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Participatory rangeland management: A vehicle for pastoralist women's empowerment in Ethiopia

Fiona Flintan^{1*}  and Bedasa Eba¹

Abstract

Pastoralist tenure systems are highly complex. Where customary institutions are functioning well, pastoralist women access and use resources as a member of a pastoralist group. Although policy and legislation call for more equity across societies, providing individual titles to women is not necessarily the answer. Strengthening women's rights within the collective society while also supporting women's capacities and abilities to participate meaningfully in decision-making processes and hold leadership positions will support more sustainable gender equality outcomes. Participatory rangeland management (PRM) is an approach developed in Ethiopia in 2010 that was then piloted by non-governmental organisations in several parts of the country in a bid to improve the security of tenure and good governance of rangelands, more inclusive participation of pastoralists in decisions pertaining to their lands and improve rangeland productivity. While not an explicit aim, it also sought women's empowerment as part of the participatory process. A review of PRM implementation in Oromia and Afar regions, Ethiopia, showed that in the majority of cases, women participated equally with men in the PRM process. Women's and men's opinions on the involvement and satisfaction of PRM implementation activities were compared favourably. Overall, community members believed that PRM has improved women's roles in rangeland management leadership and decision-making processes and their access to rangeland resources, thereby encouraging a transformative process of improving gender equality and women's empowerment in pastoralist societies. This article considers the implications of these results for pastoral women and to what degree they have contributed to their empowerment. A conceptualised women's empowerment framework is used for the analysis.

Keywords Participatory rangeland management, Women, Decision-making, Land governance, Ethiopia, Empowerment

Introduction

Pastoralism in Ethiopia

Pastoralism is a livelihood system based on extensive livestock production in which herds are moved from one area to another to access forage and water (Nori 2021; Flintan et al. 2019a). In Africa, pastoralism is the primary livelihood of over 260 million people and the main

source of people's livelihood in an estimated 86% of Africa's landmass (ILRI et al. 2021). Pastoral communities in Ethiopia occupy approximately 61% of the total land, and 97% of Ethiopian pastoralists live in lowland dry areas with low and variable rainfall (Mohamed 2019). Pastoralists make up 14% of the total population of the country of which Somali, Afar and Oromo pastoralists are the majority in their regional states (PFE (Pastoralist Forum Ethiopia), IIRR (International Institute for Rural Reconstruction) and DF (Development Fund) 2010).

*Correspondence:

Fiona Flintan
F.Flntan@cgiar.org

¹ International Livestock Research Institute, Addis Ababa, Ethiopia

Pastoral social systems

Pastoral social-ecological systems can be described as co-evolved cultural landscapes that dynamically shape and are created and maintained by human use and stewardship (Fernández-Giménez et al. 2022). Pastoral systems are under increasing pressure from a myriad of forces and pressures negatively impacting their access to land and resources (Robinson and Flintan 2022), their resilience and their capacity for transformational adaptation and change (Fedele et al. 2019; Pereira et al. 2020). Adaptive capacity for resilience and capacity for transformative adaptation share emphases on social memory, combining multiple knowledges, capacity for learning, strong social networks and trust, nurturing diversity, and innovation and experimentation (Fernández-Giménez et al. 2022), though as Wilson et al. (2017) point out, attachment to tradition can lead to more negative social features including dependence and resistance to change.

Women, roles and responsibilities

Within pastoral systems, women play a central role as natural resource collectors, users and managers (Flintan 2008; 2011b; Eneyew and Mengistu 2013; Johnson et al. 2016; Rota and Chakrabarti 2012; Kristjanson et al. 2014). Including women in decision-making may well be the most promising way to support adaptive natural resource management strategies (Assé and Lassoie 2011). In strongly traditional and religious societies, women may be confined to the home and not be allowed to participate in community meetings, so have limited influence on public affairs and decision-making processes. This limits women's access to information and their ability to express their concerns, opinions, wishes or desires. Pastoral women can be innovators, agents of diversification and promoters of peace through trade networks (Future Agricultures Consortium 2012).

In Ethiopia, there are traditional sayings that reflect historical and deeply rooted gender inequities, such as *setinna ahiyya bedulla* meaning "take a stick to a woman and a donkey" expressing the sentiment that women can be treated like donkeys (Bililigne 2012). In some societies, traditional practices such as female genital mutilation remain common. In contrast, high levels of respect have been accorded to women based on an appreciation of their contributions to the pastoral system and family well-being (Dungumaro and Amos 2019). Older women tend to receive greater respect from men than do younger women. In Oromo culture, the most powerful institution through which women's rights are respected is *siiqqee*, and the wife of the customary leader is called the *haadha siiqqee*. *Siiqqee* is an institution in which women jointly organise to stand up for their rights. The

siiqqee stick, which a woman receives on her wedding day, is a symbol of her rights (Mamo 2017; Kuto et al. 2018; Sefera 2020).

Policies and legislation across Eastern Africa demand that women be considered as equals and often there are quotas or minimal ceilings set for the number of women in committees and associations. Education opportunities for women have increased and spaces for women's participation have opened up in government at different levels (Misafi 2014; Mtey 2021). NGOs too have prioritised gender issues and have made attempts to instil greater gender equity in community representation, participation and impacts (Villamor et al. 2014).

Land tenure complexities

In pastoral communities, land and natural resources are usually held under customary pastoral tenure and governance systems that are relatively loose sets of institutions characterised by principles of collectivity, flexibility, adaptability and multiple use by multiple users (Davies et al. 2016; Robinson and Flintan 2022; Robinson et al. 2018; Flintan 2012). Collective tenure and governance are a must for the optimal use of the land because dividing rangeland between individuals for private use and management is not viable or equitable. Permission to access and use land and resources is first and foremost granted to members of "the group" which could be defined by ethnicity, kinship, lineage, clan, geography or others (Cousins 2000; Ostrom 1990).

Collective rights entail complex layers of access, use and multiple users. It is often difficult to accommodate these complexities within any single tenure system (Belay and Flintan 2021; Robinson and Flintan 2022; Flintan 2012). Establishing administrative boundaries often creates barriers to resource sharing that is an integral part of collective pastoral systems (Robinson and Flintan 2022). Where governments have tried to formalise traditional pastoralist tenure regimes, it has often caused more harm than good, with some users excluded, flexibility and mobility compromised and collective tenure systems and rangelands fragmented (Archambault 2016; Flintan 2011a; Flintan et al. 2011).

Increasingly, there are pressures on pastoralist lands and competition for use and access (Robinson and Flintan 2022; Velturo 2020; Flintan et al. 2011). Ineffective policies and legislation and poor land-use planning exacerbate such pressures (Flintan 2011a; Robinson and Flintan 2022). Government intervention has been a factor in weakening customary institutions by challenging their authority (African Union 2010; Davies et al. 2016) and an increasing number of young people are unwilling to follow traditional rules and regulations (Bruyere et al. 2018). As institutions break down, a situation of poor

management arises, often leading to rangeland degradation (Robinson and Flintan 2022). Where land has been appropriated for development projects, pastoralists have rarely been compensated or consulted (PFE (Pastoralist Forum Ethiopia), IIRR (International Institute for Rural Reconstruction) and DF (Development Fund) 2010; Bencherif et al. 2021). Investments in pastoralism tend to be technology-driven rather than building the capacities of pastoralists to resolve their own problems (Flintan 2011a; Sternberg and Chatty 2013; Ouedraogo and Davies 2016; Jenet 2016; Abdulkadr 2019).

Land tenure and women

Where customary institutions are strong and functioning well, women access resources as part of the group according to customary rules and practices. In patriarchal societies, decision-making power over the use and management of land and resources excludes women either implicitly or explicitly (Flintan 2008; Forsythe et al. 2015a, 2015b; Balehey et al. 2018; Flintan et al. 2019b). Access and use rights usually need to be negotiated through a husband or other male relative or even the clan (Asmare et al. 2007; Flintan et al. 2008; Kisambu et al. 2017; Issoufou et al. 2020). Women can be subservient, marginalised, disempowered (Kipuri and Ridgewell 2008; Pingua 2014; Tefera and Kaneko 2020) and treated as the social property of their husband's clan (PFE (Pastoralist Forum Ethiopia), IIRR (International Institute for Rural Reconstruction) and DF (Development Fund) 2010). However, it is in the group's interest that women have access to land and resources to feed the family and prosper economically, and therefore, although women may not have individual rights to land and resources, they do have collective rights under the group tenure and governance system, and as long as the group remains strong, these rights should be protected (Belay and Flintan 2021).

When customary institutions are weakened or broken down, however, women are vulnerable to marginalisation and exploitation and can find it extremely challenging to access, use or own land and resources. While there may be policies and legislations that promote gender equity, there are often barriers to implementing them in pastoralist areas and women miss out, particularly when land-use changes are taking place (Flintan 2008; PFE (Pastoralist Forum Ethiopia), IIRR (International Institute for Rural Reconstruction) and DF (Development Fund) 2010; Archambault 2016; UN Women 2019). In Kenya, for example, when group ranches were subdivided, land titles were provided to men and not to women (Mwangi 2007; Ntiati 2002). This has led to calls for women to be provided with land titles (e.g. Persha et al. 2017), with the African Union's blueprint for change, Agenda 2063, recommending that 20% of rural women

have access to and control of land by 2023 (African Union 2017). However, providing individual women with land titles is not necessarily the answer as it encourages processes of privatisation and individualism that may challenge and weaken the collective governance and tenure system (Robinson and Flintan 2022; Sutz 2021; Flintan et al. 2011). Strengthening the rights of the collective and women's rights within the collective while building their capacity to participate in decision-making processes and act as leaders can be more beneficial for them in the long term (Meinzen-Dick et al. 2021).

Participatory rangeland management

Participatory rangeland management (PRM) was developed to provide a framework for securing rights to resources for pastoralists and improving management. It draws from and builds on the process of participatory forest management (Farm Africa and SOS Sahel 2007). In 2010, an introductory guideline was published (Flintan and Cullis 2010), which laid out the process and how it should be applied in pastoral areas. The process works through a three-stage, eight-step process (Fig. 1) resulting in the definition of an appropriate unit for land management, identifying rangeland users and other stakeholders, documenting rangeland resources and their status and strengthening or setting up a governing community association or institution. PRM focuses on improving access to resources through the formation of a legally binding rangeland management agreement (RMA) between the community and local government, with rules, regulations and bylaws based on a rangeland management plan (RMP) (Flintan et al. 2019a).

PRM also aims to support community leadership and inclusiveness in rangeland use, planning, policy and practice. It considers the interests, positions and needs of all rangeland users in a pastoral area and offers opportunities for negotiations between stakeholders to come to an agreement over the future of pastoral land use. It provides a suitable and legitimising process of communal land and resource tenure that fits with both the priorities of pastoralists and government bodies (Flintan and Cullis 2010).

PRM was piloted in Ethiopia in 2012 and then scaled up by NGOs in several parts of the country. A review carried out in 2018–2019 as part of a broader study of PRM implementation (Flintan et al. 2019a) sought to understand to what degree success had been achieved and the impacts it had had including on women.

This article describes the results of this study in terms of women's participation in PRM and the impacts PRM has had on them, especially their empowerment. According to a popular definition, empowerment is "the process by which women take control over their lives, acquiring

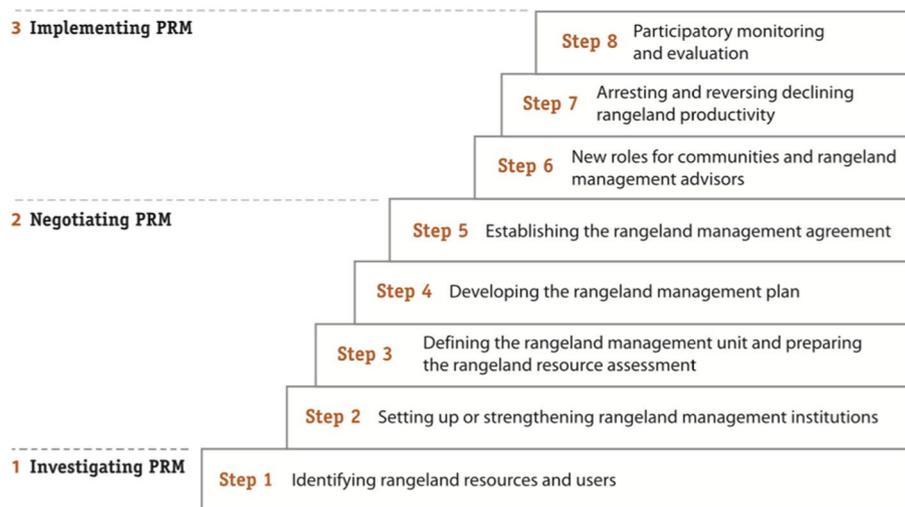


Fig. 1 Stages and steps of participatory rangeland management

the ability to make strategic choices” (UN Economic and Social Council 2002). The term “women’s empowerment” originally appeared in the feminist discourse in the 1980s and since then has become widely adopted by development organisations (Calvès 2009).

We also discuss how these impacts came about and how they could be improved in the future with the promotion of gender inclusion. We conclude with a discussion on the relevance of PRM for improving women’s participation in rangeland management and women’s empowerment more generally.

Methodology

A review of PRM was conducted in Oromia in the south and south-eastern part of the country and Afar in the east and northeast. Site selection was based on where PRM activities had taken place and been supported by NGOs running for between 3 and 9 years. Two control villages (*kebele*) were selected randomly in each case study zone. Farm Africa and SOS Sahel had a limited number of sites in the Afar Region and Bale zone in the Oromia Region. CARE had significantly more sites having scaled up PRM through the USAID-funded Pastoralist Areas Resilience Improvement and Market Expansion project (PRIME 2015: Project impact evaluation baseline survey report volume 1: Main report. Unpublished document). These implementing organisations were asked to select *kebeles* where activities were most progressed so that opportunities to explore gender issues as part of this progress would be optimised. The locations of these sites are listed in Table 1. The study was conducted by a team of local researchers from the International Livestock Research Institute over a period of 2 months. Local

translators were employed as necessary. Introductions to the communities were made by a representative from the NGO responsible for implementing PRM.

The local land context

In Afar, customary land tenure is based on land boundaries and rules for resource use negotiated and administered through a traditional sultanate (hereditary spiritual leadership structure) or clan-based social organisations. Each clan and sub-clan has their own territory, and access by others is subject to negotiated permissions. This operates in accordance with existing customary norms and value systems (Tefera et al. 2016). In Afar, pastoralists say, “the land belongs to a vast family of which many are dead, few are living and countless members are still unborn” (Mohammed 2010). The continuous appropriation of the Afar people’s prime grazing lands for large-scale commercial farms, game parks and urban settlements coupled with the upward trends in human and livestock populations has resulted in considerable erosion of their traditional lifestyle during the last few decades (Mohammed 2010; Keeley et al. 2014).

In Borana, southern Ethiopia, rangeland management is undertaken through the largest customary landscape grazing unit, the *dheeda*. A *dheeda* can include up to six districts or *woreda*. A *dheeda* is established on the basis of ecological and production conditions. It comprises both wet and dry season grazing areas used by a relatively well-defined set of households. There are five *dheeda* systems in Borana: Wayama, Dire, Malbe, Gomole and Golbo. Each is subdivided into multiple subunits for grazing called *reera*. Depending on the particular *dheeda*, there can be as many as 10 *reera* within

Table 1 Case study sites, years of PRM implemented and NGO project responsible

Treatment kebele				NGO/project responsible
Region	Zone	Kebele	Years PRM implemented	
Oromia	Bale	Berak	c. 2012–2013	Farm Africa/SOS Sahel
	Bale	Naniga Dera	c. 2012–2013 d. 2014–2017	Farm Africa/SOS Sahel
	Bale	Hara Haji	c. 2014–2017	Farm Africa/SOS Sahel
	Borena	Harowayu	c. 2014–2018	PRIME/CARE
	Guji	Mugayo	c. 2009–2013	Save the Children
	Guji	Siminto Korati	c. 2009–2013 c. 2014–2018	Save the Children and CARE/PRIME
Afar	Zone 3	Tachemetekleye	c. 2014–2018	CARE/PRIME
	Zone 3	Halidege	c. 2012–2013 c. 2014–2018	Farm Africa and CARE/PRIME
	Zone 3	Kurkura	c. 2012–2013 c. 2014–2018	Farm Africa
Control kebele				NGO responsible
Region	Zone	Kebele	Year PRM established	
Oromia	Bale	Dayu	N/A	N/A
	Bale	Yubdo Sare	N/A	N/A
	Borana	Soda Germama	N/A	N/A
	Guji	Arda Bururi	N/A	N/A
	Zone 3	Hasoba	N/A	N/A
	Zone 3	Galifagena Buretidase	N/A	N/A

its boundaries. These boundaries are generally known but not rigidly imposed, especially during droughts when pastoralists cross boundaries in search of water and grazing areas. In some areas, such as the Guji zone, there has been a significant increase in communal and private individual enclosures. Women tend to have less access to individual enclosures than communal ones (McPeak and Little 2018).

Framework for measuring women’s empowerment

To identify a reflective framework for capturing the different elements of women’s empowerment, we look back to the work of Kabeer (1999). Kabeer conceptualised empowerment as three interrelated dimensions: (i) access to material, human and social resources (the pre-conditions for making strategic choices); (ii) agency, defined as the ability to set one’s goals and act to achieve them (the actual process of exercising choice); and (iii) achievements, for example, improved well-being and having choices and making decisions based on those choices. This conceptualisation defines empowerment both as a process and an outcome and raises the question of whether the same processes lead to the same outcomes in different contexts. We use these three dimensions to frame our analysis and discussion; however, given the

limited scope of the study, we focus more on components i and ii than iii achievements.

Methods of data collection

Data was collected through a household survey, focus group discussions, key informant interviews and a review of project documents. The objective was to understand the impact of PRM on women’s empowerment. A research protocol developed by Robinson et al. (2018) was used to compare PRM project applications.

The research took place in fifteen *kebeles* (Table 1) made up of nine treatment *kebele* and six control *kebele*. In each treatment *kebele*, 40 people were randomly selected from the *kebele* list of households and household heads, and in each control *kebele*, 10 household heads were randomly selected. Approximately one-third of those interviewed were women household heads, some of whom were de facto heads because their husbands had migrated for work. Questionnaires were administered by trained enumerators in local languages. Respondents were asked if (i) they had heard about PRM, and (ii) if they had participated in any PRM activities. If there was a negative response to both questions, the interview was discontinued. One *kebele* was eliminated in this way.

Focus group discussions with community members and rangeland management councils were also conducted.

During the focus group discussions, participatory tools such as a historical trend analysis were used to kick-start discussions. Key informant interviews were carried out with local government officials and project staff. Data were analysed with SPSS version 20.

Results

Household characteristics

The average household size in the study areas ranged from five to nine. The household head age ranged from 30 to 42. All respondents had lived between 18 and 36 years in their current location, highlighting that these were well-established communities. This also reflects the increasing sedentarisation process in pastoral communities in Ethiopia where it is much more common now than 20 years ago to find a satellite type of pastoral system where the household has a base from and to which some household members will move with the livestock. Women had lived fewer years in their location than men, which is likely to be due to patrilocal practices in which women move to their husband’s villages when they marry (details in Additional file 1: Annex 1).

In Oromia zones, 65–70% of the respondents indicated their livelihood was agro-pastoralism. In Afar, 60% said pastoralism. A small number of mainly women household heads were traders.

Participation of women in the PRM process

Between 50 and 100% of respondents said that women participated as much as men in the PRM process (Fig. 2), including in the description and mapping of rangeland resources, the defining of the rangeland management unit and its boundary and the development of the rangeland management plan. Where communities knew about PRM, men and women were said to have an equal understanding. Figure 2 shows that a clear majority said that women were involved in decisions about PRM, though in Borana, all men said that women contributed to decisions, but only half of

the women said that. A higher majority of respondents in the Bale zone in the Oromia Region responded more positively than in Borana/Guji zones in Oromia and Afar Zone 3. The lowest responses were in Borana/Guji zone.

In Afar, the percentage of women participating in PRM was higher than for men, whereas in Oromia (particularly in Borena/Guji), it was lower (Table 2). The high rates of women’s participation were confirmed in focus group discussions where it was mentioned that while women did participate in PRM, sometimes, this was limited due to being busy with other activities. Both women and men said that women had the same opportunities as men to participate in decision-making processes, in governance structures and in meetings and activities. There were slightly more women involved in the governance aspects in Oromia zones than in Afar Zone 3, but slightly less involved in decisions about the rangeland management plan (Table 3).

Table 2 Respondents who had heard about PRM and participated in PRM intervention activities

Zone	Gender of household head	Heard about PRM, number (%)		Participated in PRM interventions and activities, number (%)	
		Yes	No	Yes	No
Bale, Oromia	Men	93 (95.9)	4 (4.1)	74 (79.6)	19 (20.4)
	Women	21 (91.3)	2 (8.7)	13 (61.9)	8 (38.1)
	Total	114 (95)	6 (5)	87 (76.3)	27 (23.7)
Borena/Guji, Oromia	Men	90 (98.9)	1 (1.1)	12 (13.3)	78 (86.7)
	Women	28 (96.6)	1 (3.4)	2 (7.1)	26 (92.9)
	Total	118 (98.3)	2 (1.7)	14 (11.9)	104 (88.1)
Afar Zone 3	Men	88 (97.8)	2 (2.2)	52 (59.1)	36 (40.9)
	Women	29 (96.7)	1 (3.3)	20 (69.0)	9 (31.0)
	Total	117 (97.5)	3 (2.5)	72 (61.5)	45 (38.5)
Total	Men	271 (97.5)	7 (2.5)	138 (50.9)	133 (49.1)
	Women	78 (95.1)	4 (4.9)	35 (44.9)	43 (55.1)

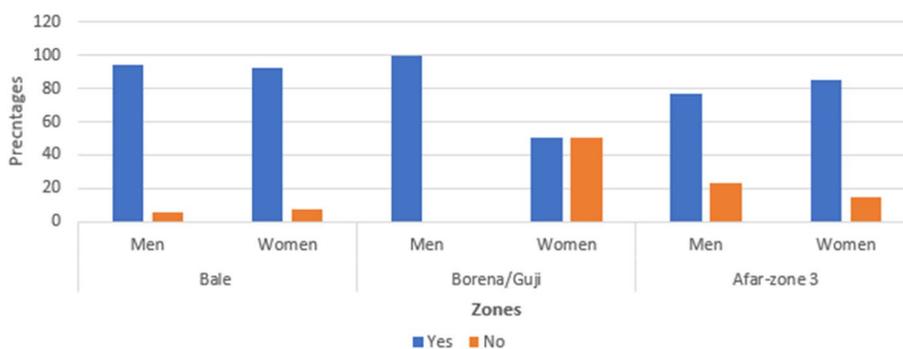


Fig. 2 Reported women’s contributions to decisions made on PRM

Table 3 Involvement in bylaws and the rangeland management plans

Zone	Responses, number (%)	Involved in the implementation of bylaws			Agree with the activities in the rangeland management plan		
		Men	Women	Total	Men	Women	Total
Bale, Oromia	Yes	46 (62.2)	9 (69.2)	55 (63.2)	70 (100)	13 (100)	83 (100)
	No	28 (37.8)	4 (30.8)	32 (36.8)	–	–	–
	Total	74 (100)	13 (100)	87 (100)	70 (100)	13 (100)	83 (100)
Borena/Guji, Oromia	Yes	2 (16.7)	0 (0)	2 (14.3)	11 (100)	–	11 (100)
	No	10 (83.3)	2 (100)	12 (85.7)	–	–	–
	Total	12 (100)	2 (100)	14 (100)	11 (100)	–	11 (100)
Afar Zone 3	Yes	26 (50)	6 (30)	32 (44.4)	32 (91.4)	12 (92.3)	44 (91.7)
	No	26 (50)	14 (70)	40 (55.6)	3 (8.6)	1 (7.7)	4 (8.3)
	Total	52 (100)	20 (100)	72 (100)	35 (100)	13 (100)	48 (100)

Between 10 and 40% of PRM governance representatives were women. More women were involved in the new governance structures such as the rangeland management cooperatives than in ones existing as or developed from male-dominated customary institutions. It can be more challenging to influence change in these institutions that have operated in the same way for centuries, whereas gender-equitable principles can be instilled in new groups from their establishment. Though women's involvement in Ethiopian agricultural cooperatives has been relatively low to date (20% in 2013 and even lower in terms of management positions) (Woldu et al. 2013), there are increasing examples of women joining cooperatives with empowerment benefits (e.g. UN Women 2018). Where women and youth were included in management structures, respondents said that their inclusion

was appreciated because of the knowledge of rangelands they brought to discussions and decision-making processes. There was an agreement amongst the respondents that PRM improves women's representation in rangeland management decision-making bodies, as well as in planning and activities, although this may still be limited due to other commitments (Table 4).

Incorporating gender and women's issues in PRM

Implementing organisations made efforts to treat gender as a mainstream topic. Gender and gender inequalities were discussed in community meetings and during the establishment of the rangeland management governing institution(s). To build local capacities, FARM Africa and SOS Sahel worked with the local *woreda* Women's Affairs Office. Representatives were invited as members of the

Table 4 Involvement in decision-making processes of PRM activities

Zone	Response	Were you involved in the decisions about who should be in the PRM governing body? Number (%)			Were you involved in the decisions about the rangeland management unit? Number (%)			Were you involved in the decisions about the rangeland management plan? Number (%)		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
Bale, Oromia	Yes	68 (91.9)	11 (84.6)	79 (90.8)	57 (77.0)	9 (69.2)	66 (75.9)	47 (67.1)	7 (53.8)	54 (65.1)
	No	6 (8.1)	2 (15.4)	8 (9.2)	17 (23.0)	4 (30.8)	21 (24.1)	23 (32.9)	6 (46.2)	29 (34.9)
	Total	74 (100.0)	13 (100.0)	87 (100.0)	74 (100.0)	13 (100.0)	87 (100.0)	70 (100.0)	13 (100)	83 (100.0)
Borena/Guji, Oromia	Yes	6 (50.0)	2 (100.0)	8 (57.1)	8 (66.7)	1 (50.0)	9 (64.3)	6 (54.5)	–	6 (54.5)
	No	6 (50.0)	0 (0.0)	6 (42.9)	4 (33.3)	1 (50.0)	5 (35.7)	5 (45.5)	–	5 (45.5)
	Total	12 (100.0)	2 (100.0)	14 (100.0)	12 (100.0)	2 (100.0)	14 (100.0)	11 (100.0)	–	11 (100.0)
Afar Zone 3	Yes	11 (21.2)	1 (5.0)	12 (16.7)	39 (75.0)	12 (60.0)	51 (70.8)	20 (57.1)	9 (69.2)	29 (60.4)
	No	41 (78.8)	19 (95.0)	60 (83.3)	13 (25.0)	8 (40.0)	21 (29.2)	15 (42.9)	4 (30.8)	19 (39.6)
	Total	52 (100.0)	20 (100.0)	72 (100.0)	52 (100.0)	20 (100.0)	72 (100.0)	35 (100.0)	13 (100)	48 (100.0)
Total	Yes	85 (61.6)	14 (40.0)	99 (57.2)	104 (75.4)	22 (62.9)	126 (72.8)	73 (62.9)	16 (61.5)	89 (62.7)
	No	53 (38.4)	21 (60.0)	74 (42.8)	34 (24.6)	13 (37.1)	47 (27.2)	43 (37.1)	10 (38.5)	53 (37.3)
	Total	138 (100)	35 (100)	173 (100)	138 (100)	35 (100)	173 (100)	116 (100)	26 (100)	142 (100)

woreda PRM coordinating committees. Steps were also taken to ensure that women were included in the PRM woreda coordinating committee and invited to meetings.

Though there were gender awareness sessions on the importance of including women in PRM, gender issues were dealt with in a more ad hoc manner in PRIME areas. Separate meetings were held for men and women, but there were too few women facilitators for the women’s groups. There was no quota for women in the rangeland management committee, and their inclusion was left to local stakeholders. This may explain why fewer women participated in the PRIME intervention areas (Table 4).

Level of satisfaction with the PRM process

Overall, there was a high level of satisfaction with the PRM process expressed by both women and men, including with how the governing body was established, the planning process, the PRM activities and the establishment of the rangeland management unit boundaries. A significant number of people in Bale (31–40%) said that they were “very satisfied”. In general, women were as satisfied with the PRM activity implementation as men (Table 5). There was also a high level of satisfaction with the implementation of activities.

Impact of PRM

Generally, women and men agreed that the major impacts of PRM included an improvement in livestock body condition, livestock mobility, the social status of people and groups, participation in governance and management of rangelands, capacity of the community to cope with drought and improved feelings that the rangeland “belongs to the community”. Improvements in rangeland condition were noted as the first visible impact. In addition, and most importantly for women,

there was a clear consensus that PRM improved women’s participation in rangeland management and their access to rangeland resources, even more so than for the whole community in some places.

Where there are differences between men’s and women’s involvement in specific activities, these may be a function of the way non-government organisations target activities in communities. For example, Farm Africa and SOS Sahel saw PRM as an entry point for building alternative livelihoods for women and undertook training sessions on production of gums and resin, goat rearing and honey in which 30 men and 85 women participated. A similar approach was taken in Afar where women were targeted with training on cooperative management. One of the women’s groups of around 30 members produced 1000 kg of incense in 2017 and generated 30,000 Ethiopian Birr (around USD 700) (FARM Africa and SOS Sahel 2018: Bale Eco-region Sustainable Management Programme (BERSMP). Annual report. Unpublished). Women were targeted for training on PRM aspects such as the participatory rangeland resource assessment method developed by Farm Africa. For example, one training workshop included 20 men and 42 women (FARM Africa and SOS Sahel 2013: Participatory rangeland management (PRM) project Bale zone. Annual Report. Unpublished).

Other positive impacts of PRM mentioned by women in focus group discussions included reduced workloads and easier access to resources due to greater availability of nearby grasses for calves and sick or weak livestock. In addition, discussants in focus groups across the PRM intervention areas said that the social status of women had improved over the last 10 years, as had that of the community. They also said that men and women now work better together. These changes were said to be due to PRM interventions.

Table 5 Satisfaction level on PRM process, decision and interventions

Zone	Level of satisfaction	What is your level of satisfaction with how the governing body/organisation of the PRM was established?, number (%)			What is your level of satisfaction with the PRM planning processes?, number (%)			What is your level of satisfaction with the whole PRM intervention?, number (%)		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
Bale, Oromia	Very satisfied	22 (29.7)	5 (38.5)	27 (31.0)	33 (44.6)	5 (38.5)	38 (43.7)	31 (41.9)	4 (30.8)	35 (40.5)
	Satisfied	48 (64.9)	8 (61.5)	56 (64.4)	40 (54.1)	7 (53.8)	47 (54)	41 (55.4)	9 (69.2)	50 (57.5)
	Unsatisfied	3 (4.1)	0 (0)	3 (3.4)	1 (1.4)	1 (7.7)	2 (2.3)	2 (2.7)	0 (0)	2 (2.3)
	Not satisfied at all	1 (1.4)	0 (0)	1 (1.1)	–	–	–	–	–	–
Borena/Guji, Oromia	Very satisfied	1 (8.3)	1 (50)	2 (14.3)	2 (16.7)	0 (0)	2 (14.3)	–	–	–
	Satisfied	11 (91.7)	1 (50)	12 (85.7)	10 (83.3)	2 (100)	12 (85.7)	12 (100)	2 (100)	14 (100)
Afar Zone 3	Very satisfied	6 (11.5)	1 (5)	7 (9.7)	1 (1.9)	2 (10)	3 (4.2)	8 (15.4)	1 (5)	9 (12.5)
	Satisfied	37 (71.2)	16 (80)	53 (73.6)	44 (84.6)	17 (85)	61 (84.7)	32 (61.5)	16 (80)	48 (66.7)
	Unsatisfied	8 (15.4)	3 (15)	11 (15.3)	6 (11.5)	1 (5)	7 (9.7)	9 (17.3)	0 (0)	9 (12.5)
	Not satisfied at all	1 (1.9)	0 (0)	1 (1.4)	1 (1.9)	0 (0)	1 (1.4)	3 (5.8)	3 (15)	6 (8.3)

Discussion

When PRM is well-facilitated, it is a community-led process that gives value to the contributions and roles of both men and women. Though this may challenge existing gender inequalities and patriarchal customary systems that exclude women from public- and community-level decision-making processes, the utilitarian nature of PRM and its focus on the co-development and joint identification of solutions to rangeland challenges offers a relatively unthreatening space for discussing and promoting such as gender equality. Women are included as important rangeland users, protectors and managers and not simply to fill pre-defined quotas. Challenging male-dominated governance structures to be more open and inclusive is no easy task and requires time and commitment. Structures and ways of doing that have been in place for decades, even centuries are slow to change. However, once women have a foothold and start believing they have the capacity and space to contribute, their confidence can grow (Pingua 2014). Combined with economic activities that give women greater spending power, PRM has been shown to be a vehicle for pastoral women's empowerment.

We have outlined the complexities of pastoral access and tenure. Gender adds a layer of complexity to this, particularly as social and political changes put increasing pressure on what have been predominantly male-customary institutions and ultimately make them more equitable. Such institutional changes need time and innovative ways of influencing and supporting such changes. Positive change will be more sustainable and effective if driven from within the community rather than being imposed by outside forces. It can be challenging to identify the right way to do this.

Following Kabeer (1999) and her suggested components of empowerment, we consider the following in relation to PRM: (i) access to material, human and social resources (the pre-conditions for making strategic choices); (ii) agency, defined as the ability to set one's goals and act to achieve them (the actual process of exercising choice); and (iii) achievements, for example, improved well-being and having choices and making decisions based on them.

Accessing material, human and social resources

With NGO support, particularly where they were more focused on the local level for PRM implementation, women have been able to access resources that have enabled them to attend meetings, participate in decision-making processes and invest in improving range productivity and livelihoods. Many women highlighted how training had increased their knowledge about rangelands and how to improve them. In some areas, the local

Women's Affairs Offices also helped to build women's capacities and increasing access to education is also likely to have had an impact. Meanwhile, women's knowledge and contributions to discussions about what should be included in the rangeland management plans were appreciated by the men. Working toward common goals and sharing the experiences of doing so build up solidarity and feelings of community ownership and responsibility, and this strengthened the collective group, which is so important for managing risk and supporting each other through times of crisis.

Improving women's agency

Women and men participated in decision-making processes to plan and manage the communities' rangelands, and there was a high level of satisfaction amongst both men and women with this process. Women participated in PRM governance bodies as well as committees in local government more actively than they had done so in the customary governance bodies in the past. This can be attributed to the community acceptance of women as rangeland users and their inputs being considered valuable contributions to management decisions. Women's priorities, needs, interests and perspectives were expressed, which contributed to new ideas for inclusion in rangeland management plans. Women and men identified collective goals for improving their rangelands, which led to increased livestock productivity and income generation. Although these were early days, benefits were already being seen.

However, despite improvements, women sometimes still found it difficult to attend meetings due to household and family commitments and more could be done to adjust meeting times to periods when women are free from household chores. While women's participation in decision-making bodies was high within low-level bodies, gaps existed at the landscape/*dheeda* level, which suggests that although PRM can support inclusivity locally, more work needs to be done to ensure effectiveness at higher governance levels. In this study, we were unable to explore to what degree their participation in PRM affected the choices available to them or their ability to exercise choice in their daily lives in relation to the men in the household and community. Such "deeper digging" into the broader impacts of PRM on women's empowerment will be important for future research.

Achievements

In terms of achievements such as improved well-being and making decisions based on improved choices, while there was some indication of PRM improving incomes, the study did not go deep enough into the broader impacts of PRM to be able to confidently say that such

aspects of empowerment have been fully achieved. There were some clear impacts of PRM on the broader community well-being and contributions to improvements in the pastoral production system including strengthening the collective institutional structures of the group and their tenure and resource access and use security. This will have positive implications for both men and women with a more productive system resulting in more life choices being available. However, quantifying and qualifying the impacts on women specifically would benefit from further research that considers the multifaceted nature of empowerment and focuses more on the transformation of gender relations (Batliwala 2007).

Conclusions

PRM is proving to be a vehicle for challenging existing gender inequalities and customary patriarchal systems that exclude women from more public- or community-level decision-making processes. Using PRM as an entry point to community empowerment has provided a new space for discussion and planning of rangelands involving both men and women. Generally, it was agreed that women should be included as important rangeland users and not there simply to fill pre-defined quotas. Challenging male-dominated governance structures to be more open and inclusive is no easy task and requires time and commitment.

Taking an inclusive approach from the start, PRM has provided opportunities for women to increase their access to resources and improve their agency in rangeland management—a significant success given the traditional dominance of men in pastoral communities. Women's empowerment was boosted by working with and through pastoral communities as a whole and not by singling out women and giving them privileges or supporting their access and rights to land and resources as individuals. Women were included as active and valued members of the community and as rangeland users, not just because they were women. This, we believe, has strengthened the collective and thus the pastoral system as a whole, while also improving women's place and status in the community and their contributions to and benefits from the system.

Following Kabeer's analytical framework, women achieved some elements of empowerment through participating in the process. Women's access to resources was increased and their agency strengthened. Women expressed satisfaction about participating in PRM processes and were willing to continue doing so. Once women have a foothold and start believing they have the capacity and space to contribute, their confidence

grows: the role of women as agents of change in rangelands has been documented (Coppock et al. 2013). Combined with economic activities that give women greater spending power, this has improved their status and created more opportunities to contribute to decision-making processes.

These outcomes can be attributed to the positive steps taken by PRM-implementing organisations to include women as well as men from planning through to implementation and raising awareness on gender equality in the process. Still, there is room for improvement. Specifically, women's participation is still lower than men's. Moreover, differences were seen across the zones and regions with clearly greater success in the Bale zone where PRM was implemented more at the local level and over a longer period of time. This allowed more direct engagement of the NGO with communities, building relations and influencing governance structures and decision-making processes. However, overall, though women's participation has improved, projects lacked clear pathways for women's empowerment including how different and often quite broad women-focused activities contribute to this.

Experience from elsewhere confirms that investing in the building of women's capacities to engage and participate in PRM will bring benefits. A 2022 study of women's engagement in PRM for broader social change and women's agency in rangeland institutions in Kenya found that women meaningfully participated in different aspects of PRM processes and increased women's voice and agency in the governance of rangeland resources (Bullock et al. 2022). More effort is needed to gain additional government support in terms of funding and resources for PRM. A critical factor will be highlighting the positive impacts of PRM on women's empowerment and their status in the community.

Further research is required to fully explore the deeper and longer-term impacts of PRM on women and related dynamics and nuances including at household and community levels, together with consideration of different contexts and influencing factors. There is a need for exploration of different pathways to empowerment including how PRM influences women's agency beyond rangeland management and what are the broader achievements in terms of well-being and having choices. Multiple challenges persist and include social norms and practices that hinder women's opportunities to leave their homes. Intersectional analyses into understanding adaptation to climate change and opportunities for socially inclusive efforts to enhance resilience are recommended (Bullock et al. 2022).

In more recent applications of PRM, gender transformative approaches are being tested including the use of community conversations (Lemma et al. 2018) and women's leadership forums (Dungumaro and Amos 2019). This will provide opportunities to better understand the multi-dimensional and multi-scalar nature of empowerment and to dig deeper into understanding how PRM can be a vehicle for positively transforming gender relations.

Supplementary Information

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Additional file 1: Annex 1. Age, number of household member and years lived in the current dwelling (Mean±SD).

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Authors' contributions

FF managed the overall design and implementation of the research and drafted the main body of the paper. BE managed the collection and analysis of the data and drafted the results section of the paper.

Authors' information

Fiona Flintan is a senior scientist specialising in natural resource management and land governance and tenure, participatory land use planning, pastoralism, participatory rangeland management (PRM), gender and conflict resolution and/or transformation. She leads the CGIAR Research Initiative on Livestock and Climate. She has spent significant time working in East Africa, particularly Ethiopia and Tanzania. She also works at the global level raising awareness on rangelands amongst global actors and advocating for more attention to be paid to them. This includes participating in preparations for the UN Decade of Ecosystem Restoration 2021–2030, in the call for an International Year of Rangelands and Pastoralists (IYRP) and being an active participant and supporter of the Global Landscapes Forum.

Bedasa Eba Tebeje has more than 10 years of experience in research of dryland areas, particularly on rangeland and pastoralism. His expertise includes rangeland resource ecology and management and improvement of pastoralist livelihoods during droughts and other times of the year. He has experience in conducting research on rangeland resources and pastoralist improvement through designing proposals, collecting data, analysis and authoring reports.

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Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

The research was approved by ILRI Research Ethics Committee (approval no. ILRI-IREC2018-20).

Consent for publication

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Competing interests

The authors declare that they have no competing interests.

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