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# Protocol for characterizing community-based rangeland management cases



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## Restoration of degraded land for food security and poverty reduction in East Africa and the Sahel: Taking successes in Land Restoration to Scale project

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## Executive summary

Community-based rangeland management, essentially a subset of community-based natural resource management approaches, is undertaken in varying ways with various labels. Despite differences in labels, however, there is a core set of characteristics that are common including participatory approaches, the creation of a new, or strengthening of an already existing, community organization at a medium to large rangeland scale (i.e. larger than 'village level'), and a fairly common suite of technical practices that a community committee implements and enforces. On the other hand, there can be important differences in some of the details of how community rangeland management is implemented by different organizations, relating to how communities are organized, how groups within communities are represented, and the scale at which rangeland planning and management activities are undertaken. This document summarizes a research protocol that includes key variables, criteria and descriptors for characterizing community-based rangeland management. The result will be a structured description based primarily on categorical variables. This may eventually allow the creation of a typology of different models of community-based rangeland management. The protocol also provides guidance for gathering information on important contextual factors that may vary from place to place and affect the implementation and success of this approach. These contextual factors include things such as land tenure, degree of competition over land, embeddedness within a decentralization policy and information on the rainfall regime.

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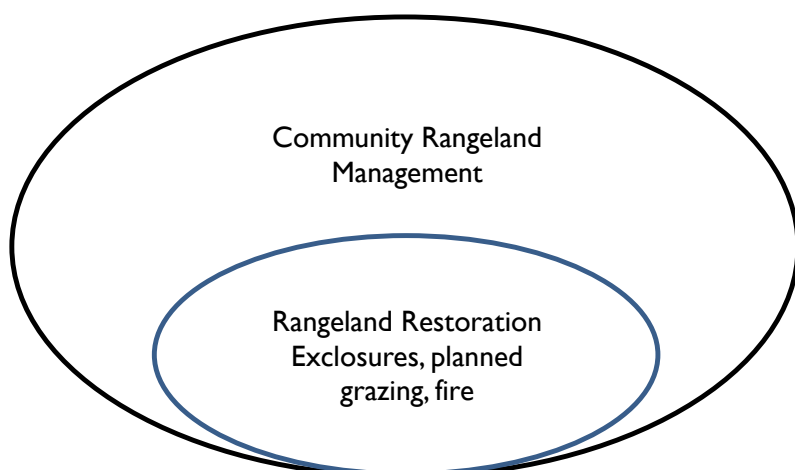


# Introduction and background

## Community rangeland management in the Land Restoration to Scale project

Within the ‘Land Restoration to Scale’ project, ILRI’s work focuses on the management and restoration of rangelands. Rangeland management refers to practices, technologies and strategies aimed at the conservation and sustainable management of rangelands. It includes a gamut of practices from the technically simple, such as managing the timing of livestock grazing, to the very complex, such as methods of physically altering terrain and removing undesirable flora species in combination with reseedling with desirable species.<sup>1</sup> The Land Restoration to Scale project intends to carry out a set of activities on two interrelated categories of interventions or ‘options’ in varying contexts in Ethiopia and Kenya. One of these categories is a set of technical rangeland management and restoration practices such as the use of exclosures, planned grazing, and the use of fire as a management tool. The other category relates to interventions aimed at the social, organizational and institutional structures within which rangeland management takes place. The technical suite of options can be understood as being nested within the broader institutional option, and thus ILRI’s strategy in this project is one of studying a set of options that function together at two levels (see Figure 1).

Figure 1



Specifically, the institutional option is community-based rangeland management, essentially, a subset of a community-based natural resource management (CBNRM) approach adapted and applied to rangeland settings. Community-based rangeland management is undertaken in varying ways and with various labels. Despite differences in labels, however, there is a core set of characteristics that are common including participatory approaches, the creation of a new, or strengthening of an already existing, community organization at a medium to large rangeland scale (i.e. larger

<sup>1</sup> Land restoration involves restoring production from land in profitable ways for farmers and pastoralists so that their livelihoods are sustainably improved and the capacity of land to produce in the future is enhanced. Equally important are interventions to avoid further degradation, because they are generally less costly than restoration once land has been degraded — and the more degraded, the higher the cost of restoration. Core components of land restoration are recovery of vegetation and the improvement and maintenance of soil health.

than 'village level'), and a fairly common suite of technical practices that a community committee implements and enforces. On the other hand, there can be important differences in some of the details of how community rangeland management is implemented by different organizations, relating to how communities are organized, how groups within communities are represented, and the scale at which rangeland planning and management activities are undertaken. Key contextual factors for this option include the nature of land tenure systems, the relative balance between livestock keeping and cultivation agriculture in an area, and the strength of customary institutions. Analysis of variation in community rangeland management options will necessarily be undertaken at the scale of implementation, that is, medium to large areas where community institutions have responsibility for management.

This document summarizes a research protocol that includes key variables, criteria and descriptors for characterizing community-based rangeland management. The result will be a structured description based primarily on categorical variables. This may eventually allow the creation of a typology of different models of community-based rangeland management. The protocol also provides guidance for gathering information on important contextual factors that may vary from place to place and affect the implementation and success of this approach. These contextual factors include things such as land tenure, degree of competition over land, embeddedness within a decentralization policy and information on the rainfall regime. The protocol also touches on assessment of the social, economic and environmental *impact* of alternative community-based rangeland management approaches but does not address outcomes and impact in any great depth; however, it is expected that another component of the project will provide methods for doing so in order to test which particular options work best in which contexts.

## Natural resource management in dryland rangeland settings

Natural resource management (NRM) is a critical element in promoting the resilience and sustainable intensification of dryland livelihoods. To understand what works best for NRM generally and for land restoration specifically in rangelands, there is a need to go beyond buzzwords and general characteristics of 'good NRM'. Research results are not likely to be useful to policymakers if the main elements of an NRM model are based on simplified characteristics such as 'participatory' and 'having adaptive governance'—more detail and clearer guidance is needed. As Shackleton et al. (2010) note, the label 'community-based natural resource management' is applied widely to an array of circumstances and models, such that knowing that a particular NRM arrangement is said to be 'CBNRM' tells us little about it. They argue that a typology of different sorts of community-based interventions would lend clarity to the debates regarding criteria for success or failure. Research on participatory and community-based approaches to NRM, on adaptive co-management, on environmental governance, and in other subfields has made important contributions to theory on NRM and environmental governance. But for greater policy relevance, there is need to move beyond generalities and to clearly highlight policy choices.

Take the example of one very generic positive characteristic for 'good NRM'—that it should be participatory. Even in cases where policymakers have a genuine interest in promoting genuine participation in NRM, there are still choices to be made. For instance, how is participation in NRM to be carried out? And, are there some strategies for participatory approaches that are better in some circumstances, and other strategies that are better in others? How can the participatory approaches be institutionally embedded in policies?

## A landscape-level focus

Another factor to consider is whether drylands in developing countries represent a context that is unique, and present different requirements for optimal strategies for promotion of effective NRM than do other kinds of environments. One such difference that comes to mind relates to scale. Dryland farming and livelihood systems tend to be more extensive than farming systems in more humid climates. This is particularly true for pastoralist rangelands. It may be, therefore, that some models of 'community-based' approaches, which often operate at village level, such as when a village is managing its own forest, are inappropriate in dryland contexts where the relevant extent may be more at a landscape level that encompasses several villages. It may also be that cross-scale dimensions of management require more attention

in dryland settings. We believe that questions of *scale* will feature prominently in NRM models that are optimized for dryland rangelands. *How should an approach to promoting community-based rangeland management engage with communities and commonality among pastoralist populations? How should diverse mobility patterns among different pastoralist groups influence the design of optimal governance mechanisms? And simply, how big should the rangeland unit of the ‘community’ be?* These are some of the questions that must be at the heart of governance design in pastoralist rangelands.

It is important to note that natural resource and environmental management is, by nature, a process that occurs at multiple levels. The multi-level nature of NRM is also particularly important for extensive dryland systems where, for instance, when government-defined jurisdictions are usually based on permanent settlements rather than on pastoral ranges, management of those rangelands at different levels by pastoralist communities can intersect, overlap, and sometimes conflict with administrative boundaries in complex ways.

## The ‘options by context’ approach

One fundamental implication of the range of interconnections among the innumerable social, economic and biophysical components of livelihood systems, and the complexity that arises from these interconnections, is that these systems are characterized by a high degree of fine-scale variation and context specificity. Some of the failures of past development and agricultural research efforts can be traced to a lack of appreciation for this kind of context specificity. A systems approach to agricultural research, therefore, is a place-based, embedded-in-local-realities approach. For each location where it is applied, it involves understanding the livelihood system at that location, in all of its unique complexity.

The challenge which then arises is how to operate in a way that achieves widespread impact. Applying research and scientific knowledge to improve livelihoods within a particular livelihood system should be one aim, but there is a need also to have much broader impacts. This has implications for how innovations are developed, tested, and scaled out. A linear approach that develops an innovation in the lab, tests it on site, and then disseminates it widely does not take this fine scale variation and context specificity into account. This can be understood as the difference between searching for a silver bullet and developing locally adapted options (Coe, Sinclair & Barrios 2014). The scaling out process for innovations must account for fine-scale variation and heterogeneity of response.

In this project, interventions aimed at assisting communities through the establishment of governance structures and planning systems to engage in rangeland management are being treated as an option. That option can be implemented in various ways. The research, therefore, aims to establish for each case (1) what adaptations and particular features the option has in that case, and (2) the relevant features of the context within which the option was implemented.

## What constitutes a ‘case’

The object of study in this research is cases of community-based rangeland management. A ‘community’ as understood here, is not necessarily a single settlement or village—in fact, in most cases it will not be single village. Community-based rangeland management is usually established over larger scales than this, based on rangeland units that often contain several settlements. This research protocol assumes a case which is made up of a particular instance of community-based rangeland management—a particular rangeland area that is being managed by the local communities as a unit.

This means that we are treating community-based rangeland management as an approach or option that is being implemented by particular agents—for example, a non-governmental organization (NGO) assisting communities to establish their own governance and management structure for rangelands that they control or assisting them to strengthen those governance and management structures if they already exist.

#### Common approaches for development agent support to rangeland management

- Development of grazing plans and other kinds of land use planning.
- Supporting the negotiated grazing agreements
- Community-based rangeland management
- Provision of technical support in rangeland management practices to communities

This implies that we are not focusing in this research on community-owned processes for managing rangelands that are completely community-driven without any outside support. Such a situation may be laudable, even ideal, but the focus here is on community-based rangeland management as an option being promoted by a development agent such as an NGO or a government agency. Communities who have made some progress on their own, but are assisted by outsiders, also fall under the purview of this protocol.

It should also be noted that community-based rangeland management does not constitute all possible approaches to supporting rangeland management with meaningful participation and ownership on the part of community members. For instance, supporting the development of inter-community and inter-tribal grazing agreements is an alternative approach that does not necessarily put the community governance and management structures front and centre. Another approach is to support land use planning—this, too, is a strategy that does not necessarily require the creation and/or strengthening of governance structures at the level of rangeland units.

Therefore, any particular case of community-based rangeland management will be made up of three key components: a set of community governance and management structures, the geographic rangeland unit which those structures are managing, and the development agent that is supporting that community. In cases where a development agent has a program supporting more than one community, community-based rangeland management is the approach (the option), and each rangeland unit they support is a potential case study.

#### Example of a community-based rangeland management case: Dirre Rangeland Unit, Ethiopia

The Dirre case is comprised of:

- Geographic rangeland unit: this corresponds to the traditional Borana rangeland territory of Dirre Dheeda
- Community governance and management structure: A rangeland council for the dheeda and committees organized at lower levels within the dheeda
- Development agent: The Pastoralist Areas Resilience Improvement through Market Expansion (PRIME) and Resilience Building and Creation of Economic Opportunities in Ethiopia (RESET) projects.

# The protocol

## Summary of key components of the protocol

- A. Basic information on the case
  - 1. General information
  - 2. Specification of the approach
- B. Characterization of the context
- C. Characterization of the option
  - 1. Methods used by the development agent
  - 2. Governance design for the rangeland unit
  - 3. Basis of the governance structures and processes in customary institutions
  - 4. Legal mandate
  - 5. Authority and governance powers of the rangeland unit's governance structures and processes
  - 6. Staffing
  - 7. Definition of the rangeland unit
  - 8. Nesting and multi-level planning approach
- D. Description of changes over time, outcomes and impacts

As will be seen below, many of the variables or characteristics required are specified in a particular format. In some cases, a particular numerical value is needed such as for rainfall, for which the mean annual rainfall in mm per year is needed. In other cases, the variable is a categorical variable and the options of possible responses are specified. The characteristic '4b) What form does community representation take?' is an example of this type, with the three options being 'participation/representation... (a) based on stakeholder groups; (b) by citizens as citizens; or (c) based on communities and/or jurisdictions.' It is important that the study be written up such that the appropriate form of each variable is maintained. That is to say, where categorical variables are requested the response should be drawn from one of the category options, and where a specific numerical value is needed the results should be presented in this way with the appropriate units. Conformity to the indicated format for each variable will facilitate comparison across cases. Where a researcher wishes to add detail or expound on nuances, additional explanatory text can be added.

## Basic information on the case

### I. General information

- Ia. Identify the development agent(s)  
Name of NGO(s), government agency(ies), research centres, etc. promoting community-based rangeland management.
- Ib. Name of program(s)/project(s)  
If the community-based rangeland management initiative is being pursued under a particular program or project, please provide the name of that program/project.
- Ic. Terminology used by the development agent to describe their community-based rangeland management approach  
They may call their approach something other than 'community-based rangeland management'.
- Id. Specify the geographical extent of the particular case (the rangeland unit)  
Provide a short description of the nature and extent of the rangeland unit (the geographic scope of the particular case), including the area in hectares or square kilometres. Ideally, a GIS shape file for the rangeland unit can be acquired, or if not a shape file, at least scannable maps.
- Ie. Briefly identify and describe the key community governance structures and/or processes for the case  
These are the main community decision-making bodies or formal decision-making procedures (e.g. an annual general meeting) that make management decisions for the rangeland. This may be a committee of local (village, commune or municipality) government, a rangeland council, or a group ranch committee and executive, etc. In some cases, it may be a single entity—e.g. a single committee for the rangeland unit; in other cases, the governance structure for the rangeland may be more complex with more than one community organization, institution or process. However, note that this item is not asking for an elaboration of all the institutions and stakeholders that have some role to play in rangeland management; rather it is asking for the key decision-making body or bodies or, in some cases, decision-making procedures that make decisions for management of the rangeland unit.

### 2. Specification of the approach

- 2a. Short description of the approach  
In 1–2 sentences, summarize the particular approach to community-based rangeland management applied by the development agent. Ensure that this short description is precise and contains relevant keywords. What is the development agent's approach to promoting community-based rangeland management in this case?
- 2b. Detailed description of the approach  
The detailed description should provide a concise but comprehensive picture of the approach to outsiders. It should therefore address key questions such as: (1) What are the main characteristics/distinct features of the approach? (2) What are the aims/objectives of the approach? (3) Which methods were used? In describing methods, be sure to specify any rangeland assessment tools that were used, the approach to land use/grazing planning (if applicable), and any conflict resolution activities. (4) What were the different stages of implementation? (5) Which stakeholders were involved, and what were their roles? (6) How are women involved in the approach?
- 2c. Photos of the approach  
Provide photos showing stakeholders interacting with each other/implementing measures/undergoing training etc. An explanation (description) is required for each photo submitted! Photos should match the description given. Provide a table with details such as shown here (See Table 1).

Table 1: Information on photos

Filename of photo	Caption, explanation of photo	Date and location	Name of photographer
-------------------	-------------------------------	-------------------	----------------------

Provide general remarks regarding the photos.

2d. Country/region/locations of the specific case  
 Country: ..... Region/State/Province: .....

Provide any further specification of location (e.g. municipality, town, etc.) if relevant:

2e. Key dates

Date intervention/project started: .....

Date community governance structures formed: .....

Date(s) governance training/capacity building (if applicable) carried out/completed: .....  
 .....

Date community governance structures started actively managing rangelands:  
 .....

Date community governance structures started actively implementing more elaborate rangeland management or restoration technologies or practices (also specify what technologies and practices):  
 .....

## Characterizing the context

The context within which community-based rangeland management is being implemented needs to be characterized for each case. Table 2 summarizes four dimensions of contextual factors, questions and variables for each dimension, and suggested measures and values for each question or variable. In many cases, categorical variables are used, and for these variables, suggested values are listed. A few questions, however, are qualitative rather than categorical. For all of the questions and variables a short narrative should be provided.

Table 2: Variables for characterizing the context

Dimension	Variable/characteristic	Suggested measures or values
Biophysical	Mean annual precipitation	mm./year
	Rainfall variability	Coefficient of variation in annual rainfall
	State of rangeland condition at initiation of the intervention	Qualitative/narrative
Demography, livelihoods and social structure	Population density	Pop. /km <sup>2</sup>
	Degree of competition for/pressure on land	Qualitative/narrative
	Ethnic heterogeneity/homogeneity of the rangeland unit	Ethnically homogenous (=> 85% of the population is from the same ethnic group)  Significant ethnic minorities (dominant ethnic group comprises 40–85% of the population)  Ethnically heterogeneous (no single ethnic group comprises > 40% of the population)

Dimension	Variable/characteristic	Suggested measures or values
Demography, livelihoods and social structure	Ethnic heterogeneity /homogeneity of the broader region within which the rangeland unit is situated	Same as above
	Percentage of land within the rangeland unit under cultivation	Percentage of total land
	Percentage of land within the broader region unit under cultivation	Percentage of total land
	Predominant livelihoods	Pastoralist livelihoods dominate (>50% of the pop.) Agro-pastoralist livelihoods dominate (>50% of the pop.) Another livelihood dominates (>50% of the pop.) Mixed (no single livelihood dominates)
Governance and tenure	Type of land tenure	Communal tenure
		Secure/identified/demarcated communal tenure (e.g. group ranch)
		Fuzzy/unrecognized communal tenure (e.g. trust land)
		State tenure
		De jure state property but not enforced, with de facto communal tenure
		De jure state property but not enforced, with de facto open access
	Public land (national parks, etc.)	
	Mixed tenure (there are multiple tenure types within the rangeland unit)	
	Security of land tenure	Very secure (borders and ownership are known and legally recognized, conversion/appropriation of land is rare and follows legitimate procedures, tenure is enforced by traditional and/or state institutions) Somewhat secure (borders and ownership are known and legally recognized, conversion/appropriation of land happens occasionally following legitimate procedures, tenure is enforced sporadically by traditional and/or state institutions) Insecure (borders and ownership are known but not legally recognized or legality is being challenged in court, conversion/appropriation of land happens often) Non-existent (land is susceptible to conversion or grabbing at any time, users are susceptible to eviction)
	Is there elected local (commune, municipality, village – not meso-level such as counties in Kenya, but rather local) government?	Yes No
	Strength of customary institutions for natural resource management	Qualitative/narrative



Dimension	Variable/characteristic	Suggested measures or values
Neighbouring communities and intercommunity relations	Extent to which other communities/rangeland units within the region also have similar community-based rangeland management and governance structures	Most communities have similar governance and management structures
		Between 10% and 50% of neighbouring communities have similar governance and management structures
		Less than 10% of neighbouring communities have similar governance and management structures
	Strength of community organization in other communities/rangeland units within the region	Qualitative/narrative
	Severity of intercommunity conflict and livestock theft. Describe the source(s) and nature of the conflict, if known.	Qualitative/narrative

As mentioned above, for the categorical and numerical variables, it is important to conform to the format provided. For the categorical variables, as much as possible, responses should be drawn from the list of possible values. For each variable, a short narrative can be provided and this is where further nuance and more detailed explanation can be given.

One of these contextual dimensions is 'governance and tenure'. It is important to note here that there are elements of governance and tenure that refer to the context within which the approach to CBRM is being implemented, and there are also elements of governance to be described in terms of the approach itself. This section describing the contextual characteristics related to governance asks for information on land tenure, the presence/absence of local government, and the strength of traditional governance institutions *generally in the region where the case is situated*. A description of governance for the rangeland unit itself will be provided later (see 'Characterizing the option' below).

Also complete Table 3.

Table 3: Enabling and hindering conditions

Condition	Specify
Social/ cultural/ religious norms and values	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering: .
Availability/ access to financial resources and services	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:
Institutional setting	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:
Collaboration/ coordination of actors	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:
Legal framework (land tenure, land and water use rights)	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering: .
Policies	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:
Land governance (decision-making, implementation and enforcement)	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:
Knowledge about sustainable land management (SLM), access to technical support	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering:

Condition	Specify
Markets (to purchase inputs, sell products) and prices	<input type="checkbox"/> Enabling: . <input type="checkbox"/> Hindering: .
Workload, availability of manpower	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering: .
Other (specify).....	<input type="checkbox"/> Enabling: .. <input type="checkbox"/> Hindering:
Other (specify).....	<input type="checkbox"/> Enabling: <input type="checkbox"/> Hindering: .

## Characterizing the option

There are five main dimensions to the characterization, each dimension having a few questions or variables. As with the description of the context, most are categorical variables. Table 4 summarizes the main dimensions, the specific questions and variables for each dimension, and suggested values for the categorical variables. In writing up results, each question and variable, whether categorical or qualitative, should also be accompanied by a short narrative description.

Table 4: Variables for characterizing the approach

Dimension	Variable/characteristic	Suggested values
Methods used by development agent	3. Methods 3a) Community entry process and participatory activities used by the development agent	Qualitative/narrative
	3b) Approach to capacity building used by the development agent	Qualitative/narrative
	3c) Nature of incentives and business model	Qualitative/narrative
	3d) Types of technical rangeland management options being supported by the development agent	List the types of technical options
	3e) Advisory service	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	3f) Involvement of local communities in different phases	See Table 5, below
	3g) Flow chart	Figure and narrative description
	3h) Is monitoring and evaluation part of the approach?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Governance	3i) Budget	Figures and narrative description
	4. Governance design 4a) Governance type: Which type(s) of actors participate in decision-making in the rangeland unit's main governance structures or processes?	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Collaborative/shared</li> </ul>
	4b) What form does community representation take? Participation/representation...	<ul style="list-style-type: none"> <li>• Based on stakeholder groups</li> <li>• By citizens as citizens</li> <li>• Based on communities and/or jurisdictions</li> </ul>
	4c) Are there provisions for regular election of officers/representatives?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	4d) Involvement of women, youth, minorities and other groups	Qualitative/narrative
4e) Relation of the rangeland unit's governance structures/processes to local government	Qualitative/narrative	

Dimension	Variable/characteristic	Suggested values
Governance	5. Basis of structures/processes in customary institutions 5a) The decision-making structures/ processes for the rangeland unit...	<ul style="list-style-type: none"> <li>• Are based on customary institutions and decision-making procedures</li> <li>• Are a hybrid of customary and new institutions and procedures</li> <li>• Involve elders or customary leaders as members of decision-making bodies but do not otherwise formally include customary institutions and decision-making procedures</li> <li>• Do not include customary institutions and decision-making procedures</li> </ul>
	5b) Are there any hereditary or other customary leaders who are automatically part of the leadership structure?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Authority	6. Legal mandate 6a) Is the main decision-making structure registered as a legal entity?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	6b) Are the decision-making structures or processes of the rangeland unit recognized and given legal mandate by a legislative framework?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• A legislative framework exists, but this rangeland unit's structures/ processes have not yet qualified or been recognized</li> <li>• No</li> </ul>
	7. Authority and governance powers of the rangeland unit's governance structures/ processes 7a) What governance powers do the rangeland unit's governance structures/ processes have in relation to pasture and other natural resources?	<ul style="list-style-type: none"> <li>• Has full governance and management powers</li> <li>• Has a framework-setting mandate but little authority for actual management</li> <li>• Has only an advisory/coordination function</li> <li>• Governance powers are contested</li> </ul>
	7b) In cases where a rangeland unit's governance structures/ processes have limited authority (have merely an advisory/ coordination function), where instead does the bulk of authority lie?	<ul style="list-style-type: none"> <li>• Mostly at higher levels</li> <li>• Distributed at other levels (higher and lower)</li> <li>• Mostly at lower or horizontal levels</li> <li>• Not applicable</li> </ul>
	7c) Who decided on the selection of technical options to be implemented	<ul style="list-style-type: none"> <li>• Land users alone (self-initiative) Mainly land users, supported by rangeland specialists</li> <li>• All relevant actors, as part of a participatory approach</li> <li>• Mainly rangeland specialists, following consultation with land users</li> <li>• Rangeland specialists alone Politicians/leaders</li> <li>• Other (specify): .....</li> </ul>
	7d) Specify on what basis decisions were made (several options are possible)	<ul style="list-style-type: none"> <li>• Evaluation of well-documented SLM knowledge (evidence-based decision-making)</li> <li>• Research findings Personal experience and opinions (undocumented)</li> <li>• Other (specify): .....</li> </ul>
	7e) Graduated sanctions	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>

Dimension	Variable/characteristic	Suggested values
Authority	7f) Conflict resolution mechanisms	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Management	8. Staffing 8a) Is there a secretariat (e.g. paid staff working for the community organization in an office)?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	8b) Are there paid field staff (e.g. rangers, rangeland managers, etc.)?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	8c) Does the rangeland unit hire professionals (e.g. rangeland ecologists, tourism managers, etc.)?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Spatial organization, scales, and levels	9. Definition of the rangeland unit 9a) How is/was the geographic extent of the rangeland unit defined?	<ul style="list-style-type: none"> <li>• Predefined</li> <li>• Negotiated</li> <li>• Undefined</li> </ul>
	9b) What criteria are/were used to define it?	<ul style="list-style-type: none"> <li>• Watersheds</li> <li>• Other biophysical criteria</li> <li>• Pre-existing administrative boundaries</li> <li>• Traditional territories</li> <li>• A mix of the above</li> <li>• Other (explain)</li> </ul>
	10. Nesting and multi-level planning approach 10a) Are there clearly defined territories and associated institutions nested within the rangeland unit structure?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	10b) Is the rangeland unit formally nested within a larger structure?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
	10c) How does resource planning at the rangeland unit level relate to planning at levels above and below? Planning is done...	<ul style="list-style-type: none"> <li>• Primarily at the rangeland unit level and then further details and planning are done at lower levels</li> <li>• Primarily at the rangeland unit level with little to no further planning done at lower levels</li> <li>• Primarily at lower levels, then lower level plans are amalgamated at the rangeland unit level</li> <li>• Primarily at a level higher than the rangeland unit and then implemented at rangeland unit and lower levels</li> <li>• At both higher and lower levels, with strong coordination</li> <li>• At both higher and lower levels, with little coordination</li> </ul>

### 3 Methods used by the development agent

- 3a Describe the community entry process and participatory activities used by the development agent  
Provide a short narrative description. Include a description of the roles played by local leaders, traditional authorities, and other stakeholder groups.
- 3b. Describe the approach to capacity building used by the development agent  
Provide a short narrative description. Include a description of particular stages of capacity building in the agent's approach, the kinds of training carried out, etc. Describe also the form of training:
- On-the-job
  - Site visits/ farmer-to-farmer

- Demonstration areas
- Public meetings
- Courses
- Other (specify): .....

Identify the subjects covered.

- 3c. Describe the nature of incentives in the approach and the ‘business model’  
 Do community members receive financial/material support: food for work or food for assets payments, tax incentives, subsidies, etc.? Does the possibility of revenue from ecotourism play a significant role in incentivizing community engagement? Are payments for ecosystem services part of the strategy? Is credit provided in a way that is connected to the community rangeland management activities. Provide a short narrative description.
- 3d. Types of technical rangeland management options being supported by the development agent  
 List the types of technical options: bush clearing, rangeland reseeding, (re-)establishing seasonal planned grazing, water points for livestock, fuel-efficient stoves, etc. Also describe how widespread and extensive each of these technical options is being applied.
- 3e. Advisory service  
 Do land users have access to an advisory service (technical assistance provided to land users by extension workers/ advisers from government, NGOs, projects, etc.)?
- Yes
  - No
- 3f. Involvement of local land users/local communities in the different phases of the approach

Table 5: Involvement of local land users/communities

Phase of the approach	Involvement of local land users/local communities					Specify who was involved and describe activities
	None	Passive	Active			
			Payment/ external support	Interactive	Self-mobilization	
Initiation/motivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..... ..... .....
Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..... ..... .....
Implementation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..... ..... .....
Monitoring/evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..... ..... .....
Other (specify; e.g. 'research')	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..... ..... .....

What organizations will call 'participatory' or 'participation' varies a great deal. This question asks about the degree or depth of involvement and participation at various stages of the actions.

Passive: means that local people participate by being informed what will happen or has already happened. They may also participate by being consulted or by answering questions, but they do not decide.

Active: Payment/ external support: means that local people participate in return for food, cash, or other material support.

Interactive: means that local people and the project team jointly analyse the situation, jointly develop action plans and form institutions, and jointly decide on the use of resources.

Self-mobilization: means that local people participate by implementing their own initiatives independently of external institutions. They may interact with external institutions to obtain resources and technical advice, but they retain control over how resources are used.

### 3g. Flow chart

Provide a visual summary pointing out important actors, activities, key stages of implementation, etc. Try to ensure that it conveys the trajectory of the initiative. Consider using different colours to distinguish the different stakeholders from each other.

- The flow chart
- Text description of flow chart
- Author of flow chart

### 3h. Monitoring and evaluation

Does the approach include monitoring and evaluation that helps to assess the progress and effectiveness of the community-based rangeland management system being put in place or strengthened?

- Yes
- No

### 3i. Budget

Collect what information you can on budget, including, to the extent possible, information on the total budget of the project/program, the budget for the rangeland management components of the project/program, and the cost for this particular community/rangeland unit.

## 4. Governance design for the rangeland unit

### 4a. Governance type

Which type(s) of actors participate in decision-making in the rangeland unit's main governance structures or processes? Which type(s) of actors have prominent roles in the governance structures or process? Decision-making authority around management of pasture and other natural resources in the rangeland unit's governance structures or process:

- Lies primarily with communities
- Is collaborative or shared (i.e. co-management, with decision-making shared jointly between community and state or private actors).

Note that this variable is asking about the participation in the governance structure(s) identified in 1e, above—the governance structures for the rangeland unit, not the extent to which those governance structures have recognized decision-making authority. For instance, if the main governance structure for the rangeland unit is a community grazing committee and it is made up entirely of residents of the communities

in the rangeland unit, then the value for this item should be 'lies primarily with communities' regardless of how much or how little authority that committee has. (Questions of degree of authority and strength of governance powers are addressed in 6b, 7a, and 7b, below.)

4b. What form does community representation take?

- Participation/representation is based on stakeholder groups
- Participation/representation is by citizens as citizens (e.g. citizens directly elect representatives) to the main governance structures
- Participation/representation is based on communities and/or jurisdictions

Participation and representation being based on stakeholder groups refers to governance structures in which, for example, a women's group, and charcoal makers association, the elders, the youth, etc. each have a representative on the rangeland unit's key governance structure. Representation of citizens as citizens refers to situations in which the members/citizens of the rangeland unit participate individually in electing representatives. Participation/representation based on communities and/or jurisdictions refers to cases in which the main governance body is made up of representatives from various subunits such as each village within the unit sending three representatives to sit on a rangeland unit grazing committee.

4c. Are there provisions for regular election of officers/representatives?

- Yes
- No

4d. Involvement of women, youth, minorities and other groups

To what extent are women involved in governance design, in decision-making within the governance arrangements, and in implementation? What about ethnic minorities? Other minorities? Provide a short narrative description.

4e. Relation of the rangeland unit's governance structures/processes to local government

Is there elected local government? If so, how do rangeland unit's governance structures and processes relate to it? For example, is the key governance structure constituted as a committee of local government? Are the rangeland unit's governance structures hierarchically *under* local, county, or state government? Or are they completely autonomous and separate from local government? Provide a short narrative description.

5. Basis of the governance structures and processes in customary institutions

5a. The decision-making structures/processes for the rangeland unit...

- Are based on customary institutions and decision-making procedures
- Are a hybrid of customary and new institutions and procedures
- Involve elders or customary leaders as members of decision-making bodies but do not otherwise formally include customary institutions and decision-making procedures
- Do not include customary institutions and decision-making procedures in any significant way

5b. Are any hereditary or other customary leaders who are 'ex officio' automatically part of the leadership structure for the rangeland unit?

- Yes
- No

## 6. Legal mandate

6a. Is the main decision-making structure registered as a legal entity?

- Yes
- No

If yes, provide a short narrative explanation.

6b. Are the decision-making structures or processes of the rangeland unit recognized and given legal mandate by a legislative framework?

- Yes
- A legislative framework exists, but this rangeland unit's structures/processes have not yet qualified or been recognized
- No

## 7. Authority and governance powers of the rangeland unit's governance structures and processes

7a. What degree of authority is accorded to the rangeland unit's governance structures and processes? What degree governance powers does it have in relation to pasture and other natural resources?

- Has full governance and management powers
- Has a framework-setting mandate but little authority for actual management
- Has only an advisory/coordination function (the bulk of authority lies elsewhere)
- Governance and management powers are contested and uncertain

This characteristic is concerned with questions such as whether the rangeland unit community has the right to exclude outsiders, to establish rules, and enforce penalties such as for non-observance of grazing plans.

7b. In cases where the rangeland unit's governance structures and processes have limited authority (have merely an advisory/coordination function), where instead does the bulk of authority lie?

- Mostly at higher levels
- Distributed at other levels (higher and lower)
- Mostly at lower or horizontal levels
- Not applicable

7c. Decision-making on the selection of land management or restoration practices and technologies. Specify who decided on the selection of the technology(ies)/practice(s) to be implemented:

- Land users alone (self-initiative)
- Mainly land users, supported by SLM specialists
- All relevant actors, as part of a participatory approach
- Mainly SLM specialists, following consultation with land users
- SLM specialists alone
- Politicians/ leaders
- Other (specify): .....

Explain.



- 7d. Basis of decisions on technical options  
Specify on what basis decisions were made (several answers possible).
- Evaluation of well-documented SLM knowledge (evidence-based decision-making)
  - Research findings
  - Personal experience and opinions (undocumented)
  - Other (specify): .....

- 7e. Graduated sanctions  
Users who violate rules-in-use related to pasture and other resources for livestock are likely to receive graduated sanctions (depending on the seriousness and context of the offense) from other users, from officials accountable to these users, or from both.
- Yes
  - No

- 7f. Conflict resolution mechanisms  
Do the users and their officials have timely and effective access to low-cost, local arenas to resolve conflict among users or between users and officials?
- Yes
  - No

## 8. Staffing

- 8a. Is there a secretariat (e.g. paid staff working for the community organization in an office)?
- Yes
  - No

- 8b. Are there paid field staff (e.g. rangers, rangeland managers, etc.)?
- Yes
  - No

- 8c. Does the rangeland unit hire professionals (e.g. rangeland ecologists, tourism managers, etc.)?
- Yes
  - No

For each of the above, if staff are there, please indicate whether they are from the local community or from elsewhere.

## 9. Definition of the rangeland unit

- 9a. How is/was the geographic extent of the rangeland unit defined?
- Predefined
  - Negotiated
  - Undefined

This item refers to the approach of the development agent in determining the geographic extent of the rangeland unit. If they came to work with a rangeland unit that already existed or worked on the basis of territories that were already known, the appropriate value would be 'predefined'. If

instead working with community members, and perhaps other stakeholders such as government, to consider and decide upon the extent and boundaries of the rangeland unit, then indicate 'negotiated'. If the approach proceeded without the extent and boundaries of the rangeland unit being clear, indicate 'undefined'.

9b. What criteria are/were used to define it?

- Watersheds
- Other biophysical criteria
- Pre-existing administrative boundaries
- Traditional territories
- A mix of the above
- Other (explain)

10. Nesting and multi-level planning approach

10a. Are there clearly defined territories and associated institutions nested within the rangeland unit structure (e.g. zones, reeras, wards, etc. within the rangeland unit)?

- Yes
- No

10b. For purposes of planning and decision-making, is the rangeland unit nested within a larger structure or planning unit (e.g. conservancies within clusters, dheedas within the Gada system)?

- Yes
- No

10.c How does resource planning at the rangeland unit level relate to planning at levels above and below?

Planning is done...

- Primarily at the rangeland unit level and then further details and planning are done at lower levels
- Primarily at the rangeland unit level and then little to no further planning is done at lower levels
- Primarily at lower levels, then lower level plans are amalgamated at the rangeland unit level
- Primarily at a level higher than the rangeland unit and then implemented at rangeland unit and lower levels
- At both higher and lower levels, with strong coordination
- At both higher and lower levels, with little coordination

The narrative for these items could touch on aspects such as how forage and other resources are shared, or not, among different subunits within the rangeland unit, as well as among neighbouring rangeland units in a larger landscape. It would also look at how planning is done at these different levels.

## Describing changes over time, outcomes and impacts

Describe key successes, and key challenges and solutions that have been applied to those challenges, and major failures, if any. Changes over time in governance and management approaches should be described. Interview or focus group questions should also attempt to address aspects of the impact of the approach, such changes in the following:

### Biophysical and livestock production impacts

- Changes in rangeland condition
- Livestock numbers and body condition
- Livestock products
- Livelihood diversification
- Livestock diversification (e.g. from cattle to camel and small stock)

### Social impacts

- Whether and how the approach empowered local people and improved participation by different stakeholder groups in decision-making
- Changes in social status of people/groups within the community
- Change in participation between genders and different age groups
- Mitigation of conflicts
- Whether and how the approach may have strengthened tenure and user rights over rangeland resources
- Creation of employment and income earning opportunities
- Changes in coping strategies
- Changes in food security and nutrition
- Changes in access to water and sanitation

### Effects on management capacity

- Improvement of rangeland management capability
- Whether and how the approach enabled evidence-based decision-making
- The extent to which the approach enabled local people to implement and maintain technologies and practices for land management and restoration
- Whether and how the approach improved coordination and cost-effective implementation
- The extent to which the approach enabled mobilization of financial resources for land management and restoration
- Whether the approach helped to improve the knowledge and capacities of *other* stakeholders

Ideally, a study based on this protocol should be accompanied by assessments of changes in rangeland condition based on field studies and remote sensing. These can also be accompanied by a participatory assessment of rangeland condition, a methodology for which is described below.

## Participatory rangeland condition assessment

A participatory assessment of rangeland condition should be carried out with focus groups. Participants will be asked to assess overall changes in rangeland condition for the rangeland unit as a whole. The ‘treatment site’ in other words is the rangeland unit— the total territory being managed by the community. The ‘treatment’ is the establishment of the community-based rangeland management system.

The focus group discussions should ensure that the researcher and all participants are clear on the geographical areas of operation of the community institutions (the rangeland unit), and on the starting year to use in the scoring. Discussions should try to capture what aspects of the changes can be attributed to specific interventions. These participatory scoring exercises can be further triangulated through other project activities such as the work to support communities of practice.

### Step 1: Focus group of key informants/local experts

- Establish a set of common indicators of rangeland condition/pasture quality to be used
- Establish scoring criteria for each indicator (e.g. what does a score of 1/5 mean? What does a score of 2/5 mean? etc.).
- Phrase all indicators positively so that the higher score is always better (e.g. not ‘invasive species’ but ‘freedom from invasive species’).
- Provide suggestions on how to organize scoring focus groups. What are key stakeholder groups who may see things differently?
- Provide suggestions on possible control/reference sites.

### Step 2: Identify the control/reference site(s) and parameters for comparison

- The treatment site is the rangeland unit
- Determine the ‘before’ date. Normally this should be the date that the governance structures for the rangeland unit began active rangeland management activities, whether those activities only involved a seasonal planned grazing system or also included more complex interventions such as re-seeding or bush clearing.
- Decide on the reference site(s). Reference sites should be similar to the treatment site on key criteria: level of rainfall, similar types of range resources, ideally the same ethnic groups and pre-existing social structures, similar livelihood patterns.
- The reference site(s) should be locations that have NOT had the community-based rangeland management approach implemented there.
- If feasible also collect or create GIS shape files of the treatment site and the reference site(s), or if not available then at least scannable maps, as these will be useful for other forms of assessment such as through remote sensing.

### Step 3: Identify and mobilize focus groups for scoring based on stakeholder groupings for both the treatment site and the reference site(s).

- If a particular group at the treatment site is knowledgeable about conditions at the reference site(s), then they could do scoring for both. If so, the researcher must account for potential bias in the focus group participants. Normally, though, different focus groups would be needed for each.
- Identify stakeholder groupings for focus groups according to groups which may have different preferences and perspectives. For example, a community where there are cattle-keeping pastoralists and camel-keeping pastoralists, may have different preferences for species of forage. Poorer people who have only small stock may have different preferences than someone who is rich and has many cattle. Different zones of villages within the site may also have different views.
- Ideally organize three to four focus groups for each treatment site and for each reference site.

#### Step 4: Hold the scoring focus groups

- Explain the exercise
- Explain the indicators and scoring criteria of each
- Add indicators to the list if they wish
- Score each indicator from 1 to 5 for before the intervention and for after the intervention (see example, below in Table 6)
- Record reasons for the scores and other comments.
- Discuss generally perceptions of changes in rangeland condition.
- Take good notes

Table 6: Example scoring from one focus group

Indicators	Before	After	Comments
Freedom from bushes/ invasive species	3/5	3/5	
Presence of most desirable species	2/5	4/5	
Overall assessment of quantity of forage	4/5	5/5	
Absence of bare ground	3/5	3/5	

#### Step 5: Consolidate the scores

- Create a table summarizing all the scores (see example, below in Table 7).

Table 7: Example consolidation of focus group scores

Indicators		FG 1: Women	FG 2: Men	FG3: Minority tribe men	FG4: Elders/ Jarsa	Average
Freedom from bushes/ invasive species	Before	3/5	3/5	2/5	3/5	
	After	3/5	4/5	2/5	3/5	
Presence of most desirable species	Before	2/5	2/5	3/5	2/5	
	After	4/5	4/5	4/5	3/5	
Overall assessment of quantity of forage	Before	4/5	3/5	4/5	3/5	
	After	5/5	4/5	4/5	3/5	
Absence of bare ground	Before	3/5	2/5	3/5	3/5	
	After	3/5	2/5	2/5	3/5	
Overall score	Before	12/20	10/20	12/20	11/20	
	After	15/20	14/20	12/20	12/20	

Note: Scoring must be done and a consolidation table like the one above created for the study site (the 'treatment' area) and for every reference or control site.

## Documenting the case

The case study should be written up in a report that details the methods used, and the reports and the findings both in tables and with explanatory text for each variable or characteristic in the protocol. See Annex I for a suggested report template. Presenting the findings for the categorical and numerical variables in tabular format will be important for inputting the findings into a database that ILRI is developing. The inclusion of photos and maps in the report is also encouraged.

Neither the unique challenges nor the great potential of community-based and participatory approaches to rangeland management are sufficiently documented or appreciated by the wider land restoration and natural resource management communities. Effective documentation of community-based rangeland management cases will help to change that and to build up the evidence base around what works in what contexts.

## References

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# Annex I: Suggested outline for case study reports

## Acronyms

- A. Introduction
- B. Methods and study area
  - Description of the study area
  - Methods
- C. Basic information on the case
  - Overview
  - Summary of the case
- D. Characterization of the social, economic and biophysical context
  - Overview of the context (including a summary table of all contextual variables)
  - Biophysical context
  - Demography, livelihoods and social structure
  - Governance and tenure
  - Neighbouring communities and inter-community relations
- E. Characterization of the approach to community-based rangeland management
  - Overview of the approach (including a summary table of all approach characterization variables)
  - Methods used by the development agent
  - Governance and management
  - Spatial organization, scales and levels
- F. Outcomes and impacts of the approach
  - Participatory assessment—results
  - Stakeholders' perceptions of impacts
- G. Discussion

## References

## Annexes (if any)



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