agriculture, agro-pastoralism, and pastoralism was complex and it was difficult to distinguish "pastoral" from "agricultural" areas. Historically, indeed, in most parts of semi-arid and Sahelian Africa, pastoral and settled agricultural systems—including mixed farming systems—where agricultural and livestock production coexist—had symbiotic relationships. But during the last two decades, successive droughts and population movements have contributed to an increasing interpenetration of pasto-

ral, agro-pastoral, and settled agricultural farming systems.

In the Niger and Eastern Senegal project areas, the expansion of crop cultivation into traditional dry-season grazing areas has put pressure on the pastoral systems that previously made use of the dry season grazing. Where herders can no longer move along their previous lines of transhumance, their survival in dry seasons is made much more difficult.

More pastoralists are increasing their reliance on agriculture, becoming agro-pastoralists. Future projects need to take account of this trend.

Managing natural resources

It is often assumed that effective management of natural resources such as artesian wells requires control over those resources. In several Sahelian countries, including Niger, the establishment of a legal framework for the ownership of common resources is well advanced. But in many pastoral environments in the Sahel, including CAR and Senegal, people in need of an essential resource (a well, a grazing area) are

customarily allowed access to it. As it is never certain which water sources will dry up and which will not, in a given year, risk-sharing by herders is a crucial dimension of survival strategies.

Resource conservation and more rational range management are essential for the long-term sustainability of livestock development. Pilot efforts are needed to identify and develop suitable technologies for the next generation of projects.

What is needed is a system of negotiated rights of access and use, but with considerable flexibility to suit the circumstances of supply and demand. The arrangements devised by Niger's livestock project in North Goure and the Eastern Senegal project seem to be useful models.

Herders know best

Recent years have seen much controversy about how policies towards traditional producers in dryland range areas should treat the notion of "carrying capacity". Changing views on (1) how alternative management regimes affect the range ecosystem, and (2) the goals of range management, have raised questions about whether the traditional "opportunistic" range management strategies are indeed responsible for much of the rangeland degradation reported in the Sahel.

The relative success of the grazing schemes drawn up by project agencies and herders together in Eastern Senegal and in Niger was associated with a clear definition of the pastoral units and with herders' clear identification with the problems of land degradation. The grazing schemes introduced in the CAR were less successful; their implementation suffered from administrative and legislative difficulties in forming associations.

Animal health

Veterinary measures against the most common diseases in the humid tropics are readily adopted, give rapid returns, and are useful in gaining producers' confidence.

After some training, traditional herders can be made responsible for administering the most commonly used drugs. Herders administered drugs better than field-level Livestock Service agents.

Project preparation, design

Any livestock project in drought-prone areas should include contingency plans for, and responses to, extreme conditions.

Projects involving traditional livestock producers should only be planned on the basis of adequate socioeconomic and environmental understanding. In practical terms, this means a need to invest more time and resources in project preparation. A wider range of specialists with sound knowledge of the economy, environment, and society of the project area and the target population need to be involved, and to understand the particularities of the situation before the project is designed.

Potential beneficiaries should participate as much as possible in project identification, design, execution, and maintenance.

All of the projects audited were able to respond to some extent to changing conditions. Even with a robust design, projects need the institutional capacity to respond to unforeseen problems during implementation. This implies the need for systematic monitoring of project progress and impact, to permit appropriate management and policy responses.

Continuity

All the three projects suffered major disruptions and uncertainties towards the end of their planned life. Their closing dates came into sight well before sustainable structures and practices had been established. Uncertainties about funding levels from donors made continuity from year-to-year particularly difficult in several cases.

To assure funding for projects of this type, government and external assistance agencies need to agree on long-term strategy towards the subsector and to accept the projects' long-term nature.

Timeframe

Projects that give priority to institutional development as the key to economic and social development—as do many livestock and pastoral development projects—require long periods of support before the local institutions become self-sustaining.

Five years is a very short time for the creation, establishment, and development of self-sustaining local associations, particularly given the difficulties of the arid and semi-arid zones where livestock and pastoral development projects generally concentrate their efforts. Ten years is more realistic.

In many pastoral systems, populations are being progressively disadvantaged by changing social, economic, or political events. People in these circumstances cannot be expected to become self-reliant in the near term. This implies not only a commitment to continued support, but also a need for a long-term flexible and responsive strategy to meet the dual goals of developing the pastoralist subsector and maintaining the range resource in a productive state.

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