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FODDER VALUE CHAIN ANALYSIS REPORT

ICRC ETHIOPIA – OROMIA – EAST HARARGHE ZONE - MEYU MULUKE

FODDER VALUE CHAINE ANALYSIS REPORT

Location	Ethiopia Oromia – East Hararghe Zone – **Meyu Muluke**
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Unit	Economic Security Unit
Outline	1.1 Background and rationale for the fodder value chain analysis 1.2 Main findings and key structural constraints in the fodder value chain 1.3 Key recommendations to the ICRC Delegation in Ethiopia

1. EXECUTIVE SUMMARY

1.1.Background and rationale for the fodder value chain analysis

As a complementary intervention to the IBLI pilot project, the regional livestock specialist after his support mission in late 2022 recommended to support fodder production and facilitate linkages between producers, suppliers and consumers in the fodder market in order to address some of the structural constraints affecting pastoralist and agro-pastoralist communities in Meyu Muluke. Improving fodder availability during the dry season in the fragile East Hararghe context contributes to mitigating protection risks by reducing the need of pastoralist communities to travel long distance in search of pasture, and thus consecutive tensions between different communities competing for scarce natural resources. The cross-border competition for scarce natural resources is highlighted as a key driver of fragility[1] in the Horn of Africa (HoA).

The pastoral and agro-pastoral production livelihood is constantly challenged by the scarcity of pasture and freshwater, with increasing human and social vulnerability to environmental hazards and economic shocks, which are aggravated by droughts and resource-based conflicts. Systems - financial, market, health, agriculture and environmental — act in synergy, not in isolation. The animal feed value chain is made up of a series of inter-connected markets that rely on each other for the functioning of the value chain. The market chain, where target groups are present as consumers primarily (hardly as producers) is made of different segments from inputs, production and preservation (eg: haymaking), processing (of compound feed), distribution, consumption and waste management along the chain. These segments, in addition to the market environment and support services were analysed in order to identify potential leverage points to intervene to improve the way the fodder market works for economically-vulnerable groups in Meyu Muluke.

1.2. Main findings and key structural constraints in the fodder value chain

MARKET ENVIRONMENT:

Fragile pastoral communities need to diversity their livelihoods and income sources in order to tackle stressors (mid and long-term trends) **and cope with shocks** (drought and conflict)

- Livestock represents an indicator of social status and wealth in Ethiopian pastoral communities. Keeping excessive numbers of animals for prestige and security against losses and **overreliance on free grazing** is among the key constraints in pastoral areas. During the wet season, East Hararghe is endowed with rich pastureland and palatable bushes, which are the main free grazing resources. Grazing however shouldn't be considered "free" as it has numerous costs that should be better factored in the pastoralism equation, including labour from family members, opportunity costs for school-aged children not attending school, deterioration of natural resources, exposure to conflict and protection risks. In East Hararghe, although the coverage of primary education is about 78%, **secondary school coverage is very low (17%).**
- Various stressors hamper pastoralism. In the fragile context of East Hararghe, **recurring droughts** have reduced the average number of livestock kept by households in Meyu Muluke. The total livestock population of the Meyu Muluke woreda is composed of 269,350 cattle, 322,925 goats, 77,651 sheep, 88,055 camels and 30,578 donkeys, with an average herd size of about 15 TLUs per household. Herd quality should be better valued over herd size. In drought times, camel, goats, and donkeys resist better than cattle, and goats have become their preferred species. Pastoral communities generally

[1] Fragility is the combination of exposure to risks and insufficient coping capacity of the state, systems and/or communities to manage, absorb or mitigate those risks (OECD, 2020).

have limited knowledge about the animal health benefits and therefore the importance of feed production to reduce the exposure to drought.

- The East Hararghe zone is exposed to the **risk of conflict.** Conflict disrupts and reduces farmers' access to pasture, water points and farmlands; reduced mobility results in collecting less crop residues, forage and manure. Conflict also disrupts connections between suppliers of inputs, processors and consumers and limits services related to credit, transport, and market information. During the recent conflict that started in 2015, most of the households lost significant number of livestock including draught animals, reducing their capacity to cultivate their land. Water pumps, veterinary posts, Farmers Training Centers were either damaged or looted. Seasonal migration remains the most important drought response mechanism. However, the potency of this mechanism has been largely constrained by inter-community conflicts and overall rangeland degradation.
- The government's recent policy measures are promoting a shift towards more intensive feeding systems, forage production in the midlands and highlands, and to rationalized grazing, particularly in the lowlands areas. The government has recently introduced irrigated wheat and improved forage production. There was an overall consensus among community members in Harirgea in their interest to continue rearing livestock as their major livelihood combined with crop production for home consumption. The **reservation of vulnerable households in Meyu Muluke towards the wheat and improved forage government initiatives** need to be taken into consideration, without overlooking the fact that pure pastoralism is facing an existential threat. Wheat production in Meyu Muluke offers opportunities to process wheat locally, in order to increase the availability of wheat bran.

Gender aspects

There are 33,903 female-headed households in East Hararghe, and 90% of households in the zone own livestock (=30,000 female headed households owning livestock). 2,323 household in Meyu Muluke are female-headed. Despite the important role of women in the pastoral economy, particularly their traditional role of keeping goats, they are overlooked. Compared to men, women and female-headed households have less mobility rights, as well as lower access to social capital, productive resources including land, financial services and technology. These constraints limit their capacity to adapt and diversify their livelihoods, thus increasing their exposure to climate and conflict risks.

Poor position of livestock producers in the livestock value chain

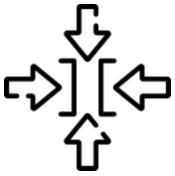
Smallholder livestock producers in Ethiopia are currently not making adequate profits from the livestock value chain, as it is dominated by traders. Poorly timed sales due to lack of feed during drought means selling livestock when prices are lowest. In order to benefit from this market, pastoralists and agro-pastoralists need better access to animal feed and to markets; if this level of access is not improved, many pastoralists will be forced to move out of this livelihood.

Structural feed shortage during dry seasons

- Per capita consumption of livestock products in Ethiopia is one of the lowest in the world and demand for animal products will continue to increase. At national level, natural pasture and crop residues are the main source of feed. The major causes for feed shortage are diminishing grazing lands, population growth, expansion of cropping at the expense of grazing lands, and expansion of degraded lands. The main factors constraining grazing lands in East Hararghe include drought, limited water availability, conflict, livestock diseases and pests, overgrazing and poor rangeland management, invasive weeds and deforestation. Inadequate feed supply results in slow growth rate of animals, loss of body condition, low productivity, and increased susceptibility to diseases. A large quantity of valuable feed resources is currently being wasted. Crop residues and native forage from communal grazing lands are low in energy and protein. The use of improved forages represents < 0.35% of the diet.

- The community critically needs feed from the market only in drought times. During a good season, communities in Meyu Muluke have enough feed from natural pasture and crop residue, without the need for feed. During the dry season, livestock in Meyu Muluke tend to concentrate around major water point such as the Mojo River, the main source of water in Meyu Muluke and Kumbi woredas. Without major feed development interventions, the national feed requirements will not be met.

Constraints to feed trading:



The forage market in Ethiopia is informal and opportunistic. The most frequent reasons mentioned by different key informants and market actors for not engaging in feed trading is limited demand for feed outside dry seasons, the high transportation costs due to the distant source of feed (Harar, Dire Dawa, Adama, Bishoftu…) and poor road network, as well as lack of appropriate storage at local level. The female FGD participants confirmed their willingness to buy feed for their animals, if it is easily available and affordable at local level.

IBLI:

Drought index insurance for pastoralists has been extensively tested in the HoA and proven as an early-response instrument that is now ready for major scale-up. Receiving insurance payouts during the early stage of a drought help reduce competition over natural resources, overgrazing, and tensions between pastoral communities, as discussed during the consultations in Meyu Muluke. This confirms the role that IBLI can play in mitigating conflict risk. Despite the challenge around delayed payouts, IBLI is a very relevant approach that the ICRC should continue to support, in close collaboration with the WB-funded DRIVE project, as improving access to financial services (including IBLI) for pastoralist and agro-pastoralist communities is one of the core objectives of this regional initiative. Strengthening the fodder value chain will bring necessary sustainability and long-term impact of the IBLI project.

MARKET CHAIN:

Fodder inputs:

- The forage seed system in Ethiopia is underdeveloped: seed production and marketing are generally informal and mainly dominated by informal seed dealers exploiting the poor enforcement of regulations to trade poor-quality seeds.
- Shortage of planting material of improved forages limits the development of improved forage in Meyu Muluke.
- **Free distributions of seeds and plant material by humanitarian and development agencies** and poor awareness of the animal health benefits of quality forage **hamper the development of forage seed producer enterprises**. Only a limited number of unions and cooperatives act as agro-dealers.
- The use of synthetic fertilizers is quite limited, due to the high price of fertilizer, weak transport system, and limited knowledge of households.

Production, conservation and utilization:

- 15% of households in East Hararghe also support their livelihood with crop production.
- The community in Harirgea relies on natural pasture as their main source of feed. In addition to natural pasture, the community uses small percentage of crop residue and an even small percentage of concentrated feed.
- Energy- and protein-dense feed resources are highly scarce in Ethiopia; crop residue, like straw and stover, and native forage from communal grazing lands are low in energy and protein. Commercial forage production in Ethiopia is not common: planted improved forages make up only less than 1% of cultivated land and improved forages represent < 0.15% of the total feed balance. Overall, the production and utilization of improved forage for feed in East Haraghe is negligible. The limited practice of animal fattening limits local demand for improved feed. An important challenge of improving forage crops is sustaining that level of performance when the project phases out. Factors

impairing the adoption and utilization of fodder crops by farmers include lack of infrastructure, economic incentives, support of service delivery and limited knowledge from community on wheat production and utilization of wheat residue for feeding.
- Communities in Meyu Muluke prefers to produce multipurpose (food-feed) crop variety such as improved sorghum, maize and sweet potatoes, rather than growing improved forage as a sole crop on the limited land. The communities also have a preference for fodder trees, which are only used towards the end of the dry season.
- Despite the relative abundance of forage during the 3-5 months of the main rainy season, preservation of forage and crop residue is only adopted by a minority of households in Meyu Muluke: apart from making loose hay from natural grassland, there is no practice of baling or making hay from cultivated perennial forage. Some of the reasons mentioned during the consultations include lack of equipment and storage especially during the rainy season to prevent damage.

Processing:
The national annual compound feed production is below the demand. Many feed processing enterprises are based in Oromia, which presents opportunities to improve fodder availability in Meyu Muluke. The highest amount of ingredient required by feed industries is wheat followed by maize and soybean. Wheat production has been increasing for the past 5 years. The use of processed feed is negligible is Meyu Muluke. The demand for it only exists during stress times. The informal by-products market currently lacks standards and quality control.

Distribution:

- Hay prices depend upon the effect of weather, area, time of the year, and demand vs. supplies; from the harvesting season to the dry season, usually the price of hay and straw doubles.
- Commercial fodder producers do not have information on the real demand for fodder among subsistence producers. Free distributions during emergencies undermine producers and traders' attempts to sell fodder. The emergency relief handouts also reinforce the idea that fodder is a public good that pastoralists are not willing to pay for. Even in non-emergency situations, the open market price for fodder is out of reach for the poorest pastoralists. The poor road network and long travel distances mean very high transportation costs (28% of final price) in rural areas.
- Brokers usually connect and mediate between hay/straw producers, forage traders and consumers
- Demand for feed on the market is high in December, January and February (long dry season) as well as in July and August (short dry season). During drought episodes, a small proportion of livestock keepers in Meyu Muluke who can afford it purchase low quality feed procured from Harar and sold by the unique local feed merchant. In Harirgea, FGD participants confirmed that options to buy feed locally are still very limited, as there is no animal feed supplier close-by, except for few traders who sell wheat bran during critical drought period. The only feed producer available in Harar is involved in basic feed production using wheat bran purchased from wheat flour mills. The feed suppliers contracted by ICRC for its previous feed distributions currently do not have commercial interest in the respective areas covered by ICRC because of the remoteness of the locations and the lack of demand.
- If feed suppliers were present in the nearby area, some members have shown willingness to procure feed from them. However, the majority of livestock keepers in the community have limited purchasing power to afford feed.
- The traders we interviewed expressed willingness to supply feed, but mentioned some of the challenges they face, particularly the high transaction cost to supply feed locally, as feed suppliers are located in far away, and the road network from Harar to Meyu Muluke is poor.

Demand:

More than 90% of the households in East Hararghe rely on livestock production as a way of life.
According to an ILRI estimate, the total daily cost of keeping cattle (1 TLU) alive is 26 ETB (including 15 ETB for feed). For a total of 151 days of forage scarcity, the total cash required for feed is 151 x 15 = 2,265 ETB for 1 TLU. We can estimate the annual feed demand by vulnerable livestock keepers in Meyu Muluke to represent an amount of 1,800,000 ETB[2].

Waste management along the value chain:

A large quantity of valuable feed resources is currently being wasted in Ethiopia. The informal market for agro-industrial by-products doesn't adequately harness the potential of this waste as feed sources. Lack of labour, baling machines and low awareness of pastoralists in Meyu Muluke are the main drivers of such a large-scale waste of such scarce and valuable resources. Farmers produce and use manure as organic fertilizer. Livestock dung cakes are used as a fuel for cooking. Women bear the primary responsibility for cleaning the excreta of the animals from the barn.

INFRASTRUCTURE AND SUPPORT SERVICES:

Land:

Grazing land is a state property in Ethiopia. In Meyu Muluke land is available, despite the encroachment of crop production into pasturelands, especially in the upper side of the woreda kebeles.

Water

Recurrent droughts increase livestock mobility to resourceful areas. High mobility of livestock population to certain areas can trigger conflict around access to water. Conflict in turn can also partially or completely disrupt access to water. Apart from the rain during the rainy season, the target groups rely on the Mojo River.

Extension services:

- Extension services have a critical importance in raising awareness on how to use and produce improved forages. Farmers across the country generally complain that they are not getting adequate technical support. Extension services tend to focus on crop production at the expense of forage extension. In East Hararghe, about 41% of the livestock keepers have access to veterinary services, and only half of them are satisfied with the quality of the service.
- Community Animal Health Workers (CAHWs) are trained to provide veterinary services to the community for a fee. They complement the services provided by extension workers. These CAWHs are also trained as IBLI Village Insurance Promoters (VIP) to promote IBLI and to collect the premiums from the policy holders, receiving economic incentives from OIC. The link with the veterinary pharmacies represents an added value for the CAHWs since they have a reliable supplier to replenish their stock. Main constraints: 1) constant increase of veterinary inputs due to inflation, 2) lack of transportation means (moving on foot over long distances), 3) sometimes lack of cash in the customers' hands and debts are not always paid back.
- In 2020, there were 14 functional Pastoral Training Centres in Meyu: pastoral Training Centers are important institutions in the delivery of pastoral extension services. There are 39 functional animal health posts in East Haraghe. In Meyu Muluke, there were 22 extension agents in crop, 25 in livestock, 32 in animal health, 18 in NRM and 31 in cooperatives[3].

[2] = 120,000 TLU x 15 ETB/TLU For reference, the total cost of the 3-year project with HrU is estimated at 15,110,870 ETB.

[3] Not clear if one agent focuses only on 1 topic, or if the same agents provides technical support on different topics (eg: crop and livestock).

Cooperatives and unions:

- There are 28 primary cooperatives organized and licensed in Meyu Muluke, including 8 multi-purpose cooperatives, Grain trading cooperatives and Small saving and loans/Rural Saving and Credit Cooperatives (RUSACCOs). Primary cooperatives don't trade feed as it is not considered as a profitable business, mostly due to high transportation costs and lack of appropriate storage capacities.
- In Meyu Muluke, the RUSACCOs in Muluke and Mojo Woldia have been performing well and could be playing a role in the fodder value chain. RUSACCOs established in the kebeles lying on the southeastern corner of the woreda that experience violent conflict and displacement were reported to be characterized by weak deposit mobilization and limited loan extension performance
- The external evaluation of ICRC's agro programme (including the Seed Multiplication Project) warned that providing free resources can threaten the sustainability of this initiative.
- A couple of multi-purpose cooperatives are functioning well and present potential to grow, for instance Arjano primary cooperative in Gara Wallo kebele, and the Afran Kallo Farmers' cooperative Union.

Access to financial services:

Access to formal financial services (including credit) for pastoral producers is limited in rural areas of Ethiopia. Pastoralists have limited access to formal credit, primarily due to their lack of collateral or identification documents. Recent technological advances have made it possible for financial services to reach pastoralists in a more accurate and timely way. In Ethiopia, the local insurance markets are well developed. Currently, due to the vulnerability of pastoralists to shocks and limited financial awareness, the number of pastoralists engaging with formal financial services is low and insufficient for vulnerable households to cope with major drought shocks without external support. There is a gender gap in women's access to financial services. Some RUSACCOs are linked to a formal MFI and can provide loan services to the livestock keepers and other actors in the fodder market chain such as a primary multipurpose cooperative.

Marketplaces, roads and transportation facilities

In Meyu Muluke there are 2 informal markets at pastoral kebeles where livestock keepers sell their animals and access other essential commodities. The lack of quality transport systems stresses animals. As a result of traveling long distance, animals are emaciated leading to significant reduction on their selling price**.** Except for one kebele (Mojo Waldia) with all-weather road access, the rest have only dry weather roads. There is road accessibility to all kebele centers but not well developed. Bad road condition can affect accessibility of the fodder producer and trader to the community. The team also observed that the road from Harar to Meyu Muluke has been under construction for the past few years. In Meyu Muluke, the coverage of public transport is minimal. Market actors delivering goods and services are directly affected by the road condition and distance. Condition of the road can dictate the prices of the goods and services which has the final impact on the delivery of fodder to target group. The poor road network and long travel distances mean very high transportation costs in rural areas.

Lack of preservation equipment and storage at household or communal level

Mechanization in forage crop production, preservation and use is very small in Ethiopia, and almost non-existent in Meyu Muluke. Some of the reasons mentioned during the consultations for not preserving forage include lack of equipment and storage especially during the rainy season to prevent damage. Lack of storage facilities is among the common factors that limit crop residue efficient utilization, and

involvement of cooperatives in Meyu Muluke in feed trading. A female livestock keeper in Harirgea who has recently started feeding her cows with the demonstrated improved forage doesn't have storage to protect the harvest from spoilage, which is preventing her from harvesting and storing for better use during critical time.

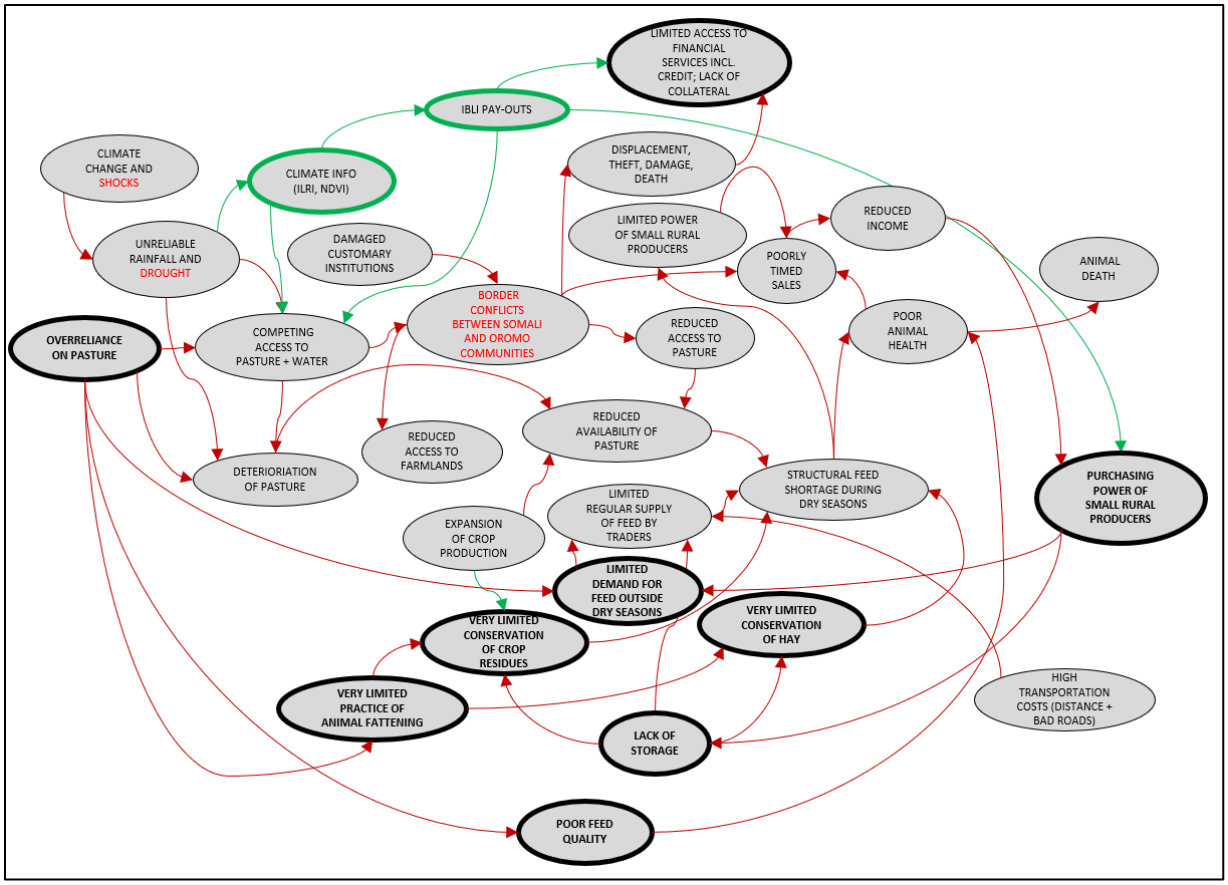


Figure 1: Systems mapping of constraints in the fodder value chain, highlighting key leverage points (in bold); red arrow = negative effect

Figure 2: Value Chain Development training at HrU Campus, April 2023 (Alex Gachoud)

1.3. Key recommendations to the ICRC Delegation in Ethiopia

Overreliance on pastoralism and natural pasture can be considered a binding constraint[4], as the demand for fodder outside the dry season is almost non-existent. This dependence needs addressing. Adequate conservation, improvement and utilization of hay and crop residues as well as the introduction of forage production need to be practiced to overcome feed shortage and optimize production. A conflict-sensitive programming approach must be used to inform the design of the project, to avoid that it inadvertently contributes to the escalation or resurgence of violence. The guiding principles mentioned at the end of the report should be adopted to refine and prioritize the list of detailed recommendations suggested to address the numerous constraints identified in the market environment, and support services, as well as in the different segments of the market chain. These suggested interventions can be structured under the following **4 strategic recommendations**:

1. Raise awareness, promote and support preservation and utilization of existing resources: mowing with a scythe, cash for work to collect and bale hay, appropriate handling and storing crop residues, improved composting.

2. Raise awareness, promote and support the integration of new feed sources; support appropriate utilization, storage to increase the potential commercial to trade the new feed sources: supporting gov't initiative around improve forage production and wheat production; introducing intercropping and undersowing; supporting the planting of dual-purpose crop and multipurpose fodder trees; support alternative feed sources such as black soldier fly larvaes.

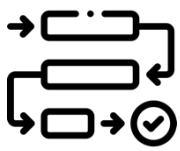
3. Raise awareness, promote and support commercial activities to a) improve fodder availability and b) harness this improved availability: supporting multipurpose cooperatives to produce and trade fodder; incentivizing traders to supply feed in Meyu Muluke**,** animal fattening, goat milk production and sale

4. Raise awareness, promote and support the adoption of transformative action to reduce exposure to climate and conflict risks: children school enrolment, support peace enabler and social cohesion, including IBLI and mutually benefiting trade across ethnic lines; participation in social organization; approaches to better connect Meyu Muluke (support to transportation and adoption of mobile services); access to financial services.

Given that the fodder value chain is exposed and vulnerable to different types of risks in the conflict-prone/affected context, the focus of ICRC's intervention should be on improving the ability of the value chain to continue generating and delivering value despite the occurrence of shocks and stressors. Strengthening resilience means introducing changes in the structure of the value chain (e.g. new regulations or access to new services or products such as IBLI) in order to improve the coping strategies of the fodder value chain actors. This will enhance the value chain's actors' ability to anticipate, prevent, absorb, adapt and transform in the face of shocks or stressors. Among the fodder value chain actors, a specific focus should be allocated to female livestock keepers. ICRC's intervention should support the emergence of self-sustaining mechanisms, meaning that solutions are found within the system (without requiring dependence on temporary support from the ICRC).

[4] A binding constraint requires to be addressed first to untie a chain of inefficiencies or bottlenecks.

Further analysis is needed to refine our understanding of conflict drivers[5] and better factor this into the design of the project (conflict-sensitive programming). Guiding question to inform the baseline study that HrU plans to conduct: How can the fodder value chain development intervention seek to avoid, minimize, or positively impact the identified conflict drivers, and support peace drivers?



2. RATIONALE FOR THE STUDY AND METHODOLOGY

Emergency feed and fodder distribution to livestock keepers affected by drought is no longer sustainable, as it is too costly[6], bulky for some, reactive, only targets a small number of households and doesn't address structural constraints affecting pastoralist and agro-pastoralist communities. The Index-Based Livestock Insurance (IBLI) pilot project that started in 2020 aims to tackle some of these structural issues. However, when the rains fail and livestock owners who purchase IBLI premiums receive pay-outs, they may not be able to procure animal feed due to its limited availability in the intervention area in East Hararghe. According to the regional livestock specialist after his support mission in late 2022 "*tackling drought-related animal nutrition problems means working on the segments of the fodder value chain to improve availability of animal feed and its access for pastoral communities*". He thus recommended that the EcoSec programme:

a) supports fodder production in Meyu Muluke and
b) facilitates linkages between producers, suppliers and consumers in the fodder market.

It was therefore decided to strengthen the fodder value chain in Meyu Muluke, as a complementary intervention to the IBLI project. This study demonstrates that the fodder value chain, however, is NOT as simple as:

The fodder value chain is indeed rather complex, involving a network of different actors, and can be understood as a sub-system of the critically important livestock market. Improving fodder availability during the dry season can also mitigate protection risks by reducing competition for scarce natural resources and consecutive tensions between different communities. A 4-day Value Chain Development training was organized for 14 ICRC staff and 4 researchers from the partner Haramaya University (HrU) on their campus in Haramaya in late March 2023, followed by 3 days of fieldwork to consult key local stakeholders in the Meyu Muluke woreda and collect primary data from agro-pastoralist communities via focus group discussion, and from key informants via structured interviews[7]. The face-to-face training and value chain analysis was led by the Geneva-based income & market specialist, with in-country support from the regional cash & market specialist based in Nairobi. The limited timeframe did not allow for extensive interviews with other important actors in the fodder value chain, such as large-scale feed traders or producers. The preliminary value chain map was produced during the training to visualize the complex web of actors and factors involved in the animal feed sub-sector. The map was then refined during fieldwork, and finalized after fieldwork, enriched by additional secondary data analysis, including recent reports from HrU researchers:

[5] Conflict drivers can be negative (i.e. conflict drivers that divide groups and individuals, such as grievances) or positive (i.e. peace drivers that connect groups and individuals).

[6] Including procurement and delivery costs due to the very challenging logistic conditions, remoteness of the areas and the poor conditions of the roads.

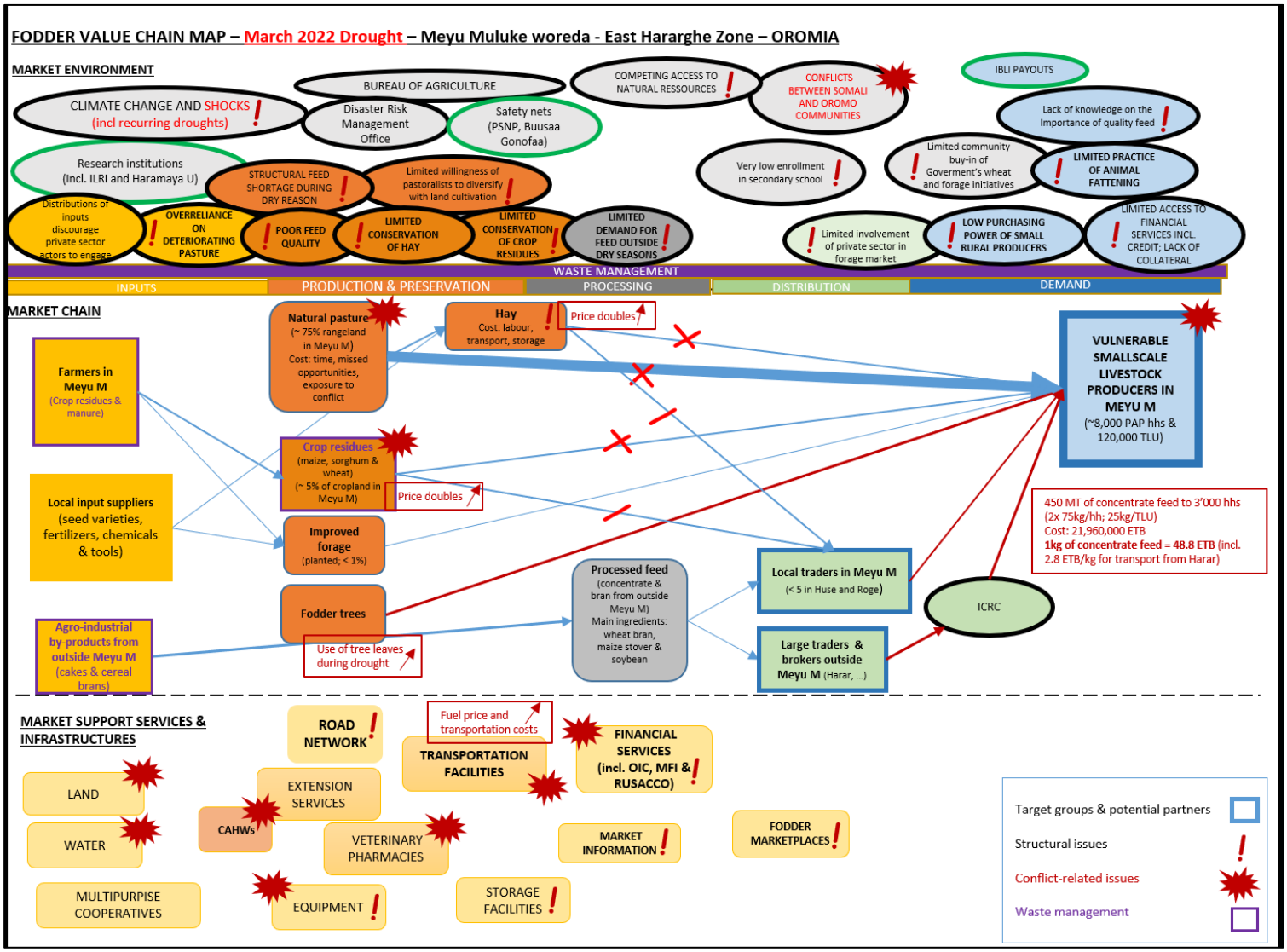


Figure 3: Fodder value chain map in stress time (focus on the Meyu Muluke woreda)

The value chain map is a flow chart that provides a general picture of the value chain from production to consumption. It indicates the functions, relevant actors, linkages between them, and the main channels. It facilitates an understanding of the structure and dynamics of the value chain. The value chain map should allow for the identification of the leverage points, namely those points in the system where interventions are likely to have the greatest impact. Considering the importance of the livestock and fodder value chains in the HoA, we have tried to understand the different key elements of the fodder value chain most from a regional or national perspective first, before zooming in on the specificities of the East Hararghe and Meyu Muluke Areas of Responsibility.

3. BACKGROUND INFORMATION AND ICRC OPERATIONS IN EAST HARARGHE

3.1 Profile and needs of conflict-affected people in the study area

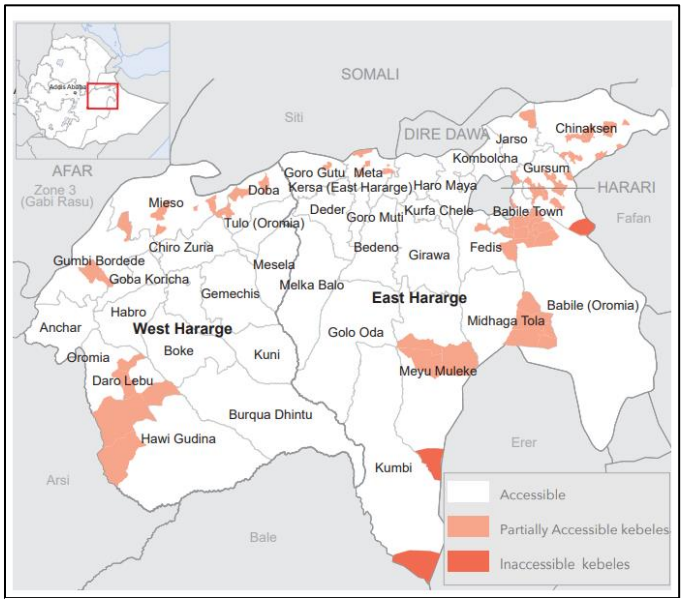


Figure 4: East and West Hararghe Access (Reliefweb, June 2019)

Historical tensions over water and grazing land between communities in Oromia and Somali regions started morphing since 2015 into armed conflicts across the borders. Localized skirmishes then displaced thousands of agro-pastoralists. In East Hararghe, some kebeles in the Kumbi and Meyu Muluke woredas have been occupied by the Somali Liyu Police since 2015. In August–September 2017, conflict escalated along the entire regional boundary resulting in massive displacements. Violence was directed at expulsing communities along ethnic lines from contested territories and urban centers. Many properties were looted and/or burnt. Ethnic Oromos were forcefully expelled from Somali region's rural and urban areas into Oromia at the beginning of September 2017, while populations from both groups fled boundary areas into their regions of origin, mostly to large towns. Many fled empty-handed: the majority of the IDPs (mostly pastoralists and agro-pastoralists) who registered large capital loss had stayed more than 20 to 40 years in their adopted region. Security incidents in 2018 and 2019 disrupted assistance interventions[8]. Since 2018, relative peace has been observed across some areas at the borders of Oromia and Somali regions due to the peace building process. Since February 2019, as part of the reconciliation efforts, the Ethiopian Defense Forces deployed in kebeles of return and restored order. Massive government-supported IDP returns were conducted in early 2019. The majority of the IDP were eager to return home, if assistance and house rehabilitation were provided .

Returns continued in 2020 (201,000 IDP returnees in East Hararghe), despite the ongoing low-intensity conflict between Jarso (Oromo) and Geri (Somali) clans in Chinaksen (East Haraghe) and Tuliguled (Fafan).

ICRC EcoSec interventions:
In 2018, the ICRC started a livelihood program in the lowland areas of Oromia region with the aim of protecting/restoring animal health and production capacity of pastoralist communities affected by conflict. The target population consists of about 8,000 pastoralist households (48,000 individuals), formerly assisted with Essential Households Items (EHI), who rely on livestock as their main livelihood. As animal health facilities and veterinary services in East Hararghe were minimal, ICRC started an outreach programme by training community animal health workers (CAHWs), vaccinating livestock and establishing pharmacies. During drought periods, the lack of availability of pasture and other feed sources push livestock keepers to migrate to other areas in search of pasture and water, adding stress on scarce resources, and creating tensions with neighbouring communities (physical attacks and theft of livestock). In order to move away from traditional feed distribution and to strengthen the resilience of livestock keepers against climatic hazards, EcoSec signed in April 2020 a 3-year partnership

[8] In September 2018, an aid worker was killed near Roge IDP site (Meyu Muluke), and assistance to over 10,000 IDPs stopped for months. In October 2018, a man opened fired during a food distribution in Chinaksen, wounding an aid worker. In May 2019, conflict between 2 clans was reported in Jarso, halting operations and forcing the evacuation of aid personnel.

agreement with the International Livestock Research Institute (ILRI) and Oromia Insurance Company (OIC) to pilot an Index Based Livestock Insurance (**IBLI**) project in the Meyu Muluke woreda, following the successful IBLI pilots initiated in other areas of Ethiopia since 2008. This insurance product has the advantage of providing payouts at the onset of a drought, much faster than humanitarian assistance, and enables pastoralists to protect their livestock assets by buying fodder, water, and medicines before animals start dying. IBLI relies on easily accessible and reliable satellite indicators of vegetation condition - the Normalized Difference Vegetation Index (NDVI) - to assess forage availability for a given season in a defined Unit Area of Insurance[9]. The index level was set at 20% NDVI as the threshold to trigger pay-outs. Existing ICRC-trained CAHWs were appointed as Village Insurance Promoters (VIPs) to act as sales agents in the kebeles and Rural Savings and Credit Cooperatives (RUSACCO) chairpersons were delegated to collect premiums on behalf of OIC. Premium subsidies provided by ICRC were initially set for a maximum of 5 Tropical Livestock Units[10] (TLUs) per household at 70% subsidy. The pilot project was planned to phase out in February 2023.

4. STEER FOR INTERVENTION DESIGN

ICRC's VCD work is inspired by Market System Development (MSD) and Making Market Work for the Poor (M4P[11]) principles, but adapted to ICRC's mandate and volatile conflict-affected contexts. VCD aims to find leverage points in market systems that change the dynamics in these systems in a way that more poor people benefit. Due to the uncertainty inherent to complex systems, a VCD project needs to adapt and try multiple activities while making sense of the ripple effects and avoiding to create dependency.

Potential interventions are many, but EcoSec should prioritize those that can have a high impact at a structural level. A conflict-sensitive assessment of these options can be used to decide which of them are most able to minimize conflict drivers, reduce the risk of unintended negative impacts brought about by the value chain interventions on conflict dynamics, while strengthening the opportunity of contributing to peace dynamics and social cohesion. Some of these interventions can be initiated immediately, while others are more complex and require a medium-term timeframe. Some suggested guiding principles that should inform the design and implementation of our interventions:

- Need to build on and harness previous EcoSec interventions (ie: training of CAHWs; establishment of vet pharmacies; strengthening animal health, but from vaccination campaign to improved nutrition; engagement with feed suppliers but as partners, and not just service providers). CAWHs and Vet pharmacies have a key role to play in the fodder market.
- Need to better learn from previous and ongoing initiatives on fodder development led by other international actors, including ILRI.
- Need to identify a specifically vulnerable group of livestock keepers that should benefit ultimately from our interventions, in order to reduce the scope of the project, and ensure sensible articulation between the different project components; this group should ideally be exposed to or suffering from conflict-related protection risks, but should also be as well a potential peace driver. Considering the role that women play in managing goats and the animals not migrating, and the fact that they are currently overlooked in the pastoral economy, particular attention should focus on female livestock keepers and on goats.
- Need to enhance the value chain's actors' ability to anticipate, prevent, absorb, adapt and transform in the face of shocks or stressors. ICRC's intervention should support the emergence of

[9] NDVI quantifies vegetation greenness by measuring the difference between near-infrared and red reflected light. As a standardized measure of vegetation condition, NDVI is thus a good proxy of forage availability where high values indicate healthy vegetation and low values poor or low vegetation coverage or performance.

[10] Tropical Livestock Units are livestock numbers converted to a common unit.

[11] M4P is an approach to developing market systems so that they function more effectively, sustainably, and beneficially for poor people, building their capacities and offering them the opportunity to improve their sources of income

self-sustaining mechanisms, meaning that solutions are found within the system (without requiring dependence on temporary support from the ICRC).
- Need to identify leverage points (nodes in the value chain where a small change can lead to significant impacts); for example, supporting the change of paradigm: livestock represents an indicator of social status and wealth in Ethiopian pastoral communities: how about children enrolled in higher education as a new indicator of social status and wealth?
- Need to factor in throughout the project cycle the potential impact of conflict on the fodder value chain, as well as the potential impact of the value chain on the conflict-prone and conflict-affected context; conflict-sensitive programming requires an awareness of fragility and of the conflict dynamics trends. This approach must be used to inform the design of the project, to avoid that it inadvertently contributes to the escalation or resurgence of violence.
- Need to factor in access to water, particularly from the Mojo river, and consider improving access to fodder there (eg: setting up a forage market) for different communities from the Meyu Muluke and Kumbi woredas.
- Need to foster mutually-benefitting commercial relationships between communities currently competing for natural resources (fattening based on improved forage production).
- Need to identify risks and monitor indicators to enable flexible programming; need to adapt the project activities to ensure that the risk of negative impact on context dynamics is minimized, while the opportunity to positively affect dynamics is maximized
- Need to promote and support mixed-farming system (crop-livestock integration techniques) adopting climate smart agriculture, agro-ecological and ONE Health[12] principles for sustainable forage intensification.
- Need to address different aspects of the fodder value chain, from seed to feeding, aiming at improving human nutrition outcomes
- Need to aim for long-term sustainability and economic viability of forage development programmes: gradually moving away from substitution and free distribution of inputs and equipment, that discourage private sector actors to engage; facilitating access to quality forage seeds, using lessons learnt from the external evaluation of the ICRC agro programme (eg: including clearly defined 'resource sharing/ contribution' from the part of beneficiaries in the form of labor, time, and local resources they have).
- Need to explore synergies with the WB-funded DRIVE project, particularly on access to financial services including IBLI; such a collaboration can pave the way for an IBLI exit for the ICRC in the next few years (3-4 years ideally)
- Need to encourage private sector actors (including cooperatives and unions) to engage in the different segments of the fodder value chain (inputs supply, forage production, preservation and storage of existing feed sources, distribution of existing feed and processing of improved feed)
- Need to make better use of those local resources that are available (eg: wheat can be processed locally to improve availability of wheat bran)
- Need to better understand the relationship and collaboration between the Ethiopia Institute of Agricultural Research (EIAR) national research centres and Haramaya University on market-competitive agricultural technology

[12] The relevance of the One Health approach is increasing both in the global humanitarian debate and internally in ICRC. The former, has been enriched by the extension of the initial Tripartite Agreement (FAO-OIE-WHO) to UNEP formalizing thus the Quadripartite MoU among the 4 agencies to highlight the importance of the environmental component in the nexus Human-Animal Health-Environment.

Figure 5: Improved forage production supported by the government in Harirgea, April 2023 (Alex Gachoud, ICRC)

Figure 6: ICRC, Haramaya University and Ethiopian Red Cros Society fieldwork team, East Hararghe, April 2023