

Systems Analysis for Rangeland Management

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Workshop Report

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RESEARCH
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ILRI Workshop Report

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We wish to express our appreciation also to the community members and all others who participated in the workshop.

Background

CARE and SOS Sahel, through the Pastoralist Areas Resilience Improvement through Market Expansion (PRIME) project, works with community institutions and government to strengthen a natural resource management and thereby improve pastoralist livelihoods. The International Livestock Research Institute (ILRI) has been investigating the complex linkages amongst institutions and governance, natural resources management, rangeland ecology, herd mobility, livestock marketing, and other areas. ILRI, as a part of the CGIAR Research Program on Dryland Systems intends to apply approaches and techniques for systems research to the provision of decision support for stakeholders in Borena Zone involved rangeland management and livestock marketing. Drawing on local knowledge and on past and current scientific research, the activities envisioned will aim at synthesizing this diverse knowledge across sectors in a way that helps local decision-makers to consider interconnections among livestock marketing, rangeland management and livelihoods.

The workshop, “System Analysis for Rangeland Management in Yabello”, was one part of this effort. It involved multiple stakeholders analyzing the complex factors that affect rangeland condition and management, and considering implications for planning and decision-making around key issues. The workshop aimed to complement activities which are already ongoing including the planning being done by community Rangeland Councils in Yabello Woreda and elsewhere in Borena Zone.

The thirty-nine participants included community representatives from the Gomole and Malbe rangeland councils; elders from Gabra, Guji and Borana ethnic groups, including Gada leaders and *Hayuu*; government officials from Yabello Woreda; researchers from ILRI, Hawassa University, Yabello Pastoral and Dryland Agriculture Research Center, and Helmholtz Centre for Environmental Research; and personnel from the PRIME project. The workshop facilitators were staff from ILRI, CARE and SOS Sahel.

Workshop Objectives

- ❖ To assist members of Rangeland Council and other community and government stakeholders involved in rangeland management in Yabello to analyze the range of social, economic, technical and environmental factors that affect rangelands, and the implications these have for decisions related to rangeland management
- ❖ To use this analysis in the development of scenario planning approaches for same stakeholders

Report

Workshop Introduction

The workshop was opened by an elder’s blessing according to Oromo culture in general and Borana in particular, and then participants did self-introductions. The workshop continued by brief or update on what ILRI has been doing in the recent past time.

After brief introduction from ILRI on the general outputs of the workshop and its process, community members gave the stage for government representatives to highlight on what the government has been doing as well as sectoral responsibility. The stage was quite democratic in inviting who should first make an update: government, community, or PRIME? Elders invited

government representatives to make an update first as they are the one who are actually administering.

Accordingly, a representative of the Pastoralist Development Office (PDO) started narrating what his office has been doing. As per his discussion, his office has been doing awareness creation in order for people to sell more of their livestock to minimize risks related to prolonged drought season. In order to improve rangeland productivity, it is recommended for us first to identify grazing areas from agricultural land. He also mentioned that there is a guideline and proclamation that addresses some issues related to pastoral area; particularly it argued for demarcating grazing land from cultivation. But this particular law has not been come into effect as of today. According to his argument, this is the critical gap that has brought expansion of agriculture to potential grazing areas.

He mentioned the following problems so far they observed that have been affecting pastoral livelihoods:

- Expansion of agriculture
- Poor market integration
- Lack of awareness from the community to decrease their livestock
- Bush encroachment
- Recurrent drought
- Erratic rainfall pattern

After he gave the above explanation to workshop participants, an officer from the Yabello Woreda Land Use office followed and described the mandate vested to his office. As per the government proclamation, the woreda Land Use office has three key roles:

- Land use planning
- Land Management
- Environmental protection.

The Land Use office has the above key roles to play. In its first role, the office has the mandate to undertake natural resource inventory studies; the office will manage according to the study output. Moreover, the office has also responsibility to protect the environment. In mentioning the above key responsibilities given to his office, he also explained what his office has done in the past few years. Yabello Woreda land office has prepared a land use plan by identifying agricultural area, grazing area, forest and settlement before four years back to improve rangeland condition. According to the plan, the majority of kebeles in Yabello Woreda are more suitable for grazing than agriculture. Only few kebeles—Dedertu, Gelchet and Hidiale—have very few areas suitable for agriculture. But in this area, there is to be no expansion of cultivation regardless of its potential.

As he said, the plan is still on the shelf due to capacity for its implementation. So far they have been embarked on capacity building and assisting issues related to settlement. In the past time there were conflicts among the Borana themselves on settlement, but now this is not an issue in Yabello Woreda except in some areas where different clans live together like: Bildim Raso, Tula Wayu and Surupha kebeles.

The following few questions from participants were raised to the above two government representatives.

- Is the land use plan is still awaiting or what is the government doing on that issue?
- The officer from the PDO was also asked to list his key roles
- The land use plan was done for those woredas within the planned water network. So what about the other woredas and what do the government doing on that aspect?

After some debates, Ato Doyo Dullacha, leader of the Gomole *Dheeda* started making an update on Gomole in particular and pastoralism in general. He echoed problems observed by the PDO officer. For those problems there are limited things that can be done on the problems came from nature:

climate change and scarcity of rainfall. Most importantly, he emphasized on two issues that are quite a concern for elders:

- Our children do not like our pastoralist livelihood
- Government does not support pastoralism.

In explaining the above concerns of pastoralists, he used an expression which came from during the reign of Haile Selassie. The king's workers came and asked a question of two individuals who were the same from Borana clan: "Who is the right son: the son who seems his father or the son who seems of his time?" Based on their response, they provided different title and for the one who said the son who seems his father has got "Fitawurari" and for the other who said the son seems of his time was given the title "Dejasmach". Dejasmach title was one of the most locally preferable titles of someone having power over the all others.

Ato Doyo Dullacha made two points with the above saying. On one hand, until the coming of Haile Selassie government, the Borana were using their customary institutions in dealing whatever the issue was at hand. With the coming of Haile Selassie, government interference started in weakening of their tradition. In reality, the son should seem his father even biologically. The person who has answered the truth was given the lesser title. Historically, truth started give way to falsehood. Today, he argued, truth has no place.

He also explained the above fears. Borana always see agricultural production from different dimensions. On government media, the coverage is more given for agriculture than pastoralism. Different crops on the farm are addressed in programs as well as interviews being made with farmers whose livelihoods are improved, and we are told his success story has great role for agricultural expansion. But when it comes to pastoral production, it is done in a way that it is given less time and is even hard to observe on television programs. They never show when livestock are grazing, when people milk, when they drink and when people eat meat. There are also pastoral products like beautiful cattle, bulls, and so on that could attract people to see. On the other hand our children do not like pastoralism too. We arrived at the conclusion which is as the impact of the above problem, agriculture will grow and all current living things in pastoralist systems will only live until the elders die as no one is supporting us.

Then Ato Dima Doyo who is the Malbe Dheeda leader started describing what has been happening in Malbe rangeland. Malbe has multidimensional problems which are independently as well as cumulatively affecting pastoralism in Malbe. The Malbe rangeland unit constitutes 33 kebeles and the kebeles are partly in Teltelle, Yabello and Dillo woredas. The following problems are the most critical in the Malbe rangeland.

- No settlement arrangement
- High agricultural expansion
- More widely observed bush encroachment than any other rangeland
- Very wide and long gully erosion
- Too erratic and minimal rainfall
- Presence of Sarite ranch.

All of the above problems are affecting the livelihood of pastoralists by decreasing rangeland productivity.

Influence Diagrams

After the above discussion, workshop participants were divided in to three groups: a group each for the Malbe and Gomole rangeland units, and a group of researchers and government officers. The objective of group work was to identify and analyze factors that affect rangeland condition which have a positive influence on rangeland condition and factors that negatively affect rangeland

condition, in the form of an influence diagram. The influence diagrams were then presented back to the plenary.

Among the questions asked of participants as they developed the influence diagrams was whether there are particular issues that differ in importance between men and women. All three of the groups mentioned communal enclosures in this connection, since the communal enclosures are used for calves and lactating animals, which are the responsibility of women, and included the connections between enclosures and the other issues in their diagrams. Although the influence diagrams did not explicitly differentiate between women's and men's issues, the Gomole group's analysis in particular addressed several issues of importance to women.

As participatory influence diagrams tend to be very chaotic and “messy”, below are presented “cleaned up”

versions of the diagrams. The interconnections among elements are maintained, but with the diagram cosmetically rearranged to avoid unnecessary clutter.¹

Each group was also asked to identify the three most pressing challenges.

Government Officer/Researcher Group

One of the presenters from this group pointed to the necessity of thinking from different direction as everything is dynamic. Among factors identified as positively influencing rangeland condition were wildlife, community enclosures, controlled use fire, and community awareness. On the other hand, poorly arranged settlements, conflict, bush encroachment, and overgrazing were some of those factors perceived by the group as negatively affecting pasture condition.

One important issue that affects pasture condition as shown in their diagram was water point development, a factor which was not mentioned by the other groups. One factor they did not mention, which the others did was lack of market integration. The ranch was seen as a negative factor by some but positive by others. In their diagram, the group puts question marks beside the influences of the ranch, indicating that this was a point of debate in their group. Community members reacting to this indicated that they are opposed to the idea that the ranch is improving livestock productivity, and commonly agreed on its negative impact on pasture condition. Some of the government representatives tried to resist the view by providing ranch importance and said even



Developing the influence diagram

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¹ At the center of each group's influence diagram was “Margafi, Bishaan” (pasture and water), or in one case “Finna Margafi, Bishaan” (Healthy pastures and water). Green arrows indicate contributory relationships. Red arrows indicate inhibitory relationships.

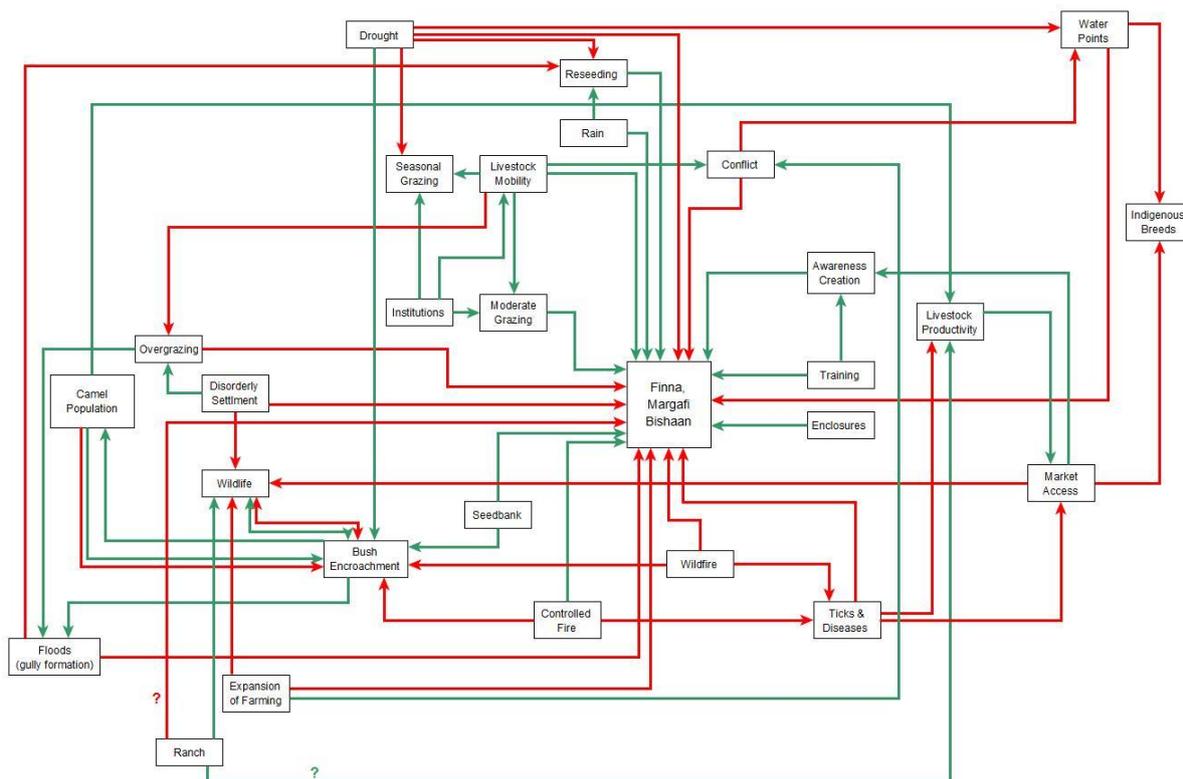


Fig. 1: Influence diagram created by the government officers and researcher group

as if the existing ranch belongs to the community. Community members disagreed, saying it is rather one of the key problems in that it makes key natural resources inaccessible.

Government officer and researcher group—three main challenges:

- Drought
- Bush encroachment
- Expansion of farmland

Malbe Group

The Malbe group also shared and reinforced some of what has been said by the government group. They argued that agriculture is a source of livelihood for the poor, but it makes the rangeland shrink. They have also pointed to the negative impact of the ranch on pasture condition. It violates people’s right to access to key natural resources and also brings overgrazing to other rangeland areas. The other important factor that affects rangeland is lack of market integration. Particularly, Malbe rangeland is one of the most affected rangeland units than all other *dheedas* due to those factors presented above during update session.

Malbe Dheeda group—three main challenges:

- Drought
- Livestock markets
- Bush encroachment

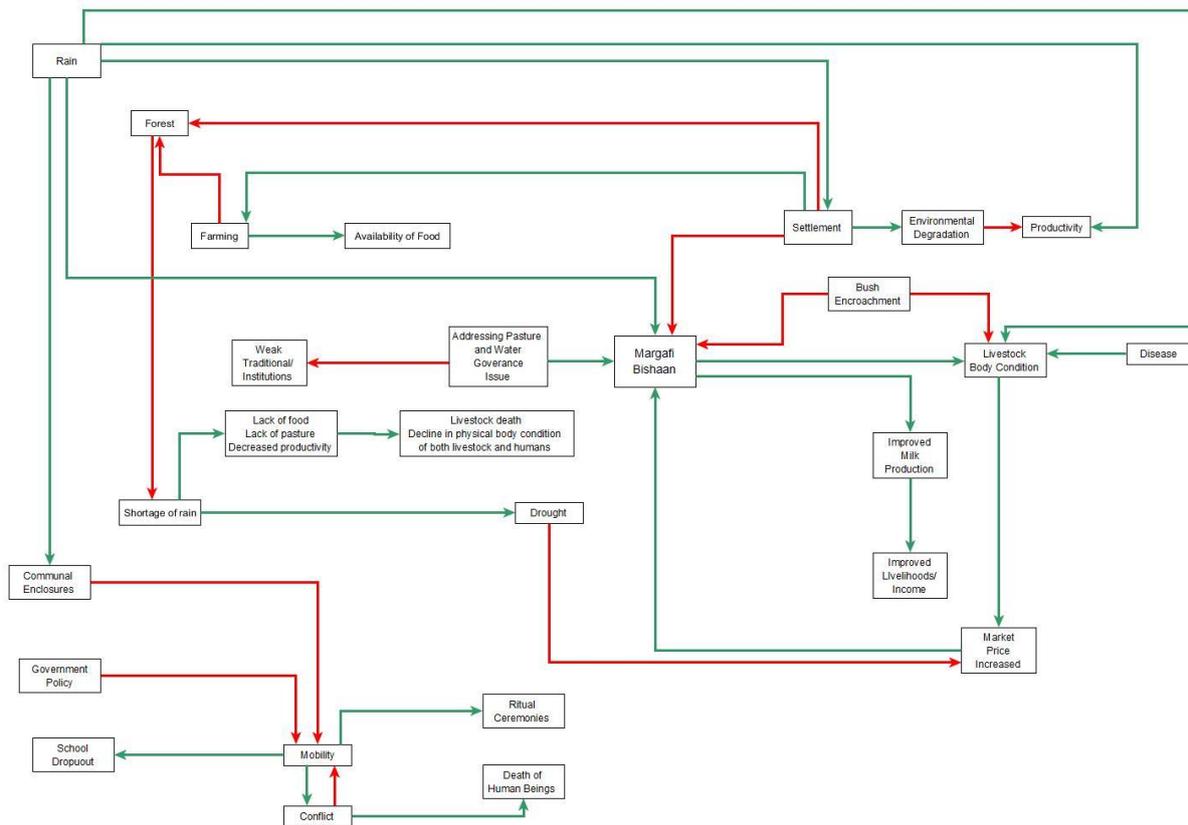


Fig. 2: Influence diagram created by the Malbe Dheeda group

Gomole Group

According to the presentation from the Gomole Dheeda group, rangeland condition is directly improved by three key factors: peace among resource users, working customary institutions and presence of good rainfall. On the other hand, bush encroachment was one of the most important factors that negatively affects pasture as perceived by the group members. Drought and lack of market integration were also understood as factors affecting pasture condition.

In their analysis drought was understood as a natural phenomenon that affects pasture availability, but as it is a natural factor nothing can be done to reverse the condition. The presenter also elaborated his group's view in detail regarding what factors have contributed to the underlying bush encroachment. Lack of prescribed fire, population growth, lack of herbaceous layer (grass), lack of decision making power for elders and incompatible government policy were among factors contributed to bush encroachment that affected pasture condition having an impact on pastoral livelihood. The fragmented kebele structure was said to undermine local customs and tradition of the local people's way of life.

Gomole Dheeda group—three main challenges:

- Drought
- Inappropriate settlement
- Lack of markets

a big sacrifice of usable pasture at a time when the pasture is insufficient. It was pointed out that bush encroachment can be managed in three ways: preventing, controlling, and eradicating. Key issues for doing these, especially by means of burning are policy, enforcement, and agreement by the community. Participants noted that the feasibility of burning and of bush control generally is very much connected to the issue of settlement patterns. It was suggested that using burning for bush encroachment may be more feasible Malbe Dheeda than in Gomole.

Action Planning

Participants were divided in to three groups for action planning on selected key challenges: bush encroachment, settlement and market integration. Each action plan was presented for the workshop participants by a group member.

Group one

Action Plan for Arranging Settlement

| I/N | Action | Activities | Who | When |
|-----|--|--|--------------------------------------|--|
| 1 | Undertaking meeting at multiple level | Setting settlement rule | Government, Raba Gada, and community | From short rainy season till long dry season |
| | | Identifying people who are on the right settlement | “ | “ |
| | | Forming committee | “ | ” |
| 2 | Starting preliminary work for mobility | | Community and committee | Long dry season |
| 3 | Mobility | | Community | Long rainy season |
| 4 | Monitoring | | Government, Raba Gada, and community | Rainy season |

Group two

Action Plan for Market Integration

| I/N | Action | Who |
|-----|--|---------------------|
| 1 | Create direct livestock market linkage with the owners and the traders | Government and NGOs |
| 2 | Create access to livestock feeds | Cooperatives |
| 3 | Access to market information | Government, NGOs |
| 4 | Establish stable market system | Government |
| 5 | Sales livestock by using weight scale machine | Government, NGOs |

Group three
Action Plan for Bush Management

| I/N | Action | Who | When |
|------------|---|--------------------------------|---------------------------|
| 1 | Determination of bush encroached areas | Dheeda council and Expert | January 2016 |
| 2 | Identification of the target bush species | Dheeda council and Expert | December and January 2016 |
| 3 | Taking controlling measures | | |
| | - Clearing | Government, NGOs and community | January-February 2016 |
| | - Burning | “ | Late February-Early March |
| | - Debarking | “ | Throughout the year |
| | - Eradicating via uprooting by using heavy machines | “ | Sep-Nov, 2016 |
| | - Chemical (2-4-D) | “ | Early March, 2016 |
| | - Using browser animals (camel and goat) | Dheeda council and experts | Sep-Nov, 2016 |