# Guideline of Participatory Rangeland Managemnt for Afar National Regional State

**List of Acronyms**

| | |
|---|---|
| DA | Development Agents |
| DRM | Disaster Risk Management |
| DRMC | Disaster Risk Management Committee |
| IRM | Integrated Risk management |
| JFM | Joint Forest Management |
| LULA&EP | Land-Use Land Administration & Environmental protection Office |
| NRM | Natural Resources Management |
| PADO/LANRD /LANRD | Pastoral and Agricultural Development Office/ Livestock Agriculture and Natural Resource Development |
| PFM | Participatory Forest Management |
| PRM | Participatory Rangeland Management |
| PRMP | Participatory Rangeland Management Plan |
| PRMC | Participatory Rangeland Management Council |
| PSP | Participatory Scenario Planning |

Note:

PADO/LANRD is now changed to Livestock Agriculture and Natural Resource Development (LANRD). Restructuring may further change names of mandate holding offices and the sector responsible for managing rangeland will take the responsibility stated for woreda PADO/LANRD or LANRD)

## Acknowledgement

This Participatory Rangeland Management Guideline is not just based only on professional experience gained over long years of field work in the area of rangeland management by a single person, but it is the product of a series of consultative workshops by teams of multidisciplinary experts.

First and foremost, I should thank my supervisors **Mr. Benedict Erwin** - the Pastoral Unit Manager and D**r. Sileshi Zewdie** who is managing PfR Project at CARE Ethiopia who placed me to work on the compilation of this PRM Guideline and who have professionally contributed to realize the document. Second my sincere thank goes to **Mr. Mohamed Hussein**, - the head of DRM bureau of Afar region for bringing together senior experts who attended the series of workshops and discussion events and helped me a lot in contextualizing, reviewing, substantiating the guideline.

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**The Structure of the Guideline,**

This guideline defines key terms and the scopes in its first sections. Next, the concept of Participatory rangeland Management (PRM), its historical development as a tool for natural resource governance are presented. As part of discussing the PRM process, key stages, and steps of the PRM guideline as well as the concept of participatory mapping exercises are highlighted. Then, the institutional setup for the governance structure of the natural resources which is contextualized in a manner that it fits to the needs of Afar region is explained; and the guidelines for common rangeland & dryland forest management activities and the essentials of the bylaw development process is briefly described.

This rangeland management guideline integrates IRM (Integrated Rangeland Management) principles and covers a set of locally adapted standards for implementing rangeland actions deemed to improve rangeland health and conditions. Here, the urgency of scaling up community participation in all rangeland management endeavors, and the clarification of the responsibilities of each actor in the joint efforts of government sectors, NGOs and women & youth groups are emphasized. The most important rangeland improvement action for which locally accepted standards and practical approaches are set forth are focused. Accordingly, this guideline includes actions such as invasive plant control, dryland forest woodland management, bush thinning and weeding, water resources management, systematization of the utilization of wet and dry season area management, management of dry season communal grazing reserves, area closure, physical SWC and the management of common assets including hand tools. Simple community action planning formats which can be used both for specific and generic rangeland resources management action planning purposes are annexed.

## Introduction

About 62% of the total land area (78 million hectare of land) of Ethiopia in arid and semi-arid (areas below altitude of 1500m a.s.l) is classified as a rangeland. Currently, the livestock sector accounts for almost 16-19% of GDP & 35-40% Agriculture GDP of Ethiopia. While making the livelihood income for more than 11 million of rural inhabitants, the sectors suffers a low productivity because of the dependency on low productive indigenous breeds, low input utilization, poor grazing land management, and the lack of market oriented production system.

Among the challenges, poor rangeland management hampers the productivity of livestock and the quality of the production. The status of the rangeland in terms of providing ecosystem goods and services, however, is the productivity of the rangeland is declining at an alarming rate.

The Ethiopian rangelands are challenged by a number of internal and external factors. Human & livestock population growth, rangeland fragmentation, climate variability & change, invasion by exotic plants, encroachment by native undesirable plants, overgrazing & degradation due to poor herd & land management, weakening of the custodian customary institutions, conflicts, and shrinkage of rangelands by land-use changes mainly because of the expansion of estate farms are among the major factors.

In almost in all pastoral regions of Ethiopia, the customary governance systems is used to dictate control and access to key rangeland resources until recent times. However, these customary institutions tended to become less effective in rangeland management as formal government structures become more powerful and thus overtaking their role in the natural resource governance. Formal institution alone, however, could not establish a stable natural resource governance system without involving community based institutions.

Generally, the declining nature of the status of the rangeland resources and the falling trend of rangeland health conditions is calling for a multisector planning and multi-stakeholder actions. In the lowland pastoral inhabited by pastoral & agro-pastoral

communities, communal ownership of natural resources is a long established form of resource tenure. Hence, the management, - access and control requirements are calling for participation of all users, - the communities, government sectors holding different mandates, the private sector stakeholders, and NGO running programs relevant to land & land based resources.

This guideline is prepared based on the Participatory Rangeland Management Guideline which was compiled by Fiona Flintan and Adrian Cullis in 2010. Strictly adhering to the guideline, CARE had implemented PRM through its USAID funded PRIME project over the last five years. As part of meeting the objective of strengthening the management of natural resources, CARE applied PRM tool for revitalization of the customary institutions, and for facilitation of the process of creating & strengthening Participatory Rangeland Management Council (PRMC) for grazing systems or woredas by bringing together all the stakeholders. PRM approach guides all stakeholders through the process of joint investigation, negotiation, planning, and implementation of community rangeland management action plans.

## Policy and Legal Framework

There are national legal and policy frameworks, international agreements, national strategies, action plans, programs, and sectoral policies, guidelines of government institutions supporting the participation of community in its own development.

The 1995 Constitution of the Federal Democratic Republic of Ethiopia maintains the right to development and participation (article 43/1); provided for pastoralists on their right to free land for grazing & cultivation (article 40/5); and has clearly stated the right to ownership of land (article 40/ 3) for the people and government.

The specific objective of Ethiopian Environmental Policy (under 2.2 h) is to ensure the empowerment and participation of the people and people's organizations at all levels in environmental management activities. The policy thus clearly stated (4.1 d) the need to ensure a complete empowerment of women especially to enable their full participation in population and environmental decision making, and resource ownership and

management. Important policy points are stated in the EPA document in relation to community participation and the Environmental resource development (4.2 a - f). The policy covers popular participation, resource management, resource development, planning, implementation, and M&E of environmental and resource projects to base on the decision of the resource users and managers. Therefore, the environmental policy of the country acknowledges the participation of local communities in natural resource management. This shows that the need for decentralization of management and participation of local communities are well recognized.

Proclamation No. 1065/2018 of Forest Development, Conservation and Utilization was formulated to enhance sustainable forest development, conservation and utilization through recognizing community ownership and public participation. Although there is no specific policy directive on rangeland management, the Federal Democratic Republic of Ethiopia Rural Land Administration and Land Use proclamation no. 456/2005 also provided for the right of pastoralists to access land as well as for community participation (article 11/5) in land consolidation and management. The rangeland, in our case is defined as a grazing and browse plants of primary native vegetation including grasslands, shrub lands, savannas woodlands, wetlands, and deserts that are grazed by domestic livestock or wild animals. Ensure the empowerment and participation of the people and their organizations at all levels in environmental management activities; and

Proclamation on forest development, conservation and utilization proclamation no. 1065/2018 was formulated to enhance sustainable forest development, conservation and utilization through recognizing community ownership and public participation. The same proclamation (1065/2018, #26) defined the regional government as a responsible authority and as an executive organ that is responsible to implement forest development, conservation and utilization. The 2018 Forest Proclamation of Ethiopia, defines forest as trees, plants and other bio-diversity accumulation at and in the surrounding of forest lands, roadsides, riverside, farm, and grazing lands as well as residential areas which grow naturally or artificially developed forest types. This proclamation, although it treated forest in to preserved, protected and productive types, it didn’t provided for dryland forest differentially from high forests for a successful context specific management of the resources. This guideline attempts to extend the definition of forest to further covering the

dryland forest and woodlands overwhelmingly characterizing the vegetation cover of the pastoral areas.

## Objectives of the Guideline

- Improve rangeland conditions and reverse the negative trends in current state of rangeland through adopting new technologies, applying both indigenous knowledge and modern scientific knowledge of range management, and by integrating IRM & community based DRM and Participatory Rangeland Management Plans.

## Definition of Terms and the scope

### Rangeland

Rangelands is widely defined as land with grazing and browse plants of primary native vegetation species including grasslands, shrub lands, savannas woodlands, wetlands, and deserts that are grazed by domestic livestock or wild animals. Many Range Management scholars define rangeland as a land on which the native vegetation (climax or natural potential) is predominantly grasses, grass-like plants, herbs, forbs, and shrubs. Rangelands are distinguished from pasture lands because they grow primarily native vegetation, rather than plants established by humankind. The states of the rangelands differ in time and place depending on the biodiversity and physical attributes of the landscape and they represent a complex environment providing different ecosystem goods and services. Rangeland is also regarded as a diverse cultural landscape formed

by geological factors and shaped by land use practices. The systematization of dry and wet season grazing management involves the utilization of the locations in alternative seasons based on community's agreement for the uniform movement to and away from the locations. This conforms to the Land scape approach in DRM principles.

The rangeland resources include wet & dry season grazing sites, water resources (rivers, spring points, ponds, wells), sacred places & cultural sites, forests & non-timber forest products, woodlands, fuelwoods, wildlife & wildlife products, rivers, roads & footpaths, minerals such as saltlicks & brackish water sources, different vegetation species, and livestock are all together make up the rangeland resource.

## Dryland Forest Management

Dryland forest management covers a set of cultural practices facilitating the expansion of vegetation cover, regeneration, growth, increased biodiversity, enhance the ecological goods & services of forests woodlands, and the human activities essential to the conservation of woodland resources in drylands (FAO, 2010).

FAO defined sustainable forest management as a dynamic and evolving concept that aims to maintain and enhance the economic, social and environmental value of all types of forests for the benefit of present and future generations." [Description adopted by UN Resolution 62/98, establishing the Non-legally Binding Instrument on All types of Forests]

In Afar region's context and as it is also evident elsewhere in the dryland settings, forest comprises all vegetation forms higher than 5m, with canopy cover >10 m, and having covering an area of at least 0.5 hectare. Such dryland forest are found along the Awash River basin and in patches following small streams joining the river. Unfortunately, all irrigable lands which the dry season were grazing lands along the river are now taken for estate farms, and the dryland forest cover in the basin are almost removed due to land due change. This definition, however, is constantly changing to meet new interests. Woodlands and shrubs account for 25.8% and 23.1 % of the vegetation cover of Ethiopia (NUDP and ECRN, 2010) thus making up together 48.9 of the country's forest cover. Most

recently, there is a tendency of reviewing the definition of forest for 5 m height down to 2 m as the result of which the total forest cover of Ethiopia remain so arguable and ambiguous. Since it is important as high forests in terms of providing ecological goods and service and in countering the climate change effects, the dryland forest In Afar include bush and scrublands less than the height fixed in the above definition.

### Community-managed DRR (CMDRR)

Refers to a process in which communities are actively engaged in the identification, analysis, monitoring and evaluation of the risks, with the aim of reducing people's disaster risk and enhancing their capacities. It places the communities at the heart of decision-making processes and in the management of disaster risk reduction measures.

Each Kebele forms Disaster Risk Management Committee (DRMC) which includes representatives from traditional forecasters, Kebele officials, women, youth, DA, etc. The committee establishes its own rules and regulations and appoints a Chair, Vice Chair, and Secretary. The committee should be supported through various trainings in collaboration with the Woreda government technical experts. The responsibilities of the group are detailed below: 1) Collection of EWI information from different communities in the Kebele and submitting this to the Woreda pastoral development office on a weekly & a monthly basis. 2) Preparation of Community Risk Maps, involving identifying possible hazards, vulnerable groups, existing and required capacities to address these. 3) Development of Community Contingency Plans (CCPs) & Disaster Risk Reduction (DRR) & Climate Change Adaptation Plan (CCAP) through community participation.

The DRMC also develops Preparedness Plans which include disaster preparedness activities and mitigation measures relating to the identified hazards which can be undertaken before hazards occur in order to strengthen the community's capacity to respond to a disaster risk and minimize the impact of a hazard. The kinds of activities which may be included in Preparedness Plans could be the management of rangeland, small-scale irrigation initiatives, development of alternative income generating activities for vulnerable groups, construction of water harvesting and storage structures, asset

building. Some of these disaster preparedness activities can be implemented by the communities without requiring fund from the government, such as rangeland clearing and enclosure agronomic practices including, conservation, tillage, early planting, shifting grazing areas etc.

## Improve the utilization of Climate Information

Climate and weather information shall be used to guide drought response preparations aimed at reducing the risks of livestock death due to lack of feed and from drought induced diseases. Government sectors and NGO programs have been working to create a synergy between the traditional forecasters and national Meteorological Authority of Ethiopia to analyze, amalgamate, and release a reliable weather information to users.

The National Meteorology Authority (NMA) releases weather forecasts information ahead before the two rainy seasons for Afar region. Communities, meteorologists, and local government offices representatives come together, discuss possible weather scenarios, prepare & disseminate participatory scenario advisories; advising communities on what to do under each of the identified scenarios. Accordingly, communities take measures to exploit opportunities and minimize seasonal risks.

The kebele and woreda level Participatory Rangeland Management Councils therefore will be responsible for implementing the following activities as part of the rangeland management action plans.

- Mobilize and motivate traditional forecasters to participate in the Participatory Scenario Planning (PSP) events organized by government and NGOs,
- Cover the expenses needed to generate seasonal traditional forecasts – for performing rituals for example.
- Facilitate a conducive ground for distribution of advisories,
- Make other rangeland resources utilization schedules more responsive and in accordance with the points of the advisories.

- Ensure the information contained in the advisories reach all pastoralists (including women and youth) in the grazing system in time and orally in addition to written formats.

## IRM- Integrated Risk Management.

Integrated Risk Management (IRM) is as an enhanced, holistic approach to increase community resilience by integrating disaster risk reduction, climate change adaptation and ecosystem management and restoration.

CARE defines IRM as the systematic process of reducing disaster risks through anticipative, absorptive, adaptive and transformative actions, taking into account the effects of climate (change) and the role of ecosystems. It addresses the drivers of risk, the capacities and assets of communities and individuals and their enabling environment.

## The Principles of Grazing Management

The management of rangelands involve the manipulation of all biophysical features including livestock, palatable grasses & forbs, browse plants, soil and water resources. The manipulation of the livestock and biophysical resources are essential measures to be taken if have to meet ecological and economic objectives.

The success of the grazing management is largely depends on the key knowledge we have with regard to key factors like how plants grow and reproduce if he wants to understand how grazing animals affect plants through browsing on leaves, hoof trampling action, grazing by large herd size & the nutritional needs of the livestock. In the combination, types & the size of herds, and the timing, frequency of grazing, and the intensity of grazing, the potential of the area or the grazing limits if all other plant growth requirements are kept normal.

## Participatory Rangeland Management (PRM)

PRM is a new ecosystem based participatory approach to Rangeland Resources Management which was developed from practical experiences gained in the application of different participatory NRM approaches including Joint Forest Management (JFM) and Participatory Forest Management (PFM) approaches. These NRM approaches were successfully implemented to improve natural resources management in Ethiopia under

highland and midland forest regimes. It is to respond to the special needs of pastoral and agro pastoral communities that PRM was developed by a group of scientists and field level NRM practitioners in a manner it suits the social, economic, and environmental contexts of the pastoral regions.

### Participatory Rangeland Management Plan (PRMP)

Participatory Rangeland Management Plan (PRMP) is range improvement plan which is prepared with participation all stakeholders including formal sectors, the community and the customary institutions with objective of providing a management guidance for improved rangeland resources utilization for sustainable pastoralist livelihood. PRMP is prepared with participation all stakeholders and jointly implemented over a defined period of time (often a five years plan if it short-term and 25 years for a long-term plans). **Form multi stakeholder partnership**. Participatory Rangeland management Plans (PRMP) constitutes management actions within the command of the communities which are deemed necessary if the rangelands are to be rehabilitated. **Individuals & communities and vulnerable groups who are facing poverty & inequality are put at the centre**. PRMP is adaptive and dynamic plan which can be revised to improve the responsiveness of the plan components in the course of implementation. **Build in flexibility to changing contexts**

### Over Sowing

This is the practice of sowing grass seeds (indigenous in our case) to facilitate the process of reoccupation of grasses after the area become bare & severely degraded due to intensive grazing or geological factors. The practice involves timely site characterization as moderately and severely degraded ones, seed collection, and land preparation by dragging branches of trees on the surface to scratch the soil with a series of tines, and finally sowing the grass seeds. Over sowing is done through a simple of broadcasting grass and dragging brashest of trees or by trampling with cattle hooves. It is conventionally done being integrated with other rangeland improvement interventions in a season close to and couple of weeks before the onset of rainfall.

## Area Closure

The working definition of this term is that a portion of rangeland/grazing land which is closed and protected from intrusion by livestock for agreed span of time usually defined by the number of the growing seasons the site has to be protected or remain closed.

For closing a portion of degraded rangeland, the date of closure as well as the span of time to rest the site from grazing are fixed, and the designation of the site as closed site is agreed upon collectively by the community or through customary and/or formal institutions. In addition, the area closure site may be treated with different soil & water conservation measures to expedite the process of healing, and other activities such as weeding and bush thinning are done in it where deemed necessary. For effective management of area closer sites, the community must formulate and apply bylaw for regulating community participation on rehabilitation works and ensuring compliances (this action is needed to promote accountability & transparency across stakeholders.

## Grazing Reserve

Grazing Reserve is a portion of wet season grazing land which is designated as a dry season grazing reserve area by rangeland management council with the participation and a full consent of the resource users. The practices is part of the traditions of Afar pastoralists where the reserves are customarily put aside from a portion of a wet season grazing area being randomly used at present. These wet season grazing locations which are designated as grazing reserves must have adequate water during dry seasons so that its utilization cannot be limited by scarcity of water during dry months, and bylaws are formulated & enacted to manage grazing reserves. Grazing reserves are important for keeping fodder reserves for alternate season use. The arrangement is also helping pastoralists overcome the shortages of pasture which happens every dry season; and it is ecologically recommended practice for it allows for realization of the full growth potential of plants because of resting for the period of a growing season.

The management of the grazing dry season communal reserve conforms to the objective reducing the vulnerability of the livestock producers to shocks caused by shortage of pasture during normal and extended dry seasons. Intrusion into locations designated as ‘dry season communal grazing reserves’ constitutes penalty as prescribed in the bylaws.

Hence, the administration of bylaw is deemed to promote accountability & transparency across stakeholders.

### *Bush Thinning*

Bush thinning refers to the method of reducing bush encroachment through careful & selective thinning of bushes encroached upon grassland ecosystems. It is a practice to decrease the density, foliar cover and biomass of in woody vegetation in rangelands, and thus to open the bush canopy for grasses and undergrowth herbaceous plants & forbs to grow. Bush thinning focuses on the removal of undesirable woody vegetation species which make difficult the movement of animals. However, thinning is recommended where a specific indigenous bush species invades and reduces the diversity of browse plants, grasses, forbs, and herbaceous plants. The intensity of thinning varies from place to place depending upon the density of invasive woody plants, slope or gradient of the sites, and on soil conditions, mainly the degree of surface rockiness.

This bush thinning, in addition to thinning out woody shrubs, covers clearing undesirable creeping or climbers plants (Halli merro / creeping /climber plant/ often invading the depression areas for example).

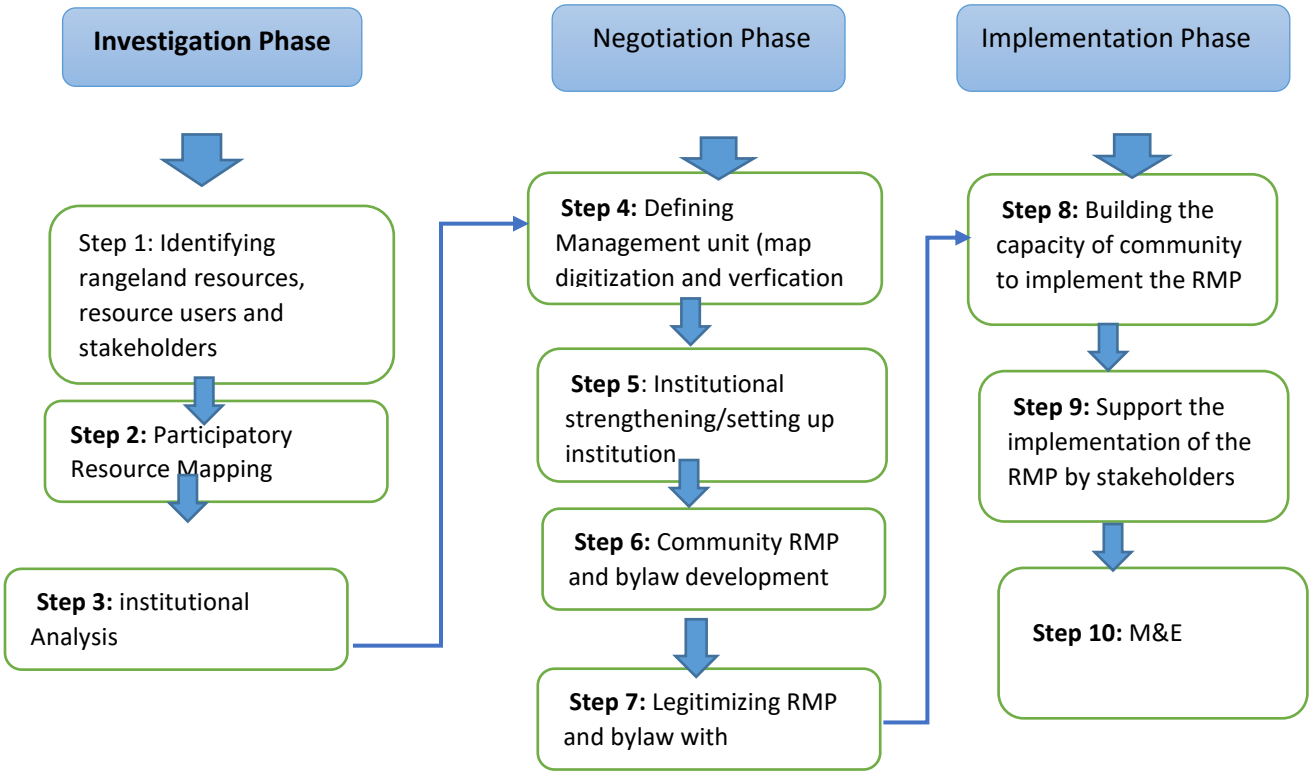
## Participatory Rangeland Management (PRM): A 10 STEP process

The PRM process, as it was first compiled by rangeland scientists who are closely working with Farm-Africa and SOS in Ethiopia, has three stages containing eight steps. Later, the same experts closely observed its implementation of PRM as part of PRIME project with CARE Ethiopia, and reviewed the steps from eight to ten with intention of capturing the implementation support needs and M&E aspects of the process. With this new version having three stages with 10 steps, PRM was implemented in three pastoral regions in Ethiopia including in Afar in five rangeland systems under five woredas with support of PRIME project. The authors have reviewed the first version of the PRM guideline and hence there is new additions in the current version with three stages and ten steps. The PRM stages and steps are as shown below.

**How does PRM Works?**

- It begins with what exists: Customary Institutions in the traditional rangeland management system are the entry-points. **Local ownership.**
- Valued the combined use of basic scientific approaches to NRM and Indigenous knowledge and practices. **Partnership**.
- Communities define rangeland units based on the actual scale of resources they use, - boundaries are not prescribed and pastoralist's resource sharing tradition respected. **Landscape**.
- Communities evaluate, revise and legitimize their institutions. The revised community's rangeland resource management institution included government sectors, women, and youth as range council members. **Individual & communities & vulnerable groups are at the center.**
- It is designed to support legitimization of both community institutions, and community agreements around the utilization and management of resources. **Local ownership**.
- It intentionally include women in PRM process and in the Rangeland Management Council s: women are empowered to make decisions in NRM. **Promote gender equality**.
- It opened a new ground for collaboration: Close involvement of government institutions ensure it works through government processes while integrating community's action plans with local government plans, and supports legitimacy. **Partnership**.

## The PRM Process: the Stages and the Steps




## The investigation phase

### Step 1: Identifying rangeland resources, resource users and stakeholders

The woreda NRM staff should hold a brief meeting in the presence of all stakeholders, -key government sector offices mandated to implement programs and plans on pastoral development and agricultural development offices, customary institutions, formal kebele community administrators, women and youth groups and NGO working in the area of NRM and environmental protection. **Form multi stakeholder partnerships**. The meeting will be utilized as an arena for identifying natural resources of the area, the users of these resources, access and control arrangements, present land uses, the stockholders and external actors and relationship of the rangeland resources development, environmental protection and rehabilitation activities.

**Step 2. Participatory resource mapping**

Participatory mapping exercise is done with participation of elders, knowledgeable residents, Extension Agents/DA, women, and youth community members. **Form multi stakeholder partnerships.**

At this step, all the attributes including the biophysical features, social services, and cultural resources, - the positions of all manmade and natural resources are indicated. Rivers, streams, ponds, water wells, hand-pumps & motorized water points, dry and wet season grazing locations, saltlick sites, brackish water resources, market centers, season mobility routes, roads & footpaths, schools, health posts, vet service points, borders, settlements conflict sites, flood prone locations etc. are shown. Local resource maps are conventionally drawn by different groups, - male and female groups, and later merged as one village, kebele or a rangeland system map. The ultimate goal of mapping is to define rangeland management units. (The mapping guideline for PRM is compiled by Ben Erwin, Adrian Cullis and Fiona Flinton in 201 (ISBN 978-9994-960-3-7) can be used for developing a perfect local resource map.

**Step 3. Institutional Analysis and Review**

Existing resource management systems / Institutions and Institutional SWOT analysis is an important step.

In Afar region, existing institutions in relation to rangeland management involves formal community administration bodies and sector offices, and clan and sub clan based structures. Kedo-Haba (the clan leader), Dahila_Haba (vice clan leader), Fei'ma-Haba (police/youth leaders) and Duabe (make religious blessings) are community leadership structures. Edola(the council of elders) have also roles to play wherever called up on to intervene in the events of conflict and issues requiring deeper traditional knowledge; and *Geba* in Afar members are also play the role scouting, policing, and often defending community resources. Among others, the role of religious institutions in maintaining social coherence, prevention of conflict, mediation and arbitration is remarkable.

The other institutions deserve reviewing and involving in rangeland management is the government run companies and private sector mainly the sugar estates and commercial cotton farms. **Engaging with private sectors driver of change.**

## PRM: Negotiation Phase

**Step 4. Defining rangeland management units - map digitization and verification.**

- Communities define rangeland units based on agro-ecology, and the customary resource use and management systems – for example; Gewane-Gelealu, Awash, Anmibara, Argoba, Dullessa etc. rangeland systems. **Landscape**.
- Administrative boundaries can then be looked at within the pastoral system. This mostly done based on formal woreda boundaries even though livestock movement transcends formal administrative boundaries.

**Step 5: Institutional strengthening (setting up new or revitalized institutions)**

We need to create new range resource managing institution, if it is absent, or strengthen the existing ones by merging with formal sectors. Afar region need to have participatory rangeland governance structure at two levels: as a rangeland system level structure, Kedo-Haba & Woreda NRM sectors will form a rangeland management council; and Dahila-Haba & kebele chairpersons will form a sub rangeland level entity where it will work directly or through Fe'ima, Tabia leve;l functionaries, - DA & extension agents, and *Duabe* to mobilize community for implementing rangeland management action plans.

- Re-vitalize customary institutions (communities evaluate, review, and revitalize their institutions)
- Supporting on-going capacity development processes, -
- Community –to- Community / Government –to- Community dialogues
- Capacity building Trainings.
- Cross visit to areas where customary institutions for Rangeland Management are relatively stronger.

**Step 6: Facilitating PRM planning and bylaw development:**

- Rangeland Management plans formulated by the stakeholders, plans verified, and plans endorsed,

- Rangeland use bylaw development
- Indicators and selection of sites for rangeland monitoring set

**Step 7: Legitimizing community rangeland management plans and bylaws with stakeholders**

- Establishing signed Rangeland Management agreements
- Establishing formal Government–Community Rangeland Management partnerships

## PRM Implementation Phase

**Step 8: Capacity building of stakeholders to implement the management plan and to enforce of bylaws**

- Training / experience sharing visits
- Supporting regular rangeland councils/ range managers/ dialogue meetings

**Step 9: Supporting the practical implementation of the management plan.**

- Provision of technical assistances – Prosopis clearing and post clearing management, Bush thinning, weeding, fodder production, grazing management , water management
- Tools and equipment support – excavator / bulldozer / hand tools

**Step 10: Participatory monitoring and evaluation, and adapting the management plan**.

- Joint rangeland review
- Management plan revision

# Guidelines for Rangeland Management Actions

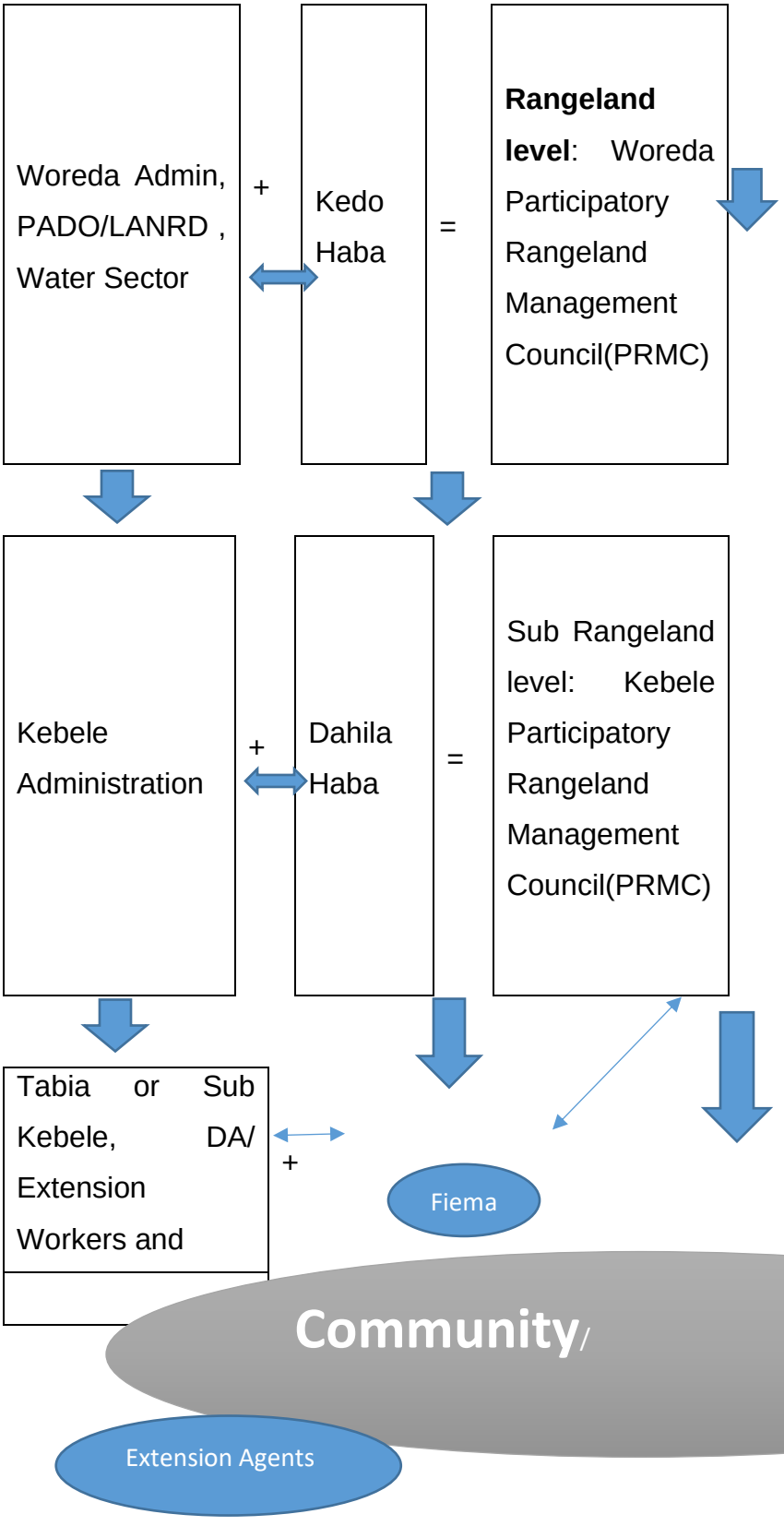
## Coordination Mechanism and institutional set up

The responsibility of coordinating the works of all stakeholders in relation to implementing this rangeland management guideline shall fall on woreda PADO/LANRD and woreda Administration office. The woreda PADO/LANRD, in collaboration with woreda Administration office, shall coordinate sectoral efforts & the weekly review of the woreda agricultural taskforce meeting

The woreda PADO/LANRD /LANRD office, the NRM sector shall create Participatory Rangeland Management Council by blending formal and customary institutions based on the following structures or hierarchies. **Partnerships**.

The structure of the Participatory Rangeland Management Council(PRMC) comprises a two-tier hierarchy led by woreda Participatory Rangeland Management Council & Kedo Haba; and sub rangeland level /kebele level structure ( Dahila-haba and kebele chairpersons together) which uses Fiema, DA/ and Extension Agents , and Duabe at community level. The term “Council” may be interchangeably used with “Committee” if necessary.

**Formal Institutions** + **Customary Institutions** = **the Participatory Rangeland Management Council (PRMC)**

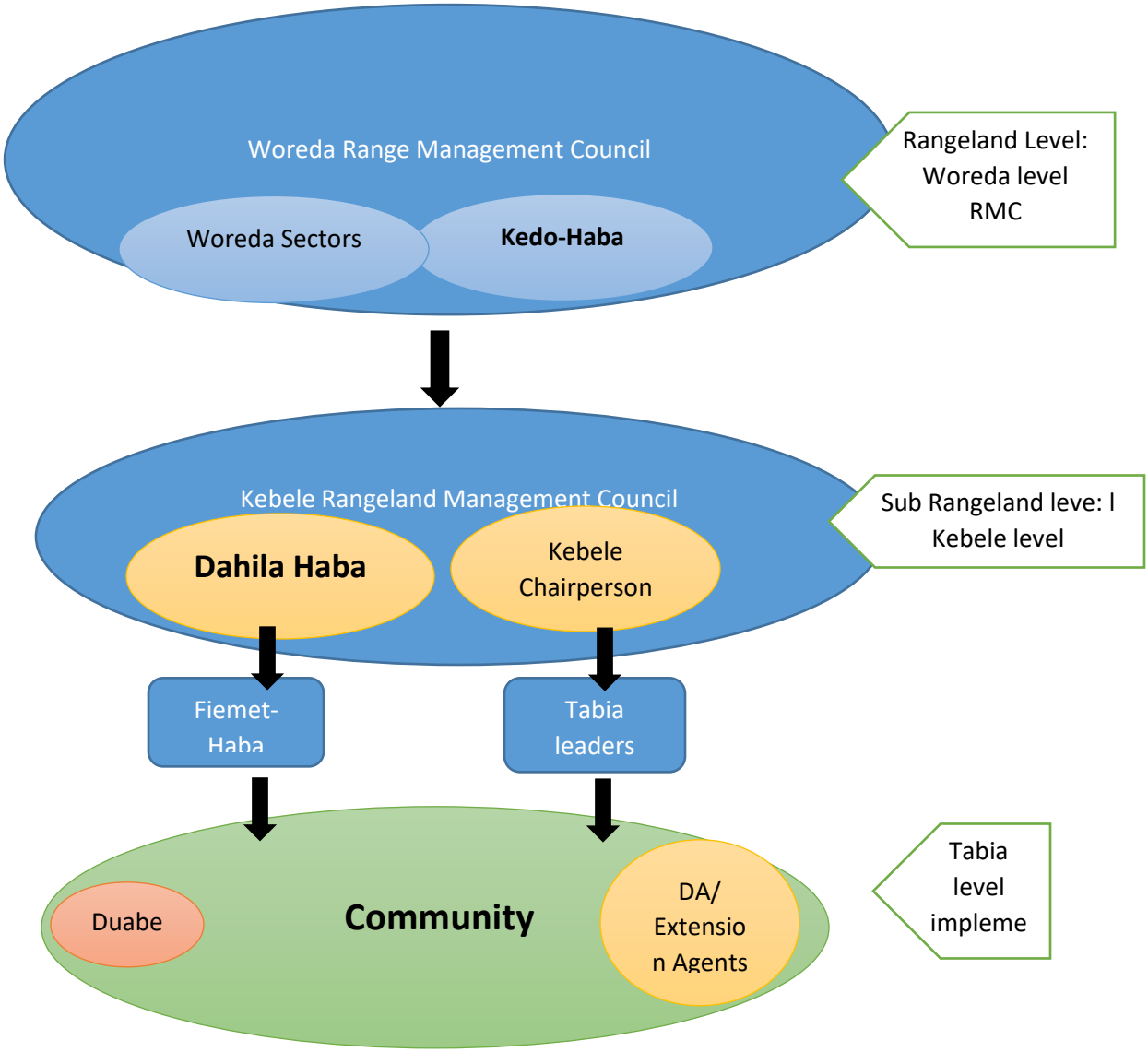



5 persons (1 women, 1 **Kedo-Haba**, 1 PADO/LANRD , 1 water sector staffs, 1 Admin staff) will make up woreda level overall leadership. **Form multi stakeholder partnerships**.

3 persons (kebele chairperson, Women representative, and **Dahla-Haba**) will make up kebele level Participatory Rangeland Management Council(PRMC) .

Fiema, DA/ and Extension Agents , and Duabe

The above Institutional Setup can be rewritten in more simplified terms as follows



- As it is clearly stated in the PRM Process in this guideline document, a greater emphasis must be put on revitalizing and strengthening customary institutions.
- Woreda level Administration office & the political wing, PADO/LANRD /LANRD, the woreda Justice, NGOs, cooperatives and the private sectors shall participate in the empowerment and training/capacity building works intended for revitalizing and engaging the customary institutions in PRMC.
- The kebele level Participatory Rangeland Management Council (PRMC) is the functional unit which directly responsible for implementing participatory rangeland management plan through mobilizing the community. The woreda level rangeland management council give overall leadership support and provide technical support in collaboration with experts from the woreda PADO/LANRD / LANRD offices.
- The woreda level structure links the lowest kebele level rangeland management body to regional bureaus, research institutions, universities, and to private & estate farms. This shall connect **the local to the regional.**
- The woreda level Participatory Rangeland Management Council (PRMC) brings in technical and financial supports from woreda government sector offices, from regional bureaus, and from NGOs for implementation of the rangeland management action plans of the kebeles.
- Customary institution (being more st able, as compared to kebele administration figures who are frequently changed by government) will carry over institutional memories, good range management practices, and approaches and inform newly elected kebele chairpersons who are joining the range council.
- PADO/LANRD, the NRM sector or Land-Use Land Administration & Environmental protection Office, Water resources development office, and the Justice Office work towards attaining policy coverages including for livestock movement regulation, legality of ownership to use rangeland resources or pastoral land certification, and for inclusion of the guidelines of the participatory rangeland management in the

curriculum of pastoral and agricultural extension training institutes and higher education.

## Mapping Exercise in PRM Process

Like Participatory Forest management (PFM), Participatory Rangeland Management requires participatory resource mapping activities which involves elders, men, women, and youth, kebele managers, grassroots level extension agents, and people of different wealth groups known to be the primary users of the resources of the area. **Individual & communities & vulnerable groups are put at the center.**

The main objective of exercising mapping activity is to develop a visual picture of their landscape, natural resources, settlement, and land sues systems. It is based on the participatory mapping that learning, making decisions, developing agreement for practical management of the resources are dozen. In mapping exercise, the participants analyze issues collectively to lead to community based solutions. In PRM, participatory resource mapping exercise beings with participatory rangeland mapping at instigation phase.

The guideline for participatory mapping exercise is summarized as follows.

**Important considerations during preparation for mapping exercise in PRM process**

- Establish a mapping team from local community, - women, men, youth, and elders coming from different wealth statuses. **Local ownership**. At this stage, identify a facilitator, note taker, and map copier,
- Clarify the specific objectives of the steps in the mapping exercises for the community. Community must understand objectives very clearly before resource mapping. The purposes include identifying mobility, resource categories,
- Agree terms with the community. Hold series of meetings aimed at building trust with the community; let the interest groups make open discussions on common issues to prevent reconcile and conflicts; and make sure the voices of all

stakeholders are heard. The role and responsibility of stakeholders including that of the woreda administration must be agreed on initially.

- Understand the interests of the different groups (women group, men group,
- Youths and elder groups or representatives in the groups).
- Visit the area to be mapped & finalize logistics, - fix the date, venue, and time of mapping exercise; develop checklist of questions to be posed, put in place logistic needed for the mapping exercise. Site visit is for getting the community interests, service provision, - human and livestock health services, schools, settlement etc.

- Agree on the number and diversity of the participating stakeholders to entertain different concerns ( consider 12-15 persons)
- First, map with men and women group separately and then bring them into one group , allow for common discussion and agree on the included features;

**Consideration during facilitation of the mapping excursive**

- Produce a Rangeland resource Map
    - Open the mapping exercise work by inviting elders to bless the event,
    - Collect local materials to be used for mapping features (ash, sticks, animal dungs, leaves, flowers, wet & dry grasses etc.
    - Map all landscape features, attributes and Map key resources including rivers, mountains, roads, settlements, grazing reserve areas, private shops service centers, wet and dry season grazing locations, patches of the woodland or dryland forests, estate farms etc., .
    - Map key resources which the pastoralists use on daily, monthly and on seasonal basis
    - Take care with boundaries as it is often sensitive thus causing conflict but possible to show grazing locations with frequent fighting incidences or conflict hotspots.

- Add more details to the map such as water points, clinic/health posts, vet posts, ponds, mineral licks, conflict hotspots, ticks and other parasite habitats, mobility routes & timing in a year, permanent and seasonal settlement areas
    - Make trend analysis,
    - Ask herding and family members responsibilities during mobility
- Acknowledge the participants
- Before completing the mapping exercise, the facilitator, the note taker, and the map copier should check the completeness of the map information
- Community resource Map should be presented for the community for validation, finalized as a Rangeland Map and shared for stakeholders.

## Planning

Participatory Rangeland Management Plan (PRMP) of woredas (Rangeland systems) will be developed passing through the rigorous steps stated in PRM process.

Participatory Rangeland Management plan of the woredas will be prepared by participating RMC at kebele and woreda level, and all natural resources stakeholders including the representatives of relevant woreda sector offices, NRM experts, NGOs, sugarcane and cotton estate farms and the representatives of others community groups living on income from other than livestock production. **Form multi stakeholder partnerships.**

- Include the specific rehabilitation and management needs of each kebele & localities and incorporate the specific needs of women in rangeland resource development & management interventions. PADO/LANRD will offer specific trainings, jointly with other sectors or independently sponsor PRMP sessions, and compile the PRMP of the kebeles into a rangeland system level plans,.
- Jointly explore the specific needs of all the segments of the community, impacts of implementing the PRMP on the livelihoods of the non-pastoral households, and seek ways through which these groups are benefited.
- By participating all stakeholders, identify rangeland and environmental resources management related problems, agree on the rank of each problem, propose own

solutions to each problems, set priorities, develop a common vision, set goal of the management actions, set clear objectives, identify & agree on the set of activities, and make targets by localities and activity types, schedule implementation by months and seasons, agree on joint monitoring schedules, and clearly state the role and responsibilities of participating stakeholders in the implementation process to p**romote accountability & transparency across the stakeholders.**

- Woreda PADO/LANRD, Water & Energy Resource Development and Land Use Land-Land administration & Environmental Protection (LULA&ET) Offices shall organize and sponsor the PRMP session. Thus, woreda PNRM experts will facilitate the planning sessions, compile the draft PRMP document in preferable language.
- The participants of the initial PRM planning workshop meet again to hear the contents of the compiled draft PRMP, review, correct, add comments validate, and to endorse the plan document as a binding document.
- Have a separate RMPP endorsement agreement document/format to mark the agreement by putting signatures of the RMC, & stakeholder sector offices, put the seals of GOs parties to the agreement and document and share the copies to all stakeholders.
- Integrate PRMP with annual plan of the sector development offices and give technical and financial support of the RMC during implementation of the plan.
- Enact the bylaws developed through participation of the stakeholders and which is fully agreed upon by the communities.

Area Closure

Different locations are characterized by varying degrees of land degradation and require differing interventions. Those moderately overgrazed pasturelands require resting & closing for a definite period of time to allow for natural regeneration of important grasses, herbaceous plants, forbs, and browse plants; and other severely degraded rangeland portions may require resting for long periods while treating the site with recommended soil water conservation works. Area closure is implemented though stopping interference

by both humans and animals to allow for natural regeneration of the vegetation cover. However, soil water conservation practices are needed to speed up the process of the site rehabilitation.

Heavily overgrazed locations require keeping the sites free from grazing by livestock for the period of up to five years whereas less degraded sites may regenerate in less than the five years' time. Area Closure remain closed for 2-3 years through banning intrusion. The Participatory Rangeland Management Council (PRMC) organized at woreda and kebele levels will oversee compliances and announce the date of opening & the length of the period it will be used the site based on the recommendation of woreda NRM sector.

Area Closure is implemented with intention of halting ongoing degradation of the rangeland ecosystems, achieve reoccupation of vegetation cover, and to restore the overall ecological conditions of the rangeland land.

- The Participatory Rangeland Management Council (PRMC) (RMC) which is to be formed from Kedo-Haba and woreda sector offices at rangeland system level, and from at sub rangeland level from Dahla–Haba, kebele administration, and women representative shall jointly work on key activities. The sub rangeland level RMC shall identify, and prioritize severely degraded locations and designate as Area Closure.
- The woreda level RMC makes site supervisions, keep the progress reports of area closure interventions. The kebele based structure will discuss on issues on monthly meetings and will announce the decisions, and mobilize the community.
- Area closure without over sowing with grass seeds or planting forages is adequate to treat moderately degraded sites; and severely degraded site can be over sowing upon completing seedbank analysis and collecting the history of the vegetation cover.
- Area closure in purely pastoral woredas of the Afar region shall cover only communal sites; but the agro-pastoral woreda, (if land tenure is differed) can promote group owned enclosure. Such small group (women, youth group for example) based tenure must be agreed by all inhabitants before implementation of area closure for exclusive use by the groups.

- In purely pastoral woredas, women shall be empowered to own tracts of lands to produce seedlings, forage plants, and grasses for thatching houses. In this regard, access to irrigation water shall be created for women. **Promote gender equality.**
- Where needed, woreda NRM experts will call for the Afar regional Research institute and AERO experts (based at Melka Werer center) to hold soil seedbank analysis and the background history of vegetation cover before administering over sowing with local or grass seed from other sources planting forage plants. **Partnership**.
- The kebele level Rangeland Management Council are assisted by the respective NRM experts to categorize overgrazed and degraded lands as poor/severely degraded/ and moderately degraded sites. The management practices or interventions shall base on the degree of degradation.
- Soil Water Conservation techniques, and over sowing with local grass seeds will be implemented in area closure site based on the recommendation of the regional research and Melka Werer EARO, and the experts of the woreda NRM sector.
- A consensus must be reached at by all stakeholders to protect the land not merely by constructing fences but mainly through applying bylaws.
- The closure of the site must be announced to all primary users and occasional visitors living in neighboring kebeles. The range managers/environmental committees and the woreda NRM sector may consider putting additional sites under the scheme near mid of the plan implementation period.
- Keep Area closure sites away from the mobility routes not to block livestock mobility. Fencing along the roads is required where there is option to cross the location.
- Participatory Rangeland Management Council (PRMC) and PADO/LANRD will first ascertain compliances to the agreement of designating the land as Area Closure site. The period of time or the span of time /the number of growing seasons/ for which a specific area is to be kept free from domestic animals is shall be fixed based on the status of the rangeland. The woreda NRM experts advise the local range managers with regard to determining the span of resting time.
- The area closed off from interference must be served by appropriate physical and biological measures. With technical support available from PADO/LANRD, tree seedling planting plan should also be done within the closed sites.

- PADO/LANRD / the NRM team will ensure appropriate level of integration of this area closure intervention with community based DRM plans as well as with other government sponsored watershed management works, PSNP and with all potential land rehabilitation programs.
- Hand tools provided for running complementary operations such as prosopis clearing, bush thinning, water resources development, and for other rangeland management actions will be used to carry out operations in the area closure site.
- The lowest rangeland management Council i.e. Kebele and *Dahla Haba*, in collaboration with Fiema and the woreda Participatory Rangeland Management Council (PRMC) seek possible ways of engaging and benefiting households living on the income generated from other economic activities. .
- Opening the closed site for utilization shall base on the recommendation of woreda PRMC and the woreda NRM sector. Any entrance to these closed sites before the joint announcement counts infringements of the bylaw set for implementation of area closure.
- Any form resource extraction from within area closure sites is regulated by the bylaws and monitored by range managers.
- Towards the end of the closure time, women shall be given an early access to harvesting thatching grass or grass weaving household handcrafts. This access will be done based on the joint recommendation of the woreda PRMC and NRM sector and the local rangeland managers.
- Income derived from selling rangeland products (when and where extraction is allowed) will be invested on material capacity building for local managers e.g. hand-tools.
- Economic opportunities need to be created for those have no livestock ( e.g. harvesting & selling thatching grasses, engaging in fattening schemes using the grass from the reserve, working on activities done in the reserve on payment basis, guarding the site where needed etc.)
- Area closure should not be formed in a manner it compromises the sustainability of adjacent or nearby grazing land. **Do no harm**. The practice should not intensify pressure on the remaining grazing lands. This means, the establishment of area

closure site must consider the availability of a substitute pastureland for animals and this will base on the agreement between the community and sectors.

- Once the land is fully rehabilitated, the location must be protected from practices causing further degradation through designating the site as a dry grazing reserve.
- The land is not to be let for open grazing after rehabilitation. The woreda NRM sector, and the community based range managers- the customary institutions, kebele administration and development agents/extension workers should strive to facilitate the adoption a prototype rotational grazing.
- The woreda NRM sector must fix the types of SWC practices required to be implemented in area the closure sites. The woreda NRM sector must recommend local grass seed collection & over-sowing degraded sites with grass seeds, and give technical support for physical and biological SWC activities.
- The lowest rangeland management Council i.e. Kebele and *Dahla Haba*, will seek the close support of The Rangeland Management Council , and heads of the clans & sub clans, to mobilize pastoral Households.
- Woreda PADO/LANRD , the NRM sector, the lowest rangeland management Council i.e. Kebele and *Dahla Haba*, will seek the close support of the Rangeland Management Council , and heads of the clans & sub clans shall hold a joint monitoring field works and report shall be prepared and documented by PADO/LANRD /NRM.

### Dry Season Grazing Reserve Management

- Ensure the highest level of community and government sector participation in grazing reserve management. Here the role of the government in empowering the customary institution is very important.
- The Participatory Rangeland Management Council (PRMC) must seek the support of woreda government functionaries to continually engage in enhance public awareness in the urgency of managing grazing reserves using schools, market places, and public meeting etc.
- Use indigenous knowledges and practices in combination with modern scientific knowledge on grazing land management. Experts must appreciate and value

indigenous knowledges and viable cultural practices of rang management to maximize the benefit of modern science in grazing land management.

- Site selection and reaching at an agreement with all stakeholders in and around the site to be designated as a grazing reserve is mandatory.
- The consent of rangeland users, elders, youth, women, and of those pursuing livelihoods income area different from pastoral production must be secured. All pastoral villages including neighboring kebeles who bring their livestock occasionally must be informed of the arrangement.
- Village communities managing the site will implement associated and recommended rangeland management practices such as biological and physical conservation measures, bush-thinning activities in such grazing reserves.
- To reduce resource use conflicts, woreda Pastoral & Agricultural Development Office and the Range mangers/ environmental committees /the Range Councils/ DRR committees will make sure that each or a group of villages have designated a sizable portion of wet season pastureland as dry season grazing reserves use;
- A kebele, or a villages should not put all its wet season grazing land under the Grazing Reserve arrangement calculating to use the communal wet season grazing lands with others but the reserves exclusively. In addition the creation of grazing reserve should not be to the extent that it can damage other locations. **Do no harm**.
- Woreda Pastoral & Agricultural Development Office and the Range mangers/ environmental committees or the Range Councils announce the date to ban grazing for a period, and the date to start moving out or to stop grazing after and before onset of each wet season.
    - Woreda Pastoral & Agricultural Development Office or departments mandated with pastoral development, Environmental protection and Rural Land use and Administration Office will provide technical support on how to collect, store, and over sow grass seeds from dry season grazing reserves for reseeding in area closure locations.

## Water Resource Management

Livestock watering points and pasture are the main rangeland resources. This resource includes perennial & seasonal rivers, streams, ponds, hand-dug wells, brackish water, earth dams, hand pumps, motorized wells used for livestock drinking an often for domestic use.

Generally, the following are the summary of guideline for water resource management.

- New water resource development, -pond construction works by the *community* must take into account, anticipated environmental impacts and recommend mitigation measures, must be aligned with pastoral grazing and mobility patterns, and access to markets. **Do no harm**. Water points can add value when placed strategically and sustainably.
- Hand-tools given to PRMC for rehabilitation of water infrastructures are managed by the kebele level Participatory Rangeland Management Council (Dahila-Haba, kebele chairpersons and the women representatives) for proper management of hand -tools.
- The rehabilitation of water infrastructures including hand-dug water wells and ponds involve the reconstruction of the accessories such as cattle troughs, erection of live fences, rehabilitating embankment and related de-silting structures based on the type of the infrastructure.
- All fences made from hedge plants as live fences will be done by community free labor. In addition, the community will contribute and cover the expenses of industrial materials such as cement, nails, and metal bars or integrate community rangeland resource plans with plans of the woreda, NGOs, and other agencies when available.
- Livestock water development initiatives are integrated with catchment treatment with physical & biological SWC works /watershed improvement programs of government and NGOs

- The woreda level government sector or any department mandated to implement policies & programs related to water, mineral, and energy development will play the leading role in guiding the implementation of this water infrastructure rehabilitation and construction plan.
- Water resource rehabilitation, reconstruction, and development plans must be prepared at local level as part of the participatory rangeland management. To achieve the best possible outcome all community's water resources development action plans will be integrated with the fiscal plans of the woreda, and with plans of NGO's working in the area. Focus will be made on planning, management and sustainability of water points to ensure infrastructure are appropriate to the local context that will effectively serve the different needs of users, and that will likely remain functional for longer period.
- The opportunity of using customary institutions as complementary forces in water resource development and management efforts of the government must be exploited. In addition to closely working with experts from the water sector, the participatory rangeland management council shall seek the cooperation other customary institutions to participate in and to strengthen water resources management. **Form multi stakeholder partnerships.**
- In collaboration with water sector development, the Participatory Rangeland Management Council will ensure that all users are involved in the planning, placement of the infrastructure, management of the developed water infrastructure. **Local ownership**.
- The Participatory Rangeland Management Council (PRMC) will have a major role in planning, building, and maintenance of water points.
- The woreda sector offices shall respect the traditional rights and access are maintained. New institutions are not formed without the consent of the traditional owners of the water point.
- The formation of water and sanitation committee shall not affect the cultural ties of the community which is based on the sharing of resources. **Do no harm**.

- Water resource use based conflicts are monitored and managed by the water sector and Participatory Rangeland Management Council.
- Based on the local context, water management and sanitation committees can be created being amalgamated with the customary institutions where women play the leading role in the committee. Women and men managing the water infrastructure must get basic operation, maintenance, group management, and in basic financial management trainings. **Promote gender equality**.
- WASH/ Water management committee will closely work with Health Extension Workers, DA, be linked to health institutions such as cooperative office. **Form multi stakeholder partnerships.**
- The other customary institutions will be oriented on the importance of women participation in water management arrangements. The NRM sector shall facilitate this orientation works. **Promote gender equality**.
- New water points should be located in areas presumed to lead to improving rangeland health/condition or for site rehabilitation or posing no adverse pressure on the existing grazing resources. Community based water development should maximize on the utilization of techniques that do not require sophisticated construction or maintenance and where construction materials and spare parts are easily available on local market.

Over Sowing

- The kebele level Participatory Rangeland Management Council, will mobilize the communities for the implementation of seed collection, over-sowing, and other SWC works in area. The lowest rangeland management Council i.e. Kebele and Dahila Haba, will seek the close support of the Rangeland Management Council, and heads of the clans & sub clans.
- Women participation and benefits must be ensured. **Promote gender equality.**
- Collect grass from the seeds when the grass is mature. Women groups and village dwellers whose livelihood income is earned outside of the livestock sector must be

prioritized to benefit from seed collection and selling to the kebele community or kebele level Participatory Rangeland Management Councils. **Promote gender equality**.

- Economic opportunities need to be created for those have no livestock ( e.g. harvesting & selling thatching grasses, engaging in fattening schemes using the grass from the reserve, working on activities done in the reserve on payment basis, guarding the site where needed etc.)
- Over sowing works will be done by integrating with other site management works such as with area closure, grazing reserve management, terracing, soil bund etc.
- Government sectors, mainly the NRM sector, shall deploy staffs and offer technical supports.
- Woreda Pastoral & Agricultural Development Office/PADO/LANRD / or departments mandated with pastoral development, Environmental Protection Land-use, Land Administration office will provide technical support on how to collect, store, and over sow grass seeds from dry season grazing reserves for reseeding in area closure locations

Bush Thinning

The implementation of bush thinning intervention shall adhere to the following guidelines. Nevertheless, the local range managers/range council/ environmental Committee/ and the mandated woreda sector office may include additional rules and guidelines in the course of the time.

- Mere cutting of bush cannot make effective thinning if not appropriate cutting practices are followed and if post thing monitoring lacking.
    - Invasive plants must be cut at knee height,
    - immediate debarking, and
    - Appropriate management of the cut bushes.
    - Follow sites/monitor the emerging seedlings and coppicing branching out from the cut twigs.

- An effective way of managing invasive bush species is to cut off the tree at knee-height, strip off the bark, and then split the stump as it is found to be effective in about 80% of treated areas. Treatment is most effect if it is applied during the peak dry months of the year (December to January) and may need retreatment for total control in the subsequent months.
- Technical support and guidance from mandated government sector. Pastoral & Agricultural Development Office of the woreda shall make sure that the village community get adequate orientation on importance of selective removal and on the intensity of thinning so as to make bush thinning in tune with physical conditions of the land, density of the plant species to be thinned out, timing of thinning in the year, management of cut bushes, and post thinning management of the sites.
- Bush thinning work should be preceded by a brief initial environmental and social impact assessment. The overview of the environmental consideration and recommendation given as part of thinning operation must be in written form and be documented at the woreda.
- Thinning should be recommended only when, the canopy cover is fully closed to suppress the growth of undergrowth herbs, forbs and grasses; and when the density of woody vegetation found to hamper the movement human and livestock.
- Community participation must be put at the center of the work. The community must discuss, identify problems and give own solutions, set action priority for sites, plan, and implement bush thinning operation. **Local ownership**.
- The woreda NR sector must create awareness on the control of bush encroachment. The effective way of bush control is to prevent the invasive species from being introduced and established in new locations. Prevention relies on awareness and education.
- Woreda Pastoral and Agricultural Development Office, Land Use and Land Administration/EP office shall keep copies of documentation including site progress monitoring reports, and site photographs before, during and after thinning operation.

- Don’t facilitate conditions for dispersal of seeds of the invasive plants. Avoid dragging mature woody plants across the site to help reduce the potential of spreading undesirable seeds. **Do no harm**.
- Burning large piles on soil can damage soil. Use bush cuts and branches for fencing or making smaller paddocks where this thinning work is coupled with area closure initiative. Pile on rocky surfaces and burn, i.e. avoid burning piles on productive soil. **Do no harm**.
- As much as possible, try to use the stems and branches of cut trees for dome stick fuelwoods. Do not produce charcoal as the practice may prompt deforestation in the name of reducing encroachment.

- Women participation is priority. When labor work is done through payment by NGOs, government programs, and projects funded by intergovernmental agencies, it is mandatory to make working hours flexible and work types suitable for women.
- Manage the property of the community given from government and NGOs for running bush thinning and complementary operations in the hands of the Rangeland Management Council. The kebele level Participatory Rangeland Management Council will be responsible for proper storage, distribution, and ascertaining the proper utilization the hand tools.
- Kebele level Participatory Rangeland Management Councils will discuss with the community and set bush thinning priority sites, use Fiema, Extension Agents (EA), Development Agents (DA) and other *Tabia level* (sub kebele level group leaders) to run adequate mobilization community’s participation in bush-thinning operation.

Wet and Dry Season Grazing Area Management

Wet and dry season grazing locations traditionally classified as two important sites to use alternatively in dry and wet seasons. Pastoral households switch between these two locations through regulating time to use and to evacuate the locations. Customary

rangeland management institutions have applied the season mobility systems as an ecologically responsive mechanism of grazing land management. This mobility is not only a means to access water and pasture but also a system of resting grazing which allows for completion of the full lifecycle of grasses, forbs and annual herbs. Whereas the mobility cycle took long time measured in season, it is as important as grazing and resting in rotational grazing system.

- The Participatory Rangeland Management Council (PRMC) and the woreda line departments should jointly adhere to the following guidelines and to this additional points to be included with participation of all stakeholders in the future for managing the dry and wet season grazing locations.
- Natural resource management experts who are assisting in the implementation of dry and wet season grazing plan must have a good understanding and knowledge of the indigenous pastoral grazing methods and techniques.
- The views, needs, and concerns of women shall be considered in the management of dry and wet season grazing area management and in designation of pastureland as grazing reserves. **Promote Gender Equality**.
- Livestock shall be taken to and out of an area designated as a wet or dry season area within a specified timeframe. Information as to when to start, where to start, and when & where to stop grazing in a given portions will be communicated as early as possible. PADO/LANRD and Rangeland Management Council will take the leading role in implementing this management action.
- Other than those sick animals, pack-animals, calves, and milking cows, no herd is kept in wet season grazing locations during dry season, and dry season locations should remain free from domestic animals during the wet seasons. However, PADO/LANRD and the Rangeland Management Council, in consultation with village community can allow animals under *fattening* schemes run by groups or private households.
- Compliance to formal and customary laws governing resource use and to community bylaws supporting the implementation of this rangeland management

plan is regularly monitored and ascertained by Rangeland Management Council and Pastoral and Agricultural Development office of the woreda (PADO/LANRD).

- Rangeland Management Council, woreda Agricultural and Pastoral Development, Water Mineral Energy, Environmental Protection Land Use and Land Administration offices of *the* woredas, and other partners will jointly develop a holistic management strategy for selected areas that provide for grazing, resting of sites, and controlling invasive plant species in the dry or wet season locations and they can also consider additional areas management action plan. The work is to be integrated with other rangeland management and improvement actions.
- Improvement in the range conditions and the reversals achieved in the trend of the rangeland resource base due to revitalization and reinstitution of the practice of regulated seasonal movement should be monitored annually and results documented by Pastoral & Agricultural Development Office.
- Sub rangeland system leaders will coordinate and oversee the works and the timing of moving cattle to and from dry season locations. Sub rangeland system leaders (Dahila-Haba, Fi'ema, *Tabiya* level workers and Duabe) seek the cooperation of kebele leaders and religious leaders, for agreeing on the length of resting and grazing and for ensuring compliances with reference to bylaws set for the arrangement.
- New livestock watering points may be developed in dry season grazing locations only if it is believed to increase the efficiency of using grasses and browse plants, and when it will not cause overgrazing and permanent degradation.
- Both for wet and dry season grazing locations, traditional grazing system with heavy stock of animals need to be created (to create animal impact that creates the fundamental process of ecosystem that sustain the rangeland health) this avoid gentle grazing system (not selective grazing to occur).

Prosopis Control and prevention

Ways of controlling Prosopis include biological, physical, and chemical measures where each incurs its own economic and environmental cost. Physical control measures can be applied coupled with effective utilization for economic use such as for energy generation for domestic and industrial needs, and for production of wood materials.

- Use participatory Prosopis control field guide (published and distributed in April 2018). This Prosopis control field guide gives an insight into handy prevention and control measures.

The major steps to be followed in Prosopis control works are stated as follows.

- Identify sites in three categories as Prosopis free, sparsely occupied Prosopis stands or and highly invaded site and give priority for the later. From point of view

of implementing labor based clearing work, it is advisable to focus on monitoring Prosopis free and sparsely invaded sites.

- Give priority for key grazing locations and important cropping lands
- Identify sites for clearance and develop achievable action plan which covers clearing approaches, post clearing site monitoring & management the site, and post clearing utility purposes.
- Make Prosopis clearing plans in tune with the community's capacity.
- Integrate Prosopis clearing plan of the community with other programs and projects run by government, agencies of international community, and by NGOs.
- Do not exclude other land use types in favorable pockets if there are community members solely depending on crop production.
- Develop clear roles and responsibilities and agree on the details by involving all stakeholders, - mandate holding government sector, and customary & formal community leadership structures.
- Make Prosopis control strategies pursuant to land use type, - uproot seedlings before and during growing months or at planting & weeding time in irrigated croplands. Rangelands must be monitored for Prosopis control and prevention, at least, quarterly per year conveniently twice before and after rain season.
- Use cut stems for firewood production for use of participants. Do not make large pile at a place and burn as this practice may affect productive soils.

- Make intensive post clearing site monitoring works to control the likely emerging seedlings and coppicing of the invasive.
- Clearing requires cutting and removing roots by digging up to the depth of 20-30 centimeters. Woreda Pastoral and Agricultural Development Office (PADO/LANRD) deploy technical staffs for site selection /priority setting, during clearing and for post clearing monitoring operation.
- Whenever earthmoving machineries are used (being made available through the assistance external financial sources or by government sectors) care must be given for the environment: intimal environmental impact assessment must be done; the machine blade must operate not deeper than 30 centimeter to remove roots to protect the top soil.
- Adequate training of resource users on how of the utilizing the equipment is mandatory before allowing the utilization of mechanical or simple motorized chainsaws.
- The progress of Prosopis control and prevention works must be prepared at kebele level and reported to woreda PADO/LANRD.
- Integrate Prosopis clearing with area closure, over sowing grass seeds, SWC practices, and with grazing reserve management interventions. The site must be closed for a couple of growing periods if it is to regain its status before invasion.
- Woreda Pastoral and Agricultural Development Office and the NRM sector should prepare data collection formats, collect the status of location in terms of Prosopis invasion, control and prevention works.
- All Prosopis control plan of the community must be integrated with annual plans of the woreda, and the region. The plan must be shared for regional, woreda sectors, regional and federal research institutions and for the agencies of international community to solicit for implementation support.
- Prosopis clearing must be followed by a continuous site monitoring work to generate information which will guide the post clearing management interventions

such as uprooting new seedlings, removing new coppices, SWC needs for control of erosion, weeding as necessary etc.

- The regional administration and BoLAND (Bureau of Agricultural and Livestock and Natural Resources Development) should call upon international, national, and regional research institutions which would identify potential areas of Prosopis utilization including but not limited to feed production, energy generation for factories & domestic purposes, and for production of wood products taking into account the possible areas of community participation as well as the benefits accrue to the pastoralists.
- Land use changes due to utilization of Prosopis for economic use must be determined based on the land capability and interests of the community. Woreda government's NRM wing will decide and allocate lands for appropriate use types within the communal tenure arrangement after *Prosopis* is cleared from a given invested site.

## Dryland Forest /Woodland Management

Participatory rangeland management action embraces the management of browse bushes and shrubs forming the dryland forest in Afar region. The enhancement of carbon stocks in the dryland forest and sequestration capacity through management practices such as reduction of deforestation, controlling charcoal burning, adoption of appropriate technology of domes energy utilization and house construction will contribute to adaptation and mitigation of effects of the climate change.

- The NRM sector, the Participatory Rangeland Management Council(PRMC) , NGOs, and other mandated woreda institutions shall jointly or in accordance to the respective mandate shall consider the following points:
- Integrate management approaches (different SWC for example) of all natural resources by understanding the multiple functions of the woodlands/forests.
- Dryland forest management activities should aim at improving the sustainable use and availability of food, medicinal plants, fuelwood & wood for construction, recreation, economic utility, and other ecological goods and services.

- Largescale commercial level or otherwise level of extraction of the forest/woodland resources for direct forest product utilization or with intention of land-change , whether it is major forest products or non-timber forest product, is decided with formally entrusted government sector in consultation with range managers/ clan leaders, and grassroots level formal administration entities.
- In collaboration with Semera University and with the Afar regional research institute, the woreda NRM sector will promote fodder plants.
- Hold a series of community NRM dialogues, and have negotiation sessions on participatory management of the dryland forest resources as part of the rangeland resources,
- Improve knowledge of the current trend and the capability of resource assessment
- Improve knowledge of agro forestry practices.
- Agree on compensation mechanisms, if people/households are to be reallocated, and agree on land exchange arrangements by participating all relevant woreda and kebele level stakeholder government offices.
- Dryland forest/woodland management activities should aim at improving the sustainable use and availability food, medicinal plants, fuelwood & wood for construction, recreation, economic utility, and other ecological goods and services.
- Support Participatory Rangeland Management Council(PRMC) to strengthen the dryland forest resources management capacities. Strengthen this institution as a dryland forest/ woodland governance institution operating at kebele and woreda levels, and link the PRMC and the issue of the resource to zone, regional , and national levels organizations.
- The Participatory Rangeland Management Council (PRMC) shall regulate extraction of medicinal plants and closely work with herbalists those collecting medicinal plants.
- In consultation with the woreda government, the woreda and kebele level Participatory Rangeland Management Council (PRMC) work to keep the level of extraction of the medicinal, ornamental plants and trees for making artefacts from the forest to minimum acceptable level.
- Participatory rangeland management actions embrace the management of browse bushes and shrubs forming the dryland forest in Afar region. The community,

therefore, will be benefited in return for the rangeland the dryland forest management practices and enhancement in the carbon stocks in the selected shrub lands. The range councils will link request the woreda PADO/LANRD and Land Use Land Administration Environmental Protection offices to register the patches of dryland forestlands in their jurisdiction and to link to regional, federal, and international institutions for potential benefits from carbon trading.

- In collaboration with woreda PADO/LANRD and others, identify and use mitigation and adaptation measures
- Develop dryland forest woodland resource management plan through stakeholder participation.
- Strengthen regional and local initiatives for dryland resource management,
- Establish cooperatives and youth groups to engage in gum & resin production from the dryland forests.
- Clarify people's access, right, obligation, roles and responsibilities
- Support transitions to other livelihoods out of pastoralism

Where sites are designated as protected area or as an area which is put under special management interventions.

- Develop resource map of the area with participation of the community, digitize, verify and use maps with all attributes,
- Assess and determine land capability, compatibility as well as incompatibility of the existing land use types
- Assess demography and trends
- Assess biological diversity, ecological functionality, economic viability of the site
- Know/assess legal and institutional backgrounds
- Apply drought-prone and low rainfall areas water conservation practice which is as important as physical soil conservation for more secure and increased biomass production,
- The NRM sector and other mandated woreda institutions and NFGOs seek extension support to apply modern scientific management practices and maximize impacts through use of complementary & effective traditional land management systems;
- The NRM sector and other mandated woreda institutions and NFGOs shall support the development of nursery sites in parts along the downstream Awash and other perennial rivers. Afar regional research institute
- Woreda NRM team should run tree seedling production and transplanting operations. Woreda NRM sector shall manage nursey sites. In addition, the woreda NRM team provides technical support for transplanting and guides routine monitoring operation during post planting seasons rests on the NRM sector.
- Work in collaboration with or seek the collaboration of private sectors or government run sugar and cotton estate farms to get access to appropriate site for planning nurseries and to irrigate water to run nursery sites.
- Work closely with regional universities, and research stations and get technical support the species selection for plantation.

- Approaches to natural resources management should be associated in a proper blend of various environmental programs and activities while taking into account local climatic, human, social, and cultural factors. Here in this region, forestry programs should cover rangeland improvement action plans as well; and all management endeavors for the

must put the pastoral communities, pastoral knowledge, and traditional management approaches at the center of programming.

- Re-assert the importance of environmental and social impact assessment in making land use decisions, - rangeland reserve, woodland/forest area, cropland, settlement etc.
- Improve data sharing between federal regional, woreda and kebele levels
- Clarifying procedures for communities to acquire woodlands /forest communal ownership rights certificates. The region in general understands and maintains the communal ownership grazing dryland forests, and woodland are of supporting browsing and grazing livestock.
- The communal ownership of resources including the dryland forests and woodlands within rangeland management arrangement is culturally acceptable arrangement. It is important to designate the dryland forest or the woodlands currently under livestock production land use, as forest/woodland reserve, protection and production forest.
- Where there is a continuous, vast, and relatively intact dryland forest /the woodland cover currently not under livestock production land use, the region shall make economic, social, environmental impact assessment and get full consent of woreda PRMC and the mandated sector before gazetting the land.
- For certain unique sites, determine the type of forest lands according to preserved, protective, and productive woodlands/forests.
- Realize and improve collaboration between stakeholders with a mutual interest in sustainable management of dry forests /woodlands in Afar region.
- Provide technical support and formal training for producing dryland forest management action plans as part of the PRMP at the kebele level to bring together multiple management objectives.
- Prevent the degradation of dryland forest/woodland cover while also creating economic opportunities by supporting the establishment and sustainable management of non-timber forest products, tree plantations, and promote agroforestry practices to reduce pressure on dry forests. PADO/LANRD and the NRM sector shall work with PRMC at all levels to realize these potentials.

Management of other invasive plants:

There are indigenous and exotic plant species which are becoming nuisances in the rangeland. Most indigenous unpalatable plants have become appallingly invasive being favored by their adaptability to the effects of the climate change. Many thorny acacia species and unpalatable creeping/climber plants have adapted to the recent climatic change effects to develop into a status of invasive.

- There are also invasive weeds which are recently introduced from other countries. *parthenium* weeds. The participatory rangeland management plan of the community should contain plans of controlling and preventing the expansion of these weeds into rich grazing fields. Universities and research institutions should identify feasible cultural practices of eliminating these weeds, select sites and engage the range councils and the communities in weed control works.
- Experimental sites for weed control will be chosen for running action research by putting community participation at the center. This participation should aim at imparting the weed management skills to the communities and grassroots level government functionaries who would sustain the effort.
- All safety precautions shall be made while weeding *parthenium* weeds with hand. Experts from woreda NRM sector should give orientation in advance on how of weeding where communities are implementing pathenium weed control action plans.
- As much as possible, prevent livestock from feeding on parthenium weeds to avoid exposure to and taking toxic substance with milk.
- *Parthenium* and other invasive weeds must be weeded out quite before the inflorescence stage to break its lifestyle and worker shall make precaution not to be exposed to the toxic pollen grains of the weed.
- Timing of the clearing of perennial thorny invasive bushes and creeping invasive plants must be fixed with reference to moisture condition and seed bearing cycles. These perennial invasive plants are preferably cleared during peak dry

months to avoid regeneration through coppicing. Therefore, experts should assist the range councils to fix clearing season/ months.

- The advantage of using indigenous knowledge and practices for controlling and prevention of invasive must be reaped. The localized indigenous knowledge and practices, when proved feasible, are documented and shared to other locations.
- The range council shall mobilize the communities for contributing free labor to clear invasive, and researchers call for assistance to experiment new practices of weed control in the rangelands.
- Use biological agents and chemical substances to control these invasive plants must be led by regional and federal research institutions and must be under strongly regulated conditions.
- The community must be advised to promptly inform the woreda range council and the NRM sector if new plants are found to spread, and when indigenous weeds and unknown pests are progressively invading grasses and browse plants.

## Soil Water Conservation

- In collaboration with the DRM committee and other customary Institutions, the kebele Participatory Rangeland Management Council will select sites for rehabilitation, and mobilize pastoral households and others residents. The work should aim at rehabilitating the sites and at reducing vulnerability of flash floods and erosion effects.
- Woreda Pastoral & Agricultural Development Office, Woreda Water Mineral and Energy Environmental Protection Land-use, Land Administration office shall consider new plans every year and provide technical and material supports.
- Unless support is available from implementers (government sectors, NGOs and other programs of intergovernmental agencies, the community shall continue contributing free labor into this SWC endeavor, and hence no payment shall be made for construction of soil-water-conservation works.

- Women shall participate on soil water conservation works equally with fellow men in the village. However, kebele leaders/the range managers/ and others organizing the work shall allocate less labor demanding work for sick, lactating and pregnant women.
- The upper feeding areas of the gained from rehabilitation works and from the resource developed through this intervention.
- Women will have special access to this sites to collect thatching grasses even before the location is announced to be open for grazing.
- The volume work is measured and allocated to groups based on the local and regional norms set for daily laborers. DA and kebele managers will measure & give works and receive when completed.
- Afar Regional Research is taken as a stakeholder and it is expected to recommend appropriate grass species for over sowing in degraded sites and while providing technical support for local experts in woreda offices.
- The ways through which those living on other livelihood income areas can participate and benefit form SWC and environmental rehabilitation works shall be sought & determined through discussion
- The Participatory Rangeland Management Councils (PRMC) make the hand tools available for users timely and ensure these hand tools are used in rotation among the villages or *Tabias* appropriate.
- Pastoral Households and households those pursing other livelihoods whose incomes are directly or indirectly based land and land-based natural resources shall equally participate on soil-water-conservation works. Physically impaired community members should not be forced to participate on the labor-intensive works and get benefits with no discrimination.
- Integrate SWC works with other government and NGO run programs; link SWC works with existing watershed management programs/campaigns. Soil-Water-Conservation activities should be done during the months convenient for the community.

- Consider the fact that degraded rangeland must be rehabilitated by animal impact. This enables breaking of soil crust, soil structure development fertility increment to retain soil moisture for the best performance of the plant species or biomass yield.

## Bylaw Development

PRMC, with the support of the NRM sector and woreda Justice Office, the users create bylaws to guide the management of the resources. This bylaw sets the rules dictating community mobilization & the norms of participation, resource utilization, mobility, time of resource utilization, norms of benefit sharing and the weight responses to various infringements.

The implementing Participatory Rangeland Management Plans require the development of bylaws by involving the community and key sectors. The bylaw will complement the customary laws of rangeland resource management, and the community shapes its bylaw in a manner that codes and article are in harmony with both formal of the land and with laws of the customary institutions. The bylaw document may use any format as suitable. However, it should have a title, list of implementers, set of rules corresponding each action plan, map of the area, date of commencement of enforcement etc. and must be in a local language.

If not limited to, the process of developing bylaws, should, adhere to and pass through the following steps.

Considerations in the process of Bylaw development

- Woreda NRM Team make a preliminary discussion and fix dates & venue for site visitin key kebele offices
- The range managers/ Dahila-Haba & Kebele Chairpersons/ or the Rangeland Management Council / Kebele leaders/ meet and proposes draft plan contents
- The proposal presented on the general kebele meeting, the idea, views of the community gathered and compiled by woreda NRM staff

- The Kebele Rangeland Management bodies (Dahila-Haba & Kebele Chairpersons) or bodies named as the Range Council discuss on the draft bylaw, sign meeting minutes, and finalize it.
- The draft bylaw sent to the woreda NRM sector for comments
- The woreda council discuss on the bylaw and document meeting minutes
- The woreda chairperson signs the bylaw and a copy of the endorsed bylaw sent to woreda Court Office.
- The bylaw posted on public /kebele office, schools, woreda NRM)/ notice boards
- The Kebele Council /office keep the copy of the bylaw and enforce it
- Make sure the provisions of the bylaw are not negating and hence conform to local culture and to the law of the land.

## Correcting Placement of permanent villages

The progressively increasing the human population growth and the consequent increase in the demand for pasture and water have triggered placement of new village centers in formerly productive grazing locations.

In Afar, Kedo-haba (clan leaders) and Dahila-Haba (the sub clan leaders) used to control movement and settlement acting as the guardians productive grazing locations. Historically, these community leadership structure restrict the occupation inside the rangelands through putting fines based on the customary laws. At present, unplanned placement of new villages in grazing field has become more rampant due to the degrading power of the customary institutions and because of the existed capacity gap in implementing land-use policy.

To regulate unplanned occupation, the Rangeland Management Council will closely work with the government sectors holding the mandate of land use policy implementation & rural land Administration. The council shall also work PADO/LANRD and woreda Justice Office to get technical & legal backstop in the endeavors it would make to relocate wrongly placed villages (where deemed necessary) and in efforts of controlling further occupation.

Whereas the Rangeland Management Council and the sector offices may consider additional points, the following guideline should apply as a minimum requirement for appropriate placement of villages and for preventing wrong placements in the future.

- All movements, placements of new villages, evacuation of rich communal grazing fields and the relocation of old villages shall depend on the joint agreement between the rangeland managers or the range councils representing the community and the formal institutions.
- Aware the public the fact that wrong placement and expansion of permanent settlements accelerates the degradation of grazing resources in in many grazing systems.
- Create understanding among the pastoralists about the disadvantages of unplanned positioning of villages in relation to grazing land since such settlements could disintegrate rangeland ecosystems into small and poorly functioning units.
- Make efficient use of dry and wet season grazing locations through appropriately positioning villages. Hold a series of community dialogue sessions to impart the concept and the merits of adopting appropriate land use approaches.
- Understand “repositioning” of villages often connotes ‘resettlement’ which is rejected by pastoralists regardless of the multiples of benefits. Therefore, discussion and agreement should be reached by the community before moving settlement outside of the rich grazing ecosystems.
- The rangeland improvement plan should involve regulating the formation of new permanent villages, in communal grazing locations.
- Continuous effort to developing established/long existed villages outside of rich grazing locations which would create more demand for social services and thus indirectly discourage establishment of new villages.
- The responsibility of regulating /restricting the establishment of permanent villages in sites designated as communal Wet and dry season locations, communal Grazing reserve , area closure, conservation area, communal dryland forest & woodlands will rests with PADO/LANRD , Land Use Land administration and Environmental Protection offices, and on the Rangeland Management Council

**Application of technologies and the adoption of new cultural practices of Rangeland Management**

The possibility of brining in new technologies and new cultural practices for improving rangelands is high. International, national, and Regional research institutions are devoted to improving the productivity of rangelands through introducing technologies applied elsewhere in the world and by adopting cultural practices thought to be viable under the environmental, social and economic settings of the arid region.

- New cultural practices and the application of technologies should be tested and verified under controlled system before released for local application.
- New cultural practices deemed to improve the productivity of pasturelands must be verified for fitting into the social fabrics, cultural norms and to economic conditions of the pastoral communities. Practices should not be the type that doesn't fit.
    - The introduction, multiplication, and dissemination new plants, animal species, erosion control, chemicals for anticipated increase in the productivity, pest control in the rangelands and for plant protection purposes, biological control and etc. Shall be regulated by the law of the lands and base only on the formal recommendation of the authorized body in national regional State. The woreda PRMC shall implement such new interventions only when the authorized body certifies the application of the technologies, the utilization of the inputs, and adoption of the new way of controlling pests, weeds, etc and when extension support is given from government/PADO/LANRD and other sectors.
    - In connection, the kebele and woreda level PRMC shall report when strange plant & animal species are observed in the rangelands.; and make sure any emergency operation for controlling these nuisances are a stepwise intervention to avoid and minimize the likelihood of higher side effects.

## Monitoring and Evaluation

**Baseline data.**

Initially, short site description data will be collected from selected intervention areas with support of woreda pastoral development offices. This data include site photos and qualitative description of the sites to be documented to serve as a baseline data against which changes over time can be measured. Whereas PADO/LANRD will be the lead agency to keep documentation, Water & Mineral resources Development, and Land-Use-Land Administration and Environmental protection offices will assist the RMC in submitting sector reports related to the works of the RMCs. In addition, progress monitoring work comprises routine supervision works, recording, and presentation of reports on the following meetings.

**Inter –Grazing System Meeting**

Regular biannual meeting of the leaders of the adjacent grazing systems must be held since rangeland resources are shared among pastoralists. In addition, meetings between RMC of adjacent woreda are needed to synchronize rangeland management efforts in all neighboring grazing systems. Such synchronization will help us prevent resource use conflict which often triggered by the development of rangeland resources at a corner which pulls people from where similar efforts are lacking. Inter grazing systems

**Quarterly Range Council Meeting**

The woreda RMC is expected to hold meetings for heads of sub rangeland units Dahila-Haba, Women representative, & the kebele chairperson) on quarterly basis. On this

quarterly meetings, the RMC and other stakeholders will discuss on the emerging issues and on progress of implementation of rangeland management action plans of the woreda/the rangeland system plans. PADO/LANRD and other NRM sectors shall sponsor quarterly meetings of RMC.

**Kebele Monthly Meeting**

This sub Rangeland **system Leve or** Kebele level RMC will be held monthly. The sub rangeland level RMC will call meetings for DA, Extension Agents, Kebele Managers, prominent elders, and the community to discuss the progress of the implementation of this RMP. The representative of woreda level RMC may be called to attend this meeting when it does not incur cost.

**Reporting**

The sub rangeland level RMC will submit monthly progress reports where the woreda RMC review and document it with PADO/LANRD.

The Rangeland system level RMC, will similarly report accomplishments to region level Pastoral and Agricultural Development bureau who will again share the report and analyzed comments to Semera university and regional research institute, and back to woredas.

**Joint M&E**

Overall assessment of annual accomplishments shall be visited by senior rangeland experts /staffs drawn from Regional Pastoral and Agricultural Development Bureau (PADB), Woreda PADO/LANRD , RMC and by NGOs working in the area of rangeland management. The regional PADB shall compile evaluation reports and share the lesson learnt form the rangeland management interventions.

# Annex

## Planning and Agreement Formats

Identification of key problems

(The perspectives of rangeland trend, rangeland conditions, and land management)

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| Major Rangeland Related problems<br>ከግጦሽ ሀብት ጋር የተያያዙ ችግሮች | Proposed Solutions/ መፍተሔዎች | Rank<br>ደረጃ (1ኛ፣ 2ኛ፣ 3ኛ፣ 4 ኛ … ብለዉ ይለዩ) |
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**Establishing Area Closure Sites**

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| Name of the locality to be closed<br>የሚከለለው ግጦሽ ቦታ ልዩ ስም | Name of the Administrative Area/ ቦታው የሚገኝበት ቀበሌ/ kebele/ County/district | Approximate Size of the land in Hectare<br>የቦታው ሰፋት በሔክታር | Length of the resting period / years/<br>ቦታው ከእንስሳት ንክኪ ዉጪ የሚቆይበት ጊዜ | | | | |
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Institutional Assessment (Roles in implementing the plan and capacity Gaps)

| S/N | Name of Institutions<br>የተቋሙ ስም | Roles expected for the institution<br>የስራ ድርሻ፣ ኃላፊት፡ ተግባር፡ | Assistance needed by the institution<br>ምን ዓይነት የአቅም ግነባታ ያስፈልገዋል |
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**Dry Season Communal Grazing Reserve Management**

**ለደረቅ ወራት የሚዉሉ የጋራ የግጦሽ ቦታዎችን ማቆየትና መንከባከብ**

| Name of the Administrative Region/ County, District, kebele | የንዑስ ግጦሽ ቦታ ልዩ ስም<br>Name of the locality | Area in ha (approximate)<br>የቦታው ስፋት በሄታክር/ በግምት/ | Wet seasons to reserve by years<br>ቦታው የሚጠበቅበት የዝናብ ወቅት | | | | |
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Bush Thinning

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Name of the / _____

| Name of the Rangeland/Pastureland<br>ቀበሌ ወይም በቁጥቋጦ የተወረረው ግጦሽ አከባቢ | Sub rangeland / Specific name<br>ግጦሽ ቦታ ልዩ ስም | Approximate total Area in Hectare<br>የቦታው ስፋት ግምት በሄክታር | Year of implementation and size to manage<br>መቼ ይሰራል (በዓመት በኢትዮጵያ አቆጣጠር) | | | | |
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Identification of Rangeland and the resources

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| ዋና ዋና ግጦሽ ሀብት ጋር ተያይዘዉ ያሉ የተፈጥሮና ሰዉሰራሽ ሀብቶች<br>Major natural and human – made Resources in the rangeland system | መገኛ ቀበሌ ወይም የቦታዉ ልዩ ስም/Kebele/Village or specific name of locality | **ባለቤት ፣** ተጠቃሚ ባለመብትቀበሌ፣ መንደር፣ አከበቢ<br>Villages/kebeles holding user/ access right |
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| irrigation scheme/canals dam, diversion መስኖ መሠረተ-ልማት ፡ቦይ፣ ካናል፡ ግድብ | | |
| Seasonal Rivers/ክረምት ብቻ የሚፈሱ ወንዞች | | |
| Ponds /ኩሬዎች/ | | |
| Wells/Ela/ የዉሃ ገድዳዶች | | |
| Motorized pumps/ጥልቅ ባለሞተር የዉሃ ገድዳዶች | | |
| Hand-pumps/በእጅ የሚቀዱ የዉሃ ገድዳዶች | | |
| **ጨዉማ አፈር፡ ቦሌ፡ /Saltlicks/ Aya, Megado, etc** | | |
| Forestlands**/ደኖች** | | |

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| ዋና ዋና ግጦሽ ሀብት ጋር ተያይዘዉ ያሉ የተፈጥሮና ሰዉሰራሽ ሀብቶች<br>Major natural and human – made Resources in the rangeland system | መገኛ ቀበሌ ወይም የቦታዉ ልዩ ስም/Kebele/Village or specific name of locality | **ባለቤት** ፣ ተጠቃሚ ባለመብትቀበሌ፣ መንደር፣ አከበቢ<br>Villages/kebeles holding user/ access right |
| Important Wildlife habitats / የዱር ኣራዊቶች መኖሪያ ቦታዎች | | |
| Cultural or historical sites in the rangeland or grazing system / ታሪካዊና ና ባህላዊ ቦታዎች | | |
| Other resources/ ሌሎች | ○ | ○ |

**Main Dry and Wet season grazing sites**

ዋና ዋና የበጋ እና የዝናብ ወቅት የግጦሽ ቦታዎች

Name of the grazing unit /የግጦሽ ክልል ስም _____

| የመሬት አጠቃቀም/Land Use Type | የቀበሌ፤ወይም የግጦሽ ቦታ ስም/ Name of woreda/district/ village/county | **ባለቤት ፣** ተጠቃሚ ባለመብትቀበሌ፣ መንደር፣ አከበቢ **Villages/kebeles holding user/ access right** |
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| Dry Season Grazing Locations<br>የበጋ ግጦሽ ቦታዎች | | |
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| Wet Season Grazing Locations<br>የክረምት ወይም የዝናብ ጊዜ ግጦሽ ቦታዎች | | |
| | | |
| Sites used for Dry and Wet seasons<br>የክረምት እና የበጋ ጊዜ ግጦሽ ቦታዎች | | |
| | | |
| በኣፈር ክለት ምክንያት ተተው የግጦሽ በተዎች ቢኖሩ ይገለፅ/ Lands due to abandoned / overgrazing/degradation | | |
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SWC and other activities

| Activity type | Kebele | Name of the site | Unit | Qty | Year of implementation in Ethiopian Calendar (2009-2013) |
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# ቃለ ጉባሔ

| ቀን | | |
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| | ሰዓት | የስብሰባዉ ቦታ |
| ስበሰባውን የጠራዉ | ወረዳ | |
| የስብሰባዉ ዓላማ | _____ ወረዳ/ ኣከባቢ የጋራ ግጦሽ ቦታዎች ልማት ዕቅድ ላይ መወያየትና ማፅደቅ | |
| የስብሰባዉ መሪ | | |
| ቃለጉባኤ ያዥ | | |
| ሰዓት ተቆጣጣሪ | | |

| **የተካፋዮች ስም ዝርዝር** | | | |
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| ተ.ቁ | ሙሉ ስም | ተ.ቁ | ሙሉ ስም |
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| ኣጀንዳዎች | ኣቅራቢ | | |
| የጋራ ግጦሽ ልማት ዕቅድ ዉስጥ የተካተቱ ስራዎች ሁሉ ከታች ከተራቁጥር እሰከ ተራቁጥር የተዘረዘሩ ነጥቦች የዚህ ስብሰባ ኣጀንዳዎች ናቸዉ። | | | |

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| **ዉይይት** |
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| • ከላይ የተዘረዘሩ የተዘረዘሩ የግጦሽ መሬት ማሻሻያ ዕቅዶች ላይ በስፋትና በጥልቀት ተወያተናል። |
| **ማጠቃለያ** |
| ከላይ የተዘረዘሩ የተዘረዘሩ የግጦሽ መሬት ማሻሻያ ዕቅዶች ላይ በስፋትና በጥልቀት ተወያይተናል። የተዘረዘሩ ስራዎች ላይ በመጨመርና በማሻሻልና በሰነዱ በማካተት ከዛሬ ጀምሮ ለሚቀጥሉ 5 ዓመታት በጋራ ለመተግበር መስማማታችን በፊርማችንና በመሥሪያ ቤቶቻችን ማህተም መትተን አጽድቀናል። በዋናዉ የዕቅድ ሰነድ ዉስጥ ከታቀዱ ሥራዎች ጋር የተዘረዘሩ የሥራ ድርሻዎችንና ሃላፊነትን ለመወጣትና ዕቅዱን በሥራ ላይ ለማዋል ተስማምተናል። ይህንን ስምምነት ቢተጭመረ ለመረገጭችን ዳሪዩ ዘንድ በወርዉ ሰነዱ ላይ በእያንዳንዱ ገጹ ላይ |

| **ቀጣይ ሥራ** | በማን ይተገበራል | መቼ ; ያጠናቅቃል |
|---|---|---|
| ሰነዱ ዉስጥ የተጨማሩ የተሸሻሉ የዕቅዱ ይዘቶችን ማካተት፡ ሰነዱን ማተም | | |
| ሰነዱን ማስፈረምና ለዕቅዱ ባለቤቶች ማከፋፈል | | |
| ዕቅዶቹን ለመተግበር መጀመር | ሁሉም | . |

## የተዋዋይ ግለሰቦች፡ ማሕበረሰብ ኣቀፍ ድርጅቶች ወይም ሴክተር መ/ቤቶች ስም፡ ፊርማ እና ማህተም

| ጽ/ቤት | ሓላፊው ፊርማ | ቀን | ጽ/ቤትማህተም |
|---|---|---|---|
| 1. ወረዳ እንስሳት ግብርናና የተፈጥሮ ሃብት ልማት ጽ/ቤት | | | |
| 2. የ ወረዳ ዉሃ ማዕድን ሃብት ልማት ጽ/ቤት | | | |
| 3. የ ወረዳ የገጠር መሬት አሰተዳደርና መሬት ኣጠቃቀም ጽ/ቤት | | | |
| 4. የ ወረዳ የግጦሽ ልማት ኮሚቴ ሰብሳቢ /ሽማግሌ | | | |

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| 5. የ ወረዳ የግጦሽ ልማት ኮሚቴ ሰብሳቢ | | | |
| 6. የወረዳው የግጦሽ ተጠቃሚዎች/አረብቶ-አደሮች ተወካይ /ሽማግሌ | | | |

| **የምሥክሮች ፊርማና ማህተም** | ፊርማ | ቀን |
|---|---|---|
| 1. ወረዳ አስተዳደር | | |
| 2. ወረዳ ፍትሕ ቢሮ | | |
| 3. ሌሎች ካሉ…… | | |

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