



Report on characterisation
of communal grasslands
in Abergele, Ethiopia



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Report on characterisation of communal grasslands in Abergele, Ethiopia

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Executive summary

Communal grazing lands are among the most important sources of feed for animals in mixed crop-livestock production systems but they are highly degraded, overgrazed and overstocked. This has affected the productivity and diversity of grazing land resources. Most communal grasslands in Abergele are in steep and eroded areas and most of their vegetation has been degraded because of unlimited access for free grazing and soil erosion.

In the Environment Flagship project of the CGIAR Research Program on Livestock (Livestock CRP), the International Livestock Research Institute (ILRI) has been working on community-based natural resource management with a focus on communal grassland management. In Abergele, one of the study areas for this project, 10 communal grasslands were characterized to better understand the general knowledge gaps related to planned grazing, access and other management strategies in these grasslands and where restoration/planned grazing can be improved to support livelihoods and incomes in the area.

The resources in these communal grasslands include grasses, stone, sand, trees and salt licks. Besides grazing, community members also use them as sources of fuel wood, wild fruits and leaves, materials for making livestock enclosures and for beekeeping.

The livelihood strategy of the communities around the communal grasslands include both livestock and crop production. Around seven of the surveyed communal grasslands, most of the respondents were prioritized livestock production for their livelihood strategy. This indicates that feeds are an important requirement for them to sustain their livestock production.

In all the communal grasslands of the Amhara side of Abergele, grazing was all year round by all livestock species that were kept around the grasslands. But in the Tigray side of Abergele there was a trend of closing and opening the communal grassland seasonally. They were closed for three months of the rainy season, from July–September, grazed from mid-September–November, and then open to all livestock species for the rest of the months of the year.

For most of the communal grasslands, there was no management institution and governance structure for the communal grassland resources. But in the Tigray side there were governance/management structures and/or committees/guards selected at village-level around four communal grasslands to informally protect the grasslands from cultivation and burning. All community members had a responsibility of protecting the communal grasslands from cultivation, cutting of woody plants and burning of grass.

Around nearly all the assessed communal grasslands, the market linkage with livestock and livestock products was moderate. Because of low and sporadic demand, and frequent price fluctuations for livestock and livestock products traders and buyers only sporadically participated in the market. There was no disease related to the communal grasslands, and hence no area of communal grasslands was avoided for grazing due to disease.

These findings showed that communal grasslands are used mainly as a source of feed for livestock but lack of strong management system has limited their improvement and their use. Approaches such as participatory rangelands management (PRM) can be used to enhance community participation in the management and governance of these shared resources so that they can be better utilized to meet the needs of producers.

Introduction

In Ethiopia, dryland vegetation is facing intense degradation because of agricultural land expansion and overgrazing (Mengistu et al. 2005). Communal grazing lands, which are the main feed sources for animals in dryland areas, are highly degraded, overgrazed and overstocked (Gebreyohannes and Hailemariam 2011), which affects their productivity and diversity. Most areas in Abergele that are classified as communal grasslands are found steep, eroded and degraded areas because of among other reasons unlimited access to free grazing for animals in these and adjacent areas (Mekuria and Yami 2013). The management of the communal grazing lands across the lowlands of Tigray (where Tanqua-Abergele is located) varies because most of them are under heavy grazing pressure and are used throughout the year without rest (Zenebe 2007).

Through the Environment Flagship of the Livestock CRP, ILRI has been focusing on community-based natural resource management of communal grasslands in Abergele. Ten communal grasslands were characterized to better understand the general knowledge gaps around planned grazing, access and management strategies. The opportunities for restoration/planned grazing to support livelihoods in the region were also assessed. This report characterizes the communal grasslands resources management/governance, importance and access across different grasslands in Abergele.

Methods

Study areas description

The study was conducted in Waghimra Zone of Abergele in Amhara Region and the Tanqua-Abergele Woreda of Tigray Region. Abergele is one of the woredas in Wag Hemra Zone and is located at 13°20' N' latitude and 38°58' E' longitude at an altitude of between 1,150 and 2100 metres above sea level. The area's annual rainfall ranges from 250–750 mm. Mixed livestock-crop production is the main livelihood activity in the area. Tanqua-Abergele is found between 12°–15° N latitude and 36° 30'– 40° 30' E longitude and it has a tropical, semi-arid climate. The mean annual rainfall is between 488–645 mm year⁻¹ with an average of 562 mm year⁻¹. Mean minimum temperature ranges from 11–17°C and mean maximum temperature ranges from 26–34°C. The rainy season usually occurs between June and September with a growing period of 60–90 days. Mixed crop-livestock farming is the backbone of the livelihoods of the households in the study site. Enclosures range from 6–21%, and communal grazing lands ranges from 2–18% (Mekuria and Yami 2013). The research unit was 'communal grassland'¹ and 'users.'² There were 10 communal grasslands selected namely, communal grassland in 017s kebele of sikala village (CG-017s), communal grassland in 017k kebele of kasayeherd village (CG-017k), communal grassland in 03sh kebele village Shakuta (CG-03sh), communal grassland in 03 kebele of sasiba village (CG-03s), communal grassland in 03 kebele of gotarifi (CG-03go), communal grassland in Embarufael kebele (CG-em), communal grassland in Negedebrhan kebele (CG-ne), communal grassland in Mealey kebele (CG-me), Communal grassland in Hadinet kebele (CG-ha) and communal grassland in Lemlem kebele (CG-le). Data was collected through focus group discussions, key informant interviews and observation at these selected communal grasslands.

Table 1. Communal grassland units sampled at Abergele

Communal grassland unit sampled	Kebele/village where communal grasslands are found	Woreda	Region
Communal grassland in 017s kebele of sikala village (CG-017s)	017 kebele village Sikala	Abergele	Amhara
Communal grassland in 017k kebele of kasayeherd village (CG-017k)	017 kebele Kasayeherd village	Abergele	Amhara
Communal grassland in 03sh kebele village Gotarifi (CG-03go)	03 kebele Gotarifi village	Abergele	Amhara
Communal grassland in 03 kebele Sasiba village (CG-03s),	03 kebele Sasiba village	Abergele	Amhara
Communal grassland in 03 kebele Shakura village (CG-03sh)	03 kebele Shakura village	Abergele	Amhara
Communal grassland in Embarufael kebele (CG-em)	Embarufael kebele	Tanqua-Abergele	Tigray
Communal grassland in Negedebrhan kebele (CG-ne)	Negedebrhan kebele	Tanqua-Abergele	Tigray
Communal grassland in Mealey kebele (CG-me)	Mealey kebele	Tanqua-Abergele	Tigray
Communal grassland in Hadinet kebele (CG-ha)	Hadinet kebele	Tanqua-Abergele	Tigray
Communal grassland in Lemlem kebele (CG-le)	Lemlem kebele	Tanqua-Abergele	Tigray

¹ This is the unit of the study where data collection was based, and one to three communal grasslands were selected from one kebele based on availability.

² The community used each communal grassland that may be from one village to four kebele level.

Results

General information of the communal grasslands

In all the communal grasslands assessed in the Amhara side of Abergele, grazing was all year round with all livestock species using the grasslands. But in the Tigray side of Abergele, there was a trend of closing of communal grassland based on season (for three months of rainy season). Accordingly, two communal grasslands were closed from July to beginning of September and then grazed from September–November, and then opened to all livestock species for the rest of the months of the year. In one of the communal grassland, the community started to close the grasslands on seasonal basis, but due to disagreements, left the enclosure open to the whole year. In two communal grasslands, grazing was throughout the year. This indicated there was variation between the Tigray side and Amhara side of Abergele in terms of communal grassland management. Some studies have indicated that exclosures also create pressure on the non-exclosures communal grasslands that further create degradation of grazing land. The resources of communal grasslands are grasses, stones, sands, trees and salt licks. There was no planting of improved forages/ plants for livestock in any of the assessed communal grasslands. From these resources, collection of fuel wood, wild fruit and leaves, materials for making livestock pen and beekeeping were practiced by all community members depending on their interest. But where beekeeping was practiced traditionally through hanging hives on trees it was done by men, because the culture/tradition do not allow women to climb trees to put up hives.

The livelihood strategies of the community around the communal grasslands were livestock and crop production. Residents near seven grasslands prioritized livestock first for their livelihood strategy around seven communal grasslands. This is because livestock are used for ploughing, income through selling, coping with drought (for example goats) and because there is less land for crop cultivation and shortage of rainfall to grow crop properly. Around three communal grasslands respondents prioritized crop farming saying it gives them food and feed for their animals. In terms of livestock species, there was variation among the respondents in terms of animals prioritized: respondents in three focus group discussions said goats were most important, participants in three other focus group discussions prioritized cattle, while in two focus group discussions sheep were viewed as most important, and two focus group discussions said cattle, sheep and goats were equally important. This showed variation of preferences in terms of livestock species kept across the communal grasslands. Surprisingly, around one communal grassland, about four respondents ranked donkeys first and noted that their area is hilly and donkeys were important for transporting water and crops in an area where no other means of transportation was available.

There were credit services for buying livestock and inputs such as fertilizer and petty trading, but not for directly improving communal grasslands. There were almost no extension services around communal grasslands but, rarely, training was given for the users on how to use the grasses.

Goat and sheep were the most in terms of livestock numbers around all communal grasslands. The area of communal grasslands ranged from 15–300 ha and users were 90–500 households per grassland, most of which were in mountainous areas rather than plateaus. All the communal grasslands assessed in this study have no certificate of ownerships (Table 2).

Table 2: Estimated average number of livestock species per household, estimated area of communal grassland per users' group and number household used the communal grasslands

Communal grassland unit sampled	Average livestock numbers/HH				Estimated communal grassland (ha)	Households that use the communal grasslands (n)	Certification ownership (yes/no)
	Cattle	Sheep	Goats	Equines			
Communal grassland in 017s kebele (CG-01s)	11	100	60	1	100	300	No
Communal grassland in 017k kebele (CG-017k)	6	45	45	1	20	90	No
Communal grassland in 03sh kebele village Gotarifi (CG-03go)	4	10	20	1	50	260	No
Communal grassland in 03 kebele Sasiba villlage (CG-03s),	5	4	25	1	50	230	No
Communal grassland in 03 kebele Shakura village (CG-03sh)	4	1	2	1	250	150	No
Communal grassland in Embarufael kebele (CG-em)	4	10	15	1	50	350	No
Communal grassland in Negedebrhan kebele (CG-ne)	5	20	30	1	70	500	No
Communal grassland in Mealey kebele (CG-me)	5	15	30	1	30	200	No
Communal grassland in Hadinet kebele (CG-ha)	5	10	25	2	300	130	No
Communal grassland in Lemlem kebele (CG-le)	4	10	20	2	15	280	No
Average	5.3	22.5	27.2	1.2	93.5	249	

The estimated contribution of communal grasslands for feed sources ranged from 17.5–50% in terms of importance next to crop residues. In Abergele almost all the feed sources come from crop residues, communal grassland and hay making. Private grazing is not popular in this areas, unlike in other parts of country (e.g. Menz).

Table 3. Estimated feed contribution of communal grassland in relation to other feed sources

Communal grassland unit sampled	Main feed sources for livestock around communal grassland sampled (%)						
	Crop residues	Hay	Private grazing	Communal grazing	Improved forages	Concentrate	Local-by product
Communal grassland in 017s kebele (CG-01s)	30	15	0	50	5	0	0
Communal grassland in 017k kebele (CG-017k)	40	10	0	30	10	10	0
Communal grassland in 03sh kebele village Gotarifi (CG-03go)	40	20	0	30	10	0	0
Communal grassland in 03 kebele Sasiba villlage (CG-03s),	30	10	0	40	20	0	0
Communal grassland in 03 kebele Shakura village (CG-03sh)	70	10	0	20	0	0	0
Communal grassland in Embarufael kebele (CG-em)	50	8	0	40	0	0	2
Communal grassland in Negedebrhan kebele (CG-ne)	60	5	0	30	0	0	5
Communal grassland in Mealey kebele (CG-me)	40	10	0	30	5	10	5
Communal grassland in Hadinet kebele (CG-ha)	60	5	10	20	0	0	5
Communal grassland in Lemlem kebele (CG-le)	70	7.5	0	17.5	0	0	5
Average	49	10.05	1	30.75	5	2	2.2

Access and uses of communal grasslands

The resources of communal grasslands are used for grazing, collection of fuel wood, stones for house construction, salt licks and wild fruits and leaves for food, and traditional beekeeping practices. All resources of communal grasslands are accessed by all community members (men, women and youth). There was no difference between women and men in accessing and using these resources. Around most the communal grasslands, grazing especially was shared with neighbouring communities. Where traditional beekeeping is undertaken using hives that are hung on trees, it was not practiced by women because it is assumed that women traditionally should not climb trees to put up hives. In some communal grasslands there was wood cutting by theft, but in all communal grassland there was rule from woreda to village level that users should not cut trees in the grasslands. All community members were responsible for protecting the grassland from cultivation, cutting of woody plants and burning. In two communal grasslands, the users had unsuccessfully tried to initiate soil and water conservation to protect from soil erosion. In one communal grassland, there were guards who protected the available resources who were paid once in six months by the SafetyNet program. One communal grassland was closed for three months with no grazing allowed. Hence, the user responsibilities and management practices across the communal grasslands vary. In a few areas, the youth used the grasslands for irrigated crop production and stone selling through their cooperatives. The disabled people in one communal grassland were allowed to harvest and sell stones from the grasslands through a cooperative. There were no age and gender differences in accessing and using communal grasslands. Many of them were being used to create employment for the youth through stone excavating and sale. The walking distance to communal grasslands from villages would take between 15–60 minutes.

Market and diseases related to communal grasslands

Users groups around all communal grasslands that were sampled have access to the woreda market within the range of 2–45 km. Except for a user group around one communal grassland, the rest have no markets in their kebeles, others can access at least one market in other woreda and/or kebele.

Table 4: Availability of market and estimated distances from communal grassland to the marketplace

Communal grassland sites	Woreda market distance taken (km)	Kebele market distance taken (km)	Regional/zone market (km)	Remark (out of kebele or woreda)
Communal grassland in 017s kebele (CG-01s)	25	No	No	1 kebele=30km and 1 woreda=60km
Communal grassland in 017k kebele (CG-017k)	5	No	No	1 woreda= 70km, 1 kebele=20km
Communal grassland in 03sh kebele village Gotarifi (CG-03go)	20	No	120	1 kebele=30km
Communal grassland in 03 kebele Sasiba villlage (CG-03s),	30	No	80	1 woreda= 40km, 1 kebele= 50km
Communal grassland in 03 kebele Shakura village (CG-03sh)	45	No	70	1 woreda= 4hr
Communal grassland in Embarufael kebele (CG-em)	15	No	No	2 woreda=50km, 1 kebele=60km
Communal grassland in Negedebrhan kebele (CG-ne)	7.5	No	No	1 kebele= 35km
Communal grassland in Mealey kebele (CG-me)	2	2	No	2 kebele = 35km
Communal grassland in Hadinet kebele (CG-ha)	15	No	No	1 kebele= 30km, 1 woreda= 4km
Communal grassland in Lemlem kebele (CG-le)	15	No	No	1 woreda=50km, 2kebele=35km

Around almost all the communal grasslands assessed, the livestock and livestock products were only moderately linked to markets because of price fluctuations, which meant that traders were few because demand for these products was sporadic. There was no disease related to the communal grasslands, but around grasslands there was disease occurrence between June and November and in January but no area of communal grasslands was avoided for grazing due to disease.

Institution/organization responsible for communal grasslands

In most of the communal grasslands assessed, there was no management institution or governance structure responsible for them. No one controlled access to and use of these resources. However, there were village committees that ensured the protection of trees on the communal grassland, that could impose penalties for violations. These committees were made up of two persons from each village and they were set up after a directive from the zone or kebele administration rather than by the initiative of community members.

There were informal governance/management structures and/or committee/guards in villages around four communal grasslands that were responsible for maintaining the communal grasslands.

For the first communal grassland, a management/governance of the communal grassland had been established at user group (village level) to protect the grassland from use by outsiders and enforce the use of demarcated areas of the communal grassland. A team of 4–5 members composed of a chairperson, secretary and members formed the governance committee. All the committee members were men and have the responsibility of keeping the communal grassland during day and night. Women not included in the committee because they assumed that the work become difficulty for women to keep the communal grassland during day and night. The control and permission to use the grassland were given by the committee, which discussed requests with the user groups, before taking their views to the whole community, for a consensus decision (e.g. on when to graze).

In a second communal grassland, there was established governance of the communal grassland at woreda level to protect the land. The governance team also ensured stone/sand harvesting was not done without consensus of the community. A team of 6–7 persons from users was selected to guard the grassland during the rainy season between July and September. Majority of decisions were made through consensus with users of the communal grasslands.

In the third communal grassland, there was no management institution or governance structure for communal grassland resources protection. However, within the village the community/users selected 3–4 persons through the church to oversee the use of the grassland for one year, after which another team of 3–4 person would be selected for the following year. This committee was responsible for ensuring that livestock did not enter the communal grassland during the rainy. The team has the power to impose penalties on those whose livestock enter the communal grassland during this time depending on livestock species and number. The income collected from the penalty is used by the committee and church as income. Generally, the communal grasslands are found in mountainous areas with shrubs.

In the fourth communal grassland, no management institution and governance structure had been established to manage the resource. However, within village each year, the community/users select two person to guard the grassland for the three months of the rainy season. They would be succeeded by a team of two people selected for the consecutive year. They ensure no livestock used the grassland during the rainy season. Those whose livestock enter the grassland during this period are penalized for each livestock species and number. The income collected from the penalty can be used for paying the guards.

Rules/by-laws for communal grasslands

For most of the communal grasslands, there was no rule/law established for managing the communal grasslands. Any decisions by users were by consensus after discussions. No one controlled or gave permissions to users of communal

grassland resources. According to the availability of the resources, grazing and water were used communally; and fuelwood, stone and wild plant food sources were collected and used privately. The stones were also used by users after they formed cooperatives. There was no payment made for resources used. There were penalties only if somebody cut tree, and the penalty was referred to the village community, for example in some villages an ETB50 penalty was imposed per person, if it was referred to the kebele administration the penalty was ETB500/person. The government has no use planning in the assessed communal grasslands, and the community needs support from the government (e.g. in setting up seasonal based grazing system and soil water conservation practices, reseeding, and planning of the grazing system). The communal grasslands were under a users' groups type tenure system and have no certification and hence the users said the tenure system was poor except in two communal grasslands where users group said the woreda administration had stated that the land was only for livestock use and not for other uses which had helped to maintain the size of the communal grassland over time. No conflict was reported regarding the communal grasslands resources use and access. In most of the communal grasslands the boundaries were maintained through mutual trust among users and, but their size was decreasing from with time because of erosion, gully making, cultivation expansion, wind erosion, deforestation, taking land for settlement and private grazing, and stone excavation.

The Communal grassland in 03 kebele of Sasiba villlage had formal by-laws/rules at kebele administration of social law affair department. The implementation of the law was with the involvement of users groups/committee. The decision-making body was registered at kebele-level (committee) and there was a legislative framework in place for formalizing the decisions made. There were penalties for livestock interferences in the communal grasslands, where violation were referred to village committee and if not solved, these were referred to the kebele officials. The penalty for cattle ETB1 and goat ETB0.5 and donkey ETB10. Because of government intervention and working with some committees some of the grasslands had regenerate their feed resources. These communal grasslands were semi-restricted during the rainy season and closed from grazing. Their tenure system is made up of user groups, but they have no certificate and hence the users said the tenure was poor.

The communal grassland in the Negedebhran kebele, there was a sort of established/formalized governance mostly in terms of guards providing protection for three years but there were no laws/rules to govern its management. All users implement the rules for the guards. The decision-making body was registered at the kebele and exercises control of some resources such as stones/sand harvesting which is permitted by guards, but outsiders are not allowed to graze their animals. Grazing used is shared communally, stone harvesting is done through a cooperative, fuel wood harvesting is done privately and sold by women and men. There was penalty during rainy season (ETB5 for shoats and ETB15 for cattle encroachment, respectively). This penalty is imposed by the guards/users of the communal grassland. The government has directed that free grazing be prohibited in some grasslands. Government has also supported the cooperatives working in communal grassland to get income from resources.

The communal grassland in Mealey kebele, there was no formal rule/law established but informal rules/by-laws existed through church that works for three months. For three months a committee controls access and gives permission on the use of communal grassland resources for users group. There were penalties for entering the enclosed grassland, for sheep ETB2 and for cattle ETB5. The grazing system, like seasonal grazing and cut for house thatching was practiced on this communal grassland. There was intervention such as planting trees and soil and water conservation through SafetyNet program. Users from neighbouring woredas/kebeles could use some communal grasslands.

Status of communal grassland

Biophysical vegetation and soil status of communal grasslands

According to respondents, for most of the communal grasslands, the biophysical status in terms of regeneration, availability and quality of vegetation has significantly decreased over the years. This is because of the heavy grazing, shortage of rainfall, high livestock numbers, reduced soil fertility and invasive plant species that have reduced important grasses. There was severe grassland degradation in some of the communal grasslands. Respondents indicated that the status of most communal grasslands was as poor.

Important and harmful pasture species in the communal grasslands

As shown in Table 5 the important plant species across the communal grassland are similar, especially the grass 'sardo'. In about six communal grassland 'hageryelesh' and 'sibkana' are the harmful plant species.

Table 5: Important and harmful plant species across the communal grasslands (x=presence)

Local name: Amharic	Scientific name	Kebele/village where communal grassland found													
		Communal grassland in 017s kebele (CG-01s)	Communal grassland in 017k kebele (CG-017k)	Communal grassland in 03sh kebele Gotarifi (CG-03go)	Communal grassland in 03 kebele Sasiba village (CG-03s)	Communal grassland in 03 kebele Shakura village (CG-03sh)	Communal grassland in Embarufael kebele (CG-em)	Communal grassland in Negedebrhan kebele (CG-ne)	Communal grassland in Mealey kebele (CG-me)	Communal grassland in Hadinet kebele (CG-ha)	Communal grassland in Lemlem kebele (CG-le)	Communal grassland in H	Communal grassland in H	Communal grassland in H	Communal grassland in H
Sardo	<i>Andropogon dactylon</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Degala*	Unidentified	x			x	x	x								
Girar	<i>Acacia tortolis</i>	x			x	x	x								
Ferxaxa	Unidentified	x													
Geba	Unidentified		x												
Gowaza	Unidentified	x													
Cheap**	Unidentified	x	x	x	x										
Tslimo****	<i>Maytenus undata</i>	x	x	x	x										
Latsa	Unidentified					x									
Maxa	Unidentified					x									
Betremishe	<i>Grewia mollis</i>				x	x									
Sembelexi	Unidentified				x	x									
Anqu	<i>Commiphora Africana</i>					x									
Inawu	Unidentified												x		
Gonnok	<i>Dichrostachys cinerea</i>												x		
Tambura	Unidentified													x	
Hageryelesh	Unidentified	x													
Yesetilb	Unidentified	x	x												
Sibkana***	<i>Acacia sieberiana</i>													x	
Sebigana	Unidentified														x
Setmilas	Unidentified														x

l= important, h= harmful

*Degala seed used for human food; **Cheap is the dominant grass in the area; ***_Sibkana a-pod toxic for goat, ****_Tslimo is leave toxic

Livestock productivity status around communal grassland

According to the respondents, milk yield has decreased significantly over time, whereas body condition (meat) of livestock has increased slightly or reduced slightly around some communal grasslands. However, livestock numbers have increased significantly and the current communal grasslands cannot support the current livestock numbers. Goats are among the livestock species that have considerably increased in number. There was improvement in social status of people because of technology, training, saving and agricultural advice through different government and non-governmental organizations around the communal grasslands.

Challenges of communal grasslands

The challenges that exist on communal grassland are heavy grazing in all woredas/regions, high erosion (wind and water), invasive plant species expansion, deforestation through theft, reduced grazing area and high livestock numbers suspected of transmitting diseases. In some communal grasslands, invasive plant species hinder access of communal grasslands. So far, no measures have been taken to tackle these challenges in most communal grasslands. In three communal grasslands, some interventions have been started such as the use of enclosures by community.

Conclusion

Communal grasslands are the main feed sources for animals in the rangelands of Ethiopia, but these resources are highly degraded, overgrazed and overstocked. Communal grasslands in the Abergele, which are in steep, eroded, and degraded areas are among these. Characterisation on some communal grasslands was done through focus group discussion and key informant interviews to better understand their use and management structures and opportunities for their improvement.

The study found that the communal grasslands on the Amhara side of Abergele were grazed all year round by all livestock species, whereas in the Tigray side of Abergele there was a trend of closing them for three months of rainy season.

The resources of communal grasslands are grasses, stones, sand, trees, wild leaves and fruits and salt licks. These resources support activities such as collecting fuel wood, wild fruits and leaves, and collecting materials for making livestock pens and beekeeping by community members depending on their interest.

The livelihood strategy of the community around the communal grasslands includes both livestock and crop production, but the priority of the livelihood strategy differ depending on where the grasslands are located. Sheep and goats make up the highest number of livestock number around all the sampled communal grasslands.

The tenure system of communal grasslands is based on users groups, but they have no certificate and hence the users their tenure is poor/weak.

All the resources of communal grasslands are accessed by all user groups in the community. There was no difference between women and men in accessing and using these resources and many of them were also shared with neighbouring communities. The community members have the responsibility of protecting the grasslands from cultivation, cutting of woody plants and burning of grass.

In almost around all the communal grasslands assessed, the market linkage with livestock and livestock product was moderate. There was no disease related to the communal grasslands.

Most of the sampled communal grasslands had no governance structures or institution responsible for the management of communal grassland resources. But in four grasslands, informal governance/management structures and/or committee/guards existed which were set up at village and whose members kept watch over communal grasslands especially during the rainy season. Decisions relating to the use of these grasslands were mostly made by users after discussions to arrive at a consensus.

Respondents noted that the biophysical status of most of the communal grasslands in terms of regeneration, availability and quality of vegetation, has significantly decreased over the years. As a result, livestock productivity has also significantly decreased over the years though there is slight improvement in the body condition of sheep and goats in some community grassland areas .

To improve the condition of these communal grasslands and ensure all users benefit, challenges such as heavy grazing, high erosion (wind and water), invasive plant species expansion, reduced grazing areas and high livestock numbers and lack of management plans need to be addressed. All community members and stakeholders should be involved in finding solutions to these problems.

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