



Feed the Future Ethiopia Transforming Agriculture

MARKET SYSTEMS RESILIENCE ASSESSMENT

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ACRONYMS & ABBREVIATIONS

COVID-19	coronavirus disease 2019
forex	foreign exchange
MSR	market systems resilience
NGO	nongovernmental organization
SME	small or medium enterprise
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

This report summarizes the findings of the market systems resilience (MSR) assessment conducted by Vikāra Institute for Feed the Future Ethiopia Transforming Agriculture. Vikāra Institute was engaged by the Feed the Future Ethiopia Transforming Agriculture Activity (“the activity”) to conduct an MSR assessment of key structural and behavioral characteristics of target agriculture market systems in five Feed the Future geographic clusters in Ethiopia: Northern, Tana, Lowlands, Southern, and Jimma Clusters. The findings draw on available secondary data sources as well as primary data gathered through in-country and remote interviews, key informant interviews, and focus group discussions with 290 participants, including farmers, business owners, industry associations, government staff, and development organizations.

Based on an assessment of key structural and behavioral characteristics of the target market systems, the assessment indicates that across the country of Ethiopia, agricultural market systems are trending toward a state of increased fragility, albeit with varying severity within and between the geographic areas of focus, as well as crops and products. Respondents from all industries cited critical and pervasive market systems shocks and stresses, revealing key recurring drivers of market system fragility in Ethiopia. If the causes, or at least impacts, of these patterns are not addressed, several industries could potentially trend toward stagnation or further retrenchment. The key shocks and stresses that emerged from the research and are discussed throughout this report include those related to conflict, market instability, and policy.

Currently in Ethiopia, small group kinship norms reinforce the role of kinship networks as the primary way in which risks are managed. **Small group kinship** norms, beliefs, and rules are customary practices (do’s and don’ts) that bind kinship networks together, allowing them to effectively manage risks—primarily via risk sharing and diffusing within the group. There appears to be limited reliance on market systems to support resilience at the market system or household level, although discreet examples are starting to emerge. This research offers insights into the resilience patterns and trends within market systems across all five clusters. It is important to base these cluster level observations within the broader framework of national patterns, those that emerge in the capital of Addis Ababa and flow through to the regions.

Kinship identities and communal coping mechanisms

Kinship identities are identified as a foundational social structure in Ethiopia, which are both contributing to fragility while being drawn upon across the country as a key social support system.

Both the secondary data and field research point to ethnic divisions fueling distrust and conflict, uncovering current examples of these dynamics playing out across the five clusters. The field research also identified elements of elite capture patterns. **Elite capture** happens when powerful actors in a country or region distort the provision of services that should serve everyone, but are turned into a means for private gain. The research indicates that in Ethiopia market actors that are

connected and powerful within a kinship network tend to leverage kinship loyalty norms to maintain and further entrench their power and position. These divisions seem to have limited the emergence of connectivity, diversity, power-sharing, and healthy competition and cooperation in market systems.

The field research also indicated that although small group kinship norms across Ethiopia have influenced divisions between differing communities and emergence of rigid authority structures, they are also central to how most communities cope via communal sharing mechanisms when confronted with various shocks and stresses. The research found patterns that indicate communal coping mechanisms are the primary way low-wealth rural communities manage risks. At the same time, especially in the regions with recurrent shocks and stresses or where conflict has emerged, these communal coping mechanisms are breaking down. For example, in addition to relying on kinship, communities in the pastoral areas are resorting to additional coping mechanisms. Communities are shifting away from traditional pastoralism based on longstanding cattle management practices by migrating between regions and to urban centers, shifting to crop production, shifting to other animals such as goats and poultry, or some combination of the above. Of particular interest is the shift in cattle management practices to other animals and crop production, because it indicates that an increasing number of communities are indeed slowly becoming more reliant on market systems to manage risks.

National market risk profile

Shocks and stresses that appear to be the most common to the target geographic clusters and market systems of the activity are related to (1) conflict, (2) market instability, and (3) policy. The federal government subsumes factors and forces such as, economic development initiatives or investments, the commodity exchange, forex shortage, and inflation. Each of these impacts market systems development and resilience to greater or lesser degree throughout the different target clusters of the activity.

Regional market resilience profiles

Ethiopia is a geographically, ethnically, ecologically, socially, and economically diverse country. Although the Government of Ethiopia does issue national policies, laws, and regulations in conjunction with their regional government counterparts, the ecological, social, and ethnic diversity of the country means that resilience capabilities have evolved differently in each location and each sector. The shocks and stresses, as well as coping mechanisms, are notably distinct across regions. Understanding the context of each of the five clusters will prove to be essential when designing interventions.

- The **Northern Cluster** is deeply affected by conflict, resulting in loss of life, property, and livelihood. In large part, commercial activity has ceased, and people and market systems are in survival mode. This area will need more of a recovery-based support strategy than that of other regions. These communities will also need to be engaged in ways to foster trust-building, especially with other market actors outside their community and region.

- The **Jimma Cluster** is notable for more emergent or evolved market systems, particularly in the coffee sector. Economic activity is based on a diverse set of crops, fruits and livestock, which supports more market-oriented coping mechanisms. With the lifting of the mandate to have all coffee go through the commodity exchange, there is an important opportunity to diversify the types of market channels for coffee, which is important for systemic resilience.
- The **Tana Cluster** for the most part presented as less fragile than other regions, albeit exposed in pockets to conflict-related shocks. A majority of respondents demonstrated some market resilience behaviors, but the accumulated shocks and stresses, and knock-on effects from shocks and stresses in other regions are quickly making the region more fragile, given that this cluster is neighboring the Tigray region (Northern Cluster) which is severely affected by the conflict.
- The **Lowlands Cluster** is notably affected by climate change. Both flooding and droughts are impacting pastoralism, which is a traditional and communal source of resilience. Market systems are also impacted by conflict along the Oromia-Somali border. Interestingly, people are moving toward different economic activities, indicating a shift to resilience in the market systems.
- The **Southern Cluster** is undergoing systemic changes and is at risk of reaching a tipping point toward fragility as a result of the accumulated shocks and stresses facing their agricultural market systems.

To a great extent, the systemic and central government influences are critically important, but they are filtered through localized interpretations and manifestations of small group kinship norms and a federal structure based on ethnic representation that administers policies and initiatives at the regional level. More specifically, each cluster has within it different cultural norms and beliefs, as well as political and ethnic identities and affiliations that have shaped how perceptions (and, as a result, behavior patterns) have emerged.

1. INTRODUCTION

1.1 RESEARCH OBJECTIVE

Vikāra Institute was engaged by the Feed the Future Ethiopia Transforming Agriculture Activity (the activity) to conduct a market systems resilience (MSR) assessment of the state of key structural and behavioral characteristics of target market systems in Ethiopia. These target market systems include target crop and livestock value chains identified as the most nutritious for rural households and the most suitable for productive livelihoods. The assessment is grounded in U.S. Agency for International Development’s (USAID’s) MSR Framework for Measurement¹ (2019). The main objectives of the study were to:

- Assess the state of key structural and behavioral characteristics of the target market systems.
- Develop risk profiles by cluster for communities and market actors engaged in selected cross-market functions.
- Identify systemic resilience activities by cluster to address fragility of market systems and ensure resilience and conflict-sensitivity of market interventions.
- Engage key stakeholders by contributing to the activity stakeholder mapping, and identifying and engaging stakeholders throughout the process to gain strategic alignment and buy-in.
- Develop a set of guiding questions for learning and adapting to address shifts in contexts and MSR.

2. ASSESSMENT METHODOLOGY

2.1 BOUNDARIES OF THE MARKET SYSTEM

To achieve the research objectives, the research design established parameters around the scope and breadth of the following: geographic focus, sectors, and spatial boundaries.

¹ See USAID’s Market Systems Resilience (MSR) Framework at: https://www.usaid.gov/sites/default/files/documents/1866/Market-Systems-Resilience-Measurement-Framework-Report-Final_public-August-2019.pdf

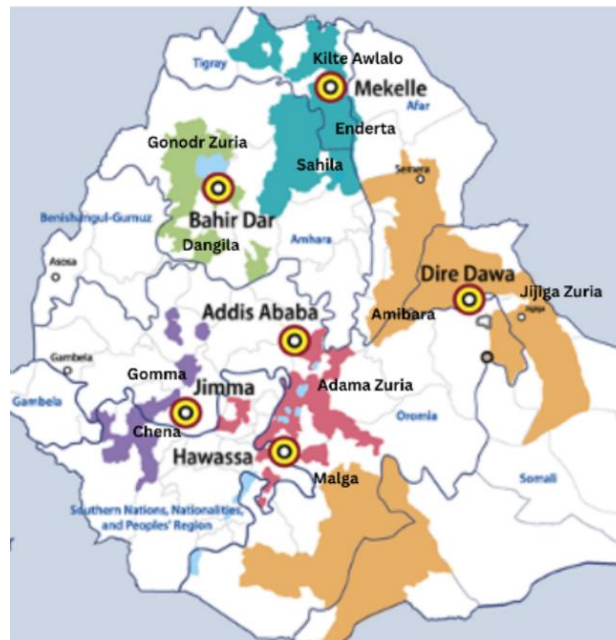
2.1.1 GEOGRAPHIC BOUNDARIES

The geographic focus area for this research aligns with the USAID mission zone of influence in Ethiopia as seen in **Figure 1**.

These cluster² areas are:

- Southern Cluster/Hawassa (spans Oromia and SNNPR)
- Tana Cluster/Bahir Dar (Amhara)
- Jimma Cluster/Jimma (spans Oromia and SNNPR)
- Lowland Cluster/Dire Dawa (spans Somali, Oromia and Afar)
- Northern Cluster/Mekelle (spans Tigray and Amhara)

FIGURE 1: ETHIOPIA ZONE OF INFLUENCE



2.1.2 SECTORAL BOUNDARIES

The research focused on crop and livestock market systems prioritized for having a high degree of influence on the resilience and growth of the overall market system in the country. To include vulnerable and marginalized communities, agriculture was a primary focus of the study, as both a major employer of rural low-income people and an integral part of Ethiopia's food security. The following nutritious and income-generating crops and livestock were selected by the activity as priorities for the study, because they have the greatest potential to address nutrition outcomes directly (**Figure 2**). In addition, the activity prioritized additional crops and livestock (indicated by * in Figure 2) that were identified as having the most significant impact on livelihood potential in each region.

² The geographic clusters referred to in this document refer to USAID terminology, and are different from the agricultural commercialization clusters (ACC) being promoted by the Ministry of Agriculture of the Government of Ethiopia.

FIGURE 2. PRIORITY CROPS AND LIVESTOCK MARKET SYSTEMS BY CLUSTER

Cluster	Focus crops/products
Southern Cluster/Hawassa	Eggs from poultry Dairy from cows Beans (kidney beans and fava beans) Orange-fleshed sweet potato Maize* Wheat* Teff* Barley*
Tana Cluster/Bahir Dar	Eggs from poultry Dairy from cows Chickpea Potato* Fishery Maize* Wheat* Avocado*
Jimma Cluster/Jimma	Eggs from poultry Dairy from cows Beans (kidney beans and fava beans) Orange-fleshed sweet potato Maize* Coffee* Avocado* Honey*
Lowland Cluster/Dire Dawa	Dairy from cows and goats Nuts Eggs from poultry Orange-fleshed sweet potato Lamb (from sheep)* Goat meat* Onions* Wheat* Oranges*
Northern Cluster/Tigray	Eggs from poultry Dairy from cows Chickpea Orange-fleshed sweet potato Beef* Wheat* Teff*

2.1.3 SPATIAL BOUNDARIES

The research captured data at the micro, meso, macro, and meta levels of the Ethiopian market system to test the hypothesis that building resilience in the market system can build resilience at the household level. At the micro level are individual businesses, households, and individuals. The meso

and macro levels are networks or systems that operate as a whole, such as a market system or a political system. The meta level represents strongly held mental models, beliefs, and norms.

2.2 RESEARCH & DATA COLLECTION METHODS

2.2.1 DESK RESEARCH

A desk review of available literature, supplemented with preliminary interviews to vet initial findings, provided insights for framing key issues, trends, and patterns of behavior.

The desk research included activity research and other background materials provided by activity staff; materials recommended by market actors; and openly sourced information from the internet. The referred and openly sourced materials included the following:

- Relevant policy documents from the Government of Ethiopia
- Relevant sector assessments and strategies from the Ministry of Agriculture
- Project reports and market systems assessments from other donor-funded activities in Ethiopia
- Ethiopia agriculture and livestock sector reports
- Nutritious crop and resilience reports from other countries

Please refer to the bibliography for a complete list of referenced documents.

2.2.2 FIELD RESEARCH

The field research was conducted using primary qualitative research methods informed by the desk research and initial key informant interviews. The field research was guided by interview questionnaires and observation guides that were tailored to the Ethiopian context to fill the gaps and further insights sought upon completion of the desk study and preliminary interviews. The research team was trained on interview tactics with follow-on, open-ended, and probing questions to gather further information and insights into the behaviors and structures of the market systems in Ethiopia.

2.2.3 DATA COLLECTION TEAM

The field research team was composed of 5 team leads, each an expert in the economic activities of their assigned cluster, along with 10 researchers, 2 per cluster, each proficient in the local languages and customs.

2.3 RESPONDENT PROFILES

Respondents were sampled purposively to capture different perspectives across market systems functions, demographics, and geographic areas. In total, the research sample consisted of:

- 210 smallholder farmers in 33 focus group discussions across five regions
- 55 in-depth in-person interviews with businesses including input wholesalers and retailers, agricultural services, traders, processors, and end-consumer retailers
- 10 in-depth, in-person interviews with government representatives, including ministries and district and regional level bureaus of agriculture, production, livestock and industry
- 15 in-depth virtual interviews with senior business, university, consulting firms, and development organization representatives

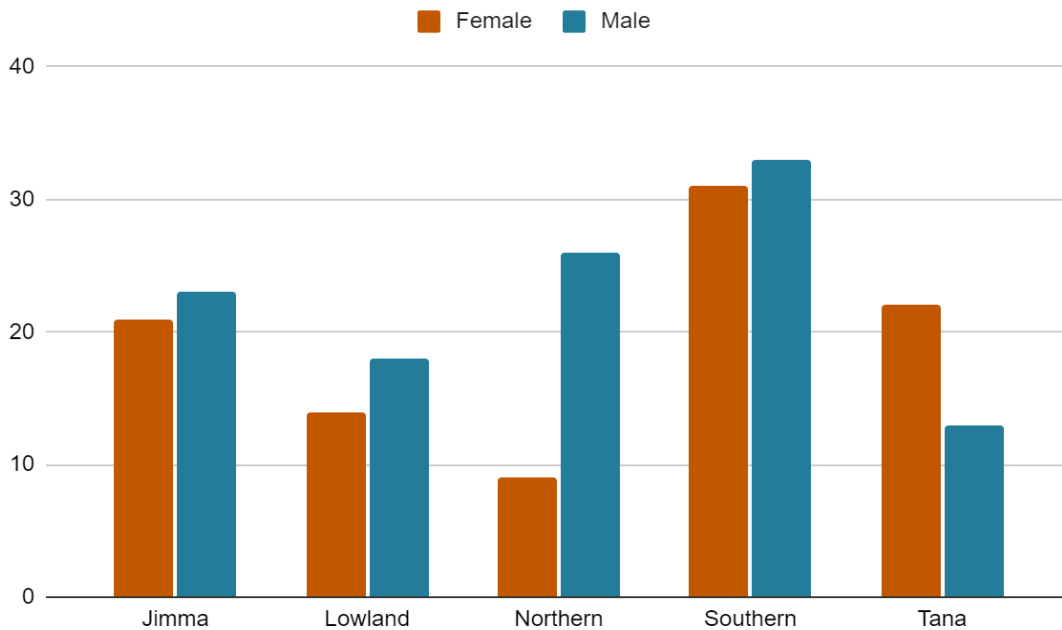
See **Table 1** for details by cluster. A table specifying which woredas/towns were sampled in each Cluster can be found in Annex 1.

TABLE 1. QUALITATIVE SAMPLE BY CLUSTER AND FUNCTION

Areas	Farmer Focus Groups	Business Owner Interviews	Government Representative Interviews	Virtual Stakeholder Interviews	Totals
Northern Cluster	6	4	0	0	10
Southern Cluster	8	10	2	0	20
Tana Cluster	6	18	2	0	26
Jimma Cluster	7	10	3	0	20
Lowlands Cluster	6	8	3	0	17
Addis Ababa and Remote	0	5	0	15	20
TOTAL	33	55	10	15	113

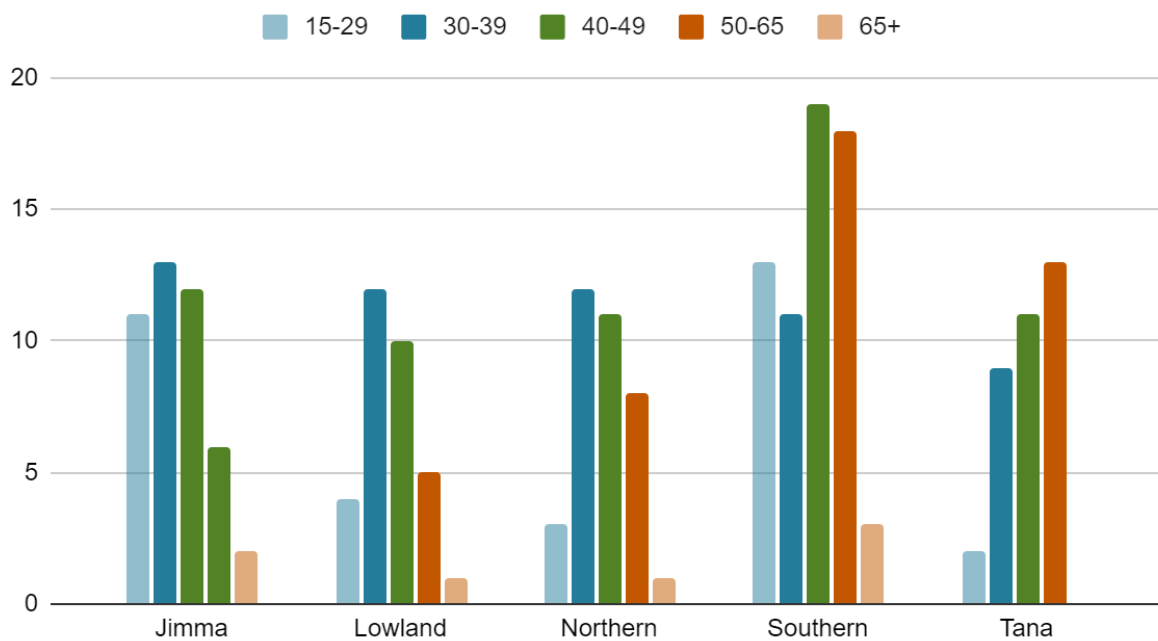
In aggregate, 53.8% of focus group discussion participants were men and 46.2% were women. **Figure 3** below indicates the proportion of men and women respondents by cluster.

FIGURE 3. FOCUS GROUP PARTICIPANTS BY CLUSTER AND GENDER



The age of participants was distributed across a wide range, as shown in **Figure 4**.

FIGURE 4. FOCUS GROUP PARTICIPANTS BY CLUSTER AND AGE BRACKET



2.4 DATA QUALITY

2.4.1 DATA QUALITY PROCEDURES FOLLOWED, AND ISSUES AND RESOLUTION

The capable and professional research team followed data quality procedures. A two-step data review process was used for notes submitted by the data collection team. Notes were first reviewed by the cluster team leads, then by Vikāra technical staff.

2.4.2 DATA STORAGE AND MANAGEMENT PROCEDURES

Data (i.e., transcripts and recordings) were stored securely on the research team's laptops, then submitted in Word document form to Vikāra. The raw data were then collated in cluster-level Excel summaries for analysis. National-level insights were then drawn from the cluster-level data set, complemented by the desk research and in-depth, remote key informant interviews.

3. KEY FINDINGS

Key findings across clusters

- Ethnic alignments pose an obstacle to bridging social capital (inter-ethnic/regional market relationships) which limits market resilience and shortens/breaks value chains.
- Common shocks include inflation, forex shortages, market instability, supply chain shortages, restricted movement, climate change, and pests/diseases. Tigray region also reported shocks including destruction of public infrastructure, network and banking blackouts, closed borders, etc.
- As cash constraints increase (due to shocks and inflation), households turn to more rapid income-generating activities or migration for day-labor.
- Businesses do not benefit from formal social safety nets or shock-responsive assistance and at times bear the burden of implementing regional and federal government development policies intended to address national priorities that may undermine market responsiveness.
- All levels of government (district to federal) generally not seen as inclusive and consultative, aside from Jimma; policies and regulatory features can be both helpful and unhelpful.

As of the time of writing, in Ethiopia, small group ethnicity norms, informal rules, beliefs, and support systems reinforce the role of ethnically-based kinship networks as the primary way in which risks are managed. From a systems-thinking perspective, the deep-seated nature of ethnicity is an important, slow-moving variable that has a strong influence on how other, fast-moving variables are manifesting as patterns in communal coping strategies, nutrition, livelihoods, and the domains of the MSR framework. Slow-moving variables (sometimes called controlling variables) are forces and factors such as mental models or biases in a system that exert a lot of influence on a system. Fast-moving variables are forces and factors that have less influence, but are more easily observed, and also more easily influenced or changed.

The study found that recurring shocks and stresses affecting Ethiopia are overwhelming traditional coping mechanisms that have evolved in relation to slow-moving variables such as ethnic identity norms. For Ethiopia to improve the competitiveness, inclusivity, and resilience of its agricultural market systems communities across the country to be able to move beyond their vulnerable state, they would need to look more toward market systems to manage their risk, which does seem to be happening in pockets. This research offers insights into the resilience patterns and trends within market systems across all five clusters. It is important to base these cluster-level observations within the broader framework of national patterns, such as those that emerge in Addis Ababa and flow through the regions. The following is a summary of key findings that are cross-cutting throughout the five clusters.

3.1 SOCIAL & ETHNIC DIVISIONS AND COMMUNAL COPING MECHANISMS

The Institute for Security Studies' *Drivers of Ethnic Conflict in Contemporary Ethiopia Report*³ provides social and political economy perspectives about forces and factors that have fueled the various periods of stresses, disputes, and conflict in Ethiopia over the years. It suggests that a foundational element of the sources of conflict in Ethiopia are the divisions based on ethnic identity. Even in cases where an Ethiopian national identity has been promoted, the way power is wielded seems to have had the opposite effect, with many communities perceiving such efforts to promote a national identity as one group taking advantage of the other groups. The report traces the history of such divisions as a foundational factor of the current set of conflicts that are grounded in kinship grievance. Even in the Somali region of Ethiopia, which is generally perceived as being a homogeneous ethnic region, conflicts and disputes regularly arise between clans, communities, and kinship networks⁴ that perceive each other as competitors for scarce resources.

The field research findings uncovered current examples of these dynamics across the five clusters, largely supporting the theory that ethnic divisions fuel distrust and conflict. The field research also

³ Yusuf, S., (2019, December), *Drivers of ethnic conflict in contemporary Ethiopia*, Institute for Security Studies.

⁴ Typically a subset of an ethnic group, kinship networks are relationships that are connected by familial ties and often include extended family and close friend connections.

identified elements of elite capture patterns, where market actors that are connected and powerful within a kinship network tend to leverage loyalty norms to maintain and further entrench their power and position. Although not as stark a pattern as the ethnic division patterns, there were connectivity and power patterns that do seem to indicate that a type of oligarchy structure is in place. There are relatively few powerful and wealthy nodes and groups that have a direct influence on a very large population of low-wealth communities. The field research also supported the perspective that there are rigid and extractive authority structures or patterns common in many parts of Ethiopia. For example, as the government at the national and regional levels has tried to control all access to foreign exchange and generate more revenue from taxes, the perception is that it has made unilateral decisions, using its power to enforce rules and policies that many community leaders, business owners, and industry representatives have found damaging.

The research indicates that in Ethiopia, market actors that are connected and powerful within a kinship network tend to leverage kinship loyalty norms to maintain and further entrench their power and position. These divisions seem to have limited the emergence of connectivity, diversity, power-sharing, and healthy competition and cooperation in market systems. The field research also indicated that although small group kinship norms have been an important influence on divisions between differing communities and encouraged rigid authority structures to emerge, they are also central to communal sharing coping mechanisms amid various shocks and stresses. The research found patterns that indicate communal coping mechanisms are the primary way low-wealth rural communities manage their risks. At the same time, especially in the regions where there have been recurrent shocks and stresses or where conflict has emerged, these communal coping mechanisms are breaking down. For example, pastoralism, which has for many decades been a rather robust risk management mechanism, is becoming increasingly nonviable in its current practice. Communities are shifting away from traditional pastoralism based on long-standing cattle management practices, instead migrating between regions and to urban centers, shifting to crop production, shifting to other animals like goats and poultry, or some combination thereof. Of particular interest, the shift to other animals and crop production indicates that many communities are becoming more reliant on market systems to manage risks.

Another complicating factor in some regions is the challenge with internally displaced persons (IDPs). While not a central focus of this MSR assessment, it is important to note that there are a mixture of long-standing and recent IDP populations that seem to have an effect on resilience, not only for the IDPs, but also for the communities that are hosting them. This is an additional element of complexity to the underlying and robust ethnic norms and related importance of kinship networks for managing stresses and shocks.

3.2 RISKS TO MSR AT THE NATIONAL LEVEL

Respondents from all industries cited critical and pervasive market systems shocks and stresses, revealing key recurring drivers of market system fragility in Ethiopia. If the causes, or at least impacts, of these patterns are not addressed, several industries could potentially trend toward

commercial collapse. Research showed the following shocks and stresses are some of the most influential challenges within the national agricultural market system.

3.2.1 CONFLICT

Conflict is perhaps the most pervasive issue facing Ethiopia, with large and small ethnic-based conflicts active in different parts of the country at once. During the research period, respondents were grateful of the ceasefire in the Tigray Region, but acknowledged its fragility. At the same time, they felt confronted and dejected by the scale of the physical, emotional, and financial damage already done. The country's other active conflict areas, in tension with the protection of Addis Ababa as a conflict-free trading zone and the international face of Ethiopia, combine to generate a host of market instabilities, shocks, and barriers to the agricultural business community.

At the national level, conflicts and resulting restrictions on movement are having a compounding impact on agricultural productivity, as well as post-production processes of storage, transport, processing, and consumption. Farmers across the country recounted stories of having lost their farms through active conflict, looting, and crime, and business owners spoke of struggling to provide services relied upon by agricultural producers due to insecurity. Many farmers and business owners have been forced to relocate, forgoing decades of investment in farmland, infrastructure, and business networks.

The consistent demand for agricultural produce in Addis Ababa and other regional centers, and demand for pathways to agricultural export opportunities could be the foundation for market stability, but filling these demands is hampered by constant and unexpected restrictions on movement. Buyers, traders, and transport businesses reported ongoing danger of moving products on Ethiopia's road networks, feeling like they were taking a huge risk every time they attempted to trade. Reported blockages include deteriorated or damaged roads, official and unofficial check points, lawlessness and banditry, and regular incidents of movement restrictions in and out of the nation's capital. Farmers in the regions recounted attempting to transport their produce to city-based buyers and being forced to pay exorbitant bribes along the way, often to return empty handed with their products that have only a limited shelf-life. At the same time, supermarkets, exporters, and traders in Addis Ababa reported frustration with not being able to service their demand for local agricultural produce, including meat, dairy, eggs, vegetables, and fresh fruit.

3.2.2 MARKET INSTABILITY

Respondents frequently mentioned market instability as being a key shock or stress that they faced. Although market instability overlaps with conflict, it is a category of its own with some particular drivers of fragility in the agriculture sector. Producers are possibly the hardest hit by market instability in terms of the cost and supply of key inputs and the market prices for their produce. Small and large businesses also cited the issue, but had more options in their core business practices to adapt and manage the shocks.

It should be noted that the research was conducted during Orthodox Lent, a fasting period in Ethiopia, which may have exacerbated the perceived impact of fasting practices on the market system, as it was front of mind for all respondents. Regardless, the annual 40-day abstinence from all animal-based products undoubtedly causes a significant, albeit predictable, disruption to demand and therefore pricing that manifests like a shock. Dairy farmers, for example, face an annual decline in the demand for their fresh milk, causing a significant budget hole in the operations for most individuals or dairy farming cooperatives. Farmers who have access to processing facilities, or buyers with such facilities, are able to continue to access a consistent revenue stream, because their raw product can be converted into milk derivatives with longer shelf lives, such as cream, butter, cheese, and yogurt. Conversely, those who do not have this outlet are forced to continue the expensive undertaking of feeding and milking their dairy animals throughout periods of minimal demand.

Market instability on produce pricing extends beyond the demand fluctuations resulting from fasting. Producers seem to face endless surges and drops in market price as a result of sudden changes in availability of storage, transport, or processing options, all of which contribute to a lack of confidence among producers about investing in and growing their enterprises.

Market instability in the price of inputs was equally reported as a recurring shock to the entire system. Almost all agricultural inputs' supply chain systems are insecure, and most inputs are imported. Each time there is shortage, there seems to be a sudden surge in prices through formal sales channels; this is amplified three- or four-fold in the respective black market. Both the instability in market prices and the instability in input costs causes further instability in the production of animal feeds, which results in a vicious cycle of soaring and unpredictable pricing for livestock owners and, ultimately, great fragility.

Finally, many respondents pointed to storage and cold chain logistics as a key driver of market instability. Within food systems, where produce faces a finite shelf life, inconsistent, unreliable storage options for fresh produce further reduces options and the buffer needed in an efficient agricultural market system.

3.2.3 POLICY-RELATED SHOCKS AND STRESSES

Another important but mixed influence on the resilience of market systems and communities is the role of government and government policy. The research uncovered key factors contributing to the function of MSR that can be traced back in whole or in part to the role of government and discussions at the national level about how and where to influence regional economies.

The foreign exchange (forex) shortage was continually cited by medium and large enterprises as a key constraint to their business growth prospects. Although intrinsically a complex economic phenomenon, for the purposes of this research, the ongoing shortage is discussed within the context of the role of central government, because it is an issue at least exacerbated by its decisions about policies to control access.

There are many implications of the forex shortage, but the most pervasive is the stifling of imports. Businesses cited barriers to importing items essential to their business model, from supermarkets that wanted more imported consumer goods, to agricultural systems that needed more inputs, including seed, fertilizer, medicines, chemicals, and even heavy machinery. At the industrial level, processing and manufacturing companies are unable to import the equipment needed to grow business or develop new product lines. Innovation and a willingness to invest in growth opportunities was reported to be stifled by a lack of access to imported products. Feed companies could be manufacturing higher quality and more efficient feed if they had new machinery or better imported supplements; agri enterprises could produce more crops with better access to necessary farm inputs; and processing companies have the potential to locally manufacture finished goods. Despite widespread conflicts, inflation, and market instability, the enterprising Ethiopian business community is capable of identifying and exploiting niche demand opportunities, but is prevented by an inability to access the products and equipment they need. Ironically, the business appetite to increase production or develop product manufacturing would have a material positive impact on the forex shortage, but the shortage itself is preventing progress in the short-term.

Another notable effect of the forex crisis is the disparity between the official exchange rate and the black market rate of Ethiopian birr, reported by the respondents to be up to 50% lower through official channels. This impacts many small businesses, such as this example from an abattoir and meat export company.

The currency shortage is increasing our cost of inputs to the point where our export packaged meat products are no longer competitive. We have had to reduce exports and sell more locally in order to subsidize the continuation of our export business.

This is because our regular supply chains in locations anywhere near borders with Kenya, Somalia, Djibouti, or Sudan are selling all their animals to local traders who have access to foreign currency from across the border. These traders are able to cross the border with their foreign currency and purchase Ethiopian birr on the black market at half the price of official rates. This means they can effectively buy the same animal as us with twice as much budget and we simply cannot compete as a buyer. The animals they buy often end up processed and sold to the same export markets as ours, but due to the forex discrepancy these cross-border traders can simply do it much cheaper.

Business owner of an abattoir, and supermarket

Inflation was frequently cited by business owners as a key challenge, and alluded to by farmer groups and households. Like the forex shortage, inflation is linked to government management of the national economy.

From a market system fragility perspective, one key impact of such high inflation, along with the limited availability of financial services, is the additional barrier it creates in intra-supply chain credit and favorable terms of payment that would otherwise be conducive to improved market efficiency. Especially in contexts where credit is expensive or difficult to access, business to business credit can be an important alternative as a means to mitigate cash flow constraints at various points in a given value chain. The high inflation, however, is just another factor that erodes confidence for businesses trying to invest in their supply chain or retail distribution channels in this way—investment that is otherwise critical to longer-term stability and resilience in market systems.

Other areas of concern raised by respondents that should be addressed through core regional and federal government functions were around land tenure, road closures, and sudden restrictions on movement.

3.3 REGIONAL INFLUENCES ON RESILIENCE

To a great extent, the systemic and central government influences are critically important, but they are filtered through localized interpretations and manifestations of small group kinship norms and a federal structure based on ethnic representation that administers policies and initiatives at the regional level. More specifically, each cluster has different cultural norms, beliefs (religious and non-religious), and political and ethnic identities and affiliations that have shaped how perceptions and, as a result, behavior patterns, have emerged. Detailed analyses of each of the five clusters can be found in **Section 4**.

3.4 LEARNING AND ADAPTING

The activity will use sentinel indicators to provide early indication that something could be changing, which would then trigger more research to follow up in detail. An initial set of proposed factors, on which sentinel indicators could be based, were provided to the activity staff with the desk study report. Activity staff observed that although the suggested factors for monitoring through sentinel indicators were useful, there were other indicators and indications of changes that should not be left out. Given the diversity between regions, the highly dynamic environment in many of the clusters, and the complexity of the many forces and factors at play, the activity found it prudent to focus staff on looking for shifts and disruptions of dominant patterns. Annex 2 to this report provides the factors to be monitored that resulted from the desk study, but other apparent indicators of changes emerged in the individual cluster analyses.

We recommend a process that focuses initially on domains and changes in domain-related patterns in each cluster and market system, following these with additional research, as opposed to defining a set number of sentinel indicators at this point in the activity. Additionally, through iterative learning processes (both explicit and tacit) during a few months of running interventions, we will assess if a defined list of sentinel indicators would be useful.

4. RESILIENCE PROFILES BY CLUSTER

Key findings

- Jimma has the most practice in leveraging market mechanisms to manage risks, which seems to have put them in a better position to manage various shocks and stresses. Other clusters tended to have lower-risk, lower-return livelihoods.
- In high-vulnerability clusters (Tigray and Lowlands), households are highly dependent on kinship networks for bonding social capital, which is a source of household/community resilience, but can inhibit market orientation.

This section provides in-depth insights into the market systems dynamics in each cluster. The cluster findings follow a common structure: A cluster summary provides an overview of resilience in the region. This is followed by a cluster-specific analysis of two elements of market systems that can be a source of household resilience: access to products and services, and generating cash. We then look at elements of MSR, especially in the context of a substantial shock such as conflict, as relating to internal market systems' coping mechanisms and social safety net coping mechanisms meant to mitigate and manage severe circumstances. Finally, we analyze the data through the lens of the eight structural and behavioral domains of the MSR framework.

Table 2 comprises the most common responses about key shocks and consequences of those shocks, by cluster.

TABLE 2. MOST FREQUENTLY REFERENCED KEY SHOCKS AND CONSEQUENCES BY CLUSTER

Cluster	Key Shocks	Consequences of Shocks
Jimma	<ul style="list-style-type: none"> • Lockdowns (for COVID-19) • Pest infestation • Floods • Lack of market links • Malaria 	<ul style="list-style-type: none"> • Crops got pests or went bad or had low yields • Could not get crop to market • Could not contact traders or buyers • Children dropped out of school
Lowland	<ul style="list-style-type: none"> • Drought • Inflation and exchange rate issues • Floods • Land disputes • Low availability of inputs 	<ul style="list-style-type: none"> • Could not contact traders / buyers • Children dropped out of school • Livestock got sick or died

Cluster	Key Shocks	Consequences of Shocks
Northern	<ul style="list-style-type: none"> • War • Protracted siege • Lockdowns (for COVID-19) 	<ul style="list-style-type: none"> • Children dropped out of school • Livestock got sick or died • Could not contact traders or buyers • Sold livestock for cash (if usually kept livestock)
Southern	<ul style="list-style-type: none"> • Low availability of inputs • Market volatility • Drought • Conflict and instability • Lockdowns (for COVID-19) 	<ul style="list-style-type: none"> • Sold livestock or other productive assets for cash • Skipped meals • Loosened or cut connections with traders and buyers • Laid off staff (business)
Tana	<ul style="list-style-type: none"> • Lockdowns (for COVID-19) • Conflict or war • Market instability and inflation • Pest and disease • Drought 	<ul style="list-style-type: none"> • Sheep lost weight and consequently price of sheep declined (which then affected sellers' livelihood) • Livestock got sick or died • Increased local alcohol production to generate cash • Disregarded children's education

4.1 TANA CLUSTER

Key findings

- Cluster appears strong on most domains, including connectivity, competition and cooperation, with constraints on the diversity of their input supply. Power is concentrated with the government (federal and regional).
- Market actors generally focus on a short-term transactions with a heavy focus on price and immediate margins. This is a sign of fragility in market systems as it discourages shared-value and alliance building.
- **ETA Opportunity:** Strengthen business strategy and alliance-building with the intention of generating shared value and providing value to the consumer/client.

4.1.1 CLUSTER SUMMARY

The Tana Cluster lies within the Amhara region and covers the woredas of Dangila and Gondor Zuria. The cluster includes Bahir Dar, the capital of the Amhara region, which is situated on the southern tip of Lake Tana, around 500 km by road northwest of Addis Ababa. Respondents throughout the Tana Cluster—representatives from households, small and medium enterprises (SMEs), and farming associations—all cited a wide variety of shocks, stresses, and constraints on their livelihoods, including issues related to conflict. Compared to the Northern Cluster, where most commercial operations seem to have completely ceased, and the Southern Cluster, where most respondents were reporting missing meals as a key coping strategy, household and market system resilience in the Tana Cluster seemed less fragile. Significant instances of negative coping strategies

at the household level were reported, such as skipping meals or removing children from education. However, on the whole, these extreme measures seemed less widespread in the Tana cluster than in other regions. Unfortunately, although internal conflict within the Tana Cluster may be less pronounced, its proximity to Tigray Region's and other regional conflicts, in addition to concurrent localized issues, greatly impacts the cluster.

The range of shocks and stresses in the Tana Cluster was reported to be quite varied. This perhaps reflects the relative stability in the region when compared to other clusters in the research zones that are facing more acute circumstances. Respondents were able to differentiate between the shocks and stresses they face, including memories of the impact of COVID-19 lockdowns, which seem to be more distant in memory for people in areas where more current pressing challenges emerged recently, seemingly supplanting those memories.

Another identifying characteristic of the Tana Cluster is an indication that market actors, communities, and households maintain some kind of buffer or reserve as a coping strategy. Respondents typically explained the impact of a shock or stress in terms of a limitation that caused the need to draw on stored resources (e.g., food) or support networks for assistance.

The farmer was responsible for taking care of her mom. She used to have enough savings to support her livelihood including supporting her mom. However, as the cost of living continuously increased, she started struggling to fulfill basic necessities (the income she is generating is no longer enough to support her basic necessity due to higher inflation rate). Moreover, she couldn't provide support for her mom; and she is using cash from the business to cover her household expenses.

Dairy producers focus group, Amhara, Dangela woreda, Gundery kebele

Livelihoods among research participants in the Tana Cluster were predominantly based on livestock and fisheries, and less so on agriculture (with chickpeas, teff, and wheat being the main crops). The data collected in Tana Cluster included a wide range of actors from business owners and operators, greater than that of other clusters⁷—a further indication of the relative health and accessibility of market actors to interview.

Respondents in the Tana Cluster quickly identified key shocks and stresses constraining their businesses and ultimately causing fragility in the market system. Some of the key identified challenges were issues echoed at the national level, such as inflation, forex shortages, market instability, supply chain shortages, and restricted movement. Other challenges were more localized, such as road blockages between key trading areas (e.g., Makele and Bahir Dar, or to Addis Ababa); pest and disease outbreaks; drought; floods; and localized conflicts or spillover conflicts from neighboring regions.

The combination of these significant and varied shocks on seemingly all business sectors drives fragility in the market system. Actors lack certainty about the future and are not confident in investing in their businesses.

4.1.2 MARKET SYSTEMS AS A SOURCE OF HOUSEHOLD RESILIENCE

Access to products and services

Low access to products and services, including inventory, was cited by almost every single respondent across the country, including the Tana Cluster. The various regional conflicts across the country, inflation, market instability, and sudden unpredictable changes in restrictions on movement combine to restrict access to products and services.

Various businesses cited constraints in accessing critical goods and services, including the following:

- Veterinary services lacked access to medicines and equipment
- Agricultural input dealers lacked access to quality seeds, pesticides, and herbicides
- Animal feed dealers lacked access to affordable inputs to make viable products for customers
- Farm enterprises could not access or afford critical inputs
- Producers, traders, and other business owners struggled with poor or broken road networks, including insecurity-related challenges present on all journeys
- Businesses struggled to access financial services (including credit and forex) required to generate access to imported products

Businesses and farming enterprises with inconsistent and insecure access to fundamental products and services become less able to invest in the future. Most businesses can absorb a shock or loss in the short-term, but prolonged and consistent price instability typically leads to significant losses in livelihoods. In agriculture, a lack of affordable access to critical inputs can not only deplete profit from a farm, but it also puts at risk large capital investments, such as livestock.

One farmer is renowned for his commitment to administering medication and using vaccinations for the cows and cattle; most of the time, even when there is no disease, he keeps most of the medications at home so that he can use them to treat symptoms before they become seriously sick. However, he no longer has access to some of the major medications he previously used, such as oxy [vet drug], because the price has increased five times the original price in a short period.

Livestock producer focus group, Amhara, Dangela woreda, Degesta kebele

Respondents from producer focus group discussions often focused on the critical constraint of a lack of affordable quality animal feed. This issue is widespread across the country, including the Tana Cluster, and it particularly harms livestock farmers' profits, as well as subsidiary industries relying on their production. Farmers described at length the condition of their sheep, goats, or cattle declining as a result of farmers having to supplement quality feed with inferior products, or to simply cut intake volumes altogether as a short-term measure to minimize losses from purchasing unaffordable feed. This quickly results in a material financial loss through weight loss in animals destined for meat markets. Dairy farmers face a vicious cycle: as soon as they reduce the quality of their feed, their milk production slows, even stops, cutting off their income stream and reducing the cash they have to buy feed, even if it may become affordable.

The farmer used to feed the sheep properly but when the price became unaffordable, she began feeding the sheep in the final month of the production period, right before the holidays because if she feeds them well before that month and runs out of cash, the sheep may lose weight and the price will go down as a result. As the weight of sheep drops, the price of the sheep will decrease so she chooses to feed them well at the end of the farming month.

Livestock focus group discussion, Ambara, Dangela woreda, Gunderu

If livestock farmers in Tana Cluster are unable to secure reliable sources of affordable and high quality feed, any resilience inherent in the livestock industry there will quickly erode.

A sector that is unique to the Tana area is the fisheries industry surrounding Lake Tana. This sector is characterized predominantly by small-scale fishers who sell their fresh catch daily to local consumers, traders, and restaurants. A significant portion of fish has historically also been transported unprocessed to regional markets around the country. The current nationwide instability is making the industry much less profitable and attractive for all market actors involved. Because fish have a very short shelf life, any instances of unreliable road access to the intended market is enough to send a shock through the entire supply chain. Even local demand for fish through local tourism and restaurants has been impacted through inconsistent supply, when fish is often not available to buy through the normal market channels. This, in addition to constrained spending, increased migration, and alternative economic pressures, reduces demand for local fish.

The fish producer needed to convey product to city consumers, but there were issues with road blockages and political instability that threatened to set vehicles passing through some cities on fire. The producer collaborates with various traders on a loan basis, which entails that the traders sell fish and the producer then collects the money from the trader. However, during the political unrest, it was difficult for the producer because the vendors weren't selling the fish and there were even some leftovers that the fish producer hadn't yet paid for.

Fishery owner, Ambara, Babir Dar

Generating cash

The majority of respondents historically generated cash from sale of commodities: namely wheat, maize, chickpea, poultry, beef, lamb, fish, and milk. Although most of these industries are still under some level of production, even the most active commercial respondents are finding it difficult to generate cash from their businesses. Between the increased cost of inputs, volatile output market, and unpredictable transport issues, taking any agricultural product from production to sale is risky and likely unprofitable.

Respondents cited examples of needing to supplement their income with petty trade, selling labor, temporarily removing children from school, or enlisting in the military. The enlisting of young men into the military may be creating knock-on effects of shortages of on-farm labor in some communities. In extreme cases, some agricultural businesses have been forced to close.

During the inflation, however, the farmers continued to make money from sheep and the local alcoholic beverage, but the profit margin had drastically decreased, drastically reducing their income.

Dairy farming focus group, Amhara, Dangela woreda, Gundry kebele

She has given up fattening sheep due to the high cost of the process.

Dairy farming focus group, Amhara, Dangela woreda, Degesta kebele

Dairy cows remain a key source of cash income to the region with their daily milk production. However, with feed costs rising, this critical industry is also under pressure.

The farmers are not dependent on the production of milk [for consumption], but milk is the best commodity they have because it has continuous income, while the other goods are seasonal and are used to augment their household budget. Some of the farmer's products, such as poultry, are utilized for home consumption and don't generate a lot of income.

Dairy farming focus group, Amhara, Dangela woreda, Degesta kebele

4.1.3 MARKET SYSTEM RESILIENCE

Internal market system coping mechanism

In the Tana Cluster, like most areas of focus, market actors relied on internal coping mechanisms for shocks and stresses. This involved a range of coping strategies in which risks and burdens of the most extreme shocks were shared among actors.

The key market systems highlighted by the respondents included the following:

- **Meat and dairy.** Meat and dairy livestock farmers are becoming more fragile in the Tana Cluster, largely due to the lack of affordable quality feed and medicine. As feed prices go up, livestock owners quickly stop making any margin on their meat or milk produce and are forced to cut down on feed costs before their business folds. Coping mechanisms from respondents in the Tana Cluster included sourcing substitute feeds, which also quickly becomes unviable because it ultimately reduces output. Some farmers are able to work collaboratively to de-stock or share resources, whereas others look to buyers to see how much they are able to absorb price increases as far as what they are willing to pay for products. For example, supermarkets in Addis Ababa choose to take short-term losses on their sales margin to support longer-term supply chain relationships.
- **Crops (e.g., wheat, maize and chickpeas):** Crop producers—specifically seed producer networks—collaborated in areas such as transportation to save money while moving seed to and from processing facilities. They also developed production zones in an attempt to save costs and increase efficiency. But despite farmers’ best efforts to adapt their practices to continue viable farming enterprises, the lack of affordable inputs for crops (e.g., seeds, fertilizer, pesticide) leads increased fragility across most of the cropping sector.

I lost all of the chickpeas that I sowed last year due to the pest infestation that came. This has even brought psychological problems upon me. In all of what I sowed, I couldn't harvest even two quintals. I had bought and sprinkled pesticide—and a weed chemical as well—but it couldn't destroy the pests. If I hadn't had a few animals, I would have starved with all my family. I sold the animals, bought food for my family, and survived that very difficult time.

Chickpea producers focus group, Ambara, Gonder Zuria woreda, Makesnit

- **Fish.** Fisheries market systems respondents described an industry that continues to function despite significant demand-based challenges. Market volatility around the price of fish is due to inadequate cold chain storage and transportation, as well as unexpected shocks to demand from road closures and conflict within key markets. The volatility is sending shocks through all market actors in the sector, with few respondents able to reliably invest in growing their business. Probing around decision-making and business strategy in particular revealed that most actors in the fisheries industry are focused on making ends meet and surviving the next shock, rather than investing in growth.
- **Poultry:** Like most livestock-based sectors across the country, poultry farming in the Tana Cluster is hampered by the lack of affordable feed. It is also being made more fragile by difficulties in securing chicks and veterinary services to protect their investment. The delicate

balance in budgeting for costly inputs in such an intensive industry means that even small shocks to pricing or demand, which are frequent, can deeply damage to producers. Although there is appetite domestically for both poultry meat and eggs, the consistent shocks affecting this sector are heading in a trajectory that is becoming more fragile.

Respondents mentioned banks provided loans and financial services to market actors in times of need, but these services were generally limited to the more stable, licensed, and collateralized enterprises, which excluded anyone that is even marginally vulnerable.

Social safety net coping mechanisms

Formal social nets—largely government support that most governments deem essential—is largely absent at any scale in Ethiopia, including the Tana Cluster. Some district level government support was cited by certain market actors, mostly in some form of stipend paid to family members while in active service in one of the armed conflicts, or as short-term and negligible food aid relief during a flood or drought. The other positive encounters with regional government support were roads being fixed, transport routes being opened up, and other responses that market actors typically expect.

Nongovernmental organizations’ (NGOs’) efforts and other donor-funded support services were also mentioned on multiple occasions, seemingly with more prevalence than in the research zones that were harder hit by conflicts and shocks. Respondents cited somewhat ad hoc distribution of support in the form of food and non-food items, as well as support with various business expenses (e.g., providing baskets for egg poultry farmers to collect eggs). NGO services were also reported to extend to temporary payment of salaries or school fees, as well as working in collaboration with seed distribution networks to generate increased seed volumes.

As in most clusters, family and kin-based support was generally the most robust form of social safety net. Fortunately, in the Tana Cluster, respondents noted that in most cases where some buffer in people’s savings or operational reserve remain, support from kin was often quite effective in getting small businesses back on their feet.

When the merchant faced bankruptcy and closed his business for about 3 months, his extended family members provided support—wheat and teff—to feed his family. Moreover, his friends, engaged in similar business, established Equb [an association of people with the aim of mobilizing finance, and distributing them on a rotating basis] and gave priority to him rather than adding him to the [rotational system]. This enabled him to reopen his business.

Egg trader, Amhara, Babir Dar

Restaurant owners and fishermen have a good relationship during times of challenge; they help each other, but not in a transactional or financial sense; they share ideas on how to survive the challenging time and the strategy they need to apply to stay operational.

Fisbery owner, Amhara, Babir Dar

In order to enable business owners and farming households to invest in and grow their businesses with confidence in the future, even knowing there will be shocks, the full burden of risk and managing shocks needs to be more equitably shouldered by the local government and other formal social net mechanisms. Failure to strengthen such systems will inevitably result in a Tana Cluster market system that is less and less resilient to shocks as time goes by.

4.1.4 MSR DOMAINS

Structural domains

Connectivity: Respondents among the producer cohort typically described a broad network of farming business connections, and did not count many barriers to communication within their networks. They had constructive business relationships with suppliers and farm service providers as well as their buyer network, with many referencing the role of financial institutions. Importantly, most references to accessing credit were positive, with loans being taken out, repaid, and reestablished with various institutions.

The farmers have good working relationship and trust with one of the major suppliers. The farmers use the phone to order feed, and also at the time of capital shortage the supplier will give them the product and the account will be payable at the time of the sheep sales.

Dairy farming focus group, Amhara, Dangela woreda, Gundery

Respondents from the business community tended to answer along the same lines, citing relatively strong connectivity and satisfaction with their business relationships and networks. Traders in particular often mentioned their contentment with the way farmers were organized, saying that they could deal with an aggregator for the farms and save on transaction costs, albeit citing low quantities or expensive produce that was on offer for sale.

Diversity: Diversity in sales channels and product lines remains somewhat fragile among agricultural sectors. Few farmers had more than one sales outlet, meaning that during acute shocks (such as COVID-19) or other market volatility, producers were vulnerable.

The farmers' sole option is to sell to the farmers union because they have no experience selling to other businesses or traders. Religious practices, such as fasting, have a significant impact on the milk market. During this time, local milk consumption decreases, and local traders lack the market space to sell milk in large quantities.

Dairy farming focus group, Amhara, Dangela woreda, Degesta

Fragility seems to be originating from the lack of diversity in product lines, with very few respondents able to cite positive examples of being able to draw on or adapt toward product lines during times of shock or stress. Most businesses reported simply selling less or not selling at all if their primary place or way of buying and selling was impacted by shock. Those that could diversify however, seemed to be managing better than their counterparts. Examples included fish buyers drying fish as a preservation technique, dairy processors making butter, chickpea buyers having multiple sales channels based on grades and standards.

Mostly I deliver chickpea to the businessmen who export it abroad. But the types of chickpeas that I sell are three. Among these three types of chickpeas, only one is exportable (export standard). I sell the rest for domestic consumers. We sell for local shops and small-scale businesses, vendors, etcetera.

Chickpea merchant, Amhara, Gonder Zuria woreda, Maksegnit

Power: Power in the various agricultural industries seems to be concentrated largely with the regional government. The research revealed that most respondents seemed to think that the regional government has too much power or is at least wielding its power in unconstructive ways.

Local government authorities often try to put obstacles. Otherwise, I think there are no such business actors that have influence in our industry.

Grain merchant, Amhara, Bahir Dar

Beyond the regional government, respondents cited a mixture of actors that had higher degrees of power, including: producer groups that can sometimes set the prices for their products; feed suppliers that were taking advantage of the national feed shortage; traders who pushed prices down; and various large businesses that established some level of economies of scale.

Rule of law: When asking about regional government policy, rules, and regulations, responses from the business community were mixed. Many respondents opted to not answer or explained that they did not know. Those who responded provided some examples of regulations deemed as helpful, including some standards and licensing laws aimed at reducing rogue operators. There is also the case of the Amhara regional government taking the lead on land titling, which was cited as particularly helpful for securing financial services, and may emerge as important for consolidating land that is not contiguous. However, respondents quickly pointed out ways that the regional government was stifling good business practice, such as implementing policies in ways that did not align with positive intentions of legislation.

Many more respondents were quick to cite district and regional level government corruption in the forms of bribes and unreasonably high tax rates that stifled the business enabling environment.

Most regional and federal level government policies, rules, and laws are very helpful to flourish the manufacturing sector. However, the devil comes in their implementation. There are a lot of challenges such as lack of credit, power outage, working place, etcetera.

Sectoral association representative, Bahir Dar

Policy related to ensuring quality standards are most important and its implementation needs to be ensured. Awareness on those quality parameters is also needed to be shared to the public.

Animal feed processor, Bahir Dar

Research also focused on dispute resolution, with all respondents giving examples of commercial disputes between their suppliers and buyers. Disagreements around payment terms or product specifications and standards were the most common, with bad debts generated in the worst scenarios. Much of this was reported to trace back to a lack of formal written contractual processes in commercial engagements all across the Tana Cluster. Respondents explained that most of the business transactions were informal, verbal, and trust-based, so disputes were common.

Dispute resolution mechanisms were therefore noted as important, with respondents citing both formal and informal mechanisms. Most business owners said that although the formal court system operated in the background, that due to most commercial agreements being informal, the courts' powers of dispute resolution were minimal. Complainants instead reverted to traditional dispute resolution brokers, such as friends, family, neighbors, elders, and clan leaders, who were generally more effective, although prone to inefficiencies and cultural bias.

Our business usually needs trust. We often sell our product on credit without having formal [a written] agreement. Most of the time disagreement happens due to failing to pay back the credit. Over the last couple of years, I nearly lost one million birr due to this. Lack of formal agreement makes things difficult to go to the court. However, we use traditional mechanisms such as through local elders and relatives. This mechanism is more or less effective solving the issue.

Animal feed supplier, Bahir Dar

Behavioral domains

Competition: Pricing across most transactions in most sectors seems for the most part to be set by the seller, who calculates a profit margin. In many situations, actors reported room for negotiation.

But this depends on both the sector and the market volatility at the time, with power in a price negotiation swinging dramatically to those holding a commodity in short supply. For example, feed suppliers, within the context of a nationwide feed shortage, set the price at whatever they need to generate their desired margin; producers only have a choice to buy or not. Most retailers of agricultural inputs are in a similar position, with retail prices being set by wholesalers. Typically, groups of producers dictate the price to their buyers, but again, exceptions arise during times of oversupply or drops in demand. Constrained storage and cold chain facilities typically work against producers, with fishers being one of the most acutely vulnerable. It is important to note again the regional government involvement in the pricing of commodities (e.g., setting the price of seeds). The focus on pricing indicates a short-term orientation to competition, as opposed to longer-term competition orientation that would be based on value addition or relationships.

Respondents typically described competition in healthy terms, with few examples of unhealthy competitive practices. In one example of negative competition, a business threatened and harassed a competitor; but even in that case, the perspective was that such tactics are not effective in the Tana competitive landscape. More generally, even in cases where the nature of competition described might seem to be a zero-sum tactic, respondents generally saw it differently.

Sometimes, my competitors try to hijack the eggs collected through offering better prices before the egg collectors deliver to me. This sometimes happens because when the price of eggs increases, my competitors immediately contact the egg collectors and offer a better price than mine before coming back to my shop. Then, the collectors sometimes are tempted and even sell for my competitors and come back without eggs and just return the money they have borrowed. Later on, I realized what my competitors were doing, and I started closely following up the situation. Accordingly, if the price of the egg, for instance, increased, I will immediately communicate with the egg collector to tell the adjusted price which I am going to pay for the egg so that the collectors won't be tempted to deliver eggs they collected using my money for my competitors.

Egg trader, Bahir Dar

Cooperation: Various manifestations of healthy cooperation were reported by respondents across all the sectors. Most actors articulated some level of cooperation with both their supply and sales networks as well as the relevant local government authority, through a combination of more and less formal commercial agreements. Cooperation at the producer level was very common among producers, with most small-time farmers and fishers being members of their corresponding cooperative union. As cited above, there seems to be good cooperation, especially along the dairy supply chain:

The processor has a good relationship with the farmers because the farmers' product quality and consistent supply are necessary. Most of the farmers contact the processor through the cooperative, and the business currently works with two cooperatives, and when there is a cash shortage, the cooperatives will seek help. The processor has a strong relationship with the traders or customers, who give feedback and offer insight about the product and overall business operation. The relationship with the traders is informal, but when it comes to farmers and cooperatives, they have formal relationships.

Milk and cheese processor, Bahir Dar

There are fewer examples of these kinds of cooperation around retail associations or grades and standards, which would be an indication of progress on a path toward improved product diversification and potential exploitation of new and niche high value markets. Very few participants cited any signs of anti-competitive collusion, price fixing, or cartel-like behavior.

Business strategy: Respondents on the topic of business investments and growth-oriented strategy painted an overwhelmingly negative picture, generally recounting intentions for expansion being replaced by efforts for basic survival in recent years.

I haven't made anything different over the last 2–3 years. I buy grain from the retailers and sell in a larger volume for consumers and retailers. That is [about] all.
Grain merchant, Bahir Dar

Over the last 2 years, I was struggling rather than making new investments following the bankruptcy. I have tried to revive my business. Thanks to God, now I am running my business in a good direction. I am endeavoring to expand it if the government office provides me a working place.
Egg trader, Bahir Dar

While respondents indicated that they would like to plan for longer-term growth, the situation at that time made it difficult. As a result, there were very few actual investments in growth, with almost all limited to modest increases in employment or small-scale upgrading and replacement of aging equipment (e.g., operating machinery, motor vehicles, donkeys).

Businesses were forced to alter their strategies in response to conflict, insecurity, and lost or diminished markets. Some strategy changes cited include moving premises, altering operating procedures to compensate for risks, and adjusting their target markets away from conflict zones.

Change looks slow. The warehouse that I have bought now is located nearer to the mill house. Because when there is no mill house in their area, farmers buy products from the businessman who is nearer to the mill house. I have created a conducive environment for farmers, even though it has significant cost implications.

Chickpea merchant, Ambara, Gonder Zuria woreda, Maksegnit

Decision-making: Respondents tended to collect information within their network of market actors, including buyers, suppliers, competitors, and employees. Most research was informal, with one small business's representative saying it conducted a market research report. Another referenced a business consultant. The single most important parameter to research for all respondents was price, whether in terms of what they can charge for their products or what they will have to pay for their inputs.

This type of price-focused decision-making is indicative of fragile market systems, where actors are forced to think in narrow terms to operate profitably in the short-term. A fragile market system is not a conducive environment to long-term planning or decision-making toward growth orientation that would generate increased resilience in the future.

4.2 NORTHERN CLUSTER

Key findings

- Crop and livestock market system coping mechanisms have broken down. Most market activity is short-term, such as petty trade.
- Connectivity is severely limited (e.g., telecommunications and road networks); business growth and diversification in producers and services are severely limited.
- Federal and regional government services have stopped and there is limited rule of law, even for security. Businesses are attempting to cooperate to overcome interruptions in supply networks.
- **ETA Opportunity:** Accurate information for decision-making can help develop new market opportunities; building trust and re-establishing linkages are key. Leverage any recovery/rebuilding investments to catalyze local market opportunities, where possible.

4.2.1 NORTHERN CLUSTER SUMMARY

The Northern Cluster lies within the Amhara and Tigray Regions and covers the woredas of Kiltie Awlalo and Enderta in Tigray, and Sahila in Amhara. The cluster includes Mekelle, the capital of Tigray Region, about 950 km by road north of Addis Ababa. The contexts are very dynamic so the research reflects the perspectives of the respondents at the time, which means some contexts may have changed by the time of publishing this report.

The conflict in the Northern Cluster has caused immense negative effects. Although not easily quantifiable at this time, the conflict caused substantial direct loss of life and property. There was also a wide range of secondary effects. For many respondents, they or people they know were forced to flee for their safety. In many circumstances, this left business premises unattended during periods of uncertainty. As a result, upon arriving back to their businesses and farms, they typically found their premises destroyed or looted. Substantial periods of power outages led to a high percentage of available crops and protein sources being spoiled, further eroding businesses' ability to manage the conflict-related shocks and stresses.

I lost everything I had. The medical tools and medicines all were looted by the time I came back from the place I had fled to. All properties of the clinic, like microscopes, surgical blades, sprayers, castration tools, laboratory equipment, and medicines, were robbed.

Veterinary clinic owner, Tigray, Mekelle

The conflict and the resulting loss of life, assets, infrastructure, plants, and equipment, catalyzed a perfect storm of factors that limit the availability of key inputs, increase prices on almost everything, and decrease the ability of businesses and end consumers to pay for products, restart their livelihoods, or generally recover from this series of shocks. The combination of lack of access, inflation, and reduced purchasing power means that even the few firms surviving the initial set of shocks often grind to halt as cashflow slowed. For example, businesses and farms tied to cooperative unions ceased to operate as inputs from the federal and regional government were no longer being supplied through the cooperative union distribution system. The union also stopped other services such as communications, information, and training, which further eroded the ability of members to learn and adapt to various shocks and stresses.

Livestock farmers particularly lost access to or could not afford essential veterinary inputs, feed, or genetic material, the combination of which pushed or began pushing them out of business. The poultry subsector in particular experienced nearly catastrophic losses. Farmer troubles are causing a knock-on effect, especially for the veterinary services sector, which has very few customers left because of the many homes and most farms and livestock destroyed. So even as veterinary clinics begin to restock the essential equipment needed to operate, the demand for services remains very low. The demand for essentials, including basic farm inputs, has decreased dramatically or completely halted, forcing most businesses to decrease activities.

The fishery market system has also been severely disrupted as fresh caught fish from the Tekeze river were difficult to transport or store as roads, electricity, and general business activity were disrupted. For example, Tigray was an important end market for fish that was essentially cut off from fish traders. As the conflict has abated, respondents indicated that fisher people are restarting their efforts and fish traders are starting to reinvest in cold storage as a way to support trade outside the cluster.

In addition to economic chaos, the conflict also created knock-on effects such as both a real and perceived sense of lawlessness; increased levels of uncertainty; and increased levels of social and political resentment that may end up being difficult to manage over the medium- to long-term. Although the respondents indicated exemplary individual instances of adapting to the war and remaining resilient, and even cases of successful innovation, from an MSR perspective, there are numerous indications that the overarching agricultural market system has become increasingly fragile.

Respondents also indicated that drought in parts of the cluster have hurt crop production, as well as affected prices, making it harder for the vulnerable and marginalized to purchase food. In particular, cattle feed was cited as a specific challenge caused by the drought. For example, one respondent stated, “Lack of cattle feed worsened malnutrition and death of cattle which caused loss of source of livelihood for many people. It also affected availability of nutritious food (milk and milk products for their family and children.”

4.2.2 MARKET SYSTEMS AS A SOURCE OF HOUSEHOLD RESILIENCE

Especially in very difficult contexts as in the Northern Cluster, it is important to understand how market systems become an important source of household resilience.

Access to products and services

For households and SMEs, almost everything they need has become very expensive or unavailable. For example, farming enterprises are struggling to access key inputs, and when inputs are available, their cost is prohibitive, meaning the farm enterprise can no longer generate a reasonable margin if they purchase the inputs. Additionally, many formal retailers and agricultural input dealers that might have otherwise been willing to share the cost increases (i.e., not pass on all costs to consumers for a period of time) are unable to do so because they themselves cannot stay afloat—some have already closed shop due to the conflict. As a result, most farmers must purchase essential inputs such as seeds, fertilizer, and pesticides on the black market, where prices are purported to have quadrupled from pre-war levels, and where quality has become so inconsistent that purchasing materials is a huge gamble.

In addition to products ceasing to be available, critical services such as financial services became limited or stopped. Businesses wishing to transact through any electronic means are forced to cobble together workarounds, such as finding someone to make a payment in another location and procuring products on credit within the region. Moving money and even acquiring cash must be done on the black market, which incurs crippling transaction fees of between 11%–18%.

Various businesses cited a lack of critical goods and services and associated problems:

- Inability to connect with remaining farmer customers, due to the unavailability of all telecommunication services

- No access to cash because banks were shut down
- Inability to procure inventory (including veterinary medicines) because transportation services are hampered by fuel shortages
- No or inconsistent electricity
- No fuel for generators or water pumps
- Military prevention of passage through key transportation routes

Respondents indicated that during the few times when farm inputs or necessary business products can reach their location, there is only a very limited selection, and their cash constraints further limit buying. An additional concern raised by respondents is that they struggled to keep perishables fresh and safe because blackouts and fuel cost increases makes cold chain logistics difficult to maintain.

Generating cash

Respondents typically generated cash from the sale of animal products, distribution of beer and sugar, and permanent and temporary employment. The conflict disrupted or stopped normal agricultural market activity, which means that farming's ability to generate cash was very limited. For example, dairy farmers in the Northern Cluster who have been able to continue producing milk are unable to transport it to their buyers because the cost of fuel is so high it would result in a net loss. In response to the disruptions of farm activity, households have shifted to petty trade, day-labor, small-scale production, and selling vegetables to neighbors to generate some cash. There are also indications that farmers are shifting back to subsistence farming (i.e., growing food for personal consumption). Although this provides an important element of resilience, it also presents trade-offs, such as worsening the ability to access goods and services that require cash.

4.2.3 MARKET SYSTEM RESILIENCE

Internal market system coping mechanism

Crop and livestock market system coping mechanisms, along with their related industries, in Tigray have all broken down to the point where most market activity is short-term or survival-focused, with transactions becoming petty-trade-based. There are some signs of recovery, but these are very limited. Respondents from both the farming and business community remain completely immersed in the current situation, which is an economic landscape destroyed by war. Due to the emotional rawness of the present impact of war, respondents seem limited in their ability to accurately reflect the state of business before the conflict. People typically recall a healthy and thriving business environment before the war, without being able to cite much specificity relative to the various domain-based questions posed by the interviewers. Three key market systems highlighted by the respondents included the following:

- **Livestock.** The livestock animals were badly and directly hit by the conflict, with many animals literally being hit by shells and dying of wounds. Pregnant cows are reported to have aborted most of their calves due to the heightened stress of lack of feed and water, as well as the sudden exposure to shooting and explosions. Cattle that did manage to survive quickly became sick, and farmers are forced to search for the requisite medicines among the understocked veterinary clinics or within the emerging informal market. Medication prices however, particularly in the informal system, are at unprecedented levels limiting access and effective usage to the point where most sick livestock eventually die. Additionally, slaughtering and butchering functions have also suffered from the conflict, including loss of plants and equipment, as well as an environment that has a very high cost of operating, but very little local purchasing power. For processors that can sell outside the region, they are also facing a reduction in demand, as inflation in the country as a whole is moving demand away from meat. The lack of animals to buy and the lack of demand for meat, in combination with the high cost of doing business, is driving many businesses out of the livestock market system in Tigray.
- **Teff and wheat:** Teff and wheat market systems are shaped by the cooperative union systems and the union federations in which they belong. This network works closely with regional government as its distribution arm for inputs including seeds and fertilizers, which all but stopped due to the conflict. The lack of diversity or the overly organized and controlled structures end up being a major source of fragility. Because farmers are unable to access inputs from other sources and barriers to entry for input-based entrepreneurship are so high, the overall agricultural input system has been forced to cease. Wheat production, in particular, suffered from the severe labor shortage brought on by the conflict. Respondents indicate that as a result of the death toll and conscription to the conflict, labor that was usually used to harvest is unavailable, and in many cases crops are left in fields to spoil.
- **Fishing:** The Tekeze river provides an important opportunity for some communities around the river. Daily catches are taken to local fish traders that then on sell to local end markets or to other national traders. The conflict forced many fisher people to stop their fishing activities. Fish traders also ceased their work during the worst of the conflict. One respondent indicated that the conflict compounded issues from COVID-19, which slowed or stopped a lot of fish trade. Respondents did indicate that market actors are reinvesting in their businesses related to fishery.
- **Poultry:** The poultry market system in the region has effectively terminated due to the prolonged period of no reliable access to feed, parent stock, or medicines. Any surviving birds in the early days of the conflict were liquidated at the local market, but between the lack of demand and the deteriorating health of the birds, sales prices were on average around 20% of their pre-war levels. Respondents also indicated that in the few cases where farms were able to get through the direct damage from shelling or localized fighting, their premises

were often looted by local people trying to survive, or armed combatants stealing anything that is available.

Social safety net coping mechanisms

In cases such as Tigray where a substantial conflict has taken place or is taking place, market systems are unlikely to survive or manage through such shocks without some external support. This is especially true for the formal elements of the market systems that require some level of stability and time to function profitably, such as crop and livestock farming. This decline and eventual dissipation of a functioning farming system was cited through personal accounts and general observations throughout the cluster. Respondents indicated that many, if not most, firms and farms have been damaged or disrupted to the extent that they are no longer operational. In the midst of the devastating effects from the conflict, they have received very little in the way of formal regional governmental support—something that would be necessary for even the most resilient pre-war market system to survive such widespread and prolonged shock. One exception seems to be fishery communities near the Tekeze river that indicated government support has been helpful during the shocks and stresses related to the conflict.

To the contrary, respondents in one focus group and subsequent key informant interviews indicated the regional government efforts are actually hurting the few firms left in operation, butcheries being a prime example. Butcheries have become a target by regional government tax collection agencies, given their ability to generate cash. Respondents indicated that due to the tax, what little margin they had to manage and support recovery was being captured by regional government—whether due to desperate need to fill operational funding gaps or simply outright corruption. They also indicated that they have seen no value or support as a result of paying these stifling taxes. Interestingly, market actors indicated that they have also observed very little in the way of support from NGOs. One case was cited, but the focal point of the assistance was to provide market connections.

There was no support of any kind he received and [he] only relied on himself to deal with the challenges.

Cattle fattener and butchery owner, Tigray, Mekelle

Although formal social safety net support seems to be near nonexistent, informal kinship or communal coping mechanisms are heavily relied upon to help market actors manage these situations. Respondents indicate that they are accessing important support from their networks in the form of direct support: with cash, in-kind support, or interpersonal loans. They also indicated that such support is limited, as the need is great and their personal networks have limitations. For example, one focus group indicated that farming communities and farming groups are sharing crop protection inputs during times of application, implying that no one actually had enough inputs to grow their crop effectively. Communities are also sharing resources to limit the effects of inflation,

which has hit some market actors hard as their margins have evaporated and they are operating at a loss.

Another example from one of the focus group meetings was that they rely on relatives in nearby rural kebeles—farmers in nearby rural communities had relatively good harvest and were sharing it with their urban relatives. In the town of Agula’E, residents regularly checked in on vulnerable families, and the community would pool cash and cereals and distribute it to struggling families. Although not as clear examples, respondents also noted that the Orthodox Church collected money and in-kind donations, and distributed the donation to the needy in some communities. There was also an indication that some traders were providing support to vulnerable families in the form of cash and/or food, such as cereals.

Previous to the conflict, there were positive signs that some market systems were improving in competitiveness, inclusivity and resilience. But by all indications, the conflict has reduced the resiliency in the region for all market systems. Additionally, while localized communal coping mechanisms have been and are currently critical to household resilience, there is very little indication that local coping mechanisms will be sufficient to catalyze effective recovery, so outside assistance will be important. Below is an analysis domain by domain, that provides insights into the current market system resilience in the Northern Cluster.

4.2.4 MSR DOMAINS

Structural domains

Connectivity: Before the conflict, market systems including the poultry system operated within networks of market actors connected by mobile phone coverage and lines of credit for trusted commercial relationships. As a result of the conflict, telecommunications have been disabled, which has severely disrupted these networks. Transactions have all but stopped through these established trade relationships and the many outstanding debts have not been paid due to market actors having fled, been hurt, or been killed, often making it hard to find the market actor that owes the debt. Respondents indicated frustration with the breakdown of these networks, and potential mistrust that might prevent these networks from re-forming. An implication from this example that is consistently observed across all market systems in the region, is that although pre-war networks did extend beyond communal and regional networks, almost all of the current connections are local. Respondents indicated that authorities have been deliberate in their attempts to limit connectivity outside the region, citing their interference with telecommunication networks as a prime example.

Diversity: The conflict has severely limited the range and number of different types of products and services available. Respondent also indicated that there is little interest in recovering, developing, or investing in new product lines or diversifying sales channels. One exception is fishery SMEs that indicated some level of reinvesting is emerging. Interestingly, respondents indicated that prior to the conflict, especially in cooperative-union-dominated crop production, the regional government’s

tendency to influence and often intervene, limits the emergence of diverse business models or channels.

In terms of selling poultry products pre-conflict, there was a more diversified set of sales channels. For example, respondents indicated that they had contracts to sell eggs to the Ministry of Defense, cafés, and restaurants. They also could sell directly to consumers or other businesses via open markets.

Power: Respondents indicated that there is a concentration of power within the regional and national government offices, which is not only manifested in the context of the conflict, but also in the way they are managing taxes on butcheries, controlling inputs via cooperative unions, and overseeing telecommunications. The way power is being wielded by regional government offices, according to respondents, is extractive and disempowering. With connectivity being limited to local or regional networks, and with so much disruption within the market systems, most of the examples provided by respondents indicate power is being wielded locally to share risks and manage as best as they can.

Rule of law: According to respondents, the rule of law seems chaotic and arbitrary at times. For example, targeting local butcheries for taxes is a real concern for market actors in the livestock system. Respondents also indicated that they perceive lawmakers are out of touch with business operations and market forces, because they seem to make decisions that hurt local market systems. Further, the respondents are unable to cite examples of helpful regional government legislation or regulation. When they attempted to contact their local representatives, they rarely got a response. Respondents from the poultry market systems said that district and regional level government treats them as insignificant. This message is reinforced by the federal government having provided no support during the recent crisis, as well as a history of failed or absent policies to protect and grow the industry. One poultry market actor gave an example of the regional and district level government's push to cluster poultry farms, which is contrary to good practice for limiting the spread of disease and would diminish overall market system resiliency. The actor indicated that, even before the conflict, the regional government was making the market system more fragile via its policies, because if disease were to break out in one farm, it was inevitably going to spread and damage the entire surrounding farming community.

Respondents indicated that formal dispute resolution processes have all stopped functioning. At the same time, with most market activity also slowed or stopped, the effect of this has been minimal for most respondents, where the bigger concern were their various grievances related to the conflict itself. The only examples of active dispute resolution support were related to transactional issues where credit was provided to deliver products or crops that were not delivered. These disputes were all handled by the parties involved, in ways that seemed to be satisfactory.

Behavioral domains

Competition: Most respondents indicated that before the war competition was relatively healthy, with incidences of unhealthy competition. For example, one respondent indicated that before the war, in market systems such as veterinary services, competitors numbered enough that competition was relatively fierce. One respondent recounted an example where he found the competition to be unhealthy, with vendors selling a medicine well below the market price or even at its purchase price, presumably to drive out competition. This respondent said that he did not actually know why they did this, but complained about its repercussions on his own business, which had a material decrease in sales. Other respondents indicated that they would like to be able to limit or control who can enter the market, which would be an indication of negative competition. However, given the current situation, it is unclear if this indication is more related to the stress of conflict than to true anti-competitive behavior.

Respondents also indicate an element of competition between functions, especially around price negotiations. For example, sellers have the power to set prices of inputs, but the competitive landscape limits how much of a mark-up they can take, as customers can shift to another agricultural input dealer. Respondents acknowledge that, due to scarcity, sellers (especially informal sellers) have the power to set very high prices, indicating an extractive element has emerged as a knock-on effect of conflict.

Respondents indicate that businesses rarely compete based on value delivered to customers, the perception being that business is all trade- or transaction-based with little long-term thinking or value-based service delivery. An exception seemed to be in the poultry market systems before the war, where input providers would contact and even offer special deals to entice farmers to buy feed and chicks, especially if the input firm knew the farmers would buy as a group. Depending on the size of the farmers' group, the terms or enticements could be negotiated further. The poultry and egg market system, prior to the conflict, also seemed to be evolving segments and specialization. For example, hybrid breed chickens that are good for both meat and eggs produce brown-shelled eggs, perceived as inferior to white-shelled eggs because the yolks are less yellow. As a result, white-shelled eggs were receiving a premium and brown-shelled eggs were discounted by market forces. Respondents indicated they are unsure if the poultry market system will recover to the point where market forces are signaling premium segments with specific requirements, which is an indication of a more responsive and resilient market system.

Cooperation: Respondents indicated that at present there is little or no formal cooperation between entities, and few recognized associations or the emergence and usage of quality standards. Important exceptions include the various producer associations, including the ones for poultry, livestock, and animal feed. Respondents indicated that prior to the conflict, many poultry producers and poultry market actors were active members of the Ethiopian Poultry Association. As members, they appreciated how the association connected them with veterinary medicine suppliers, provided training on various topics, and facilitated events and ways to share relevant information between similar poultry business owners. The fisher association was also cited as having influence on how the

fishery market system function, including a substantial influence on price. Respondents also indicated that in other market systems before the conflict, there were examples of industry representatives working with district and regional level government representatives to coordinate on issues like mass animal vaccine programs.

The respondents provided little evidence of supply chain or retail distribution network cooperation among private entities (outside of the cooperative union system). Although they indicated that businesses tended to focus on trade and transactions as the core of their business strategy, they did not indicate that there was a lot of zero-sum negotiations or other tactics whereby actors would capture unfair margins. Before the conflict, respondents could recount some examples of healthy cooperation, including agricultural input and veterinary supply businesses that would work together at times to refer customers to other stores if they did not stock the required products. Shops also supplied customers with advice and direction on product use, as well as more general practice support when it was needed. Some examples of this kind of cooperation have continued, but are very limited due to the conflict.

Respondents also indicated that at times groups of market actors would work together to aggregate selling or purchasing power. The conflict has eliminated such cooperation, but it is indicated to previously be relatively common.

Business strategy: Respondents indicate that at present market actors are focusing on surviving day to day, with very little mid- to longer-term planning. Businesses that do remain viable are forced to look for ways to maintain daily cash flow to keep operations going. As one respondent stated:

The last 2–3 years were years of fighting for survival. Business investment and expansion were just a luxury for me.

Animal Input Supplier, Tigray, Mekelle

I have consumed my savings which I intended for expanding my business in the past couple of years. No investment added.

Fish processor, Amhara, Sabila

Respondents indicate that before the conflict, the vast majority of agricultural market actors took transactional or trading-based strategies. Interestingly, although there does seem to be a strong trade and transactional orientation in the market systems, respondents have not indicated a strong extractive bias in negotiations. Respondents provided a few examples of how power was wielded to capture unfair margins, but they indicated the majority of firms negotiated in good faith, and that competition, although not grounded in value addition, did provide some counter-balance and limit zero-sum tactics.

Respondents indicated the market actors do not invest in formal research or evidence gathering before making business decisions. Especially because the start of the conflict, market actors do not have time for research or analysis, and the only relevant data are today's sales figures and what margin to generate to survive. All decisions are based on tacit information held by the owner, aided sometimes by informal, local information gathering about prices or stocking rates in their immediate vicinity.

Decision-making: Respondents indicate that regional government and civil society seem to do very little research or consult with local market actors before making decisions. There are exceptions that respondents provided, such as the national vaccine programs in which the federal and regional government worked with market actors, but most examples relate to the conflict and indicate perceptions that the district and regional government makes unilateral decisions with little understanding or information gathering about the impact on local market actors or market systems.

I collect information about the price of cattle feed and crops from other traders, brokers, and transporters. I make telephone calls to multiple traders, brokers, and transporters to gather information about prices and then based on the information I make a decision.

Input supplier, Amhara, Sabila

4.3 LOWLAND WOREDAS

Key findings

- Kinship networks underpin communal coping mechanisms and market networks, including with regional government bureaus and NGOs.
- Households are increasingly reliant on market-based mechanisms to manage risk, such as savings and seasonal migration for employment opportunities (versus keeping/selling livestock).
- Taxes and levies are not harmonized, causing significant price inflation/unpredictability due to multiple taxes (each border crossing).
- **ETA Opportunity:** Focusing on power balance to streamline and coordinate taxes can increase inclusion. Amplify resilient business strategies (diversity). As possible, support value addition investments like fattening, processing, etc. that can improve the commercialization process to mitigate seeming breakdown of informal community coping mechanisms.

4.3.1 LOWLAND CLUSTER SUMMARY

The Lowland Cluster stretches across the three regions of Oromia, Somali, and Afar, covering the city of Jijiga and woredas of Jijiga Zuria in Somali and Amibara in Afar. The cluster includes Dire Dawa as the largest provincial city, situated near the Oromia and Somali Region border, about 450 km by road east of Addis Ababa. The Lowland Cluster is experiencing a range of short-, medium-, and longer-term shocks and stresses. Climate change has been a slow-moving cause for stress in increasingly erratic weather patterns, with severe drought in parts of the Lowland Cluster and extensive flooding in others. Drought has been forcing changes in traditional coping mechanisms, especially related to pastoralism. For example, the increasingly limited access to pasture and water has meant that traditional cattle management practices integrated into social and communal norms are no longer possible, affecting how communities and market systems are managing risks. The drought is also limiting crop production, which has knock-on effects in the food system. In other areas, flooding has caused loss of life, livelihoods, and crops. Floods have shifted from being an important element in the soil renewal process by leaving nutrients and improving soil fertility, to being more erratic and leaving greater amounts of salinity, reducing soil fertility.

Although this cluster is not experiencing conflict at the same scale as the Northern Cluster, there are conflicts along its border, and disputes between clans arise regularly. The conflicts and disputes are a manifestation of long- and short-term forces and factors converging to drive changes in the operating environment, which in turn creates anxiety and uncertainty. The small group kinship norms that underpin much of Ethiopian society tend to foster resource conflicts, especially as resource access becomes more uncertain. Respondents indicated that such uncertainty has become a common catalyst for inter-clan disputes or conflicts.

The conflict along the Oromia/Somali (Tuli-guled woreda) border has had a substantial effect on a range of market functions and services, including various interruptions to services such as access to cash, which is dampening other market activity. The conflict has also disrupted trade flows including consumer goods and various inputs. For example, seed production and distribution have been severely disrupted.

The cluster has had a range of related and other shorter-term shocks and stresses. For example, respondents are still feeling the effects of COVID-19 that disrupted credit processes, indicating that unpaid loans remain an important influence on market activity. Due to high inflation, prices have risen for many inputs, including various veterinary vaccines and drugs, just as incidences of avian flu in chickens and foot-and-mouth disease in livestock have spiked. The respondents also indicate issues with locusts, land disputes, and shortages of inputs (e.g., day-old chicks, animal feed, and other agricultural inputs) are adding more stress on smallholder farmers and SMEs in the cluster, driving down or eliminating gross margins. Dairy farming has become unprofitable as costs of production far exceed the price of milk. Poultry farmers also indicate that making a fair return on their business activities has become very difficult as inputs have become more difficult and expensive to access, although their output has become harder to sell at a viable price. The federal

government's restrictions on bank withdrawals are making it even harder for respondents' businesses to cope and stay economically viable.

From an MSR perspective, the recurrence and combination of various shocks and stresses is forcing a change in risk management. Communities are focusing more on accessing cash by migrating to areas where there is a perception that generating cash from labor is easier; shifting to more commercially oriented animals (e.g., goat, sheep); and shifting to crop production from pastoralism. At the same time, the market and political systems are not evolved to support such transitions effectively; traditional coping strategies, although they are breaking down, remain more reliable than the labor market (e.g., ability to generate a living wage) or formal public goods mechanisms (e.g., reliable, fair and transparent social safety net services).

4.3.2 MARKET SYSTEMS AS SOURCE OF HOUSEHOLD RESILIENCE

The Lowland Cluster, although not as overwhelmed by a single shock as in the Northern Cluster, is becoming increasingly fragile as the population experiences a seemingly never-ending series of shocks and stresses, overwhelming formal and informal coping mechanisms. The weakening communal coping mechanisms is pushing communities to rely more on market mechanisms to weather the various challenges.

Access to products and services

Even though respondents indicated that they are becoming more reliant on market mechanisms to manage risks, access to inputs and other products and services are becoming very challenging. For example, veterinary products and services are perceived as unreliable, increasingly expensive, and increasingly harder to access. Respondents indicated that veterinary diagnoses are unreliable, making it hard to treat their livestock in a timely way. When they had a clear understanding of a product or service needed to deal with a livestock issue, the product or service was either hard to access or too expensive. Crop inputs were equally difficult to access, and when available were very costly. Between inflation and informal taxes, the costs of inputs, labor, fuel, and transport services are very high, making the production and sale of almost all agricultural commodities very difficult.

Generating cash

Most people recalled a recent past where their farms were producing an adequate surplus, allowing smallholders to generate a satisfactory margin through the sale of milk, eggs, meat, or crops. As the shocks and stresses continue to accumulate and commercial activity has become harder to maintain, households have been forced to sell their assets and labor, making recovery increasingly difficult. For example, respondents indicate that with the lack of availability and prohibitive costs of inputs, they are forced to sell animals when they become sick. If the situation remained difficult or got worse, they were forced to sell their remaining livestock and began selling their labor to maintain some access to cash. Although some respondents report that remittances have been critical, they have not been enough to prevent them from having to sell productive assets and eventually their labor. In areas where commercial farming is more common, formal on-farm labor opportunities are

available. There are indications that young men find seasonal labor by migrating to other areas of the cluster or region. In areas, especially pastoralist communities, local informal labor opportunities allow some farmers to cope when their farming activities do not provide sufficient income. It is also important to note that in Muslim communities during Ramadan cultural/religious norms dampen the ability of community members to generate income from labor. Respondents have heard of reports of suicide in the area, which provides a stark perspective of the situation.

4.3.3 MARKET SYSTEM RESILIENCE

When taken together, the respondents provide a strong indication that market systems in the Lowland clusters are becoming increasingly more fragile. Respondents in the Lowland Cluster are less critical of the federal and regional government and its policies than some other regions' correspondents, but are clear that the recurrent shocks and stresses are pushing market systems to their breaking point. As stated above, most market actors remember when market systems were more stable and resilient, but indicate that generating a positive gross margin is almost impossible—now the main goal is simply survival.

Internal market system coping mechanism

The coping mechanisms for livestock and cropping market systems, along with their related support services in the Lowland Cluster, have retrenched substantially. Most respondents indicated that making a return on their agricultural activities is very difficult. The four market systems referenced in the responses included the following:

- **Poultry:** The poultry market system, not as hard hit as in the Northern Cluster, is struggling. Lack of availability of day-old chicks is a challenge for smallholders. Additional limitations include the access and costs of feed and veterinary services and products; these cause cost of production to increase from both the direct cost of inputs and increased morbidity and mortality of birds. End-consumer purchasing power is also cited as a concern, because the price point most consumers can afford does not cover the costs of production. Although respondents indicate that poultry farming is more commercially oriented, the compounded shocks and stresses seem to have overwhelmed any efforts within the market system to weather all the threats, leaving it in a relatively fragile state. Respondents indicated that the regional government provided little or no support.
- **Dairy:** The dairy market system is also struggling for similar reasons as poultry. Inputs are not available or too expensive; demand is limited as inflation has eroded incomes and purchasing power. Dairy production in areas with drought is particularly difficult, as dairy requires water and supplemental feeding to maintain milk production. Dairy farmer respondents indicated that many are starting or testing the idea of growing their own fodder to deal with the challenges of accessing feed.

- **Cattle:** Cattle production, particularly in the areas where pastoralism is the dominant cattle management practice, is integrated into social capital and coping mechanisms. As a result, there is little market orientation to coping mechanisms, because most smallholders preferred to keep animals as long as possible as a form of financial and social capital savings. With the various shocks and stresses, the population of animals and the carrying capacity of land has dropped, forcing many out of cattle and into other, more commercial options such as goats, sheep, or crop production. At the same time, cattle production remains important culturally and as a central element of informal communal coping mechanisms. Some respondents indicated that the regional government provided some feed for free, but in minimal amounts.
- **Wheat production:** For the most part, respondents growing crops state that factors affecting availability and costs of inputs, and purchasing power of buyers meant they had to sell below the cost of production. Although part of their production was for personal consumption, generating cash from crop sales is critical. Respondents specifically indicated that they were shifting away from wheat production to cotton or onion production, because the conditions have made wheat production very difficult economically. Buyers of wheat for processing were also coping with difficulties by shifting from pasta to biscuits because high quality wheat was unavailable.
- **Veterinary services:** Veterinary services are dependent on the farmers seeing value and being able to pay for services to remain viable, and with the difficulties for farmers, veterinary service providers are struggling. Interestingly, some respondents said that their loyal customers were very helpful by continuing to buy products even during difficult times.

Social safety net coping mechanisms

Many respondents said that they received or were aware of others that received support from either a regional government official or department or an NGO. For example, the regional and district government has at times given out small portions of animal feed for free. However, most respondents rely on their kinship networks, including remittances, as the most critical source of resilience.

4.3.4 MSR DOMAINS

Structural domains

Connectivity: SME respondents indicated that they have connections with regional government bureaus, NGOs, and key enterprises in their sector. SME respondents prioritize key business relationships during difficult times, maintaining relationships even when lower quantities are ordered. Some SME respondents said they are very protective of their buyer relationships, such that they attempt to source produce from other farms to maintain order volumes during times of low production. Farmer respondents also express the importance of maintaining buying and selling connection networks, calling them critical to their business function. In both cases, farmers and

SMEs rely on their networks for market price and quality standard information. It does seem that these networks are mostly localized and substantially overlap with kinship networks. In this context, connectivity reinforces small group kinship norms that are important for resiliency strategies, but may limit the emergence of mechanisms for risks to be shifted to higher within the system and away from communities.

Diversity: In dairy and crop production, the level of diversity in channels and production models seems to have allowed respondents to better adapt, compared to poultry. Crop farmers are shifting to crops that are less controlled (e.g., wheat) or have easier access to inputs (e.g., cotton and onions). The transport industry is also shifting away from larger trucks, using smaller vehicles, limiting length of routes, and sharing routes with other transporters to adapt as fuel costs continue to increase and road blocks constantly pop up. Access to diversity in types of vehicles, communication platforms (e.g., mobile phone networks), and road networks have proven critical to maintaining some level of product and trade flows. One notable exception seems to be poultry where the types of inputs, especially day-old chicks, and the types of meat and egg products has not allowed for enough diversity, which has limited the ability of poultry farming respondents to adapt effectively.

Although there is some level of diversity in key areas, the ability to effectively adapt seems to be reinforcing rigidity in social hierarchy structures because the larger, wealthier market actors are better able to adapt and manage the various challenges. Another challenge is that market systems are increasingly becoming more localized as an important coping mechanism, but might also be reducing the diversity of end markets available. Livestock in particular is localizing sales and consumption, which might limit connections and access to some urban markets if this trend continues.

Respondents indicate that in many contexts, they are able to locate a product or input by finding it in a different location or market, but that there was not a lot of diversity in the types of products and inputs available. Certainly, the challenges with inputs, indicates that greater diversity in number and types of each important category of crop and livestock inputs would improve resiliency in the Lowland Cluster.

Power: Most respondents could identify places where there was a concentration of power, citing larger businesses or the district and regional government as examples of highly concentrated power. Buyers are often mentioned as the place where power lies, due to their access to cash—a key constraint in most industries. But this was not always the case, with power seeming to shift in some sectors to producers or suppliers when certain products are in high demand, giving them market power. Interestingly, in this context, respondents indicate that market systems in some cases operate without a lot of friction (e.g., corruption, extractive wielding of power), which tends to distort or override supply and demand signals. At the same time, respondents also indicate that the central government has wielded power in ways that have been unhelpful, especially related to foreign currency, wheat production, handling of inflation, and taxes.

Rule of law: Respondents strongly stated that taxes on inputs and product sales are untenable. Respondents say that regional rules conflict with national rules.

There are multiple check points in the road which every region take its own tax; for example, when you take feed from Addis and enter Oromia region, Oromia region takes charge, then after Oromia when you reach Afar, Afar region charges the material, then when you cross from Afar to Oromia again, Oromia region charges the material again, the Harari region charges the material then, after again Oromia region charges the material, until Somali region charges the material). Even though most of checkpoints charge informal and huge [payments].

Poultry farmer, Somali, Jijiga

The concerns with taxes seem to be tied up in a combination of issues related to rule of law. For example, there is uncertainty about who has the authority or right to set and collect taxes. The road blocks and fees collected seem to include some genuine efforts to assert some level of local control, as well as other efforts that seem more extractive or criminal. These cross-winds seem related to deeper seated challenges where some groups are demanding greater decentralization and localized autonomy. As a result, respondents found it hard to differentiate from formal taxation and corruption, especially moving from one region to the next region.

At the same time, respondents say they are happy about the police presence at markets, especially the livestock market, where such presence has reduced incidences of cheating and disputes. Respondents also indicate they are positive with licensing processes, including trade licensing, which has been helpful to protect against bad actors in the livestock trade and poultry sector. Even though respondents provide positive examples where the district government is being helpful, there was a general feeling that all levels of government enforcement practices are tight and aimed at control. Respondents perceive the intention to crack down on bad actors as genuine, but they indicate the district and regional governments are not focused on building a productive enabling environment or encouraging innovation and good business. Respondents associated the federal and regional government focus on control as a potential cause of high inflation that is forcing businesses to spend more on basic inputs making it very difficult to maintain viability. Respondents cited policies related to collateral requirements that are overly controlling and damaging market activity. Overall, respondents felt the enabling environment is stifling inclusive growth.

In our country rules are set not to make businessmen effective but to control those who are ready to steal. Rules are set in with the assumption of preventing thieves—not to create a conducive environment to operate business. So such kinds of thinking should be stopped by the rulers or policy makers.

Representative, Dire Dawa Farmers Union

Even though the general perception is that the enabling environment is dampening growth and investment, respondents did provide some examples where growth and investment is happening. In particular, banks seem to be investing in mobile money service, which really took off during COVID-19. Hello Cash was cited as an important example of a popular mobile money service. Other examples of growth and investment are related to farmers and business owners investing to expand operations. Investments include bringing new land under cultivation or adding new product lines. Respondents indicated that diversification in response to the dynamic contexts is an important driver of these investments. Respondents also cited examples of large agri-businesses that are investing in greenhouse and water technologies to take advantage of higher prices for certain commodities like vegetables.

In addition to issues related to the enabling environment, respondents also cited concerns related to land and taxation disputes. They indicated that when district or regional level government is involved, disputes are hard to resolve in a way that seems fair and transparent, indicating a potential challenge in how government wields power. One contrary perception indicated that the court and appeals system for disputes within the government structures does seem to function in a way that is fair and transparent.

At the local market system and community levels, most respondents recalled recent disputes, especially related to quality or payment terms. Although most of these disputes are resolved between the actors involved, the few that cannot be resolved are most likely referred to clan leaders. Most respondents said clan leaders were very effective at resolving disputes, even across geographic borders. At the same time, there were also indications that traditional clan leadership is losing support in some regions or communities. In cases where clan leadership is not available or not preferred, respondents said religious leaders, family members, friends, and another community or regional representative would be enlisted to help mediate disputes.

Dissolution of clan leadership authority

Most of the time clan leaders and clan groups solve the disagreements but sometimes the local government may interfere and solve the disputes. The historical role of clan leaders and the elderly is waning in some communities and regions. Previously, when clan leaders said something [i.e. provided an opinion], most community members accepted the leader's perspective. Respondents indicated that more and more farmers are influenced by commercial interests, which means they are less influenced by clan leaders. Even if the influence of clan leaders is waning, people still rely heavily on clan leaders to resolve disagreements because such processes within the government system is perceived as cumbersome and expensive. In one case, a respondent cited a court case where mediation was very important.

Behavioral domains

Competition: In the poultry market system, smallholders perceive that larger poultry farms engage in unfair price strategies to push them out of certain markets. Smallholder farmers state that poultry pricing is impacted by the prices and availability of day-old chicks. Most farmers are required to make forward orders for day-old chicks, and prices are set by the breeders. Producers pass input costs (including feed and fuel) that are out of their control on to consumers through the prices for eggs and meat. As a result, smallholder respondents perceive that large poultry farmers often offer prices to larger government institution buyers (e.g., military-based buyers, schools) that are lower than cost of production (e.g., cost of day-old chicks, feed, fuel) as a way to unfairly compete against smallholders.

Yes, sometimes there are competitors who try to undermine us since we are categorized in small-scale poultry farm. Last time there was an open bid where the correction center wanted an egg supplier to supply their egg need for individuals who are detained there, so those competitors who have large poultry farms reduced the supplying cost of the egg very much so we with small-scale farms couldn't be able to compete with them, so we were forced to leave the competition... This incident also repeated in a bid which was released by Dil Chora hospital.

Poultry farm owner, Dire Dawa.

Although smallholder respondents indicate that larger farm enterprises are engaging in unhealthy competition, it is not clear if the larger producers are offering prices below their costs or if they benefit from scale efficiencies allowing them to maintain a margin even at a lower price point. The perception suggests that there is some antagonism between smallholder and larger poultry farms that could fuel more aggressive unhealthy competitive tactics. Although less intense, vegetable farmer respondents cite similar antagonism between vegetable farmers and buyers. Vegetable farmers perceive that they are at a disadvantage because their crops are highly perishable, so they have to sell them within a specific time frame. The respondents indicated that buyers often visit farms and offer unfairly low prices. Although farmer respondents understand that they are free to find other buyers, the perception is that many buyers negotiate to capture an unfair margin. Although there is some level of antagonism in these market systems, indications are that it is not overly intense or widespread. With that said, there was one cautionary tale of unhealthy competition beyond price manipulation, reaching physically harming a competitor:

There are competitors who even threatened to kill me. Last time when I was coming by truck to Dire Dawa with 210 goats, when I reach at the place called Christians funeral area, my competitors organized themselves and stopped my truck, beat me on my front and back of the head, on my sides and legs by knife... I even lost my consciousness for more than 15 days and was very much injured. They took all my 210 goats on the truck. Now all the competitors who did this fled outside of this town; they are currently living in Addis Ababa.

In contrast, there are positive examples related to cooperative unions. Respondents cite cases where farmers received excellent support and information when accessing inputs including seeds, fertilizers, and pesticides from their cooperative union. The respondents say that some unions provide members with real-time diagnoses of pest and disease outbreaks in crops through smart phone exchanges. Unions are also able to order bulk quantities from suppliers with some degree of negotiating power for discounts that they pass on to their farmers or customers with a modest margin, as little as 5%.

Respondents express concerns related to the federal and regional government distorting the competitive landscape. More specifically, a farmer union stated:

Our customer farmers need not only our supplies to buy, they also need the counseling service we give them. They have trust in our service, but the regional government is the one which is spoiling the market environment. The government is giving agricultural supplies free for some farmers, they just give a little quantity and for very few farmers so this disrupts the market, even the farmers who have the ability to buy and use...the products wait for the government to give them [for] free.

Representative, Dire Dawa Farmers Union

The vast majority of respondents indicate that price is the primary way competition unfolds in market systems. This reinforces the perspective that market activities revolve around transactions, as opposed to value-added relationships and alliances. These respondents also indicate that in most cases competitors offer prices based on cost of production and common market forces, with very little indication of regional government or larger firms wielding power to gain unfair benefit. So, although the competitive landscape is not overly unhealthy, most market actors are not competing on the value delivered to customers, staff, and suppliers, which is important to competitiveness, inclusivity, and resilience.

Cooperation: Respondents indicate that most business interactions are transactional, but do not find those transactions to be driven by extractive negotiating tactics. The respondents cite that in many cases buyers and sellers at the local level exchange information openly, suggesting negotiations are relatively fair and transparent and that there is a level of systemic cooperation around price setting. Examples of systemic cooperative cited by respondents include:

- Dairy industry farmers and buyers tend to work together to manage prices so they can remain relatively stable, including communicating to buyers about when the cost of inputs increases.

- Animals are bought and sold through a physical livestock exchange where prices are relatively transparent and highly correlated to the quality of the animal being sold.
- Vegetable farmers often work together sharing information

Respondents indicate that livestock exchanges may be overly influenced by brokers who can manipulate transactions to increase their commission. Similarly, although the Ethiopian Commodity Exchange can improve transparency related to pricing, the federal government forcing some crops through the exchange may inadvertently be increasing fragility because it ends up limiting alternative channels from forming.

Respondents cited cases where market actors cooperate via associations. For example, many poultry farmers are part of a local producer association, and larger poultry enterprises seem to value their membership in the national poultry association. Additionally, most respondents said they are part of a membership organization such as a chamber of commerce or sector business association.

Although there are some cases where respondents indicate that there is effective cooperation across functions in market systems, the cases are relatively thin with very little captured in the way of cooperation or investment along supply chains or through retail distribution networks. For example, there is no indication of effective supply chain or retail distribution management by lead firms. There is also no mention of industry standards or widespread cooperation for changes in policies or regulations.

Business strategy: Given the focus on transactions, it is not surprising that business strategies have a strong trader-based orientation. There are examples from unions, veterinarian service providers, and agricultural input dealers that indicate some firms are more growth- and customer-oriented, but it seems to be a minority. Some respondents mentioned efforts to collect some data, but it does not seem that information was being used to adapt to customer needs or interests. A major respondent focus was information related to inputs or prices. For example, SMEs and enterprise respondents indicated that they continually collected information from informal sources and networks about inputs and prices, but did not invest much in internal systems to collect information on customers, buyers, suppliers, competitors, or trends that would seem important for adapting their business decisions. Farmer respondents do tend to source information on inputs, production, and prices, but not information about longer-term growth.

Although many forces and factors are negatively affecting firms, there is little indication of substantial adaptation to resolve the issues. For example, drought has been an issue for a while, but there is little indication of investment in farming practices or irrigation that could address some of the challenges. Although respondents indicate that they value supplier-buyer relationships, there is very little indication that firms are investing in alliance building along supply chains or retail distribution networks. Although consistent with the transactional orientation of most respondents, the lack of coherent strategies to integrate supply chains or manage retail distribution networks, is an

important indication that business strategies are not aligned to deliver greater competitiveness, inclusivity, and resilience over time.

Decision-making: Respondents indicate that district and regional government officials are available for consultation and provide support at times, but they do not perceive the government as very active or central to their business activities, which is an indication that government does not actively get feedback from constituents. Although most respondents indicate they are part of a business sector membership organization, they do not indicate that information is an important service, or that such organizations conduct or provide research and insights.

4.4 JIMMA CLUSTER

Key findings

- Despite facing shocks and stresses, market actors are proactively seeking ways to overcome or compensate, and are less reliant on communal coping mechanisms. Export-oriented coffee opportunity seems to have driven market orientation and effective cooperation in the region.
- Strong cooperation along retail distribution networks, supply chains and between farmers, including government provision of agri inputs and services; orientation toward long-term value addition although still focused on prices/short-term margins. Some challenges with itinerant traders selling counterfeit products, undercutting established traders.
- **ETA Opportunity:** Leverage strong cooperative networks and trust in local/regional government to build better mechanisms for providing feedback and better aligning government policies with business needs. Improve supply chain management in coffee and other high value crops (in nodes such as seedling production) to improve bridging capital and expand inclusive growth.

4.4.1 JIMMA CLUSTER SUMMARY

Jimma Cluster covers eight woredas across three regions: Oromia; Southern Nations, Nationalities and People's; and the recently formed Southwest Ethiopia Region. The cluster includes Jimma, the largest city in southwestern Oromia, which lies 353 km by road southwest of Addis Ababa. The cluster also includes Bonga, capital of the newly formed Southwest Ethiopia Region, and Mizan, which lies 160 kilometers southwest of Jimma. The study includes data collected in the city of Jimma, Gomma woreda in Oromia and Chena woreda in SNNPR. The Jimma cluster is the least shock-affected of the five clusters, as it has been less affected by drought than the lowland regions and has generally been sheltered from the Northern conflict, while levels of interethnic conflict are also lower than in the other clusters. The geography allows for diversified crops that have contributed to overall market system resilience. For example, Jimma is one of the major coffee-growing regions in Ethiopia, with high value specialties and the highest volume of coffee production. Ethiopian coffee, largely defined by Jimma production zones, has a competitive

international brand. Respondents in these coffee-growing regions estimated that 90% of the farmers in the region produced some amount of coffee. Importantly, Jimma Cluster also produces dairy, maize, wheat, teff, various fruits and vegetables, spices such as garlic and pepper, red root, livestock, and other agricultural products.

Diversity of production, especially high value crops like coffee, seems to be a factor that has led to households and market actors having more financial resources, alongside relatively lower conflict and climate-related shock exposure, improving how communities have weathered shocks and stresses in Jimma Cluster, relative to the four other focus clusters. Producer groups we interviewed repeatedly described the diversity of production within their group and the resulting variety in market options as a source of year-round income. Groups producing commodity crops such as maize also concurrently produce many alternative, high value crops or at least are able to pivot toward other crops based on market forces. In addition, groups typically describe connections to the livestock industry, which includes cattle, shoats, and poultry, whether in keeping livestock themselves, buying manure, or selling high value feed products to livestock owners. Finally, groups frequently describe receiving support from the government, such as providing livestock and poultry vaccines, pesticides and insecticides, improved seeds, agricultural training and advice and organizational support to cooperatives. Dairy production seems to be an important commercial activity in some areas of the cluster. According to one focus group discussion, an association established 7 years ago by five members in one of the family's compounds now has 20 milking cows and 13 heifers, all Holstein Friesians. Another dairy business secured independent dairy land from the regional government and has grown their business over the last 6 years to 125 cows.

Respondents also indicate that all agricultural market systems are supported by various market actors providing inputs and services such as: veterinary services, artificial insemination, seeds, crop protection, various equipment, storage solutions, and crop protection solutions. For example, during one focus group discussion respondents indicated that their farmers union provides agricultural inputs to all its members. As agricultural input providers, the union provides them with improved seed, fertilizer, and agricultural materials. Interestingly, the respondents indicate the emergence of more commercially oriented support services active in Jimma that were not mentioned in the other clusters. More specifically, several respondents indicated coffee seedling production as a critically important component of the coffee market system. Additionally, and maybe as a knock-on effect from the commercialization of coffee production, respondents indicated seedling production for papaya, mango, banana, avocado, and flowers. Typically, the emergence of seedling production as a commercial activity is an indication of a more commercially oriented and sophisticated market system. This is because the value proposition of specialized seedling production is grounded in improved genetics, especially in regard to specific end-market criteria. Typically, agricultural market systems that are less sophisticated and commercially oriented do not perceive the additional value or cost related to seedling production as cost beneficial because their end markets tend to be less demanding of specific quality criteria.

Similarly, livestock fattening adds costs that are increasingly more valued in livestock market systems as they evolve to be more commercially oriented. Respondents indicated that fattening is emerging in Jimma in ways that seem more advanced or prominent compared to other clusters. Another indicator of Jimma Cluster having a stronger commercial orientation is the incidence of respondents that indicate value addition at a local level. For example, a respondent gave insights into how he had grown his honey business through value addition activities such as selling a honey-based drink and honey byproducts such as beeswax.

Even though the research indicates that Jimma Cluster has a stronger commercial orientation, respondents cited various shocks and stresses that are presenting challenges. Although the Jimma Cluster is not directly involved in the main conflict, respondents indicated that there is conflict in some of the woredas in the Kaffa zone. The conflict has closed important roads, making it impossible to distribute products in those woredas, thus reducing their income substantially. Other respondents indicate that even though their area was not directly hit by the war, youths from the village joined the military during mobilization campaigns. In addition, they have had to provide cash support to the army, negatively affecting their income.

COVID-19 was also mentioned as a shock that has had negative consequences. Following the outbreak of COVID-19, restrictions on movement affected the ability to visit customers, as well as hurt the ability to access inputs. Interestingly, other respondents indicated that a more important effect from COVID-19 was the disruption in the education of their children. One respondent added that some children have refused to go back to school, which has become a big concern. Other respondents indicate the opposite, stating that COVID-19 not only did not affect their village, but actually catalyzed the community to increase classrooms in the schools as a way to reduce the transmission of COVID-19. The additional classrooms resolved overcrowding in the schools. By leveraging COVID-19 to build more classrooms, the community was able to proactively address COVID-19 in a way that also addressed a slower-moving stress in the community.

As would be expected in a cluster that has a stronger commercial orientation and lower levels of exposure to shocks, respondents indicated shocks and stresses that affect their businesses versus those directly impacting food security. For example, respondents cite reduction in and a general lack of connectivity in their market system as a stress that has emerged in the last 3 years. The limited or poor connectivity has meant limited access to quality coffee seeds for seedling producers. Members from one association experienced catastrophic loss of all seedlings:

'Our association has lost all the 48,000 seedlings we planted last year due to poor quality of seed. We bought the seed from the district coffee and tea office, but no single seedling was grown during two rounds of cultivation. We spent 10,000 Birr for the seedling purchase and spent 3,000 Birr for purchase of seedling poly-bags. We lost all our money and time and more importantly our morale and energy to continue in the business.'

Poultry respondents also cite lack of connectivity, especially related to day-old chicks. The poultry industry throughout the country seems reliant on day-old chicks, and as in other clusters, the lack of access to day-old chicks has uncovered an important area of fragility in the poultry market system.

The research also identified illegal traders as an important stress for market actors in the Jimma Cluster. Respondents say the distribution of veterinary medicines has been severely affected by traders passing through the region selling at low prices. Local veterinary firms have been unable to compete with these illegal traders. These itinerant traders are not certified, which the respondents cited as an indication that they are not selling quality assured products. Poultry farmers also cited illegal traders that are selling chicken after only 28 days, which is well before the standard of 45 days that local poultry farmers cite. Local poultry producers say the extra costs associated with maintaining their chickens for an additional 23 days make it impossible to compete with such traders. Due to this, they have incurred many losses and are being forced to shift selling their birds after only 28 days.

Inflation is another stress cited by respondents, increasing the costs of many inputs faster than it has increased the costs of end products, creating a lot of stress on farmers. For example, coffee seedling producers cite the cost of poly-bags, transportation, and soil material have all increased in price far more than has the price they have been able to charge for seedlings. Similarly, the cost of livestock feed has also eroded margins for dairy farmers. Respondents indicate that because there is no production of livestock feed in the district, the association has to purchase dairy feed from Mizan and Bedele areas, which adds costs and risks especially with increased uncertainty related to transport.

Erratic rainfall patterns, and especially flooding is also mentioned as a shock that has affected their livelihoods. Examples were cited of recent flood events with far reaching consequences for producers. A 2022 flood damaged 65 homes, as well as food stores and farms, and washed away a road. Other recent floods even destroyed tree crops and were linked to increased incidence of malaria outbreaks. Respondents indicated that malaria outbreaks have caused hardship, including loss of life and income.

Respondents also mentioned various disease and pest outbreaks that cause substantial damage. One respondent gave an example:

I am 60 years old now. I started rearing sheep from a very young age. My family's main income source was obtained from rearing sheep. But now I decided not to rear sheep. I lost my 12 sheep to incidents of disease 6 months ago. Some of the sheep died in the marketplace while I was trying to sell them. My family was shocked by the incident, and we faced serious challenges to fulfill what is needed for food and clothing.

An example of pest damage was related to American locust that damaged crops over the last 3 years. The locust mainly damaged their maize and sorghum, as well as other leafy crops. One respondent cited an example of locusts destroying the entire farm in just one day, saying, “If you missed [controlling] it soon, you lose the whole harvest.”

The research indicated that market actors and market systems in Jimma identify, prioritize and adapt to signals, especially signals that suggest a risk is emerging. For example, market actors responded to signals that a crop was becoming less in demand or key inputs were becoming too expensive by seeking out new end market channels, new crops that indicated high returns on investment, and new sources for or alternatives to the expensive inputs. There are signs that communities in Jimma are weathering shocks and stresses better, which seems to be linked to their financial wealth. From an MSR perspective, this points to a shift from managing risks through reliance on kinship networks and toward a reliance on financial assets, cash flows and market mechanism.

4.4.2 MARKET SYSTEMS AS A SOURCES OF HOUSEHOLD RESILIENCE

Access to products and services

Jimma Cluster seems to experience a range of shocks and stresses, but, for the most part, the stresses are either typical market system stress or knock-on stress from external issues and shocks. The general perception is that due to inflation, conflict, government policies, and a long list of shocks, access to key inputs and products have become harder. The respondents cite fewer access points, increasing costs, and increasingly unpredictable access that makes getting critical inputs on time difficult or impossible. In some cases, the lack of access is having serious health impacts. Respondents gave the example of when access to cost effective treatments for malaria is very difficult, forcing many families to just manage the sickness as best as they can, which has resulted in death and loss of income as they cannot provide adequate labor on their farms due to sickness. Although the malaria example is the starkest in terms of inability to access life-saving products and services, there are other examples where access to products and services to avert the effects from a shock or stress has become more difficult. Some of the more common responses related to accessing inputs:

- Day-old chicks have become harder to access. Respondents indicated that there was only one source available to them, EthioChicken, which has stopped or slowed its activities.
- Chicken feed and access to important vaccines have become too expensive, forcing some respondents to try to produce their own feed and shift to local breeds that are more resistant to disease. Both of these coping mechanisms seem to be reducing income for poultry farmers.

- Coffee seedlings have also become more difficult to access cost-effectively, reducing income for farmers. Respondents also indicate that other inputs are becoming more difficult or expensive to access. Specifically, coffee residual materials that are used for organic fertilizer and fiber bags have become expensive and/or hard to access. For some, the cost of inputs pushes them to reduce the number of meals their family consumes in order to maintain their coffee productivity.
- Coffee seedling producers cited erratic access to poly-bags and seeds that have become more expensive, making the seedling business increasingly more difficult. A few respondents indicated they expect to stop their seedling business due to the cost of inputs.
- Multiple respondents cited illegal traders as a real challenge, including selling inputs in a way that is undercutting established local input providers. This could lead to reduced access over time, as the itinerant traders are perceived as unreliable and often do not return once they have sold their inputs.
- Producers lack access to information, especially in relation to emerging stresses and shocks. For example, respondents cite that during the American locust infestation, they could not get agricultural extension service on how best to protect their harvest.
- Due to shoats' disease and a lack of quality vet clinics in the area, many shoats died without treatment, and farmers lost their households' means of living. Respondents' families are not keeping up livestock hygiene due to soap price increases, and they are replacing unaffordable food (e.g., teff) with enset (false banana), maize, and sorghum.
- Access to electricity has become a real challenge for dairy farmers. Due to frequent and long interruptions of electricity, dairy farmers failed to preserve milk, which means they could not sell it to local café owners.
- Dairy farmers recounted deaths of calves due to lack of access to support from regional and district level veterinary service providers. Respondents said that local animal vet clinics have yet to identify the disease affecting the calves. To mitigate the death of cows, some farmers replaced the modern breeds with the local breed, which are more disease resistant, but have 50% lower milk yield.
- Access to financial services was said to have resulted in loss of income, where some businesses are forced to raise money from personal finance. Fund-raising is a difficult process, as the members of the enterprises did not have a positive cash flow. There was also no available financial support from the local government at the time to bridge the gap created by the losses.

Generating cash

The Jimma Cluster seems to have a greater diversity of commercial or emerging commercial agricultural market systems, which in general indicates that it should be easier to generate cash when needed. The respondents cited how diversity has helped them manage challenges by shifting to selling labor, producing other products, starting non-farm businesses, and so on. Maybe another indication of the benefits of having such diversity is that respondents provided no indication of negative coping mechanisms, such as selling key assets to generate cash. For example, one respondent shifted away from coffee seedling production and sale to horticulture seedling production and sale as a way to improve their ability to generate cash. However, as with the concerns related to accessing input, respondents also indicated that various factors and forces—including conflict, government policies, inflation, climate change and erratic weather patterns—are reducing the ability to access cash when needed. Examples include the following:

- Respondents from multiple market systems cited challenges with transport from cost, security, poor quality, to bans and roadblocks. They have trouble getting their produce to market, which is limiting their cash flow. For example, banana farmers cited a recent situation in which high transportation costs and difficulty transporting bananas primarily stopped them from taking their crop to the town market for sale. Another example was from grain and vegetable farmers, who said some routes are very risky around a river crossing, preventing them from selling their produce at lucrative markets.
- Poultry farmers cited the seasonality of poultry production creates an oversupply, which hurts their cash flow. Respondents tied this also to the overall challenges in poultry that are making it increasingly less attractive. Another is the higher costs of production without any relative increase in end-market prices, which means there is very little or no margin from poultry farming.
- Coffee farmers cited issues with costs of inputs, itinerant traders, and access to diversified buyers have made it difficult to sell coffee at a price that generates a good margin. Respondents indicated that it is getting worse, creating uncertainty around relying on coffee as a source of income.
- Respondents indicated that when they need to generate cash, and their farming activities were not generating enough cash, they shifted to selling labor or producing charcoal, or asked friends and family for loans. Respondents indicated that they also access formal financial services, but that this is not an easy process.

External support

For respondents accessing support in response to shocks and stresses, there is less reliance on friends and family networks compared to other clusters. Respondents indicated that they were quite active in requesting support from the local and district level government, even though most cases

resulted in a limited response. Respondents cited two shock-related responses where district and regional government support was useful: the regional government reduced tax rates during COVID-19 and provided nets medicines during a malaria outbreak. In addition, respondents indicated that district vet centers regularly provide support, including distribution of vaccines, but during a recent disease outbreak among dairy cattle they were not able to help. The general perception from respondents is that at times district and regional government support and social safety net services are available and helpful, but they seem rare and inconsistent.

Coffee farmers perceive that the lack of support, even during hard times, is due to the perception that coffee farmers are all well off. Respondents cited examples where they asked for support on federal and regional government pricing policies, access to new buyers, technical assistance related to seedling growth and more, but in most cases, support was not forthcoming. As a result, coffee farmers seem to rely more on kinship networks, coffee associations, and/or a local NGO (NABU). Although there seems to be no coordinated or formalized supporting structure for the coffee market system, coffee market actors tend to cooperate and adapt to solve problems. Respondents cited efforts to shift some production to other crops, seeking new buying relationships, improving old or trying new farming practices, and more.

Respondents also indicated that they do rely on donors, such as USAID-funded activities, church groups, other NGOs, and community members, to manage challenges. Respondents cited a recent Feed the Future activity as helpful in providing support, but once the activity ended there was no local option to access similar support. Other respondents cited various times when local church groups provided food and other support for families that have run into trouble. Other respondents cited access to NGO handouts for farming tools, seeds, and even equipment (e.g., a thresher was cited by one respondent). Although the respondents do not seem as reliant on communal social networks as in other clusters, they did cite a few examples when community members came together to provide support. Respondents indicated that such support was helpful, but they also mentioned that much of the support was context- or time-dependent and not something they could rely on long-term.

Respondents indicated that they also get ad hoc support from other market actors, such as other farmers, service providers, and buyers, and find it helpful at times of stress, especially as various forces and factors have made farming activities harder.

4.4.3 MARKET SYSTEM RESILIENCE

Although respondents indicated that market systems are becoming more fragile as the result of various forces and factors such as inflation, government policies, and conflicts, they also indicated that they are proactively seeking out ways to overcome or compensate for such stresses. For example, one coffee association decided to diversify as coffee production has become less attractive and, in many ways, more uncertain. The association cited its plans to invest in various businesses, including poultry, while also supporting members to start businesses or take on full-time jobs.

Although not all respondents seem as proactive, the patterns of being proactive to ensure and grow their income seems clearly different in Jimma Cluster as compared to other clusters.

Internal market system coping mechanism

Individual market systems in the Jimma Cluster are facing challenges, but respondents did not indicate that any market systems are at a point of failure. Further, respondents indicated that when a challenge emerges, they work together to seek a solution or a way around the issue. The six market systems most often mentioned included the following:

- **Coffee:** The coffee market system is most often identified by respondents as the most important commercial crop. Indications are that it is also more sophisticated, given the maturity of the seedling function and the behavior patterns cited by coffee market actors, including how they seek knowledge about issues, adapt to market forces, and cooperate in response to stresses. At the same time, the market system is struggling with forces and factors that are squeezing seedling production. Respondents from the seedling function mentioned struggling to make ends meet, indicating that some seedling producers have shifted away from coffee seedling production. Although less severe than indicated in other sectors, coffee farming respondents cited federal government price controls and taxes as having a negative effect on margins. Coffee farmers also cited issues with accessing new buyers because federal government-controlled channels seem unattractive. Although some respondents indicated they plan to leave coffee production for grains or horticulture, most respondents indicated that although they may diversify, they intend to stay producing coffee. Overall, coffee is struggling a bit, but increased diversification into more niche, single-source channels, as well as improved, industry-level support services, could help stabilize and set the stage for faster growth as the challenges lessen.
- **Poultry:** The poultry industry, similar to other clusters', is struggling. Jimma Cluster respondents cited the same factors, such as fragility in the day-old-chick function. For example, one respondent stated, "EthioChicken is the only supplier in the area and could not address the demand of its customers on time. According to the informants, EthioChicken delivers chicks and chicken feed 3 months after they make payment." Additionally, the distribution channels for chicken farmers are starting to become more chaotic, according to respondents. Respondents cited examples of itinerant traders selling birds at below cost level, which the respondents perceive as the result of farmers and traders selling inferior birds that have not been properly vaccinated. Respondents indicated that quality assurance, even from local agricultural offices, was not compelling for buyers that decided to buy when considering only price. Another stress in the poultry market system according to respondents is that the cycle of raising chickens often resulted in a temporary oversupply of chicken, driving prices down. Greater diversity within the day-old-chick function, and the emergence of a more structured supply chain in which high performing farmers can participate, could help to improve the current fragility.

- Dairy:** The dairy industry is also facing various challenges related to access and costs of inputs, including feed and veterinarian services and products. At times, respondents cited poor access to vet services during disease outbreaks that caused some of the cows to die. One respondent shifted to a local breed, accepting the lower productivity, with less of a chance of dying. Other respondents noted that dairy farmers facing the high cost of feed shifted out of dairy production to other, more commercially viable farming activities. They also indicated that they do not have many channels for selling their milk, so are often at a disadvantage when negotiating with local cafés that are the most important buyers. Respondents in one area indicated that they have no large buyers in the region with which they can develop relationships. The dairy market system seems less mature in Jimma Cluster compared to coffee and even poultry. But, assuming growth potential, diversifying market channels to include more structured channels with processors or supermarkets, as well as improving the feed and fodder production and distribution networks, could substantially improve the market system resilience of dairy.
- Wheat:** As with other clusters, the major challenge with wheat is the role of federal government priorities. According to respondents, the federal government wheat initiative requested the union to prioritize the harvest of wheat, which led to a decline in the production of other crops. In addition, the federal and regional government fixed the price, which is encouraging farmers to hold on to their crop, which respondents think could be a problem. The unions are legally obligated not to purchase any of the crops above a certain price and this has become a challenge for the union and an opportunity for illegal buyers.

Government involvement in fixing prices resulted in loss. For example, we purchased wheat last year and stocked with a higher price from members. Now the government fixed the price for the wheat and the difference per quintal is around 1,000 birr. We have around 3,500 quintals and the damage is going to be significant for the union.

Wheat-producing cooperative, SNNPR, Chena woreda, Mizan Tepi

The role of federal and regional government seems to increase fragility in the wheat market system, and it is unclear from respondents the extent to which the squeeze on farmers and unions will result in a substantial retrenchment with farmers and unions shifting out of wheat.

- Maize:** The maize market system seems to be limited by the lack of diversity in market channels. Respondents indicated that they are happy with productivity, but struggling with selling their maize. For example, one respondent said, “In the last 3 years, we don’t have market linkages to get a fair return for our maize. We don’t have any complaints about our harvest, we were getting a good harvest of 64–68 quintals of maize per hectare of land, but

due to lack of transportation we couldn't benefit from the yield." The open or spot market structure and interactions seem to be creating adversarial relationships, especially involving brokers.

- **Horticulture:** The horticulture market, including vegetables and fruit, in Jimma Cluster is relatively diverse, with a wide range of crops, including onion, avocado, sweet potato, enset (false banana), banana, potato, cabbage, papaya, and mango. Although respondents mentioned all these crops, none indicate that these were their primary income generating crop, as was clear in coffee. At the same time, these crops are referenced as important for diversifying income and risk, related to what they perceive as their core crops. Respondents indicate that inputs, including seeds, seedlings, and crop protection, are becoming expensive and, at times, hard to access, which is an indication of fragility. At the same time, the maturity and sophistication of the coffee seedling function could be emerging as a catalyst for some crops like papaya, avocado, and mangoes, because some coffee seedling producers are shifting to producing and providing seedlings for these crops. Access to high quality seedlings is often an important element of a competitive tree-fruits market system.

Social safety net coping mechanisms

Unlike in other clusters, respondents did not focus on the importance of kinship networks in response to shocks and stresses. While it was clear that kinship networks are important, the respondents indicated that they rely more heavily on market mechanisms. It is likely that such a difference in Jimma is a reflection of the increased wealth/financial resources that some households and market actors have accumulated from participating in more commercially oriented market systems and less exposure to severe drought and conflict-related shocks. There was consistency in viewing government as providing some support, but there is also the perception that who gets support and when seems to be arbitrary. For example, respondents identified regional government support during a recent malaria outbreak, but did not mention similar support during floods. They mentioned other support, but often only after they had requested help on market-related stresses such as livestock and pest outbreaks. Respondents indicated that they are not aware of a formal or transparent support mechanism for communities or businesses when a shock or stress emerges and their responses predominantly related to individual proactive problem solving. Respondents go look for markets, shift to new or different agricultural products if margins seem better or more reliable, seek out solutions to disease issues with animals or pest issues with crops, and intentionally diversify in response to emergent challenges (especially with coffee). This pattern is consistent with the MSR framework, indicating that respondents are more reliant on individual family income generation to manage their risks when markets are more developed, as opposed to other clusters where kinship networks and social capital within those networks are more important.

Structural domains

Connectivity: Respondents indicated that although connectivity is weak in some contexts, they often seek out new commercial connections if needed. For example, respondents engaged regional

government offices about price-setting challenges and pest or disease outbreaks; they engaged financial service providers for loans when needed; they traveled to new markets to sell crops. Other respondents indicated that they did not have connections with government offices, and have limited connections to inputs (e.g., day-old chicks via EthioChicken) or even with government run vet center, and they sell their production via one spot market or market channel. All of this indicates limited connectivity. For example, poultry and dairy respondents both indicated increased fragility as a result of having only one connection with a specific function. In poultry, it is with the day-old-chick provider, and in dairy it is with local cafés that buy their milk.

Respondents also indicated that some are able to develop connections to support services such as financial service providers, and others are not able to or perceived it to be impossible to make those connections. In all, connectivity seems to be mixed. Respondents indicated that various shocks and challenges have dampened connectivity over the last few years, including COVID-19, the conflict, and knock-on market challenges (e.g., inflation, access to markets, government policies on price setting). Jimma Cluster, more than the other clusters, demonstrates potential attractors of change toward large group dynamics such as commercial orientation, solution-seeking behaviors, and willingness to improve connectivity.

Diversity: Respondents indicate limited diversity related to input products and services.

Respondents indicated a reliance on local/district government vet centers, as opposed to a diversified market for private veterinary services. In one case, a respondent said that the local vet center was unable to solve a disease outbreak with their shoats; they had no other option, so most of their shoats died, and they shifted out of shoat production. Respondents also indicated that the district government has limited diversity in certain market channels for wheat. In other cases, such as dairy, respondents also cited a lack of diversity in market channels, but it seems the lack of diversity was more an indication of immaturity, not due to government control. Coffee, which is the most commercially mature crop, seems to be experiencing challenges that are reducing diversity in seedling producers, but could also be seeing a growth in diversity in market channels. Respondents did indicate that the seedling function, partially due to government policies and market conditions, is struggling and market actors are leaving the function, indicating a reduction in the number and types of seedling businesses. Coffee respondents also indicated that they were seeking new market channels suggesting increasing diversity, but the process has been slow and difficult. Respondents seem to be entering horticulture as a way to diversify out of coffee, and indicated that there are opportunities in a variety of horticulture crops and market channels. For example, some coffee seedling producers stated that they are shifting to produce seedlings for papaya, mango, and avocado. One horticulture market actor recounted shifting their business model to go directly to customers, especially the hotels and other institutional buyers, to showcase their vegetable products, seedlings for fruits, and flowers. They also indicated a level of sophistication when mentioning the use of modern marketing and communication tools such as printed business cards and the use of social media to promote their work. There seems to be market forces and factors that are pushing increased diversity in the Jimma Cluster, but other forces and factors, including the local district

government, are dampening those signals and incentives, which seems to be slowing increased diversification.

Power: Respondents indicated that there are nodes where power is concentrated within their market systems. For example, in poultry it seems to be with the day-old-chick function, because there is only one provider in the region. In dairy, respondents cited cafés as the major buyers of local milk, so they have a lot of power to set prices and demand concessions. In other market systems such as coffee, horticulture, honey, and grains, respondents cited various local government offices and departments as having the most power related to their business. In wheat, respondents indicated the district government requiring them to produce and sell to them. In coffee, respondents indicated price controls on seedlings, taxation offices, and police checkpoints as all having power that affects their business in important ways. Another respondent cited a case with the revenue office related to licenses that pushed him to leave the honey business. Other respondents indicated a different effect from the district level government not asserting power; they cited the emergence of illegal traders who are starting to have an increasing influence on formal trade flows because they operate without licenses, and typically do not meet quality assurances required by district level government offices. These reduced operating costs seem, according to respondents, to provide them an unfair advantage. Interestingly, respondents did not indicate a dominant pattern of power being wielded in extractive ways. At times, they did say local government was heavy-handed and applying the power in ways that was unhelpful to them, but they did not indicate it was for extractive purposes or with corrupt intent. As a result, although power is overly concentrated with local government and market actors or functions and there is not enough diversity and competition, there do seem to be opportunities to address the issues through improved connections and discussions because the intent does not seem to be wielding power to keep and grow power.

Rule of law, policy, and regulation: Respondents indicated there were some rules and laws especially around formal operations and quality control. For example, licensing was cited as useful to ensure traders and other businesses are operating formally and on a fair and level playing field. The concerns related to illegal traders were an example respondents cited where licensing was important and should be enforced more effectively. Respondents also indicated that policies that favor associations are helpful. Although there could be resilience considerations related to pushing smallholders into similar organizational structures, respondents did indicate that policies in support of associations and cooperatives are helpful. Respondents indicated that there were various rules that were helpful, such as special tax exemptions for associations, unions, and microenterprises. Respondents rarely indicated that they were involved with or engaged around rules or policies, suggesting a lack of participation in or participatory processes for managing change over time.

Respondents also indicated a range of unhelpful rules and policies. For example, respondents indicated that more rules are needed to provide quality control, such as artificial insemination practices not having effective quality control, which is hurting the livestock industry. Respondents also indicated that regional and district level government involvement in price and other types of controls on market activity can be unhelpful. For example, the central government initiated

industrial park shifted its focus to agri-processing; respondents indicated that the idea was good, but the implementation was not. Respondents indicated that there was a lack of a business orientation or capacity, with the perception that processing opportunities like avocado oil are very good, but are not going well at the industrial park. Another more problematic example was from maize farmers. They were felt forced to produce wheat and then sell it to the federal government through the agricultural commercial cluster (ACC) initiative, which they felt reduced their return on investment. Maybe the more important indication from respondents is the lack of engagement around policies and rules suggesting that e-government often works in isolation from its market actor constituents.

Rule of law for disputes: Respondents indicated that disputes do emerge, but most of the time they are handled between the actors involved. There were a few incidents where disputes escalated, related to market actors not fulfilling basic requirements during a transaction. For example, there were a few cases where feed was provided that seemed to be of poor quality, including one case where chicken feed caused sickness in the birds. The disputes were eventually resolved in ways that seemed acceptable to the market actors involved. One case went through the formal court system and was eventually resolved. Respondents indicated that they had faith in formal disputes resolution mechanisms. Respondents also indicated that there were very few indications of patterns that show extractive or intentional behaviors to capture margins in ways that were unfair or deceitful. Patterns indicate that there is a general perception of rule of law, and when disputes arise they seem to be managed in ways that are transparent and fair, based on an agreed set of rules and norms. Although there was some indication, such as in the Kefa community, that local customary dispute resolution norms are important, most respondents relied on more internal business or formal mechanisms to manage disputes. Overall, there were very few indications that rules and norms are wielded to favor the powerful and connected.

Behavioral domains

Competition: Respondents indicated that, as with connectivity and power structures, poultry and dairy market systems have become more fragile due to functions that do not have enough competition. Coffee respondents indicated that the open market channel seems to have some level of cartel-like price setting, but they also indicated that farmers have agency to not sell. Coffee respondents indicated that illegal or itinerant traders are disrupting the open market channel because they are often willing to pay higher prices than the local traders have agreed to pay. Respondents indicate that the itinerant traders are competing unfairly because they do not pay for licenses or other requirements. Beyond these cases, respondents indicated that competition is primarily based on value and merit. Outside the case with itinerant traders, respondents did not indicate competitors attacked or competed in underhanded ways. Respondents also indicated that when faced with a competitive challenge they did respond with efforts to improve internal performance. For example, seedling respondents indicated they are constantly looking to improve performance in seedling survival and yield as a way to gain and keep customers. Although market actors in the Jimma Cluster seem to focus on competing in healthy ways, the role of local government does seem to be

constraining or dampening competitive pressures in some market systems that seem increasingly fragile.

Cooperation: Cooperation, especially along retail distribution networks and supply chains, seems healthy, according to respondents. For example, respondents cited how veterinary service firms exchange information with each other regarding the quantity and types of products in stock, including sharing stock at times when a customer needs a product that one veterinary service provider lacks. Another example provided by respondents is the level of support they gain from associations and unions that act as aggregators and provide farmers with training and technical assistance to improve their productivity and quality of crop that the association or union buys. Respondent farmers from Chena, an Oromifa-speaking region of South West SNNPR, also indicated that they cooperate well with each other, especially during production and harvest, which they referred to as *debo*, a communal norm to work together. It should be noted that Jimma cluster includes a wider range of communities so while ‘Debo’ is important for cooperation in some communities, other communities may have different cultural traditions and norms. Although market actors, according to respondents, do seem to manage a balance between cooperation and competition, at least in Jimma, and that improves market system resilience, cooperation with the local government was less healthy and, at times, seemed to lead to increased fragility.

Business strategy: Most respondents seemed to have a strong focus on gaining insights into and tracking prices. Such focus on short-term price fluctuations could indicate a lack of diversity in types of channels (e.g., spot and open markets), and could also indicate that market actors are overly focused on trade-based business strategies.

At the same time, respondents indicated that they invest in business capacity to improve value addition and generate growth. For example, respondents indicated investing in technology and knowledge to improve productivity and quality of the crops/products/services they provide to customers/buyers. Maybe more important are two respondent patterns: The first is a pattern of responses related to marketing and market research to find new market channels for their crops, especially coffee. The second respondent pattern is related to a clear willingness to diversify, based on the health and future performance of their business. This pattern indicates a focus on commercial performance or a strong commercial orientation where market signals would be highly influential on how market systems are evolving. From an MSR perspective, these two patterns indicate a systemic adaptive capacity based on market forces and factors that could allow market actors and market systems to more effectively allocate resources in response to signals, including signals from emerging shocks and stresses. For example, respondents cited a need to diversify out of coffee and, most often, into horticulture, suggesting trouble in coffee and opportunities in horticulture. From an MSR perspective, such patterns indicate an emergent systemic ability to balance and rebalance over time in response to market signals, including an ability to limit any over-reliance on a single crop or type of livestock.

Decision-making: Decision-making by local government is identified as a concern according to respondents. Although respondents perceive government intentions as genuine, they also indicated that government rarely took their perspective into consideration, and there was little indication that government tracked feedback on, performance of, or impact of their decisions and policies. Many respondents indicated they were part of an association, but most interactions cited were related to the association acting as part of core function, such as selling inputs or buying and aggregating crops. There was very little indication of associations advocating, researching, or engaging in noncommercial activities and services.

4.5 SOUTHERN CLUSTER

Key findings

- Diversity in livelihood options (wide range of crops/livestock) facilitates proactive adaptation based on shocks.
- Power rests with key players but does not interfere/extract; limited feedback provided to government results in misalignment with market needs.
- Cooperation relatively robust but limited among smaller businesses.
- **ETA Opportunity:** Formalize and expand networks to be more inclusive and robust; leveraging diversity of products/services to develop more growth-oriented business strategies that include shock-preparedness (rather than coping by limiting investment).

4.5.1 SOUTHERN CLUSTER SUMMARY

The Southern Cluster lies within the Oromia and SNNP regions and covers the cities of Adama Oromia and Hawassa, as well as Lume and Teda woredas in Oromia, and Wondo Genet and Malga woredas in SNNPR. The cluster includes Hawassa as a key regional city, which is situated on the eastern side of Lake Hawassa, around 300 km by road south of Addis Ababa. It should be noted that the Southern Cluster is made up of range of very different regions include a more commercialized farmer block, as well as less commercialized agricultural areas. At the time of writing, the Southern Cluster is dealing with a broad range of shocks and stresses across all agricultural sectors, including repeated seasons of failed rains in part of the cluster. Other key recurring shocks and stresses with both regions of this cluster include reliable access to quality affordable inputs, market volatility in the sales prices for their produce, and spillover effects from various conflicts around the country, including road closures and insecurity. The cumulative effect of these constant stresses to healthy market function has been an overall deterioration in resilience, with producers and businesses citing a range of specific impacts on their livelihoods.

The business community in both Oromia and SNNP regions are typically frustrated by a lack of confidence in being able to forecast the future, preventing them from investing in both their core business and growth opportunities. At worst, this problem is causing businesses to operate at a loss and eventually close, although those more able to adapt simply operate below capacity. Businesses

also reported below-capacity operations as an impact of not being able to access the imported equipment and machinery they need to increase productivity. Respondents reported that some issues get solved for a while before the next shock and then they are pushed back again; for example, a section of roads might be repaired one day only to find out soon after that access was blocked due to security concerns. It seems as though the impact of each specific shock and stress varies in how it affects each enterprise, but for most actors the cumulative impact of so many persistent shocks is increasing, and in some cases it is becoming too much.

Producers in each region naturally reported impacts from the same shocks and stresses, being both impacted directly in their farm activities, but also impacted by the shocks facing their input supply system and their market. Many farmers reported the combination of difficult production conditions, high input costs, and volatile market prices for their produce were making farming unprofitable. Producers would first sell productive assets and many families reported skipping meals. The Southern Cluster is also more densely populated compared to the other clusters, and while respondents did not expressly indicate population density as a factor, it is likely a factor that influenced responses.

4.5.2 MARKET SYSTEMS AS SOURCE OF HOUSEHOLD RESILIENCE

Access to products and services

Availability and affordability of products and services in the market system is of course critical to all market actors in the Southern Cluster, both the Oromia and SNNP regions, as it is everywhere else in the country. Unfortunately, a lack of access to the products and services most critical to all focus sectors has become one of key drivers of market fragility across the region. Beginning with core regional government services such as water, road access, and energy, many respondents report inconsistent access. Water shortages are causing issues for producers and processors alike, while unreliable power supplies are causing spoilage and a lack of confidence by production firms. Road access is also reported to be interrupted with a combination of poor maintenance, malicious or accidental damage, insecurity at checkpoints, and district and regional government bans on travel.

These enabling factors affect the availability of specific products and services in the marketplace. A scarcity of core inputs were regularly cited by respondents from all industries, both among producers and business owners. For producers, inputs including food, medicine, and seeds are not reliably available in the market place, and when they are available, there are issues of quality and affordability. Many producers cited these costs alone as the key drivers of unprofitable farming. For business owners, such as those supplying inputs, they too are struggling to access the products and services they need. Feed production industry representatives for example reported issues with the cost of raw materials, costs of imported supplements, and their inability to import manufacturing equipment.

Blockages in accessing other important services were also mentioned, primarily by the business community, including for financial services, transportation services, and regional and district level governmental land tenure processing services.

These access issues are directly leading to an increasingly fragile collection of agricultural market systems. Producers and other business owners are in a pattern of coping, adapting, and surviving, with their buffers and reserves dwindling without being restocked. Output within most industries is decreasing, along with profitability.

Generating cash

Farm business operators have always generated their cash from production of their primary product, which among the respondents in the Southern Cluster was a mixture of livestock, horticulture, legumes, and grain crops. As margins are being squeezed at both ends for producers, the cash generated from farming is said by many to be insufficient to meet household consumption needs. Most producers say that very little of what they have been doing for decades has changed with regard to their farming practice, but simply that what they have always been doing has more recently become less profitable. Their options to pivot within agriculture or even grow other crops are limited due to the lack of choices around inputs and the reality that most people can simply not afford to take any new risk. One successful example of a pivot in production was a cattle farmer who shifted to sheep and goats because they had calculated better margins for a hardier and less feed-dependent animal. So far the farmer has been pleased with their decision.

Alternatives in generating cash included some petty-trade side businesses and home-based shops, such as making bricks, making shoes, or wage employment. The latter was a recurring answer with people looking for anything between part- and full-time options within formal and informal industries.

4.5.3 Market System Resilience

Internal market system coping mechanisms: The coping mechanisms for producer and business in the Southern Cluster are almost entirely absent of any effective formal social safety nets. Market system actors are almost entirely forced to look internally to their own reserves, each other, and family and friends. One important market-based coping mechanism is the provision of financial services during times of need. In the Oromia region of the Southern Cluster, banking services, particularly loans, were sometimes cited as a support option, but these examples were usually counterbalanced by stories of lenders charging untenable interest rates or simply being unwilling to lend, even to relatively stable enterprises.

I asked the Development Bank of Ethiopia for financial support, but their policy only allows dairy farmers who participate in milk processing to receive loans. I let go of this opportunity because I don't have the experience or exposure to get into processing business. Normally the dairy farm capacity can only supply 15% of what the processing company would need. This means I would have to get milk supply from other farmers; and that poses a threat as it is difficult to get that amount of milk with the required quality.

The reason I asked for a loan from DBE [the Development Bank of Ethiopia] is because I have the vision of starting a processing facility within 4 years, to grow all the necessary inputs for feed processing and to sell it to other farmers and use some for my own.

Agricultural input supplier, Oromia, Adama

The three key market systems referenced in the responses included the following:

- **Poultry (meat and eggs):** Poultry seems to be characterized by significant bottlenecks at the producer level in available inputs, namely feed, medicines, and chicks. Producers also face a volatile output market where demand and prices fluctuate, meaning that producers are also price takers in most circumstances. These two key factors combined make poultry farming very challenging for the average operator.

When selling, the price depends on the market; and the availability and demand for eggs at the time determines the price of the product. Studying the situation, I set a negotiated price with traders who buy them in bulk.

Poultry farm owner, Oromia, Adama

The constraints on inputs each cause slightly different knock-on effects for producers and the overall system, but all result in a sector that is fragile and seems to be trending worse. Raw materials for feed and imported supplements are difficult for local feed producers to access, and due to the shortage they are able to control the price for poultry farmers. Many respondents cited that the high price of feed alone is often almost enough to make poultry farming unprofitable. When it comes to medicines, these add further pressure to an already tight margin at the producer level, and when there is a disease outbreak such as the Newcastle virus, neither the producers nor the suppliers are set up to respond, resulting in large numbers of birds lost. Underpinning both these constraints is the lack of access to day-old chicks, which remain in such high demand, despite the relative unprofitability of the sector, that suppliers can set prices, demand upfront payment, and make producers wait for many months for back orders to be fulfilled.

When it comes to relationships between poultry producers and buyers, interactions seem largely adversarial, with traders looking to capture short-term margins rather than investing in their supply chain. As a response to this, and to offset profitability pressures from high input costs, farmers are always looking for additional margins in selling their produce, as opposed to looking to become longer-term, trusted suppliers. Respondents shared that most farmers prefer to sell eggs individually at a 10% higher price, rather than selling bulk to traders. Typically what this means is that farmers are unable to specialize in highly refined and profitable farming practices, instead being forced to spend their time chasing limited markets for individual eggs at fractionally higher prices.

- **Dairy from cows:** This sector struggles to remain profitable due mainly to high feed prices, but is also hampered by a lack of quality veterinary products and services. Volatile demand, conflict, and road closures put constant pressure on pricing. Further, and although cold chain storage and transport is unreliable, only a small quantity of the dairy produced is able to be processed into items that do not need it (longer-shelf-life dairy derivatives such as butter, cheese, and yogurt). Notably, demand for dairy products is still high across the country and producers are often faced with so much demand from processors looking to secure their supply of raw materials that they are ration their production between multiple buyers in order to keep them all. Sadly, the lack of predictability and tight margins counteract this demand, and the system remains fragile.

Commercial dairy farm tried to save on inputs but then lost productivity

When feed got expensive, a dairy farmer in Hawassa started mixing and processing roughage feed in her farm. She buys straws from different crops and mixes it with concentrated feeds she gets from suppliers in Bahir Dar, Alema Kowdijs, and other places. Calcium is also bought from the Arsi area to keep the cows strong. Her employees are not trained professionally in feed mixing or processing, but they learned from YouTube the ratio of input amounts in the mixing.

When milk production dropped or cows kept dying due to insufficient nutrition, she hired a full-time veterinarian to monitor and pay attention to the cattle constantly. Though the veterinarian has the qualification certificate, he has been largely ineffective in improving the mortality rates and she believes she has a better knowledge than him through experience.

- **Crops (including legumes and grains):** Crops are seeing fewer internal coping mechanisms than optimal, which is resulting in an increasingly fragile grain sector. There was little evidence of buyers investing in their supply chains or working with them to generate a product with the maximum possible value, which would be a key indicator of a robust commodity sector. Instead respondents typically reported the opposite, with grain producers being forced to accept prices offered by buyers who failed to communicate their

requirements to suppliers, or who intentionally generated unfavorable transaction terms to extract more value from transactions.

I proposed to sell the factory 10,000 kg of barley in December 2022. However, when it was graded by the factory experts, it was graded as level 6 [an undesirable level]. Since the factory refused to purchase it, my only alternative was to take it back to my home. Remarkably, a single trip from Guguma to Assalla costs 27,000 ETB [Ethiopian birr] per trip because of serious road infrastructure issues. I paid the same amount when I returned home without making any sales. As a result, I took my barley home, losing 54,000 birr without making any sales.

Representative, Barley Farmer Cooperative, SNNPR, Malga woreda, Guguma kebele

Grain crop producers, like all agriculture sectors in the Southern Cluster also lacked access to quality affordable inputs including seeds, fertilizers, and agri-chemicals.

Social safety net coping mechanisms

As with most clusters, the dominant form of social safety net coping mechanisms were informal, based on networks among family and friends. Despite this, programs like the Productive Safety Net Program, a large federal and regional government approach with substantial donor funding and USAID investment, are contributing to social safety nets, and NGOs were often cited as providing basic services and distributing aid. There were examples given on NGO programs distributing basic household and agricultural products that people needed in the short-term, but no evidence that any changes in market systems have emerged so that people can access or afford to invest in what they need for their business.

Five years ago, World Vision had a pilot project for 2.5 years where they supported medicine and medical material in Malga and Wondo Genet areas. The medicines provided were very essential and helpful. An example to this is the scenario where one woman had a cow that suffered from calcium deficiency, which is a common problem for high-yielding cows in the area and was saved by the medicine provided by World Vision.

Dairy farming group, SNNPR, Malga

SNV had a project called Edget where they provided calf feed and milk jars for free before the COVID outbreak. After the Edget project phased out, the bridge project replaced it. In the bridge project the support was by subsidy rather than free. The project supported farmers by providing feed for calves and pregnant cows through subsidies where the farmer is supposed to contribute some amount of money. Another way of support was by giving selected farmers training and sending them up-to-date information in audio and pictures.

Dairy farming group, SNNPR, Malga

USAID's Feed the Future program...used to provide feed, chopper machines, molding block machines, cream separator machines, eating plates and milk containers for the cattle.

Dairy farming group, SNNPR, Malga

In terms of support from the local community, family, and friends. Generally, people tend to receive financial aid from friends and relatives to help them recover from the shock they experience. One of the key modalities is called *equb*, which is a traditional, informal saving and credit scheme with the purpose of helping one another through a rotation mechanism.

Structural domains

Connectivity: In terms of relationships and networks with key actors and support services in the various market systems, connectivity shows some signs of relative diversity. However the lack of depth among commercial relationships is a concern for long-term resilience, with a majority of connections seeming to be within more informal, communal, and less reliable networks. Respondents cited connections with regional government bureaus as their key source of information, technical support, and even financial support. They also mentioned NGOs and cooperative unions providing technical support. Some connections with financial service providers were mentioned, as well as the necessary connection to buyers and suppliers.

Diversity: Diversity within most sectors was defined in a relatively narrow sense. Few producers, traders, or retailers reported much scope for variety in their product offering, and during times of stress are generally not able to pivot their business strategy effectively. Coping strategies, even for businesses, look like negative coping strategies at the household level, where respondents describe sale or temporary monetization of productive assets as a response to short-term solvency issues. One company resorted to renting out their fleet of land cruisers as a way to generate quick cash during periods of low productivity, as opposed to being able to explore opportunities to adapt the places and ways that their core products were sold. Most farmers were in a similar position when faced with shocks and stresses; successful attempts to pivot, even at the cooperative level, were not common.

Normally the cooperative sells milk inside their compound. Hoping to scale up the cooperative's capacity, we have tried to open a shop that sells milk in Mojo City [while] covering our own transportation fee, but it was a failed attempt due to high competition in the area. Their competitors in the city did not have transportation costs as they were producing milk within their own compound, hence their price was lower than what the cooperative was selling on.

Representative, dairy farming cooperative, Oromia, Lume woreda, Dhade

However, there were examples of businesses adjusting their strategy or farmers pivoting to alternative crops in response to factors such as drought, flood, and market volatility. Farms switched from maize to avocado, and poultry producers changed from eggs to meat in search of improved profitability amid changing climatic conditions.

Pivoting crops in response to drought

In their 50-hectare land, EMMS General Agricultural Development PLC in Hawassa recently allocated 30 hectares to the production of mung beans, known locally as *masho*. The new crop was chosen for its tolerance to drought conditions, which is due largely to its short growing cycle, and is ready for market within just 3 months.

To begin with, they planted it as a cover crop—something that would fix nitrogen and improve soils during the off season rather than letting the land sit idle. However, the crop itself soon proved profitable and they quickly found a lot of success with it. As a result, growing mung beans became a temporary fix for them while they completed the irrigation infrastructure necessary to produce their core crops again, namely agricultural seeds for haricot beans, green pepper, fruits, and vegetables. The remaining 20 hectares of land is being prepared for the fruit production.

Power: Within most market systems, power seems to be concentrated in the hands of the biggest players, along with those who can control the market forces for whatever they are buying and selling. Large feed producers were mentioned by respondents, given their ability to control supply; large processors for various commodities were also mentioned, given their ability to control demand. Brokers and traders were also cited as having excessive power in some instances, and wielding it to extract margins on trades.

Respondents indicated that concentration of power within the regional government and the way that the power is wielded is concerning. Specifically, they referenced taxation, licensing, price setting, and heavy-handed influence exerted via regional government-connected and -owned corporations.

Since the corporation is a government development organization, the involvement and interference of government bodies are very high. Guidance given by government authorities has to be strictly followed. For instance, recently the government has given orders for focusing on the production of wheat, thus, they are not free to engage in other crops even if they think they can make better profits. Despite being a business organization, it is not free to go out from the boundary set by government.

Representative, Sidama Development Corporation, SNNPR, Hawassa

Rule of law and government involvement: These were described in a mixed fashion by different industries' value chain actors that were interviewed. Most respondents described a range of engagement with the regional and district level government or impacts on their business, from government policies and regulations. The effectiveness of government performance ranged from very good to very bad. On the one hand, livestock producers reported that district and regional government departments provide them with information related to cattle health, breed selection, and nutritional requirements. Yet in the same interview producers also cited that they also provide cattle feed, a service that has been described elsewhere as unreliable and which may prevent more resilient commercial options.

There is no cooperation with the government because the livestock bureau officials don't have the knowledge about the livestock business. They are only appointed in their position because of political and ethnic reasons.

Dairy Farm Owner, SNNPR, Malga woreda

Cropping sectors in particular are the focus of strong regional government influence, where they are involved in the input supply network, setting prices through the commodity exchange, and even supplying land to producers with directives about which crops to cultivate.

Government cooperation is our most significant partnership. We are expected to contribute to the nation's food security and economic development now that we invest in big tracts of land (50 hectares), likely through agricultural transformation. In order to receive timely supplies of high quality seeds, our organization has a legal partnership with a government seed supplier firm.

Also, our organization receives assistance from the government's agricultural bureau and research facilities in order to become productive and fulfill its obligations through production. For instance, we are growing wheat on 30 hectares of land this winter in accordance with the government's directive to grow wheat for export.

Agricultural Development Company, SNNPR, Hawassa

Respondents cited some enabling laws and policies that were helping their business practices, including positive examples of quality control checks on milk production, lifting of value-added tax on poultry feed, and removing a ban recently imposed on the consumption of poultry eggs and meat in the wake of a health scare. However, these few positive examples were vastly outweighed by the long list of grievances, especially from the business community. Most complaints related to high taxation that was stifling agricultural growth, and extended to licensing and land tenure.

Animal feed tax should be lifted. It's the reason for an increase in meat and dairy products. Processing machine tax should be lifted. Currently we are using old machines that need four people to operate. If this machine can be replaced with a new one, it will only need one person to operate and will increase in efficiency.

Animal feed processing company owner, Oromia, Tede woreda, Degaga

Although most respondents from the business community elected not to disclose any negativity about disputes and dispute resolution, those who did revealed that they remain relatively common. Issues that were most commonly shared related to transaction arguments, typically with the buyer of a product becoming unsatisfied with what they had purchased. However, from the perspective of the business community, respondents cited a high degree of formality across the region when it came to contractual buying and selling arrangements and, as a consequence, according to those same respondents, disputes were typically solved easily without the need for external arbitration.

Sometimes disputes with bidders who do not fulfill the criteria of the bid occur. However, mostly since they include an article that "the bidder has right to cancel the bid partially or all in all," therefore if they cannot reach agreement they cancel the bid. As there are formal procedures and rules in place, they apply the rules, so disputes are settled before escalating to a serious conflict.

Representative, Sidama Development Corporation, Oromia, Adama

On the other hand, farmers were much more likely to raise current and past disputes. Producers shared examples of disputes among cooperative members when there was a substantial drop in sales. When this happens members tend to fall out of favor with each other and leave the group, electing instead to sell products individually. Livestock owners cited regular disputes with feed suppliers over the price of feed, especially at times when milk, eggs, and/or meat are harder to sell. It seems that producers who are typically more vulnerable than their business leader counterparts suffer disproportionately from market volatility, and given they have little buffer in their business models, they are forced to make desperate decisions quite quickly.

Producers said they are typically left to solve their own disputes directly with buyers or suppliers, but there have been some instances of mediation from cooperative, local government officials, elders, religious leaders, and NGOs.

Most of the time, we get into arguments with feed suppliers. The reason was deliberate feed concealment. The goal is to artificially create a shortage in order to obtain enormous wealth. Most often, some vendors will converse and bargain to accomplish that. By raising their prices, they sell a lot of feed to a select few big chicken farms and brokers and encourage sales through profit for individual poultry business owners and small-scale businesses.

Our friends with bigger poultry farms help us to solve the problem. They negotiate with the suppliers and make the purchase available for us smaller farms. In some cases, our friends voluntarily bought the feed they couldn't access.

The feed suppliers aim to take unfair advantage of their customers. They only attempt to maintain positive relationships with brokers and large farm owners. They work to forge bonds among one another while ignoring small enterprises. This causes disagreements to arise and a lack of confidence between the feed provider and the feed buyer.

Poultry producer group, Oromia, Tede woreda, Wonji

Cultural *afini* system for dispute resolution

Though purchase or sale disputes are not the norm, if they do arise, there is a cultural method of solving problems called *afini*, which is a system where one person informs the person next to them about what happened before trying to solve the problem on their own. The person who heard the complaint will try to mediate between the buyer and seller, and if they still do not agree, the price will be split in the middle. For instance if the farmer wants to sell milk for 50 birr and the buyer insists it is 40 birr, the mediator will decide on 45 birr—helping them meet halfway. This culture is very strong in the community and does not discriminate by gender or age.

The person who is assigned to be the mediator in the *afini* process will solve the disagreements. If it is a very serious issue, there is a traditional court system run by the elders of the clan. However, this is a last resort and very few cases ever get that far. The cultural *afini* system is effective to solve any problem.

(Information from the dairy producer group, SNNPR, Malga woreda.)

Behavioral domains

Competition: Among the sectors in focus within the Southern Cluster, competition is described by almost all respondents as relatively fair and transparent. At the same time, there were respondents that indicated that zero-sum competitive tactics or extractive negotiating practices are observed regularly in market places, which indicated that some level of unhealthy competition between market systems functions is visible.

Due to the apparent volatility and scarcity within all agricultural market systems, pricing mechanisms tend to be based on day-to-day market forces, where those on the right side of a supply or demand squeeze are able to set the price of what they were buying or selling to generate their desired margin.

This reality is most pronounced within the inputs sector, with the outright shortage of almost all farm inputs, including seeds, feed, medicines, fertilizer, and agri-chemicals. Prices are set by anyone who has stock of these highly demanded products. On the other hand, buyers for most agricultural produce still manage to set prices at the point of transaction in most cases, with producers typically not knowing what their price will be in advance of market day. There are examples where groups of producers, especially dairy farmers, are able to negotiate a price they need for milk based on the cost of production, but this seems to only happen in limited circumstances.

If it is for big-scale processors, the processors set the price and dairy farmers have to comply with it. For some other individual, small-scale processors who also do retail sales, there are negotiations on the price.

For example, when I used to sell his milk to Shola Dairy, one of the biggest processors, the price was set by shola themselves at 38 birr per liter. When I switched to a smaller scale processor, I negotiated with them to sell it at 45 birr per liter.

Agricultural input supplier, SNNPR, Hawassa

Cooperation: Among farmers, cooperation across the cluster is a fundamental practice, with strong ties between kin and wider ethnic groups. With the possible exception of poultry, most farmers seem to cooperate at some level in purchasing inputs, aggregating sales, sharing knowledge and resources, and/or forming formal cooperative arrangements. Cooperation for farmers, however, typically does not extend beyond peers, with few examples of healthy cooperation between producers up and down supply chains.

Among the business community also, cooperation seems limited to basic peer relationships, with some limited examples of small businesses working together with other small enterprises in their sector. There seems to be less ambition for more productive buyer or supplier relationships along value chains. As market actors, engagement with buyers and sellers is typically described as transactional, short-sighted, and aimed at capturing margin, with limited investment in longer-term or value-added relationships.

With traders, they sell their product to them in larger numbers. When the offer from one trader is lower than another one, they shift to the other for better profit.

Poultry farm owner, Oromia, Adama

Despite the overall negativity and lack of healthy cooperation, there are some examples of potentially productive supply chain relationships, albeit imperfect. These types of agreements are important precedents to draw on for future amplification of positive practices.

Supply chain agreement with a barley processing factory

The Malga-Guguma Barley Farmer Cooperative has a formal agreement with the Assella malt factory, a coworking relationship with regard to sourcing the barley it needs from the farming group. Assella sells the farmers seeds and buys back from them the barley they produce, with an integrated collection and pricing process built in. Most farmers in the co-op cited the process as positive, describing it as a win-win approach that takes into consideration all parties' interests. Assella malt factory has become their source of information for everything they need to decide regarding their purchase of seeds and sales of their products.

Descriptions of the formalization process of this arrangement were somewhat varied, but it seems that there remains a degree of informality as opposed to a robust supply chain contracting system. People described satisfaction with the arrangements, suggesting that the informal nature was having no effect on the good relationship they have with each other.

Business Strategy: Business strategy decisions oriented toward growth and positive planning for the future should include investment in increased salaries, buildings, machinery, and other capital equipment. Yet most respondents are more able to recall strategic decisions they were forced to make to mitigate the impact of recent shocks or stresses to their business. On balance, business strategies seem oriented toward preparing, hedging, and coping with shocks rather than positive, growth-oriented decisions and investments.

For strategic adaptations, businesses cited that they have recently elected to decrease employees, reduce feed quality, return to manual processing during power outages, shift crops to cope with drought, and otherwise adapt their core business in response to immediate shocks.

Previously I used to buy 100% of the feed. Now when the price increased, I started mixing and producing some part of the feed in the farm.

Dairy Farm Owner, SNNPR, Malga woreda

Decision-making: At the producer and business level, decisions are made on the basis of formal and informal information from a range of sources, including peer networks, local government offices, industry associations, and value chain relationships. Respondents cited technology platforms such as YouTube and telegram, through which they conduct research or trouble shoot issues in real-time. Experts from regional and district government or other professional bodies are also referenced for advice, partially within the livestock sector.

Lacking from responses were references to formal research organizations or aggregated customer data and consumer preferences that might inform strategic decision-making process in the direction of improved value addition and sustainable growth. Businesses specifically mentioned that they wanted more readily available information about animal health, machines, seeds, fertilizer, feed, prices, demand, and new practices.

5. RECOMMENDATIONS

Key recommendations

- Integrate bridging capital into interventions in order to encourage market actors to form alliances, enter into contracts, develop shared-value relationships, co-invest, and jointly advocate for policy change, etc.
- Encourage structured supply chains, especially for high value crops, with consistent, clear rules and transparent rewards and sanctions to increase the level of stability in relationships, alliances and overall cooperation.
- Develop strategies to shift the retail distribution system in favor of customers and producers.
- Work with local chambers of commerce and/or other convening organizations to guide and support stakeholder processes to address shared pain points related to forex, packaging, the role of government, etc.

The findings detailed above will be shared during a stakeholder vetting workshop. This will inform recommendations for the MSR components of the Feed the Future Ethiopia Transforming Agriculture Activity. The MSR analysis findings indicate a complex set of forces and factors are at play; some are centralized and therefore pervasive throughout the country, while some are unique to the five distinct clusters in focus. These forces and factors are manifesting in different ways in each cluster, which makes simple, overarching findings and recommendations difficult. The following are provisional, top-level recommendations for consideration during activity implementation.

Scales of change

There are forces and factors at play at three different levels or scales of change in Ethiopia—meta/macro, meso/macro and micro/meso—which each require a different approach.

- **Meta/macro.** At this scale, we are focusing on the broader context and factors that affect all market aspects indiscriminately. Social norms or institutions shape how society, communities, political systems, and market systems evolve. Even incremental changes at this level can generate wide-reaching impact. In Ethiopia, signals related to communal norms, power dynamics, immediate risks, and short-term coping tactics are very influential. Conversely, signals related to consumer needs and wants, commercial performance, and

competition are far less influential. For market systems to evolve in ways that allow them to be competitive over time, as well as more inclusive and resilient, these signals related to (1) consumer needs and wants and (2) commercial performance need to become more influential. Although direct engagement is not always practical or possible at this level, the activity can design and roll out interventions that are sensitive to shifting toward commercial market signals.

- **Meso/macro.** At this scale, we focus on groups of actors and how they interact. Meso level incentives influence how market systems as a whole operate, including dominant patterns related to competitive and cooperative landscapes. As a result, changes in incentives at this level often have substantial effects throughout a market system. The focus for Feed the Future Transforming Agriculture would be on the competitive landscape, especially supporting incentives to influence firms to compete based on their strategic investments in value-based growth (in terms of value delivered to customers, staff, and suppliers).
- **Micro/meso.** At this scale, we focus on individuals and single actors in the market, such as households, traders, and individual firms. Individuals and single actors exhibit behavioral patterns related to how they interact with communities, firms, farmers, and consumers. At this level, the activity would orient interventions to shift individual behavior patterns (whether in firms, communities, or consumer behavior patterns) toward more effectively identifying, prioritizing, and allocating resources in response to the needs and wants of the society.

Bridging capital: Applying the thinking to improve systemic resilience

It will be important for Feed the Future Ethiopia Transforming Agriculture to understand and internalize the importance of amplifying positive and dampening negative feedback or other market signals, along with supporting the emergence of more formal coping mechanisms and services. It will be even more important for the activity to integrate bridging capital elements into most of its interventions. Bridging capital emerges through a combination of many mechanisms, functions, and norms within a society that together lower barriers and raise the benefits of connecting across groups. An important element of catalytic bridging capital is the role of market systems as a source of it, because market-based incentives can become attractive enough to overcome social or communal barriers. Bridging capital sourced from market systems therefore is more likely to encourage market actors to form alliances, enter into contracts, develop shared-value relationships, co-invest, and jointly advocate for policy change, among other initiatives to achieve a joint market objective.

Market systems such as supply chain or retail distribution market systems can become a source of bridging capital.

Supply chain market systems

Any **agricultural produce market system** is primarily a **supply chain market system**, especially from the vantage point of smallholder farmers who are the suppliers. This is important to keep in mind from a market systems perspective. In this case, supply chain market systems can become a source of bridging capital, especially as supply chain managers focus on developing a relational connection to their farmer suppliers, which creates an interest in the suppliers' performance. As suppliers shift to a more shared-value and performance-based management strategy with their suppliers, they also improve household resilience through the information and investment that generates higher returns.

It would be important for activity staff to understand structured supply chains and the role they can play in building market resilience to support their emergence within the target agricultural systems. Whether they are an outgrower scheme, contract farming model, structured supply chain, or a directed value chain, the key aspects of a structured supply chain are an increased level of rigidity and stability in the relationships, alliances, and overall cooperation along the supply chain. The increased rigidity and stability most often comes from a lead firm that asserts their influence on their supply chain through formalized contracts and agreements or informal incentives such as social capital or financial rewards. These measures allow the lead firm to dictate the rules of participation. The rules that the lead firm defines are primarily around quality, quantity, and other transactional details such as timing, location, prices, and adherence to agreements. The relational foundation can therefore be perceived as more rigid and stable or structured, meaning that it becomes more consistent with clear rules that have transparent rewards and sanctions.

Retail distribution market systems

Any **agricultural inputs market system** is primarily a **retail distribution system**, especially from the vantage point of smallholder farmers who are the customers. From a market systems perspective, this also is an important understanding. In this case, retail market systems can become a source of bridging capital especially once market actors in the retail distribution system focus on delivering value to their customers, which creates an interest in their customers' success and wellbeing. As firms increase and improve their connectivity with smallholder customers they also improve household resilience via improved responsiveness and delivering more effective products and services.

It is important for the activity to understand that, for market systems to become more competitive, inclusive, and resilient, retail distribution systems have to shift in favor of customers and growth. In this case we are discussing an orientation more toward empowering producers, which would include a range of specific changes. The research indicated that although most producers did have good relations with some vets and agricultural input dealers, the overall value addition from the inputs system is limited. The research confirmed that many inputs were imported, and the process of getting those inputs to smallholders was characterized by a lot of transactions, without a coherent retail distribution strategy by input suppliers or distributors. It will be important for the activity to

move past the perspective of input issues (such as getting seed to farmers) as discrete problems, and to think more systemically about the wider systemic change necessary within this retail distribution system.

Stakeholder processes to build bridging capital and address key challenges

The research identified a wide range of challenges that are multidimensional and wherein stakeholder groups have a stake in how the issues are addressed. A major gap that emerged in the research was how such issues are managed, addressed, and discussed, such that all stakeholders have a voice and solutions can emerge through a consensus-building process. Because the research indicated that there were quite a few issues, therefore there are opportunities for Feed the Future Ethiopia Transforming Agriculture to catalyze market actors' ability to create bridging capital around shared pain-points, as part of a process to address these issues. More specifically, the activity, by working with local chambers of commerce and/or other convening organizations, could guide and support stakeholder processes to address constraints around forex, packaging, the role of government, and other market-system-specific issues.

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ANNEX 1: SAMPLED WOREDAS AND KEBELES

Clusters	Region/ City Administration	Secondary City	Woreda	Kebeles	Local Language
Northern Cluster	Tigray	Mekele	Kilete Awlalo Enderta	Agulae, Wukro Tabya Arato, Quiha, Feleg Daero	Tigrigna
	Amhara		Sahila	Sahila	Amharic
Jimma Cluster	Oromia	Jimma	Gomma	Agaro Town, Boba Gota, Beshasha	Oromifa
	SNNPR		Chena	Dosha, Mizan Tepi, Wacha Town	Keficho
Southern Cluster	Oromia	Adama	Tede Lume	Degaga, Wonji Dhade	Oromifa Oromifa
	SNNPR	Hawassa	Wondo Genet Malga	Wondo Genet Town Guguma	Sidama Sidama
	Somali	Jijiga	Jijiga Zuria	Shibelle	Somali
Lowland Cluster	Dire Dawa	Dire Dawa	Dire Dawa	Dire Dawa City	Amharic/ Somali / Oromifa
	Afar		Amibara	Werer	Afar
Tana Cluster	Amhara	Bahir Dar	Dangila Gondor Zuria	Gundery, Achirta Makeshegnit, Azezo	Amharic Amharic

ANNEX 2: GUIDING QUESTIONS FOR LEARNING AND ADAPTING

Below are a set of guiding questions that can be used to structure a learning and adapting process to respond to changes on the ground. The questions are organized around critical factors of market system resilience identified through the desk review and followed by a set of changes to be continually assessed. The questions can be used to develop sentinel indicators that are intended to be early triggers that change could be happening, but also require more research to determine whether movement on the indicator is a true sign that change is coming.

1. Factors related to changing conflicts and disputes dynamics

Are there patterns or specific disruptions in roads, connections, population movements, and similar, that affect how communities and markets normally work?

- Changes in the influence of militias and militia leadership
- Changes in the reliance on communal coping mechanism via:
 - Migration patterns that push youth to move as a way to increase remittances
 - Shifting orientation (e.g., greater commercial orientation)
 - Emergence of trust forming outside kinship networks, especially between communities in conflict
- Changes in market disputes patterns or trade and business practices that tend to generate disputes
- Changes in how local or national political power is wielded, especially when power is wielded to address or solve problems, or add value to an atypical constituent group

2. Factors related to how risks related to natural disaster are managed

What are the patterns of predictability, scope of typical events, responses, and effects on markets and communities? Are there recent changes in efforts to manage the known risks? If yes, how are market systems involved?

- Changes in preparation and investment that are designed to limit or control the effects of flooding at national and local levels

- Changes in preparation and investment that are designed to limit or control the effects of drought, especially in the Somalia Region, but also other regions
- Changes in preparation and investment that are designed to limit or control the effects of specific known or knowable shocks and political, market, climate, or other stresses.
- Changes in patterns that connect coping mechanisms to market interactions, such as:
 - Changes in negotiating tactics
 - Changes in trusted sources of information
 - Changes in market engagement patterns (e.g., the percentage of new people being interacted with for market purposes)

3. Factors related to population movements

Are there any patterns related to how people are moving around or migrating, and how are such movements affecting the communal coping mechanisms and selected market systems?

- Changes in patterns related rural to urban migration
- Changes in patterns related to displaced or other populations that move to other parts of the country—especially in how longer-term Internally Displaced People are treated
- Changes in patterns related to migrating to other countries
- Changes in how patterns in population movement relate to and affect community coping mechanisms (e.g., remittances) or market system performance

4. Factors related to market systems as sources of household resilience

How are communities engaging market systems in relation to key elements of coping strategies? Specifically, how do communities engage market systems in order to cope?

- Changes in supply and/or demand and adoption rates tied to products or technologies that protect or support recovery. Examples of technology, product, and service categories are:
 - Insurances
 - Vaccines for livestock
 - Health services, products, and vaccines

- Agricultural inputs
- Changes in how market actors and systems engage communities under or leading into a shock or stress. Examples of categories of changes could be:
 - Buying patterns from suppliers (such as buying more or changing terms of livestock transactions so that livestock can be moved or saved at the beginning of a shock)
 - Changing labor hiring practices
 - Changing payment terms
- Changes in the orientation of households that indicate a greater reliance on financial assets and flows to manage risks. Examples of categories of change are:
 - Changes in agreements that link people across groups¹
 - Changes in farmer and community behaviors related to market activity—so investments, entrepreneurial, adopt rates, and similar that indicate a greater importance being placed on income generation and wealth creation

5. Factors related to market structures and basics performance by function

What are the patterns related to structures through which suppliers and crops flow to population centers? Are there patterns in quality, yields, and so on at the rural community levels? Are there patterns of performance at the other levels of the supply chains leading to end consumers? Any emergent patterns in the formation of structured supply chains? Any emergent patterns in how retail distribution networks function in the zones of influence?

- Changes in lead firm and market actor behaviors related to selling and marketing of products into communities (e.g., use of customer-oriented, growth marketing, branding, and retail distribution practices)
- Changes in lead firm and market actor behavior related to buying from communities (e.g., use of merit-based performance metrics and investment patterns that suggest an effort to build a longer-term, more trusting relationship)
- Increase in percentage of supplier production moving through outgrowers or structured arrangements (e.g., with a lead firm)

¹ It is worth noting that the willingness of households and communities to rely on market systems for risk management often requires sound, responsive, and transparent social safety nets and social services (e.g., child care, health care, public education, affordable housing, emergency response).

- Increase in the percentage of urban end-market customers buying horticulture from supermarkets (e.g., as opposed to wet markets)
- Changes in patterns related to transactions, such as:
 - Reduction of zero-sum negotiation and manipulation of weights and measures
 - Increase in use of uniform grades and standards
 - Increase in more transparent and fair pricing processes
 - Reduction of any forms of collusion or price fixing
- Changes in patterns related to people shifting to new types of market activities that offer higher margins, or more fair or transparent commercial connections
- Changes in patterns using commercial tools to improve coping outcomes (e.g., use of insurances, savings, investments, and behaviors to increase incomes).



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