Natural Resource Management

best practices from FARM-Africa's
Pastoralist Development Project in Kenya
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Animal health
Camel husbandry and production
Microenterprise development
The mobile outreach approach
Natural resource management

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About FARM-Africa

FARM-Africa (Food and Agricultural Research Management) is a British-based non-governmental organization initiated in 1985 whose goal is to reduce poverty by enabling marginal African farmers and herders to make sustainable improvements to their well-being by managing their renewable natural resources more effectively. The Camel Improvement Project, which later became the Pastoralist Development Project (PDP), was its first undertaking. The project began in Kenya in 1988 and ran for 12 years. This booklet is one of a series documenting how the project progressed and the lessons it learned along the way. It presents the best practices that evolved from the work. FARM-Africa hopes that by recounting the good practices that came out of the project, by listing its points to consider of practices that worked and those that did not, it can be of aid to others who are planning to work with pastoralists in northern Kenya or in a similar environment.

The original PDP strategy

The Camel Improvement Project set out to promote the camel—its husbandry and production—because the camel was seen as being drought tolerant and environmentally friendly, well suited for conditions in northern Kenya. The camel had been neglected or at least underused, and the thought was that with a relatively small input a development project with the camel as its focus could render great benefits. Helping the communities improve this one resource could also act as an entry point for tackling broader development issues.

The project, built on 12 years of research by the UNESCO Integrated Project in Arid Lands (IPAL) in the 1970s and 1980s, was conceived at a time when nomadic pastoralism was considered an archaic form of life by many development agencies and administrators and the camel was considered an unimportant livestock species. Nomads had been encouraged to give up their lifestyle and settle near towns and centres so they would have access to basic services such as health and education. But these policies and uncontrolled water development had led to considerable degradation around settlements and exacerbated the effects of drought. Through education and creation of awareness, the project influenced change of those attitudes and it is now widely accepted that nomadic pastoralism is the most effective and efficient form of land use in arid pastoral areas. The challenge was, and still is, to provide sustainable services to a society that is constantly on the move.

The next step for the project was to decide how to reach the remote nomadic pastoralists and put in place sustainable means of broadening their management and development capability. FARM-Africa approached this through mobile outreach—taking the project to the nomads rather than establishing sedentary headquarters.

The project's start-up phase involved community dialogue and planning. Local community members agreed with project staff that the project would set up a mobile outreach camp. Staff then gathered information through household questionnaires, range transects and aerial surveys to determine the present situation and later, to record project impact. Initially the project provided its services directly to the selected contact farmers and at the same time it encouraged communities to form camel improvement groups. Gradually the project's scope broadened to undertake work in other major aspects of pastoralist life—natural resource management, microenterprise development, human health care. (See FARM-Africa booklets, ‘Camel husbandry and production’, ‘Animal health’, ‘Microenterprise development’ and ‘The mobile outreach approach’.)

The area

The project area extended from Samburu to Marsabit and Moyale Districts, which are part of the arid and semi-arid lands (ASALs). These lands comprise approximately 80% of Kenya's land area and about 75% of its livestock. Soils are characteristically low in fertility, shallow and highly erodable, often coupled with areas of high salinity. Climatic conditions for the districts vary between lowlands and highlands. Rainfall, generally below 200 to 300 mm per year, is usually erratic in season, duration and distribution. Productivity is dependent on rainfall and varies greatly between areas and seasons. The inherent production systems adopt strategies aimed at mutual coexistence between humans and the livestock they depend on, often as their sole means of livelihood.

The project worked with different ethnic groups—the Ariaal, Samburu and Turkana communities in Samburu District and the Gabra, Rendille, Borana, Somali and Sakuye communities in Marsabit and Moyale Districts.
The Gabra, Rendille, Sakuye and Somali are primarily camel keepers; the Borana and Samburu are traditional cattle owners who have increasingly adopted the camel in recent years.

**The general problem and how to approach it**

It has long been recognized that development interventions in the ASAL regions have often been inappropriate or unsustainable. Because pastoralist areas and issues had been marginalized, the project first needed to identify key priorities. Originally the project, with a fairly strong emphasis on research, had the following objectives:

- to demonstrate the true economic importance of the camel and improve its productivity in milk, meat and transport
- to improve long-term economic security of pastoral communities and their capacity to survive in harsh arid areas
- to bring together the Kenyan pastoral tribes to encourage a unified development strategy and to link this to the Kenyan scientific community and government policy
- to contribute to a more appropriate model of development among pastoral people, centering on camel productivity improvement and education tailored to survival in arid lands

Renamed the Pastoralist Development Project at the end of phase 1 (April 1992), the new name reflected that the project had now integrated education, range management and health components.

**Principles**

**Establish networks**
- Plan only after exhaustive discussion with all other organizations and agencies working in the area. Religious organizations have been long in some of these areas and have a wealth of knowledge, even if their philosophies, ideals and outcomes may be very different from those of a development organization.

**Ensure sustainability**
- Avoid creating dependency. Look for possible consequences of any intervention before implementing it.

- Make sure that communities buy into a project and pay full, unsubsidized costs for services. Alternative methods for dealing with emergencies or the poorest of the poor should be found, for example, vouchers for drugs.
- Build the capability of local personnel to deliver services rather than rely on direct project implementation.
- Help set action plans and review progress regularly with those who set the action plans—at all levels including the grassroots.
- Share training costs. This may slow down the implementation rate of the training, but it ensures better quality training because those attending demand good service.
- Remember that follow-up and refresher courses are as important as the initial training.
- Identify a realistic exit strategy right at the project planning stage.

Pastoral development takes a long time and the priorities of development agency, donor and implementer may change while the project is being implemented.

**Use participatory methods**
- Plan interventions with ministry officials and with the pastoralist groups themselves. Where possible use community-based planning, monitoring and evaluation.
- Build on the knowledge and experience of the local people.
- Include communities in quarterly project reporting and planning meetings.
- Set out a clear strategy for all project components and adopt a logical framework approach.
- Draw up a seasonal activity calendar with the community and the agencies involved and plan activities in accordance with that calendar.

**Ensure equity**
- Take into account differences in gender roles, wealth distribution, age sets, ethnicity, religion and cultural values.
Natural resource management

A range monitoring unit was incorporated into the Pastoralist Development Project (PDP) at a later stage, to track range condition and trends. This was in response to environmentalist concerns that increased camel herds would degrade the environment. The unit carried out the following activities:
- mapping and inventorying the natural resource base (mainly water sources and vegetation)
- training and demonstrating appropriate range management techniques in local communities
- improving the quality of potable water available to households
- promoting the camel as an environmentally friendly species, to communities that were not traditionally camel keepers

The problem

Experience has shown that unless communities are actively involved in activities designed to conserve their natural resources, the communities do not sustain those efforts over the long term. It is thus important to involve communities in natural resource management and planning. All pastoral communities have had strong traditional institutions for managing their use of natural resources—for example, the aba herega system for water control and the aba dheda system for pasture management in the Boran-speaking communities. These are traditional setups for managing and allocating water sources and forage lands.

The traditional institutions have eroded over time, because of external influences such as interference from the provincial administration, the introduction of grazing blocks and the formation of group ranches, leading to:
- breakdown in grazing patterns
- uncontrolled use of water resources
- indiscriminate felling of trees
- land degradation from overgrazing and soil erosion

The problems have been compounded by inappropriate development efforts, such as drilling boreholes. These have led to permanent settlements around the water points, which have brought about associated social and environmental problems.

To address these problems, interventions should build on the strengths of the traditional institutions, all founded on the fact that the land and its resources are owned communally.

The approach

Community-based district forums

Initially each development agency, including the government, and each mission tended to work in isolation using different approaches, leading to uncoordinated development and conflicts of interest. The main development agencies in the northern region realized that they were having little impact and that the natural resource problems were not being solved. The major development agencies (FARM-Africa and GTZ, in Marsabit, Moyale and Samburu), pushed for a more coordinated approach, which led to the creation of district forums. They consisted of government officials and NGO staff. Their major roles were to:
- decide upon the geographical areas where particular development projects should take place
- decide upon what should be done and how
- harmonize training curricula, policies and approaches
- regularly review the work of the development agencies and other stakeholders involved
Under guidance from the district forums, development agencies took the following approach to facilitate formation of community institutions.

**Mobilizing and sensitizing the community**
- Go to the community; agree on when to have a meeting, why and where.
- Identify problems and possible solutions with the community (consider the community's capacity).
- Consider the potential of the resource base.
- Agree with the community what community-based committees should be established, for example, water users committee, environmental committee.
- Sensitize the community on gender, to get women's participation.

**Forming the committee**
- Have the community put forward candidates and elect members. They should especially elect livestock owners, as they have a vested interest in managing natural resources, and in the pastoralist context, a person's credibility depends on their owning livestock.
- Include elders, women and youth.
- Committee may range in size anywhere from 9 to 25 members, with at least one livestock owner.

**Points to consider**
Forums have a number of advantages:
- They bring stakeholders together.
- They minimize duplication of effort and needless use of resources.
- They minimize conflicts of interest between groups and agencies.
- They make it possible to pool resources to undertake joint projects.

**BUT . . .**
- They require extra resources, not always available, particularly for meetings and field visits.
- Participating agencies or persons may occasionally be uncooperative.

**Community involvement**
Initially, government and development agencies managed resources such as boreholes and grazing blocks in some of the areas for the communities. But as government funding dwindled, stakeholders realized that local people were best placed to manage their own resource base—primarily water and grazing land—and the environment in general. Thus began a drive to establish specific community-based resource management organizations.

**Buying load camels**
Moyale communities, especially the Ambalo and Dabel, are nomadic pastoralists whose mainstay is rearing livestock. To use the natural resources of pasture and water in a manner best for their herds and the environment, they must move frequently. Through PDP's participatory rural appraisal, the two communities identified that they needed load animals to help them move with their livestock when searching for pasture.

PDP did not have the funds necessary to support such a purchase but looked for help from the Drought Preparedness Intervention and Recovery Programme (DPIRP), which receives such requests from other development agencies. When DPIRP evaluated the project favourably, it provided the funds through PDP to purchase 10 local camels for each of the two communities. The communities asked to be given the money directly so that they could buy the camels themselves because they knew best how to look for what they needed. They bargained so well that instead of 10 camels, the Dabel got 26 and the Ambalo 23—all good load camels, healthy and in good body condition.

The communities appreciated that PDP staff, headed by the Marsabit/Moyale district coordinator, were honest and transparent. When DPIRP monitored and evaluated the activity, its staff were impressed, considering the project well executed and a good example for other development agencies.
Training the committee

Training covers natural resource management and allocation, leadership, record keeping, funds management, basic maintenance and management of water points (training contents will vary with the type of committee and resource base). It also includes developing a community action plan.

Training can take place in two to four phases of 2 to 4 days each. Committees that are able to pick up fast may on occasion require only two training sessions; others may need three or four. The training may take up to 6 months—which enables participants to put into practice the action plan and give feedback about its progress. All committees should regularly receive follow-up and refresher training thereafter.

• Training should be oriented towards solving specific problems in specific areas, as different areas have different problems, even when managing similar resources.
• Sessions should include practical demonstrations and exchange visits.
• It is important that the cost of training is shared between the community and the development agency conducting the training.

Activities of natural resource committees

Formulating and applying rules and regulations

• The committee draws up and proposes to the community rules for managing and allocating natural resources.
• Once the communities approve the proposed rules after discussion at meetings, the committee takes them to the provincial administration, where the district development committee ratifies them.
• The committee manages and allocates natural resources, based on the agreed rules and regulations. It may supervise seasonal grazing patterns, manage boreholes and water points, and control tree cutting.
• The committee collects fines or takes appropriate remedial action when regulations are breached. Collected fines may be used for community projects, such as paying school fees for needy children. More often, the fines are paid in goats or sheep, which the committee members eat and which thus are a down-to-earth incentive for serving the community.
• If a community member refuses to comply with the regulations, the committee can take the matter to a government authority for action.
Planning

- Committees are trained to identify, plan and implement their own projects and organize community members to undertake necessary communal works.
- On behalf of the community, committees submit proposals for support to development agencies and donors.

Ambalo and Funanyatta dams in Moyale were constructed through committee approaches. Numerous wells in Marsabit, Moyale and Samburu have been protected with cement rings as a result of requests committees made to NGOs and donors. The local committees supervised their construction, all built on a cost-sharing basis.

Strengths of community-based committees

- Cost sharing and community involvement instil a sense of ownership and responsibility.
- Committee members are exposed to new ideas, and technologies and new ways of solving problems.
- A community-based committee is able to make decisions, influence development activities and have better access to government and donor resources.
- A community-based committee is better placed than an outside agency to tap local indigenous knowledge of the elders and build on traditional management systems.
- Because women are elected to the committees and appointed to responsible positions, their needs and roles are taken into account.
- Through these committees, communities' potential to use their resources more efficiently is utilized.

Weaknesses and limitations to effectiveness

- Communities may not have the technical background to make the best decisions. This drawback may result in adopting inappropriate development.
- Communal approaches do not work well in settled groups because of private ownership of natural resources, especially land and water points.
- People elected to committees may insist on motivation such as salaries, which is inconsistent with traditional systems.

Establishing links

- Committees should establish and maintain links with adjacent ethnic groups and communities to make sharing resources effective when weather conditions are adverse.
- Committees should participate in regional forums that bring communities together, so they can understand each other's rules and regulations and discuss issues of mutual interest relating to sharing resources and abiding by each community's rules and regulations.
- Committees act as links between donors and the community.
- Committees act as arbitrators in community or ethnic disputes.
- An effective committee may serve as a role model and help train other upcoming committees.
- The environmental management committee is the overall authority, above the water users associations, as the latter are often localized to towns or individual water points, while the former covers a larger area encompassing several water sources.
• The system relies on a stable social and political environment, which may not exist.
• Conflicts of interest between members because of clan or tribal alliance can make it difficult for a committee to operate effectively.
• Decisions on the use of grazing lands and water use are largely men’s domain. There is still resistance to involving women, as they are not involved in traditional natural resource management structures. Any development organization is thus likely to encounter difficulties in involving women fully in project planning, management and implementation.

Sharing resources among Turkana and Samburu communities
Conflicts between communities over use of often-scarce water and grazing lands are common in the ASALs of northern Kenya, bringing insecurity and undermining efforts to use natural resources efficiently.

A raid on Rendille pastoralists by bandits from the neighbouring Turkana District in early 2000 led to animosity between the Samburu, who are close allies of the Rendille, and the Turkana, who live in the Baragoi/Kawop area. Afterwards, the lush pastures in the Kawop/Waso-Rongai area, which are key dry-season reserves for both communities, were abandoned.

The meeting that FARM-Africa PDP organized between the warring parties to implement the recommendations from its environmental workshops also served to reconcile them. Subsequent peace meetings resulted in the two communities agreeing to resettle in the area around Kawop. However, the move was set back when vandals poisoned the water in the Kawop borehole.

As a solution, the two communities agreed to rehabilitate the borehole together. Over 40,000 Kenya shillings in cash was raised. A joint community committee helped collect local materials (sand, gravel and fencing posts). FARM-Africa PDP supplied additional financial support, technical services and advice.

The borehole was rehabilitated by the end of 2000, enabling access to grazing land. Users were charged fees to provide sustained operation and maintenance of the borehole. The restored harmonious coexistence made joint participation possible at PDP-facilitated training workshops on community-based monitoring and evaluation, and on general animal husbandry. Community-based animal health workers, community health workers and environmental management committee members were able to provide joint mobile extension services.

John Waita, PDP deputy coordinator

Key issues
Points to consider
• Understand the socio-economic situation, the traditional system of resource management and its status. Improve on existing systems and complement them instead of trying to replace them.
• Respect the norms of the community and identify with the community.
• Work with but not for the community.
• Involve and support district forums and keep their members regularly informed to improve on coordination, monitoring and evaluation of project activities.
• Encourage involvement of women in all aspects of the project as it progresses.
• Orient and train staff in community-based approaches.

BUT . . .
• Do not pose as an expert.
• Do not raise community expectations for things you cannot provide.
• As a principle, do not give anything free.
• Do not work with subgroups in a divided community or support initiatives that may create conflict.
• Do not let the local provincial administration run the show and do not involve politicians and their politics in community projects.
• Do not take participatory rural appraisal as an absolute when identifying community needs; differentiate between needs and wants.

Achievements
The Pastoralist Development Project lists the following as among its achievements in working to help communities manage their natural resources:
• It incorporated the traditional system of resource management and ensured that most community members abided by the rules.
• Management of water points, collection of revenue, management and maintenance of pumps and engines, and record keeping all improved.
• Seasonal use of grazing land as traditionally practised in the past was revived, with grazing reserves set aside for stress periods.
• Access to water was improved by helping communities protect shallow wells and desilt pans, which extended use of wet-season grazing areas.
• Opening up new water sources or rehabilitating old ones reduced pressure and negative environmental impact around boreholes.
• Environmental degradation from tree cutting and soil erosion was lessened by establishing regulatory committees.
• Livestock productivity improved, as reflected by more milk and meat being produced.
• Conflict over resource use was minimized with the improved availability of water.
• Household and community cohesion was improved by getting families and communities to share costs and pool labour resources.

Involving the community in setting up community institutions ensures the safe exit of a project and improves the likelihood of long-term sustainability of established community-based institutions.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASAL</td>
<td>arid and semi-arid land</td>
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<tr>
<td>GTZ</td>
<td>German Technical Assistance</td>
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<tr>
<td>NGO</td>
<td>non-governmental organization</td>
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<td>PDP</td>
<td>Pastoralist Development Project</td>
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Notes
2 The word ‘community’ in this booklet is used in a generic sense to mean people living together and sharing the same resources, experiencing similar problems and with a common goal. In northern Kenya this amounts to a mixture of families, clans and tribes that would generally occupy about a sub-locational unit of a province.
3 Aba herega (‘father of a well’) — a community-chosen elder responsible for overseeing the management, allocation and use of a well or group of wells; an aba dheda is responsible for forages.
4 The 30% representation of women on the committees was a district forum initiative to increase women’s involvement in natural resource management and control.