



Reviving the use of fire in the Borana rangelands of Ethiopia

Controlled burning of bush vegetation was a long-standing practice in the Borana pastoral system before it was banned in the late 1970s under the national forest and wildlife conservation strategy of Ethiopia. According to Borana elders, the impacts of the fire ban have been disastrous: the subsequent bush invasion has killed grass and substantially increased livestock loss to predators. Getachew Gebru, a livestock expert in PARIMA, outlines the steps taken to revitalise the use of fire as a range management practice in the Borana rangelands in southern Ethiopia.

The Ethiopian government's conservation strategy was implemented in pastoral areas without properly considering its suitability for the conditions of rangeland ecosystems. However in 2000, an outreach and action research unit was established in southern Ethiopia under the Improving Pastoral Risk Management on East African Rangelands (PARIMA) project. In 2004, we began work on participatory rangeland management. One goal was to revitalise the Borana system of range management, including the use of fire. In this process, PARIMA established long-term partnerships that included local communities, pastoralist organisations, NGOs and government agencies.

Three major principles

The main thrust of PARIMA's work is to support the Borana traditional institutions, and is guided by three major principles. First, that livestock keeping takes place within the cultural and agro-ecological complex of the pastoralist society. The second is that actions to support these livestock keepers are most effective when based on their own innovative strategies, resources, and perception of wellbeing. The third principle is that pastoralist knowledge and other local resources need to be combined with appropriate outside inputs, based on the pastoralists' own culture and worldview.

Getting started

We started by consulting pastoral specialists about the Borana worldview and ways of managing natural resources. During an intense exchange meeting in 2004, three issues became clear. Borana range management practices

include natural, social and spiritual elements; the traditional system had been weakened, but opportunities existed to strengthen it; there had been considerable loss of grazing land due to bush encroachment, and the fire ban was given as the main reason.

The key lesson learned at this meeting was that the pastoralists had already started to take initiatives themselves that development agents could build on.

Conflict avoided

Five months later, PARIMA organised a follow-up meeting with pastoral traditional leaders, community members, district and zone administrators, and regional government office representatives. A potential conflict of interest was avoided by bringing all stakeholders together; the community's stand was adopted by the district office, which in turn took the case up to the regional level. At the meeting, presentations were made by pastoralist elders from the community, a researcher who had studied the extent and severity of bush encroachment and a regional government expert on the fire ban. From the discussion that ensued, it became clear that there had been a misinterpretation of the decree banning fire, and that clarity was needed so that an action plan could be drawn up.

Development activities were prioritised and the loss of forage emerged as the most urgent problem. The participants also underlined that lack of fire had been a major factor in the transformation of large areas of the Borana Plateau from mixed, grass-dominated savannah to situations

dominated by woody bush vegetation. Then a follow-up field review and documentation study was performed. This revealed the advantages of the use of fire: control of bush, ticks and predators as well as rangeland renewal. Moreover, it became clear that the successful resumption of range fire in the region would not be easy, as the practice had been abandoned more than a generation before.

Including the decision makers

To bring the plight of the pastoralists to the attention of the government decision-makers and to actively include them in the search for solutions, PARIMA facilitated the formation of discussion platforms at district, zone, and regional levels. Besides pastoralists, these platforms included participants from the government, research institutes and NGOs. They enabled pastoral communities to express their concerns and propose solutions, as well as making them part of the development process right from the start.

First the revival of the local range-fire practices was discussed during two district level meetings. The Borana traditional leaders made first-hand presentations, which made the researchers and policy makers aware of the gaps in the law, and the damage this had caused. In the following months similar meetings were held at zone and regional level.

Meanwhile PARIMA and the Regional Agricultural Research Institute coordinated training of selected pastoralists, NGO representatives, researchers and government natural resources experts. Experienced pastoralists and an outside

expert trained them on application and control of fire. Thus the local range management practices were effectively integrated with modern knowledge on the controlled application of fire.

Once the capacity building work had been successfully completed, the next move was to develop a multi-stakeholder approach to the wider application of fire in the Borana rangelands. This resulted in various institutional arrangements,

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including an alliance of pastoral communities, researchers, policy makers and other development actors. Steering committees on fire were formed at district, zone and regional levels. The fire task force under the district-level steering committee is of special relevance, as it decides on the appropriateness of a proposed burn. This task force includes pastoral leaders and members of the grazing council, research organisations, local government technical offices and NGOs.

Controlled fires work

After the big rainy season in the area, PARIMA and the pastoral leaders did a post-burning assessment. The results showed that the condition of the herbaceous layer had improved, many noxious bush species had been killed, grasses used for housing thatch had increased, livestock suffered less from ticks, there were fewer attacks from predators, and cows' udders were less

damaged by thorns. All these helped improve the pastoralists' livelihood.

A quantitative assessment showed that, as a result of fire, the overall forage species composition had improved (highly valued forage grass had doubled in cover) and the amount of bare ground had decreased. Based on these positive outcomes, PARIMA produced two guides: one on simple procedures for the application of fire in the context of the Borana plateau, and

one on participatory monitoring techniques.

Conclusions

The use of fire is an example of how a pastoral practice has been documented and strengthened through a process that combined awareness raising, policy change and empowerment. In combination with other range management principles, this will help to restore the pastoralists' ability to withstand drought and improve the condition of valuable natural resources. Nevertheless, more permanent re-establishment of the Borana's fire institutions will still require years of prescribed burning, until enough experience and knowledge have been regained.

The active participation of Borana elders and other pastoral community leaders was crucial in the re-introduction of fire, because they understand best the

Interacting worldviews guiding PARIMA's project implementation

Spiritual

Pastoralist knowledge and other local resources need to be combined with appropriate outside inputs, based on the pastoralists' own culture and worldview.

Social

Actions to support livestock keepers are most effective when based on the pastoralists' own innovative strategies and resources, and on their own perception of well-being.

Material

Livestock keeping takes place within the cultural and agro-ecological complex of the pastoralist society.

importance of using fire to manage rangelands. The Borana leaders once again were able to decide where fire is most acceptable within the context of their traditional institution. The role of outside institutions was that of facilitators, and providing back-up in the form of monitoring, technical support and logistics, to inform community decisions. PARIMA's experiences illustrate that pastoral communities are able to take the best of both local and outside knowledge to achieve aims they have defined themselves.



Getachew Gebru,
Pastoral Risk Management (PARIMA),
Ethiopia
g.gebru@cgiar.org