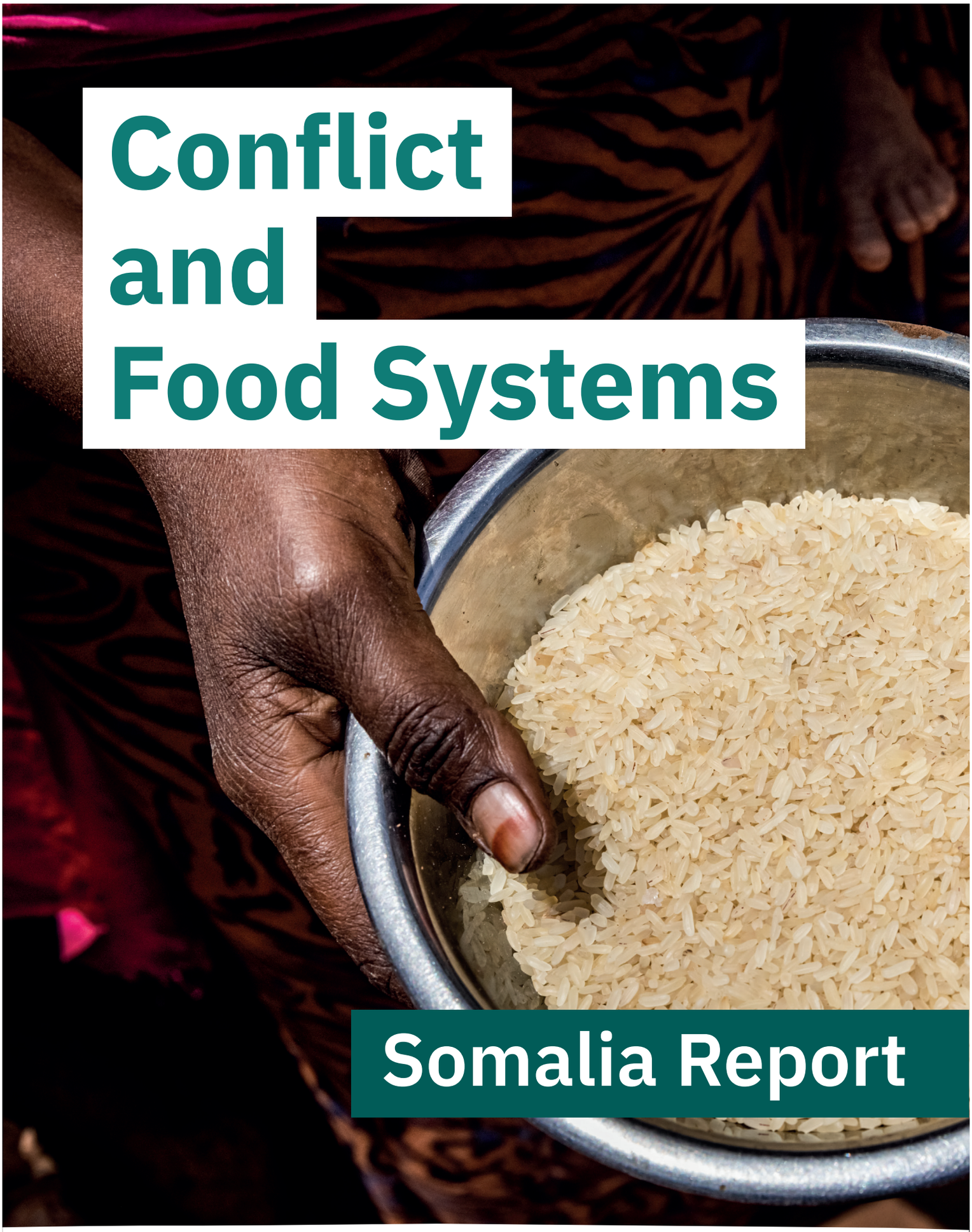

Conflict and Food Systems

Somalia Report

CONCERN worldwide
ENDING EXTREME POVERTY WHATEVER IT TAKES

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EXECUTIVE SUMMARY

The 2022 *Global Report on Food Crisis* highlights conflict as the major driver of acute food insecurity, which forced approximately 139 million people into crisis-level acute food insecurity (IPC Phase 3 or worse[1]) in 2021 (FSIN, 2022). The scale of this impact on households and communities, which is compounded by economic shocks and weather extremes, spans economic, political, social, and environmental activities, emphasizing that conflict's impacts should be considered through a food systems lens rather than the narrower outcomes of food and nutrition security alone. The 2018 United Nations Security Council Resolution 2417 recognized the link between conflict and hunger, condemning the starving of civilians as a method of warfare and the unlawful denial of humanitarian access to civilian populations (UN Press, 2018).

Overall, this research program sought to **investigate the impact of conflict on various elements of the food system in Somalia to identify those with the biggest influence on food and nutrition security amongst people experiencing extreme poverty**. This research systematically maps components of local and national food systems; identifies specific pressure points where conflict interacts with them; and propos operational, policy and research actions tailored to supporting and strengthening food systems disrupted and transformed by conflict in Somalia.

A growing body of research examines the links between armed conflict, food security, and food systems. These identify the two-way relationship between food price and conflict, and the influence of excessive risks on transport, harvest, and market security costs (Raleigh et al., 2015; Weinberg & Bakker, 2015; Ismail, 2021). Others focus on how conflict reduces regional food availability by destroying productive assets and infrastructure and creates security risks associated with accessing food markets thus driving up local prices (Bora et al., 2010; Kah, 2017). However, disentangling existing structural challenges–e.g., input supply disruptions, seasonal price volatility, or investment risk aversion–from those caused by conflict, particularly in places where armed violence is a constant in everyday life, can be difficult and a precise understanding of the specific ways conflict interacts with food systems in many contexts, remains elusive.

In Somalia, repeated poor rainfall seasons since late 2020 has meant the country is among those hardest hit by a drought emergency and the risk of localized famine (OCHA, 2022a). Zones of heightened concern are the agro-pastoral areas of the South-Central administrative divisions of Hiraan, Bay, Bakool, Mudug, Middle Juba, and Lower Shabelle (OCHA, 2022b; ReliefWeb, 2022) and the IDPs camps in Mogadishu, Baidoa, and Dhuusamarreeb (OCHA, 2022b). Conflict in Somalia interacts with climate stressors and issues of natural resource management, which is key to this analysis. However, considering that Somalia's domestic production of staple foods meets less than one-fourth of its food needs, production resources are only a piece of food security. The effects of conflict are transmitted through various channels, such as input markets for seeds and fertilizer, availability of support extension services, food processing and marketing capacities, informal taxation, access to financial services, and disruptions to infrastructure and transportation.

In urban and semi-urban areas, mobile pastoralist and agro-pastoralist IDPs from rural regions have to adapt livelihood strategies in the absence of accessible farmland, which often implies a restructuring of gender roles within families (OCHA, 2021). As a response to the loss of their credit sources, jobs, and their community-based safety nets, IDPs have been reported to often resort to risky and negative coping strategies such as indebtedness; sale of essential assets like livestock; child labor; child abandonment; and child marriages (OCHA, 2021). There is also a need to identify the relationship between food and power in rural areas and how these dynamics influence the sale of land, displacement, and other business dealings (Jaspars & Majid, 2020). These impacts can be both chronic, for instance through a reluctance to invest in the area, provide essential services, or the prevailing pattern of land use, or more acute, including the impact even minor clashes can have on access and travel to markets and on the price of inputs and food.

In seeking to investigate the impact of conflict on various elements of the food system to identify those with the biggest influence on food and nutrition security amongst people experiencing extreme poverty, this

1 The Integrated Food Security Phase Classification system (IPC) is a system for estimating the severity of food insecurity. Acute food insecurity is measured on a scale from Phase 1 (None/Minimal) to Phase 5 (Crisis/Famine). Estimates of the number of people in Phase 3 (Crisis) or above, are widely used as a measure of the scale of humanitarian need and the urgency of required response. For further information, see IPC, 2022

research poses the following question about the Somali food system:

- How does conflict disrupt the rural to urban value chain for food in the current state of protracted conflict and how does displacement relate to these dynamics?

To address this question, this research utilized a mixed-methods design, employing a combination of secondary evidence mapping, qualitative consultations, and quantitative data-gathering through surveys. Together, the data generated were mapped in the form of Fuzzy Cognitive Maps (FCMs). FCMs are a promising area of participatory modeling that can visually translate the knowledge and experience of local stakeholders into an accessible and standardized format (see Gray et al., 2015; Papageorgiou et al., 2019). This data can then be mapped to visualize and document multiple components of complex systems and their interactions; assess the respective direction, connectedness and influence of different components and relationships; and develop scenarios based on changes in complex systems that take account of multiple potential interactions and feedback loops.

The research finds that in Somalia, conflict has a negative impact on the food system throughout the value chain from rural production to urban consumption in four key ways:

First, through **crippling informal taxation and territorial control by armed actors**. In Somalia, armed group taxation plays a large role in mobility and the ability to transport goods by road. Payments to non-state actors are typically in addition to government taxation. As a result, market traders are required to pay large sums of money to both government and non-government actors, reducing their overall incomes. In addition, not only do armed actors regulate the production and cultivation of land that they control, but they also demand high taxes from producers to allow them to work their farms. This is particularly true in rural areas where the government is unable to provide protection, leaving farmers especially vulnerable to extortion and revenue extraction. Because farmers may be unable to afford these payments before the planting season, some are forced to abandon their farms and may seek refuge in camps or other urban areas. In yet other cases, crops are burned by non-state actors because they may be intended for markets in government controlled areas. As a result, vendors are less likely to participate in markets and food becomes less available and more expensive to consumers. Mobility restrictions can further mean that traders face deficits when produce is sold at a lower price because of its degraded quality or because of their inability to access favorable markets.

Second, through **exploiting the lack of systematic financial supports to the local food system from the public and private sector**. Protracted conflict and economic uncertainty have limited the number of financial institutions and agribusinesses in Somalia. The lack of lenders has led to difficulties in obtaining agricultural inputs such as seed and fertilizer. Similarly, limited external investments in food value chains and their related industries have made creating new value more challenging. This lack of capital investment in turn leads to fewer employment opportunities, which the FGDs highlighted as a major barrier given other livelihood constraints such as poor education and lack of job creation skills. So, as insecurity reduces investment, the lack of investment keeps people insecure. The absence of systematic financial supports compounds the initial consequences of conflict and allows the disabling of endogenous food systems. Cash transfers that are targeted only for consumption rather than food system-related business and inputs to the food system do not allow the system to counter maladaptation.

Third, by **magnifying the destructive forces of climate change**. Natural resource pressures from climate change such as drought combined with conflict greatly handicap food systems. Water and pasture shortage and denial of access compound leading to death of livestock. Similarly, loss of arable land from denial of access and climate change reduces agricultural output. Along with conflict impacts on access to machinery, spare parts and fuel costs, water pumps, critical for compensating for a lower water table and drying natural sources from drought are compromised as well. Similarly, drought tolerant plants often require imported seeds, but their access is also stymied by conflict, limiting availability and increasing their cost. Various climate-driven incentives to transition away from agro-pastoral and agricultural production combine with the decreased investment caused by conflict and failures of financial supports disables local food production. Climate change has caused multiple years of environmental stress that are difficult to recover from without sustained support and investment. Conflict induced transitions to bush products such as firewood and charcoal can further accelerate environmental degradation that can amplify impacts of climate change on the agricultural sector. Finally, competition over natural resources such as water and land that does not involve armed actors, but communal groups can lead to conflict and further increases food prices.

Fourth, by **promoting maladaptive livelihood transformations that undermine the local food system and can disable their ability to recover**. The

research highlights how food and livelihood systems are transformed by conflict into maladaptive states that undermine endogenous food systems and food security. Maladaptive cascades initiated by conflict lead to pathways that diminish, degrade or disable local food systems. Often, the coping strategy used to deal with conflict navigates people into behavior that disrupts the food system in the medium to long-term, by reducing local food production, availability and access. In Somalia, producers may alter their livelihood strategies in response to conflict by switching to alternative markets, manually processing crops, storing food locally, switching to bush products, selling production assets, or trying to directly sell goods, but all these coping mechanisms ultimately reduce the quantity of available food in the system. Some producers have transitioned to cash crops or cereal grains in search of higher margins, but this change reduces the diversity of food produced locally. Others have abandoned food system livelihoods altogether and taken up casual labor. In addition to the cyclical relationship between conflict and food security as drivers of one another, the map reveals these more destructive pathways that can be difficult to overcome and not easily ameliorated by simply addressing conflict.

Based on these findings, the report makes seven recommendations for those working to support and strengthen the Somali food system:

1. **Design targeted protection interventions that support vulnerable stakeholders in the food system.** Providing targeted protection services for vulnerable stakeholders - particularly women - in the food system is both an important service for at-risk populations, and an intervention with the potential to mitigate disruptions in the food system.
2. **Provide targeted support to local peacebuilding and conflict resolution mechanisms that directly engage displacement-affected populations broadly.** In the broader context of the Durable Solutions framework, targeted support to social cohesion programming that supports relationship- and trust-building between displaced and host populations, leveraging aspects of the food system as catalysts for cooperation and exchange, would be valuable.
3. **Invest in targeted support for public systems throughout Somalia broadly, and agriculture and agronomic knowledge particularly.** A sustained investment in public system support for the transfer of agronomic knowledge would benefit individual farmers, communities, and the food system broadly. This is particularly recommended in the context of a changing climate, necessitating the thoughtful and expansive transfer of agronomic knowledge.
4. **Explore similar investments in supporting innovative private sector financial instruments targeted at food system stakeholders.** Investing in financial system strengthening and the provision of systematic financial support for food system stakeholders is an opportunity to complement the large cash-based transfer system with medium- to longer-term interventions in the context of the triple nexus. Interventions including more systematic programming for financial access, microfinance and support to the food system beyond, and as a complement to, more direct cash transfers for consumers, should be explored.
5. **Pursue humanitarian assistance strategies that support local food systems and minimize negative externalities.** There are unintentional negative consequences to long-term food security and perpetuating conflict that may be avoided or minimized with a more holistic understanding of how humanitarian assistance impacts local food systems. Donors should understand the food import pricing relative to local food and the relationship with challenges in producing, processing and accessing local food.
6. **Undertake research on cash transfers targeted toward food system-related businesses and other food system inputs to identify potential risks and benefits.** Research on the risks and benefits of cash transfers for food system-related components is recommended in the context of high taxation and targeted violence towards food system-related businesses.
7. **Pursue protection agenda and associated advocacy around cumulative impacts of taxation and mobility barriers (e.g., roadblocks).** Targeted advocacy efforts aimed at protecting food systems stakeholders can make an important contribution by first, raising awareness of the extent to which roadblocks and attacks on food systems stakeholders affect food security for the most vulnerable; and second, calling for policy action to better protect food systems stakeholders.

1. INTRODUCTION

Conflict as a key driver of food system dynamics, particularly how chronic and acute violence affect the ability of people experiencing extreme poverty and vulnerability to access and utilize food, is not adequately understood by researchers and humanitarians alike.

In 2018, the United Nations Security Council (UNSC) took up the issue of conflict-induced food insecurity and famine and starvation of civilians as a method of warfare, adopting Resolution 2417, which formally condemned such violations and called on parties to conflict to uphold their obligations to provide safe and unimpeded humanitarian access to civilian populations (UN Press, 2018). This view of the relationship between conflict and food insecurity as a simply humanitarian issue, however, overlooks all of the food system disruptions, lost livelihoods, mass displacement, and psychological terror that fundamentally change how people feed themselves. The scale of this impact on households and communities, which compounds with economic shocks and weather extremes, spans economic, political, social, and environmental activities, emphasizing that conflict should be considered through a food systems lens rather than the narrower outcomes of food and nutrition security.

As of September 2022, the Famine Early Warning Systems Network (FEWS NET) has raised food insecurity concerns to emergency levels (IPC Phase 4) in three regions–Northern Ethiopia, Horn of Africa, and South Sudan (FEWS NET, 2022a). Though conflict may not be the primary driver pushing these households toward the precipice of famine, it is a structural feature of these complex emergencies,[1] where weakened institutions are unable to lead a response to natural disasters, civil strife, and macroeconomic conditions. Observers in East Africa express concern about barriers to food assistance distribution, large-scale intra- and inter-border displacement, disruptions to trade, multiple disease outbreaks, poor conditions for production and grazing, and significant food price inflation (WFP, 2022a). Unfortunately, the situation is all too familiar, but models for how to navigate food systems that have been fundamentally reconfigured by armed conflict are still insufficient. Agencies operating in these locales need a map, literally, to help identify how new uncertainty could travel through food systems and interact with existing vulnerabilities to food insecurity.

Changes in land use, access to markets, and resource extraction through looting and taxation are several consequences of conflict on food systems (Eklund, 2017; Adong et al., 2021; Humphreys & Weinstein, 2006). Conversely, commodity prices, crop yields, and land access are food system drivers that have been shown to influence conflict (Bellemare, 2015; Koren, 2018; El Amin, 2016).

Farm households that are exposed to armed actors are less likely to invest in agricultural activities, such as planting the full amount of seed to which they have access, due to fear of future attacks and the possibility of further looting and displacement (Adelaja & George, 2019; Noubissi & Njangang, 2020). This behavior inadvertently affects yields. Pastoral livelihoods can similarly face human loss, livestock mortality, limited resource access, and forced migration as a direct result of violence, including raiding and farmer-pastoralist conflict (Schilling et al., 2012; Dimelu et al., 2017).

This research program investigates **the impact of conflict on various elements of the food system in Somalia to identify those with the biggest influence on food and nutrition security amongst people experiencing extreme poverty**.

1 The Inter-Agency Standing Committee defines a ‘complex emergency’ based on several characteristics emerging from a breakdown of assets, infrastructure, and markets (see IASC, 1994).

2. OPERATING CONTEXT - SOMALIA

2.1. FOOD SYSTEM OVERVIEW

As of December 2022, three areas of Somalia are projected to experience famine conditions (IPC Phase 5), including the agro-pastoral populations in Baidoa and Burhakaba districts of Bay region and the IDPs in Baidoa town of Bay region and in Mogadishu (FEWS NET, 2022b). Crisis conditions (IPC Phase 3) affect millions more, and famine conditions are expected to spread if humanitarian assistance is scaled back in the first half of 2023. Due to consecutive seasons of poor rainfall seasons since late 2020, Somalia has been among the countries in East Africa hardest hit by a drought emergency, which has combined with high food prices, armed conflict, and disease to produce a significant risk of localized famine (OCHA, 2022a). Throughout 2022, zones of heightened concern with populations facing unprecedented need have included the agro-pastoral areas of the South-Central administrative divisions of Hiraan, Bay, Bakool, Mudug, Middle Juba, and Lower Shabelle and the IDPs camps in Mogadishu, Baidoa, and Dhuusamarreeb (OCHA, 2022b; ReliefWeb, 2022).

Conflict and general insecurity in Somalia remain an exacerbating force on climate stressors, vulnerable agro-pastoral livelihoods, and issues of natural resource management. The effects of conflict are transmitted through various channels, such as input markets for seeds and fertilizer, availability of support extension services, food processing and marketing capacities, informal taxation, access to financial services, and disruptions to road infrastructure and transportation. But, considering that Somalia's domestic production of staple foods meets less than one-fourth of its food needs, production resources are only a piece of the food security puzzle. Access to food imports and humanitarian assistance, particularly timely and scalable assistance that can respond to acute food insecurity, is central to the food system. Displacement, as well as lack of access to isolated communities, have confounded the movement and availability of these goods among those populations who need them.

In urban and semi-urban areas, mobile pastoralist and agro-pastoralist IDPs from rural regions have to adapt livelihood strategies in the absence of accessible farmland, which often implies a restructuring of gender roles within families (OCHA, 2021). With a lack of adequate skills to navigate the urban environment, as well as the unavailability of strong supporting clan networks, many IDPs eventually find jobs as casual laborers, adding to the already high number of people experiencing extreme poverty in urban settings (UN Somalia, 2020; OCHA, 2021). The COVID-19 pandemic has further exacerbated the humanitarian needs and economic destitution of IDPs due to a sharp decrease in employment opportunities, also in the informal sector (OCHA, 2021). As a response to the loss of their credit sources, jobs, and their community-based safety nets, IDPs have been reported to often resort to risky and negative coping strategies such as indebtedness; sale of essential assets like livestock; child labor; child abandonment; and child marriages (OCHA, 2021).

2.2 CONFLICT ANALYSIS

2.2.1 LOCAL AND NATIONAL CONFLICT DYNAMICS

The transfer of power to the new President of the Federal Republic of Somalia, Hassan Sheikh Mohamud, on 15 May 2022, though peaceful, ended a long pre-election period marked by a series of postponements, violent tensions, and political infighting (Al Jazeera, 2022b; Hujale, 2022). Starting in 2020, the electoral process for the renewal of both the parliament and the presidential office generated divisions within the central government and reignited long-running hostilities between the center and the federal states, specifically over the reform of the electoral system, interferences in state elections, and delays in arranging long overdue voting in the country (Al Jazeera, 2021a; Carboni, 2021; Al Jazeera, 2022d). Anti-government demonstrations sparked at the end of 2020 and continued in 2021 and 2022 in different regions of Somalia. These were particularly prominent in the capital Mogadishu, where they often took a violent turn, with clashes between security and armed opposition forces as well as violent attacks on peaceful protesters (Al Jazeera, 2021b, 2021c; Carboni, 2021; Al Jazeera, 2022c; Sheikh, 2022). Violent clashes also erupted between state and government forces at regional level and between clans loyal to different political factions at local level (Carboni, 2021).

Taking advantage of the political crisis, Al-Shabaab (AS) further destabilized the pre-electoral process by staging recurrent violent attacks on government targets and foreign security forces, especially in Mogadishu, where the Federal Government of Somalia (FGS) continues to retain control over the territory of the capital (Al Jazeera, 2022a). South-Central Somalia remains the center of the long-lasting fight against the Islamist group, whose

strength is particularly significant in rural areas. Since the deadly hotel attack by AS in Mogadishu in August 2022, the Somali government has been carrying out an all-out operation against the insurgents supported by local clan militias and foreign forces (Faruk, 2022). The recent military offensive against AS has been aiming at regaining government control in the regions of Hiraan, Galgaduud, Bay, Lower and Middle Shabelle, and Mudug (ACLED, 2022b, 2022d). In response to this operation, AS has lately increased attacks on government targets, local militias, ATMIS forces (i.e., the African Union Transition Mission in Somalia) as well as civilians, especially in the regions of Lower Shabelle, Lower Juba, Hiraan, and the capital region of Banaadir (ACLED, 2022c, 2022b, 2022d).

These conflict dynamics have been unfolding against the backdrop of a severe humanitarian crisis driven in large part by the extreme drought currently engulfing the Horn of Africa (Anyadike, 2022). In a region with high levels of violence and insecurity, the current crisis affecting large swathes of South-Central Somalia has contributed to escalating communal clashes among pastoralists/agro-pastoralists over access to ever scarcer resources at the local level (OCHA, 2021).

2.2.2 INSURGENCY

Though the federal and state governments – supported by foreign forces – remain in control of the capital Mogadishu and other main urban areas of South-Central Somalia, AS continues to have a strong presence in rural areas and along main supply routes connected to urban districts in the region (EASO COI, 2021b, 2021a). As a powerful military and political group, AS has developed strong roots in Somali society and its sphere of influence extends beyond the territories under its direct control and administration (EASO COI, 2021a). This is facilitated by a widespread and far-reaching organizational structure, which allows the AS insurgents not only to strike high-profile military attacks in areas controlled by opposition forces, but also to perform relevant governance functions in the territories under their direct control (EASO COI, 2021a).

One of the main and most profitable sources of financial revenues of AS is the systematic taxation of the movement of people and goods along key routes. This lucrative system of generating funds to sustain the activities of the insurgent group covers all the territories under AS control (Hiraal Institute, 2018, 2020a; EASO COI, 2021b). It is worth noting that the road taxation system developed by AS takes place in parallel with the informal road taxation of goods/people operated by other competing actors, notably local armed groups such as clan militia, but also state/local officers (EASO COI, 2021b).

In certain areas, AS checkpoints are used to impose complete embargoes on trade moving to targeted towns under government control. This aims at adding pressure on state authorities by blocking the economies of main urban centers (e.g., along the Baidoa-Xudur- Waajid route in the region of Bay) (EASO COI, 2021b).

AS also generates revenue by taxing/extorting money from the local population and businesses in both areas under its direct control and territories under government forces. This is operated by levying different taxes in a systematic manner across all regions; AS taxes can be both monetary and non-monetary (Hiraal Institute, 2018, 2020a). In particular, once a year, usually during Ramadan, AS collects the *zakat*, i.e., an offer to the poor paid as a religious obligation by people with financial means (Ingiriis, 2018). AS asks all companies and businesses, also those outside AS areas, to pay 2.5% of the monetary value of their activities as *zakat*. Non-monetary *zakat*, instead, is paid by pastoralist and agro-pastoralist communities in the form of livestock, which is then auctioned to businessmen linked to AS. Only a small part of the money generated by levying the *zakat* is given to the poor since most of the earnings are redistributed to AS regional administrations by the central AS Finance Office. During periods of financial shortages, AS raises the *infaaq*. This is an arbitrary amount collected locally from clans and businesses (Hiraal Institute, 2018, 2020a). More generally, in AS areas, which are predominantly rural, economic activities are regularly taxed throughout the year. For example, AS applies taxes on the harvesting and selling of agricultural products. Access to water for irrigation is taxed as well as the use of tractors on farming lands. Moreover, protection money is paid by government officers as well as contractors to run businesses in AS areas (Hiraal Institute, 2020a).

2.2.3 INTERCOMMUNAL CONFLICTS

Somalia has a predominantly rural society depending mostly on pastoralism and rain-fed agriculture as sources of livelihood. Most of the rural population, both men and women, is employed in mobile pastoralism and agro-pastoralism. Regular access to fertile land and water for both farming and livestock rearing is a crucial aspect for these livelihood systems. However, this is increasingly reducing due to climate extremes, demographic factors, and the erosion of the environment due to human activities (e.g., charcoal burning) (Rift

Valley Institute, 2021). As a result, the livelihood systems of rural communities are becoming precarious sources of income exposed to growing competition over access to scarce natural resources (UN Somalia, 2020). The coexistence of multiple legal arrangements (i.e., customary, statutory, and religious) regulating both land management and tenure also plays a key role in shaping intra- and intercommunal/clan relations (Rift Valley Institute, 2021).

Somali pastoralists and agro-pastoralists are clan-based communities, further organized in sub-clans. Clans are the main organizing socio-political unit of Somali society, around which political, military authority, and economic power is structured (EASO COI, 2021b). The socio-economic and political status of communities in Somalia depends on their clan affiliations.

Within the majoritarian Somali clan-based society, minority groups have historically been isolated and stigmatized (UN Somalia, 2020). By falling outside Somalia's traditional clan-based social protection structures, they have been experiencing deep-rooted patterns of socio-economic exclusion, marginalization, and discrimination, also in the political sphere (Avis and Herbert, 2016; UN Somalia, 2020). Members of minority groups continue to be excluded from leading positions of power and their presence in the public administration system remains low (UN Somalia, 2020).

Intercommunal tensions between pastoralists and agro-pastoralists over land use and access to resources unfold within the above-described socio-relational clan dynamics. In these clashes, it is not uncommon that armed clan militias are involved, especially in regions such as Lower Shabelle where state governance is weak and security conditions are fragile (UNSOM - OHCHR, 2019). Clan armed militias operate as self-defense armed units created to protect local security, political and economic interests in clan-controlled territories (Ibrahim Shire, 2021). This can generate intra/inter clan tensions.

2.2.4 RECENT CONFLICT TRENDS

Insurgency

Recent ACLED data show that in 2022, conflict events linked to the AS insurgency have mainly involved armed clashes between the insurgents, the Somali military forces, and international security actors. In the period January-October 2022, the highest number of armed clashes have been recorded in the regions of Lower Shabelle, Banaadir, and Hiraan. Most episodes of violence against civilians, instead, have been recorded in Banaadir (ACLED, 2022a). Since August 2022, the Somali government has been carrying out an intense offensive against the AS insurgents in South-Central Somalia backed by local clan militias, in addition to the support received by foreign forces (ACLED, 2022c, 2022b, 2022d). This has led to an intensification of AS attacks in the region in the last months.

In general, in the fight against al-Shabaab, civilians are involved in the conflict either as targets of armed attacks or as victims of indiscriminate violence, AS executions, IED explosions, crossfire, as well as airstrikes that have been carried out by the US Africa Command (i.e., AFRICOM) as part of the ongoing counterinsurgency (COIN) operations (UNSOM - OHCHR, 2019). Both AS and Somali/international security forces engage in tactics that can have an indiscriminate impact on civilians (EUAA, 2022).

Intercommunal conflicts

Most of the episodes of clan violence remain concentrated in the region of Galgaduud, followed by Mudug, Middle Shabelle, and Hiraan. Most of the events have involved armed clashes between rival groups and deadly attacks on civilians due to land disputes, access to water and grazing land, clan revenge (ACLED, 2022a).

Inter/intra-clan violence is primarily characterized by the following tactics (UNSOM - OHCHR, 2019; EASO COI, 2021a, 2021b; EUAA, 2022): armed, low-level clashes, shootings; revenge attacks/killings; damage to/looting and destruction of livestock and crops; abductions; and checkpoints and roadblocks.

2.2.5 THE IMPACTS OF CONFLICT ON THE DISPLACEMENT-AFFECTED COMMUNITIES

There are approximately 2.9 million IDPs in Somalia; conflict and severe climate shocks (i.e., droughts and floods) remain the primary drivers of internal displacement in the country. In the current year, drought constitutes the major reason for internal displacement, followed by conflict and insecurity (OCHA, 2022b; UNHCR, 2022; UNHCR - PRMN Somalia, 2022). In areas characterized by both high levels of violence and extreme weather conditions, climate and conflict-related drivers of displacement often intersect causing communities to experience recurrent displacements with limited opportunities to effectively recover from previous losses and destitution (DMT - IOM, 2020). Besides the ongoing AS insurgency and clan/communal tensions occurring at the local level, election-related

violence has been reported as having contributed to the upsurge in conflict-induced displacements and forced evictions in Mogadishu in 2021 (OCHA, 2021).

In general, internal displacement in Somalia usually follows a rural-urban trajectory defined by clan affiliations (OCHA, 2021IDPs primarily converge in informal settlements around urban/semi-urban centers (UN Somalia, 2020; OCHA, 2021). These unregulated/ poorly governed IDP sites are mostly built on private land outside main cities, and they are characterized by poor housing conditions as well as limited access to basic services and rights (OCHA, 2021).

It is estimated that 85% of the total 2,400 IDP sites (both urban and semi-urban) recorded in Somalia are built on private land. This exposes IDP communities to a constant risk of eviction, which is higher in urban areas (OCHA, 2022b). Here, the arrival of IDPs, the seasonal inflows of economic migrants as well as diaspora returns constitute cumulative factors that have been accelerating the process of urbanization, resulting in great pression on land as both a scarce resource and a lucrative commodity (Wasugo, Barnes and Kiepe, 2017; OCHA, 2021; Rift Valley Institute, 2021). Consequently, in urban areas, tensions over land property rights involving host, IDP communities, and returnees are common, and they often escalate into clan/communal violence leading to forced evictions and eventually to secondary or further displacements (Bakonyi, Chonka and Stuvøy, 2019; Somalia Protection Cluster, 2022). The lack of a system of documentation of land ownership rights as well as the weak working of judicial institutions further complicates the settlement of land disputes (Wasugo, Barnes and Kiepe, 2017; Kamau, Bonnet and Mahamoud, 2019; UN Somalia, 2020; OCHA, 2021).

IDPs residing in informal settlements in urban areas experience a higher level of multi-dimensional insecurity and more difficulties in accessing basic services, especially due to costs and distances (OCHA, 2021). Generally, the level of vulnerability of IDPs varies, depending on diverse intersecting factors such as gender, age, disability, minority community status as well as access to land and security of tenure, especially in the capital Mogadishu, where it has been recorded a growing commodification of IDP settlements (Wasugo, Barnes and Kiepe, 2017; OCHA, 2021).

The availability of accessible clan connections plays a major role in determining the living conditions of internally displaced communities. Moreover, in urban centers, access to IDP sites is controlled by gatekeepers, who usually claim a part of assistance supplies allocated to IDPs in return for securing their access to IDP settlements (Wasugo, Barnes and Kiepe, 2017; OCHA, 2021).

Specific health impacts

Conflict-related SGBV and human rights abuses continue to be documented in relation to both the AS insurgency and intercommunal violence linked to land disputes. In 2019, UNSOM-OHCHR reported that the majority of incidents of conflict-related SGBV were perpetrated by non-state armed actors (AS, clan militias, unidentified armed actors). IDP women and girls, especially from minority and marginalized communities have been the main victims of conflict-related SGVB (UNSOM - OHCHR, 2019).

In addition to the direct impacts of conflict on livelihoods, income, and healthcare, the indirect impacts of conflict on health status are significant. Driven in part by disruptions to food system livelihoods and incomes severely impacted by the conflict, rates of displacement in Somalia are at an all-time high: in 2021 alone, 549,000 people were displaced from their homes in Somalia (IDMC, 2022). One of the secondary impacts of this displacement is the disruption to both formal and informal education: Somalia hosts one of the world's most significant out-of-school populations. These disruptions to education impact transferable skills (such as knowledge relating to food system livelihoods) and curricula that promote healthy lifestyle and food choices. This is particularly true for children with families engaged in agricultural livelihoods, especially in Somalia's pastoralist communities, who even in times of peace face difficulties with access to formal education because of their constant movements. In times of conflict, these communities (who make up more than 60% of Somalia's population) have even limited access to educational opportunities (USAID, 2022).

3. RESULTS

A full description of the methods used in this research, including all research and data collection tools, can be found in the Synthesis Report.

3.1 FCM MAPPING

Figure 1 visualizes the Fuzzy Cognitive Map (FCM) for conflict and the food system in Somalia.

Each box represents a component (node) in the system, connected to other components through directional relationships (edges) represented by arrows. Blue arrows represent positive relationships (when one component increases, it is associated with an increase in the other component to which it points) while brown arrows represent negative relationships (when one component increases, it is associated with a decrease in the other component to which it points). The direction of the arrow represents the component driving the change (the independent variable). Although not visually represented in the maps below, each relationship (edge) is also weighted according to the relative importance of that relationship: the relative importance of the independent variable, driving change in the dependent variable.

Two centrality measures–degree centrality and eigencentrality–mapped the contours of the existing research. Degree centrality counts the number of degrees between nodes in a network, showing which node has the most interconnections. Eigencentrality (or eigenvector centrality) creates a relative score of each node's influence in the network by capturing the importance of a node relative to the importance of the nodes to which it connects, and the nodes to which they connect, and so forth. In other words, while high degree centrality reflects more connections between a given node and others in the network, high eigencentrality highlights the connections between a given node and other highly connected nodes compared to all other nodes. These two indicators help translate relationships into simpler terms and reveal the most influential variables, as well as potential gaps in our understanding of system connectivity.

3.1.1 MOST-CONNECTED COMPONENTS

The Somalia FCM map has a total of 39 components (nodes) overall, linked by 108 connections (edges) across the network. Agricultural production (22 connections), urban displacement (12) and income (also 12) are the top three most-connected (central) components in the system. Table I summarizes the top 10 most central components in the system.

Rank	Component	Number of Connections (Centrality)	Influence of Connections (Eigencentrality)
1	Agricultural production	22	1
2	Urban displacement	12	.57
	Income	12	.56
4	Market activity	10	.59
	Armed conflict	10	.50
6	Businesses and livelihoods related to food system (transporters/ processor)	9	.55
	Systematic financial access - (MF, banks, enabling environment	9	.49
	Taxation by armed groups	9	.50
9	Dependence on humanitarian and development aid	8	.36
10	Food availability	7	.33

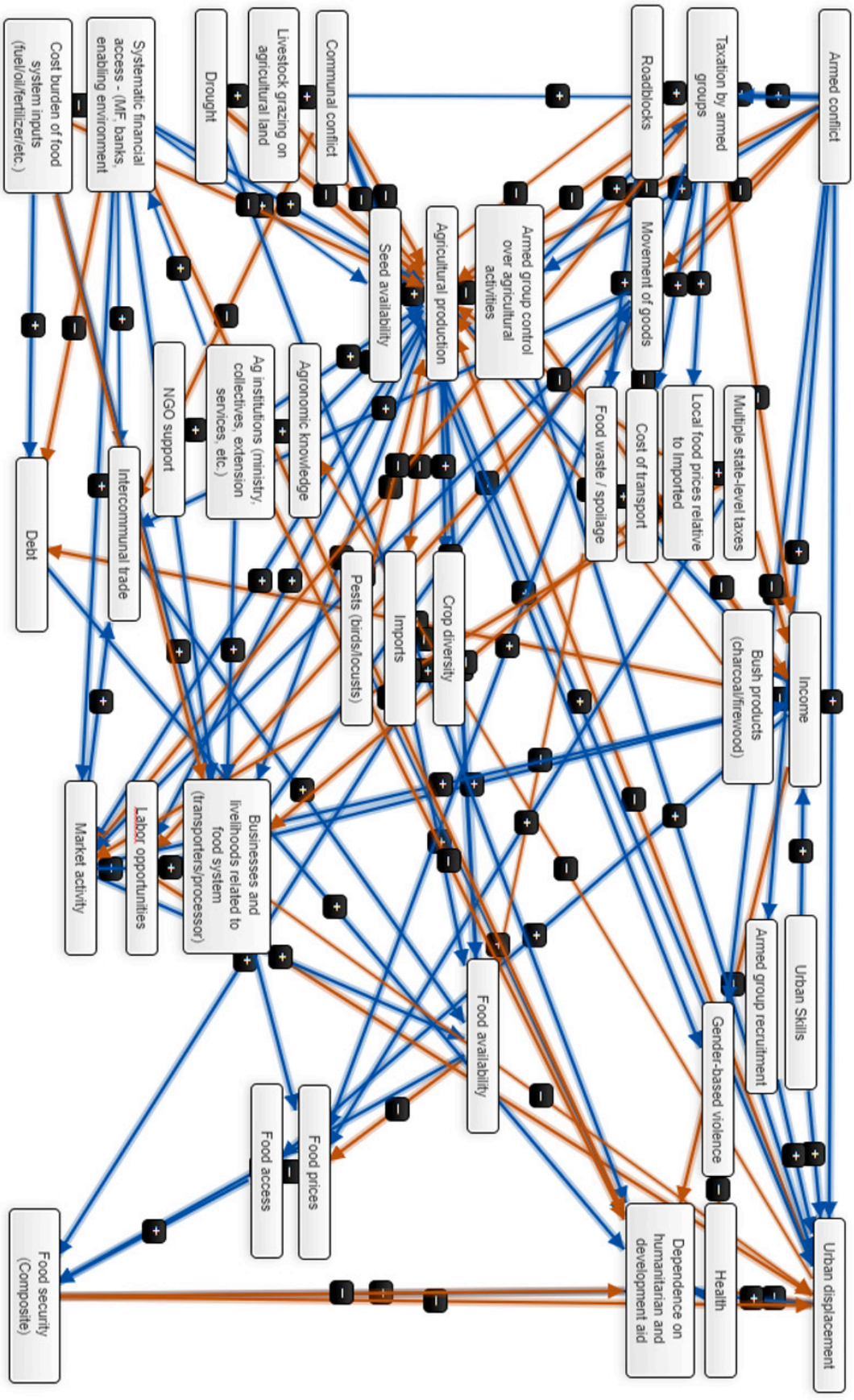

Figure 1. Fuzzy Cognitive Map of Conflict and Food Systems in Somalia

Of the top ten most connected (central) components of the Somalia food system, seven variables were also in the top ten most influential (eigencentral) factors: Agricultural Production, Market Activity, Urban Displacement, Income, Business and Livelihoods Related to Food Systems, Armed Conflict, Taxation by Armed Groups, and Systemic Financial Access. Notably, Labor Opportunities and Armed Group Control Over Agricultural Activities were also in the top ten eigencentral factors but were not in the top ten most connected components.

This high degree of overlap between central and eigencentral factors demonstrates the importance of these factors in the Somalia food system. Figures 2a and 2b isolate the many factors directly linked to Agricultural Production in the Somalia food system map.

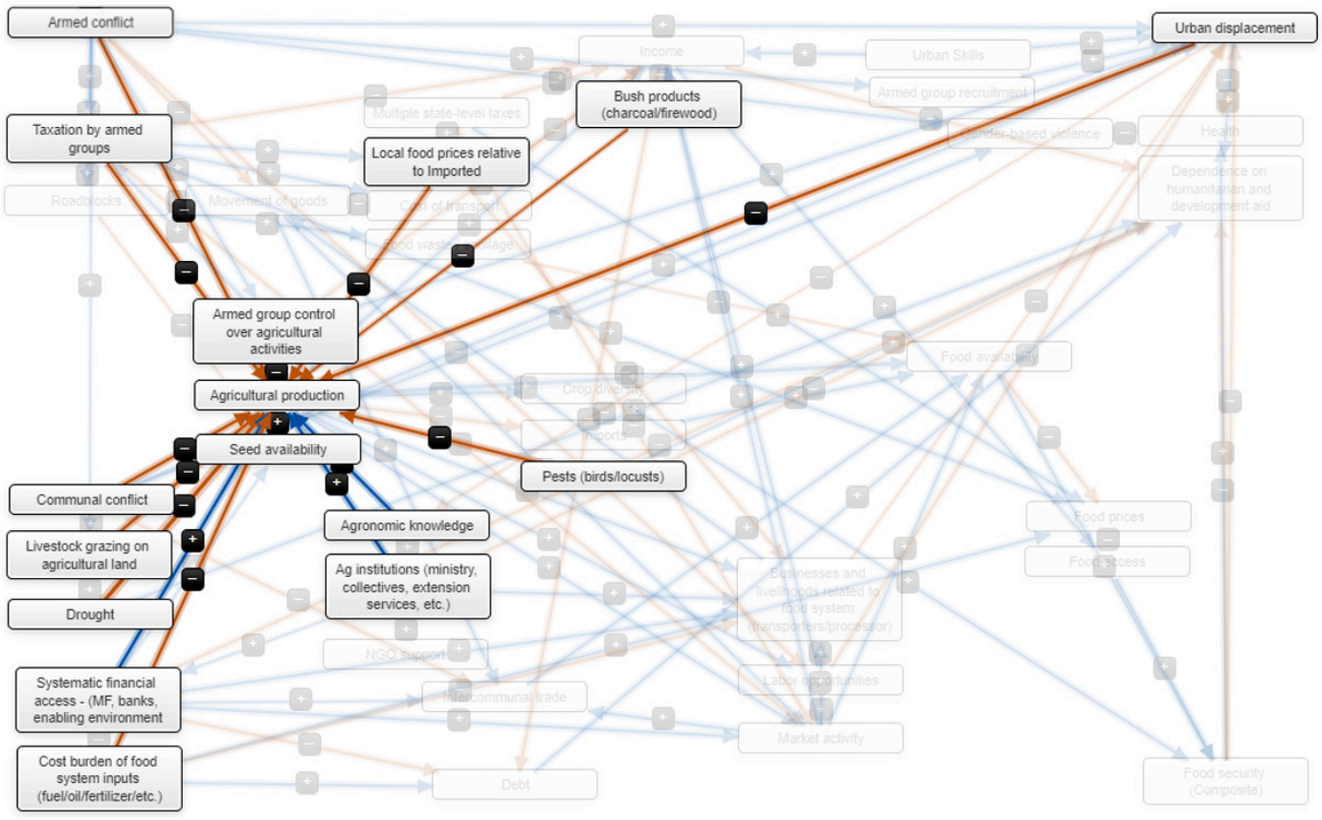

Figure 2a. Fuzzy Cognitive Map of Conflict and Food Systems in Somalia - Impacts on Agricultural Production Highlighted

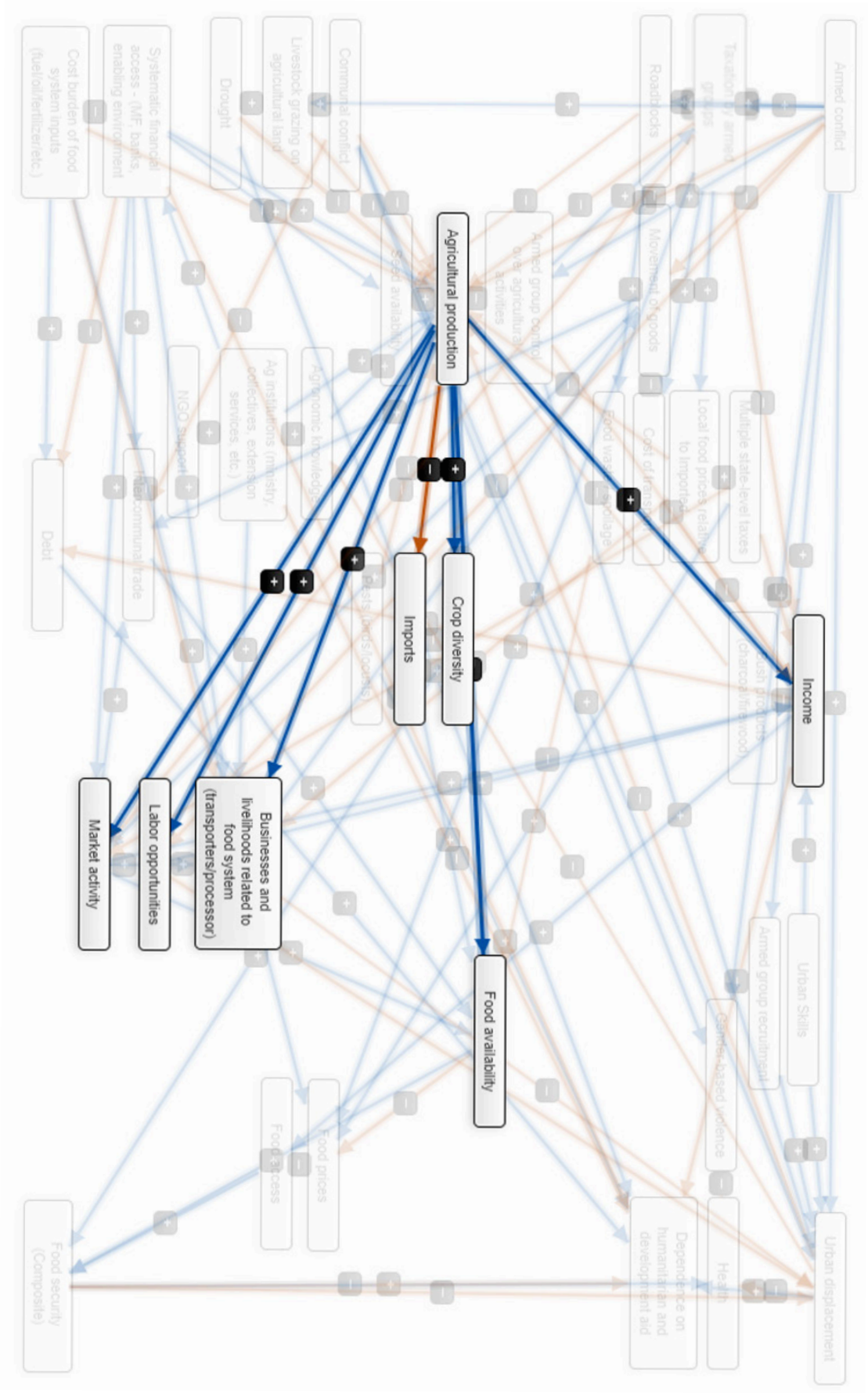

Figure 2b. Fuzzy Cognitive Map of Conflict and Food Systems in Somalia - Agricultural Production Impacts Highlighted

Figures 3a and 3b isolate the many factors directly linked to Urban Displacement in the Somalia food system map.

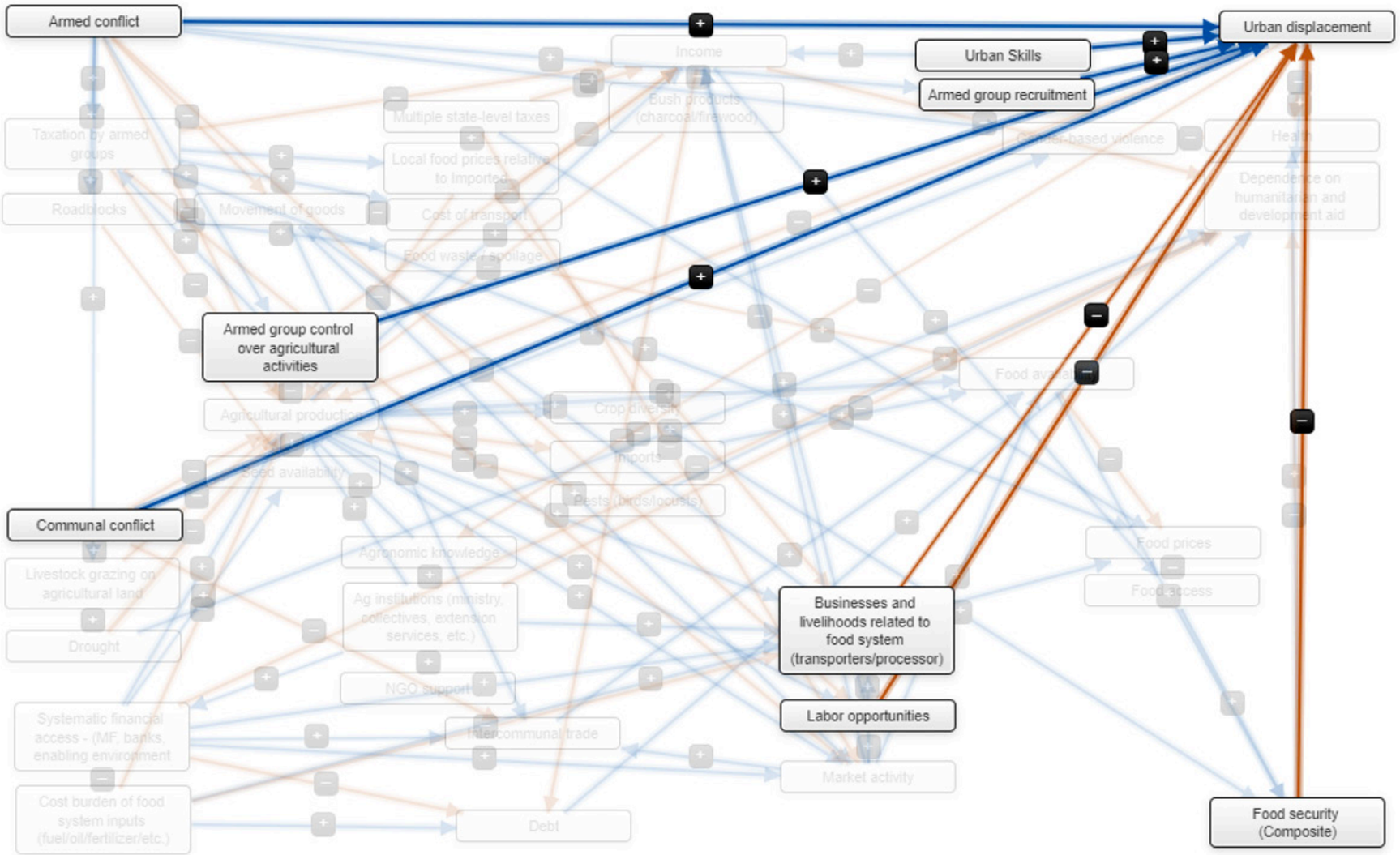

Figure 3a. Fuzzy Cognitive Map of Conflict and Food Systems in Somalia - Impacts on Urban Displacement Highlighted

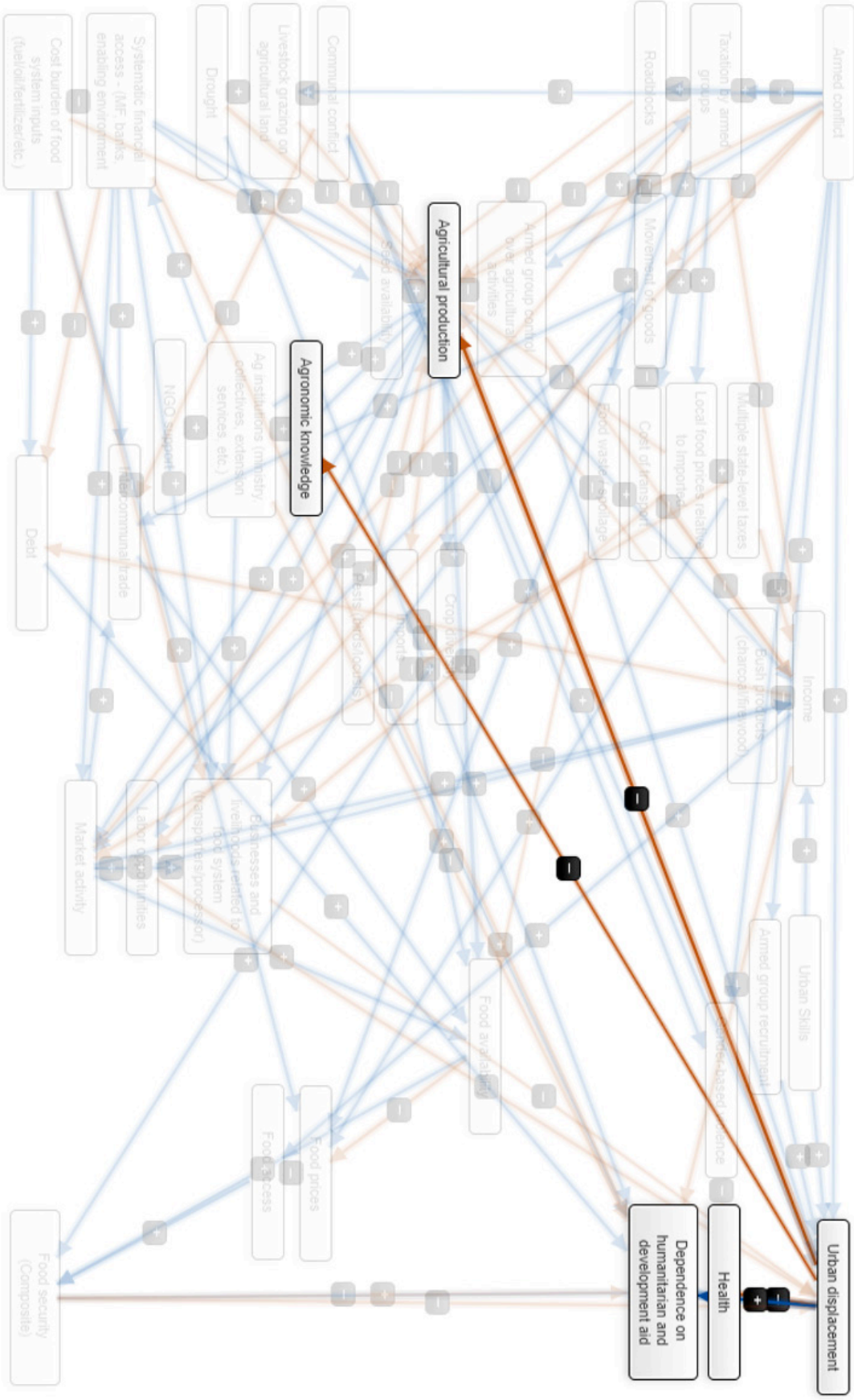

Figure 3b. Fuzzy Cognitive Map of Conflict and Food Systems in Somalia - Urban Displacement Impacts Highlighted

3.1.2 SCENARIOS

In addition to visualizing and weighting the relative importance of factors in the Somalia food system, the FCM approach also facilitates an analysis of scenarios *if* specific factors were increased or reduced by a certain amount.

For instance, a scenario which sees a reduction of 20% in armed conflict has widespread and significant impacts across the food system (see Figure 4). Among the most notable of these are increases in movement of goods (15%) and labor opportunities (12%), and decreases in urban displacement (-18%), taxation by armed groups (-15%) and roadblocks (-14%).

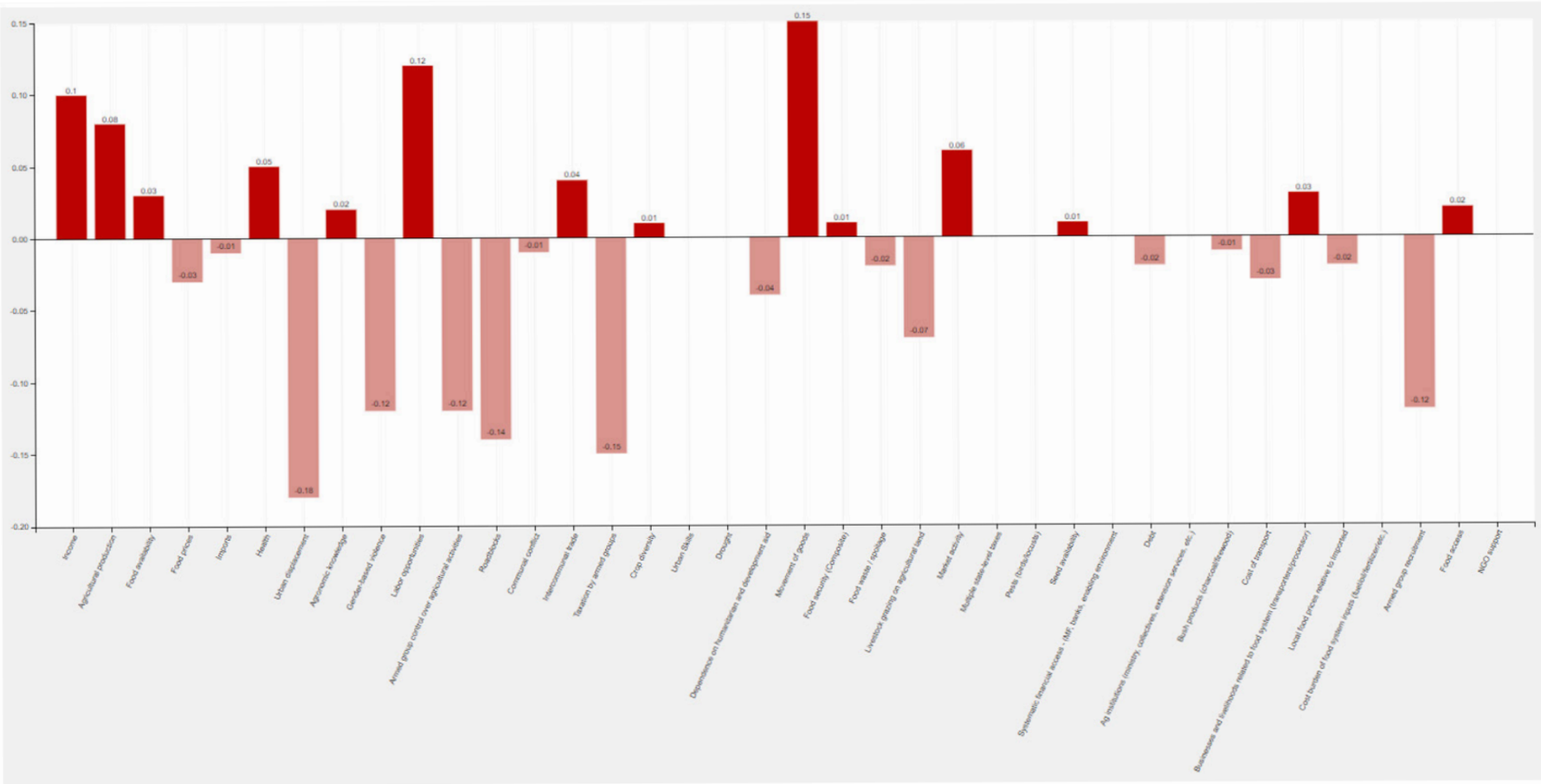

Figure 4. Fuzzy Cognitive Map of Somalia Food System Scenario: Impacts of Reduction of Armed Conflict by 20

While a reduction in armed conflict generally may be highly desirable, it is likely beyond the scope of any individual organization to achieve a reduction of this size. However, the food system map can still illustrate the sizable effects of more specific and concrete changes. Taking a narrower example of roadblocks, which are linked to reduced movement of goods and its wider impacts in the Somalia food system, a reduction of approximately 20% in the significance of roadblocks results in decreases in taxation by armed groups (-12%) and food waste / spoilage (-11%), at the same time as we see increases in movement of goods (15%), seed availability (7%) and market activity (5%)- see Figure 5

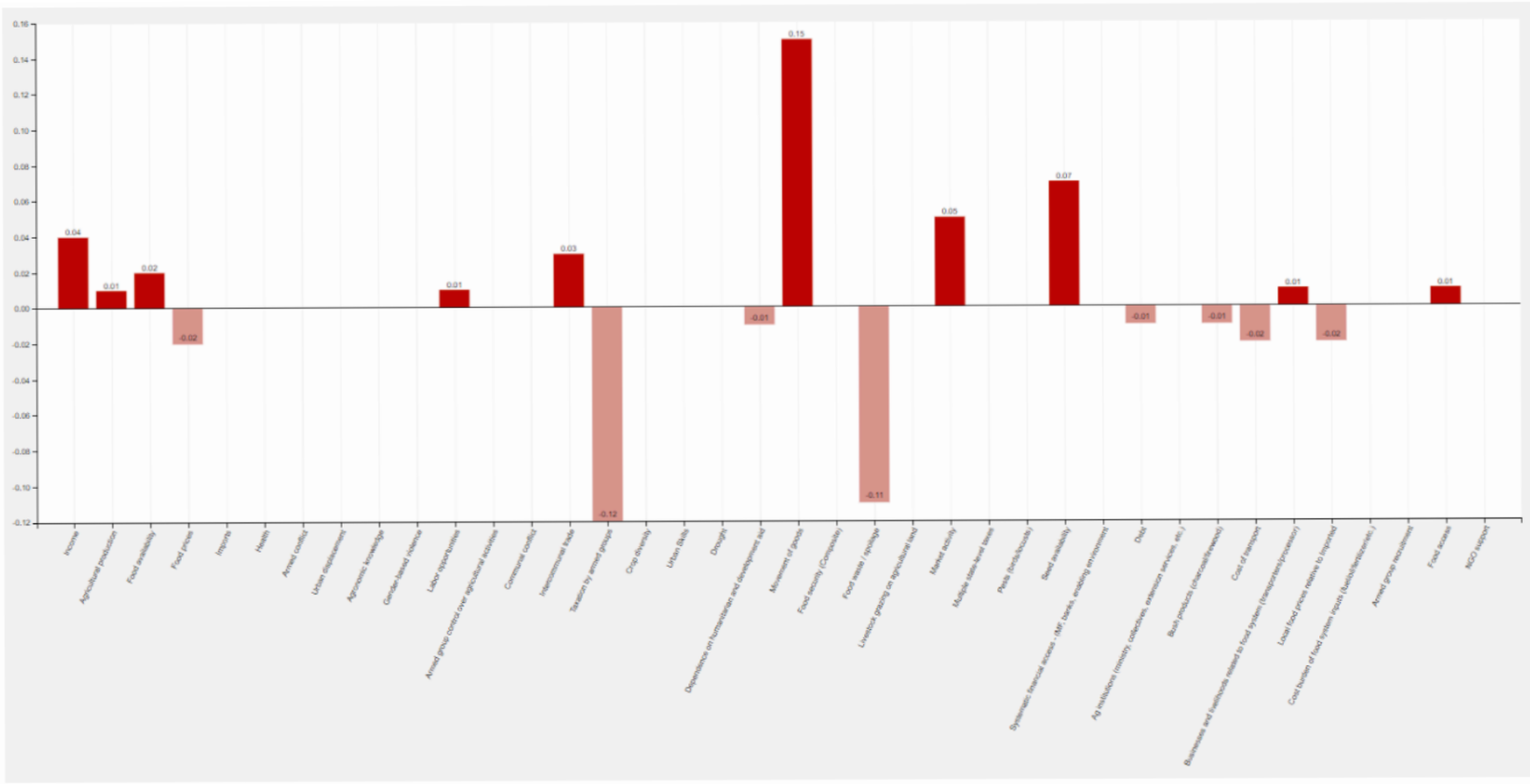

Figure 5. Fuzzy Cognitive Map of SomaliaFood System Scenario: Impacts of Reduction of Roadblocks by 20%

Considering more localized conflict at the communal level, a scenario in which communal conflict is reduced by 20% results in notable increases in inter-communal trade (13%), agricultural production and health (both 5%). It also corresponds to a decline in urban displacement (-15%) and - perhaps surprisingly - a particularly strong negative association with gender-based violence (-13%). This highlights not only the potential for system-wide impacts from addressing more localized forms of violence, but the particular benefits this may have for vulnerable and marginalized groups, including victims and survivors of SGBV (see Figure 6).

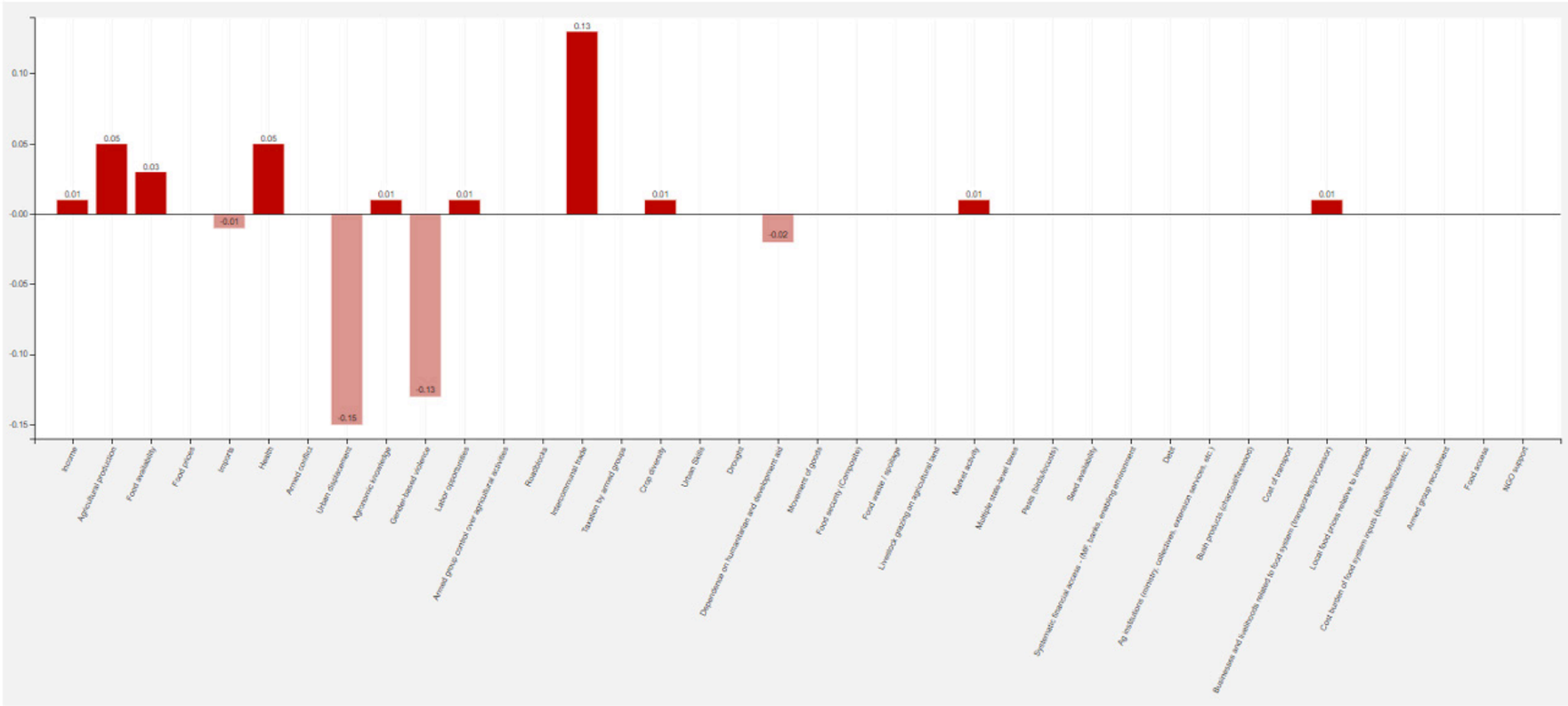

Figure 6. Fuzzy Cognitive Map of Somalia Food System Scenario: Impacts of Reduction of Communal Conflict by 20%

Some potential interventions require more sizable changes in order to have positive effects throughout the food system. For example, while the impacts are marginal at an increase of 20%, a 100% increase in systematic financial supports results in improvements in both business and livelihoods in the food system (10%) and market activity (7%) at the same time as resulting in reductions in dependence on humanitarian aid (-14%) - see Figure 7. Note that while 100% may seem like an outsized increase, current systematic financial supports are at a very low starting point (discussed further below).

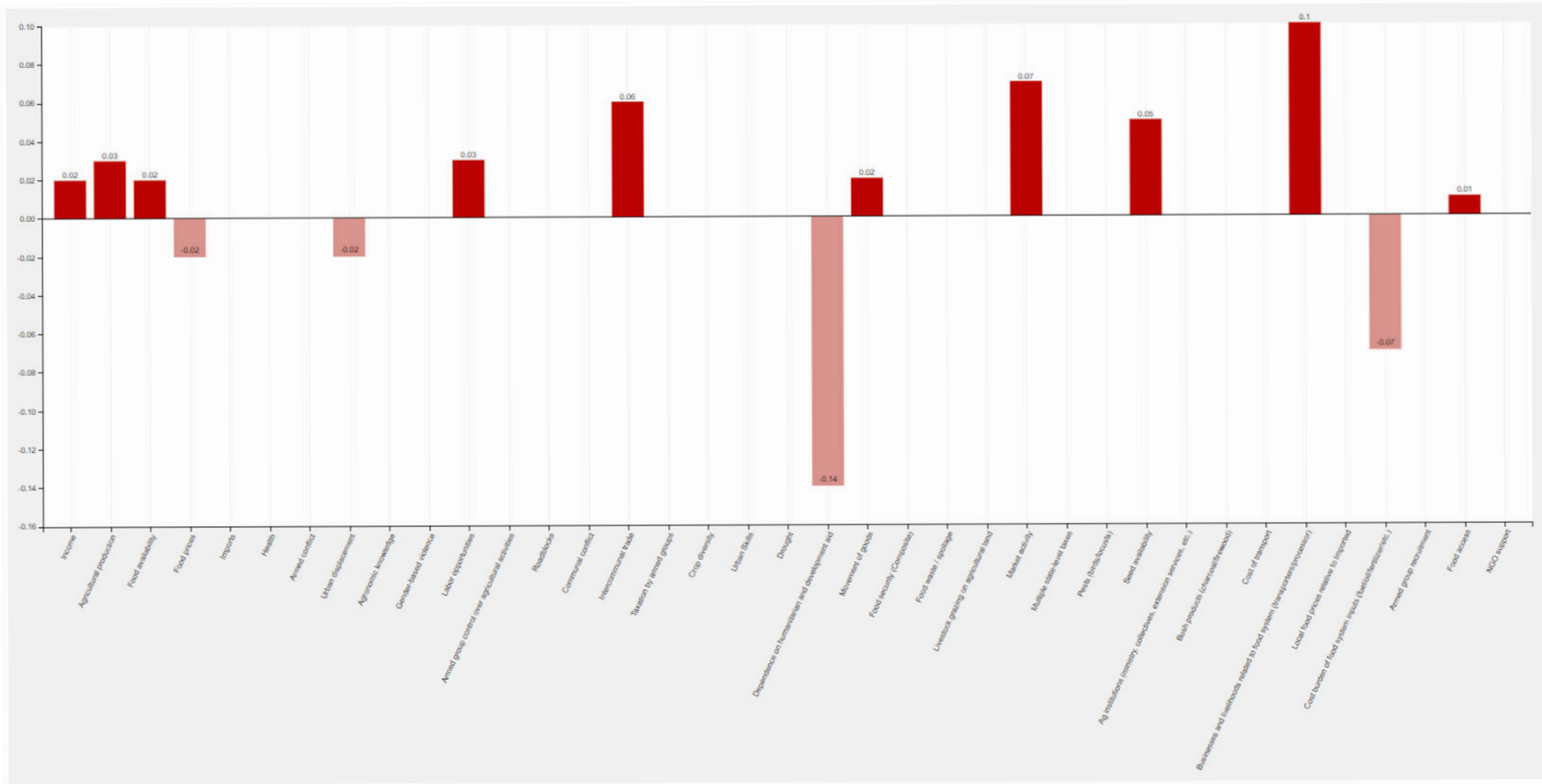

Figure 7. Fuzzy Cognitive Map of SomaliaFood System Scenario: Impacts of Increase of 100% in Systematic Financial Supports

3.2 SURVEY TRIANGULATION

3.2.1 MOST-AFFECTED FACTORS

Overall, just under a quarter (24.9%) of respondents reported that, of the various impacts listed, conflict *most* affects (*Affected Most*), forced displacement; followed by prices for imported foods (23%) and prices for local foods (22.2%). Other factors received considerably fewer responses at 7% and below. When disaggregated by location, there are some consistent factors (such as prices for imported foods, which were prominent across all locations), and some that are more prominent in one or two locations (such as ford displacement, unemployment, and planting and harvesting activities, see Table II).

Table II. Top Five Factors Most-affected by Conflict, by Survey Location

Wadajir (*n*=171)	Karan (*n*=167)	Bondhere (*n*=67)
Prices for local foods	Forced displacement	Prices for imported foods
Prices for imported foods	Prices for imported foods	Forced displacement
Unemployment or informal employment	Processing of food	Prices for local foods
Planting or harvesting activities	Roadblocks or checkpoints	Unemployment or informal employment
Amount of food at home	Planting or harvesting activities	Amount of food at home

Respondents who reported their communities were relatively less affected by displacement (responding 'Badly' and 'Slightly' affected, as opposed to 'Very Badly') were more likely to emphasize processing of food (33.3%) and unemployment or informal employment (26.1%), compared to 'Very Badly' affected respondents, who chose these at rates of 2.4% and 3.9%, respectively. These observed trends were confirmed with statistical analyses which found a statistically significant difference in respondents' whose communities were reportedly less likely affected by displacement, selecting 'processing of food' ($p<<0.001$) or 'unemployment or informal employment' ($p<<0.001$) as the most impacted by conflict. Respondents in communities they reported were relatively less affected were also less likely to report prices for imported or local foods (at 5.8% and 1.5%, respectively) than those in communities respondents reported as very badly affected.

Taken together, the responses appear to suggest that respondents whose communities are very badly affected by forced displacement report conflict's greatest impacts on access to food (prices) along with food production (such as planting and harvesting); while respondents who report their communities are relatively less affected report greater impacts at secondary and more advanced stages of the food system – such as processing, market activities, transporting food (roadblocks and checkpoints) and employment.

3.2.2 DISPLACEMENT'S EFFECTS

Overall, 95.8% of respondents either strongly agree, or agree, with the statement: "Thinking about your own community [...] Displacement into the community causes more violence and insecurity." These are almost exactly split by strongly agree (48.4%) and agree (47.4%) with an almost negligible minority disagreeing (3.5%) or strongly disagreeing (0.74%). Across the self-reported impact of displacement on communities, respondents who reported being 'Very Badly' affected were no more likely to strongly agree with the statement than those 'Badly' and 'Slightly' affected (47.6% compared to 52.2%, respectively), though they were considerably more likely to agree (51.5% compared to 27.5%, respectively) and noticeably less likely to disagree (0.3% compared to 18.8%, respectively).

There are no significant, discernible patterns across respondent household size, sex or age (see tabs 16b, 16c, and 16d, respectively). However, there are differences by location: respondents in Karan and Bondhere were almost twice as likely to strongly agree with the statement, than those in Wadajir (see Table III). This observation was confirmed with statistical analyses, indicating a statistically significant difference by location ($p>>0.001$).

Table III. Responses to Whether Displacement Causes More Violence, by Location

Displacement Causes More Violence	Wadajir (*n*=171)	Karan (*n*=167)	Bondhere (*n*=67)
Strongly agree	32.2%	59.9%	61.2%
Agree	66.7%	31.7%	37.3%
Disagree	0.6%	7.8%	-
Strongly disagree	0.6%	0.6%	1.5%

In terms of livelihoods, respondents who reported their communities to be relatively less severely affected by forced displacement were consistently more likely to disagree with statements on forced displacement disrupting livelihoods (either requiring displaced populations to seek new livelihoods or move to areas in which there are no livelihood options available to them). This may indicate that either these respondents reside in communities where livelihood options are relatively accessible to displaced populations (and therefore, they do not see these significant disruptions), or it may be a function of the perception of relatively less displacement-affected populations that displacement is not so disruptive to livelihoods (regardless, potentially, of the reality). Further analysis into the extent to which this is conditioned by location and/or potentially a function of (mis)perception on the part of less affected populations, would be valuable in informing interventions that may better connect displacement-affected and less-affected communities in food systems interventions.

It is important to note that these differences – particularly in the level of disagreement with the statements – may in part be a function of how the question is framed (for example, those likely to perceive their communities as 'very badly' affected by displacement – itself, a negative characterisation – may be systematically more likely to associate displacement with violence than those 'Badly' or 'Slightly' affected). However, bearing this caveat in mind, the results point to the potential value of social cohesion and peacebuilding activities within and across severely displacement-affected communities.

Lastly, in considering the profile of those affected by forced displacement, there is relatively high consensus across respondents that 'Conflict displaces more women and girls than men and boys' (with 94.3% of respondents agreeing, and no notable differences across respondent sex); and that 'Conflict displaces younger people more than older people' (with 94.8% agreeing, and no notable differences across respondent age group). Together, these point to the potential importance of tailoring interventions for displacement-affected populations at young people, and young women in particular, as a way of reaching the most-affected.

3.3 ILLUSTRATIVE ISSUES FROM KEY INFORMANT INTERVIEWS AND FOCUS GROUP DISCUSSIONS

3.3.1 RISING COSTS

Because the majority of food in Somalia is imported, exceptionally high food inflation and the reduction of Somalis' purchasing power on global markets has severely limited the availability of food resources. As an FGD participant stated, "Ukraine has limited the world's supply of staple crops like wheat, corn, and sunflower oil, resulting in the skyrocketing of food prices and food shortage, this jeopardized global food security and heightened political tensions." Merchants have suffered lower profit margins, but they reportedly can no longer pass on these costs to consumers because the purchasing power of Somalis has been so degraded. Many merchants have moved away from food related business as a result. These factors have further reduced the amount and diversity of affordable food in the country, and many people, especially children, are now facing both calorie and nutrient deficiencies.

3.3.2 IMPORTS

On top of the global food price crisis, general insecurity and violence prevent many people from leaving their homes to even find food while further disrupting livelihood activities and reducing incomes. Furthermore, taxation is closely tied to the import system, whereby high taxes are collected on all imported goods – in addition to government duties – which significantly raises the price of these products. Since the country is so dependent on imported food, consumers are forced to pay these higher prices, often for low-quality imports. Additionally, food processing is degraded as small businesses that process foods such as groundnut oil cannot operate due to high costs for production and poor supplies of inputs such as fuel and water.

The importance of imports means food access is also highly dependent on the ability to move goods from

ports across the country. Roadblocks and armed conflict can severely impact the ability to transport goods, driving food prices higher. For example, in Mogadishu 1kg of rice is 2 USD, but in more rural areas the price is inflated to 3-4 USD because of taxes and transport costs. In some cases, Al Shabaab bans certain types of food imports from specific countries, such as Turkey, raising prices of that foodstuff. Transporters that cannot make it past roadblocks also face spoilage of foods like tomatoes, which constrains the type of crops that are bought and transported to market. Overall, this situation has led to an untenably high price environment for the entire country.

3.3.3 DISPLACEMENT

Displacement – either to camp settings or urban areas – is a major factor affecting the food system. During times of conflict, the threat of forced recruitment or targeting by armed actors pushes many rural households who work in the agricultural and livestock sectors from their home. However, displacement can also result from limited opportunities to sell crops due to disruptions at local markets or from a scarcity of food altogether. Producers who flee their land must leave their storage and any harvests, which further exerts pressure on already limited regional food supplies. Importantly, KIIs noted that people who are displaced from their homes rarely return. Urban areas typically provide better access to humanitarian assistance, employment, or begging. This out-migration from rural to urban areas, particularly as younger men leave their villages in search of employment, typically means elderly community members stay behind.

Displacement can be particularly challenging for women, who rely on cash crop cultivation, such as cowpeas or onions, for their livelihoods. When these production activities become disrupted, women are less able to provide income or food for their families. They are forced to become casual laborers, earning much smaller sums of money. Children are also particularly vulnerable. Once impacted by displacement, children no longer have no school or madrasa and are often required to work to support their families. According to the KIIs, when people are internally displaced, they become largely dependent on food and monetary assistance, which can result in a long-term dependence on humanitarian assistance. This dependence on humanitarian assistance can be particularly challenging for women, who are often the recipients of assistance, and who, as a result, become targets of GBV.

Furthermore, while Somalia is highly dependent on imports, critical agricultural losses can occur because of displacement. For example, when herders from north Gedo were forced to move most of their livestock to neighboring regions over the border in Ethiopia due to a pasture and water shortage, some were subsequently denied access to pasture and water resources. These herders were forced to travel further and further, increasing their risk as they faced increasing uncertainty over their ability to secure enough resources for their livestock. As a result, most of their livestock died due to lack of food and water. These are losses from which it can be nearly impossible to recover. Additionally, displacement causes lost labor throughout the food system as work related to production, processing, transport, and trade can all dry up. Displacement also causes a loss of agronomic knowledge necessary for food production, which can potentially be devastating for food production among future generations.

3.3.4 MOBILITY

In Somalia, armed group taxation plays a large role in mobility and the ability to transport goods by road. According to the KII's, payments to groups like Al-Shabaab are on top of government taxation, which can be exorbitantly high as well. As a result, market traders are required to pay large sums of money to both government and non-government actors, reducing their overall incomes. As a result, these vendors are less likely to participate in markets, and food becomes less available and more expensive to consumers.

Taxation is also commonly used to control farmers and their products. Not only do armed actors regulate the production and cultivation of land that they control, but they also demand high taxes from producers to allow them to work their farms. This is particularly true in rural areas where the government is unable to provide protection, leaving farmers especially vulnerable to extortion and revenue extraction from Al-Shabaab and ISIS. Moreover, much of the time these taxes are demanded before cultivation. Because farmers are unable to afford these payments before the planting season, they are forced to abandon their farms and may seek refuge in camps or other urban areas.

In some cases, crops are burned by Al-Shabaab because they may be intended for markets in government controlled areas. When crops are allowed to be grown, the harvest is taxed on the number of acres grown, and farmers are expected to volunteer a 'zakat.' When they need to take their harvest to market, the government also taxes the produce, adding to the cost of doing business. Roadblocks on occupied roads also present an opportunity for Al-Shabaab to destroy crops if certain fees have not been paid or even due to a simple argument or misunderstanding. Food from outside areas may also sometimes be banned and kept out by Al-Shabaab for various political reasons.

Conflict further impacts mobility similar to taxes, reducing the flow of necessary inputs into the food

system, hampering trade, and compromising access to food. Travel to and from Mogadishu is important for the transport of imports and for access to high-quality seeds. Roadblocks also affect flows of food and can increase spoilage due to disrupted or delayed travel. As a result, traders can face deficits when produce is sold at a lower price because of its degraded quality or because of their inability to access favorable markets. If transporters are alerted of a conflict situation or roadblock, they will commonly use rough and risky routes that are much longer, which causes greater uncertainty and increased fuel usage. These disruptions reportedly cause problems between traders and the truck owners moving their goods, leaving no winners in the Somali food system.

3.3.5 COPING STRATEGIES

In Somalia, the food system simultaneously feeds people and is the main driver of livelihoods. These two purposes, however, are sometimes at odds. For example, producers may alter their livelihood strategies by switching to alternative markets, manually processing crops, storing food locally, switching to bush products, selling production assets, or trying to directly sell goods, but all these coping mechanisms ultimately reduce the quantity of available food in the system. Some producers have transitioned to cash crops or cereal grains in search of higher margins, but this change reduces the diversity of food produced locally. Others have abandoned food system livelihoods altogether and taken up casual labor.

Because of roadblocks, taxation, and limited mobility, diminished trade and exchange within the system further reduces the flow of capital and food. This lack of trade, along with increasing risks to those engaged in food-related livelihoods, reduced returns and pushed costs higher for food system inputs such as seeds, fuel, fertilizer and necessary maintenance. Notably, it has also diminished re-investment in the food system. For example, some transporters have gone to manually distributing food by cart or donkey cart to reduce their overhead costs, but this change serves to decrease both supply and incomes. When combined, all these factors drive up the cost of local food compared to less nutritious imported food, disincentivizing future local food production, and alter diets toward imported foods.

As explained by a farmer mother in Bulo-garas (Bardere district): The drought coupled with predatory middlemen has altered their traditional way of farming. Their needs have been ignored, and they have been pushed to farm certain varieties of cereal seeds with which they were unfamiliar. They are now destitute as they have now lost their investments in their farm and their assets, which now prevent them from resuming their previous farm practices. There now exists a mismatch in which high food prices and low production resources keep people insecure. The few options left include decreasing food intake, selling remaining assets, and becoming dependent on humanitarian assistance.

3.3.5 ACCESS TO FINANCE

Protracted conflict and economic uncertainty have limited the number of financial institutions and agribusinesses in Somalia. The lack of lenders has led to difficulties in obtaining agricultural inputs such as seed and fertilizer. Similarly, limited external investments in food value chains and their related industries have made creating new value more challenging. This lack of capital investment in turn leads to fewer employment opportunities, which the FGDs highlighted as a major barrier given other livelihood constraints such as poor education and lack of job creation skills. So, as insecurity reduces investment, the lack of investment keeps people insecure.

Furthermore, farmers are frustrated by the lack of farming cooperatives and support from the government ministry of agriculture. Of those producers who have been able to borrow, many have gone into debt and bankruptcy trying to continue to farm with few other options. Given the rise in transportation costs and disruptions to markets, increased food spoilage and decreased incomes make it much harder to pay back these debtors. High unemployment and inflation have also severely damaged the purchasing power of Somalis, meaning anyone with produce to sell has little market for their products. Traders and merchants are also losing business as a result, and everyone has fewer resources to reinvest in the food system.

4. DISCUSSION

4.1 DISCUSSION OF RESULTS

Overall, the research reveals conflict has a negative impact on the food system of Somalia through a) crippling informal taxation and territorial control by armed actors; b) exploiting a lack of systematic supports to the local food system from the public and private sector; c) magnifying the destructive forces of climate change; and d) maladaptive livelihood transformations that undermine the local food system and can disable their ability to recover.

The sections below explore these in further detail, distinguishing between impacts of conflict on the food system that are -

- **Connected** - complex interconnections between different nodes in the food system;
- **Cumulative** - successive, repeated exposure to specific distortions and disruptions in the food system that intensify impacts; and
- **Compounding** - combined impacts of co-occurring effects on the food system that act together to multiply impacts.

4.1.1 CONNECTED

Imports and inflation

Imports have an important role to play in food security by supplementing local food production with food imports as well as providing key inputs in the form of seeds, fertilizer, fuel and other supplies that may not be available in sufficient supply locally. Food imports can help meet the need for food quantity and dietary diversity in combination with local food production but can also be harmful when suppressing local food systems. There are connections between local food production, imported food and agricultural inputs that inflation can modulate. Conflict acts to drive inflation on both agricultural inputs and local food prices to degrade local food systems. In the food system map, rising agricultural input prices contribute indirectly to food import dependence by undermining agricultural production when the cost of agricultural inputs rise. If food imports are of low-quality calories such as processed carbohydrates, they can disincentivize local nutritious food in the short term and change diets in the long term.

The cost of local foods, to make it from farm to table, is also inflated by conflict due to taxation, roadblocks and limited mobility, as described below. When imported foods are relatively lower priced and replace local foods directly, they also disincentivize local food systems. The cost of agricultural inputs also contributes to a more systematic abandonment of agricultural livelihoods, as landless producers abandon production because inputs outweigh profits, particularly when renting land. The abandonment of food system-related livelihoods, discussed below, has a further, mutually reinforcing impact on agricultural production as it heightens import dependence, contributing to a less sustainable, more volatile and fragile food system in both the short and longer-term.

Host and IDP communities

As other humanitarian crisis research shows, host communities and IDPs often have very similar needs in acute crisis settings and this research on food security in conflict reflects very much the same, with similar pressures bearing down on both populations. Conflict has wide ranging impacts on the food system that may be felt initially by displaced and non-displaced populations in different forms, displaced populations forced from agriculturally productive areas or urban host communities observing initial impacts in markets. The surveys point out that they experience or perceive differential immediate impacts on the food system perhaps as conflict in food production activities and locations cause displacement to urban areas that may not perceive the same initial impact or find processing and trade more greatly impacted.

Yet the combined effects of conflict on the food system lead to the same pathways for food insecurity in both groups with decreased local production and availability as well as higher prices. IDPs are more often housing stressed and may have few coping capacities, making them more vulnerable, but food security interventions must recognize the shared consequences of conflict on food systems that drive their food insecurity. Finally, urban displacement puts a strain on municipal services and basic goods that also affect the host communities.

4.1.2 CUMULATIVE

Roadblocks, taxation and mobility

While roadblocks are a direct manifestation of armed conflict, informal taxation and mobility are closely linked. The impacts of informal taxation and restricted mobility due to conflict accumulate throughout the food system in various ways. Their food security impacts are transmitted through a) decreased food availability by disincentivizing production and restricting the movement of goods; b) diminished food accessibility by from increased transport and production costs transmitted to consumers in higher prices; and c) poor food consumption indirectly by driving food spoilage and forcing households to depend to a greater extent on smaller, local markets with more limited selection and often, nutritionally inferior food.

Inputs into the food system, such as seeds, oil and fuel transports from central or port cities are also informally taxed by armed groups raising the cost of food production and processing. Armed groups may impose taxes at every stage of the food system from production to processing to transport, and trade. This burden combined with taxes from the government can add up to make food system activities prohibitively expensive or significantly diminish returns and ultimately degrade local food systems.

4.1.3 COMPOUNDING

Climate change and conflict

Natural resource pressures from climate change such as drought combined with conflict greatly handicap food systems. Water and pasture shortage and denial of access compound leading to death of livestock. Similarly, loss of arable land from denial of access and climate change reduces agricultural output. Along with conflict impacts on access to machinery, spare parts and fuel costs, water pumps, critical for compensating for a lower water table and drying natural sources from drought are compromised as well. Similarly, drought tolerant plants often require imported seeds, but their access is also stymied by conflict, limiting availability and increasing their cost.

In addition to extremes of weather-related phenomena, such as severe droughts and floods, climate change makes harvests less predictable and disincentivizes investments in following seasons. Transitions away from traditional farming are also common under climate change as cash crops return greater value and cereal grains are easier to grow requiring less investment for future production, but both make reverting back to traditional crops difficult. Both these climate driven disinvestments combine with the decreased investment caused by conflict and failures of financial supports disables local food production. Climate change has caused multiple years of environmental stress that are difficult to recover from without sustained support and investment. Conflict induced transitions to bush products such as firewood and charcoal can further accelerate environmental degradation that can amplify impacts of climate change on the agricultural sector. Finally, competition over natural resources such as water and land that does not involve armed actors but communal groups can lead to conflict and further increases food prices.

Systematic financial supports

While conflict intersects with the food system in numerous ways, financial supports fail to systematically address these impacts and cannot realize lasting benefits. Their absence compounds the initial consequences of conflict and allows the disabling of endogenous food systems. Humanitarian assistance can in some cases do harm as it can be more often urban-based, incentivizing displacement. Food assistance can often supplant local demand when import-based. Cash transfers that are targeted only for consumption rather than food system-related business and inputs to the food system do not allow the system to counter maladaptation. Failure at the state security level is mirrored in the public apparatuses that should provide some of this support in ministries and infrastructure or safety net programs. However, failures at the private level and lack of assistance in financing for food system related businesses also compound this problem. Taxes and high cost of producing yield as well as transport costs make local production hard and more costly than cheap imports. Food processing factories are also affected by inflation and many struggle to operate due to high costs. It is often difficult for producers to secure inputs such as seeds and fertilizers with no financial support from lenders, and so production is impacted.

Health disruptions and specific risk for IDPs

Agriculture and livestock are the primary livelihoods in Somalia. As noted in depth throughout this report, any disruptions to these livelihoods have serious implications on both income and food availability with cascading effects on health. As conflict erupts, livelihoods that support food production are disrupted, food prices rise,

and both income and food availability suffer. As a result, rates of malnutrition and undernutrition rise, particularly among children. The damaging impacts on livelihoods documented throughout this study, lead to significantly reduced income which is critical to maintaining health and wellbeing from adequate shelter and basic needs as well as self-care. Coping strategies employed in response to livelihood disruptions are also often specific to health from skipping meals to forgoing medication and even basic hygiene.

When either food prices or income are independently altered, the health status of a population deteriorates; in the context of a country that is highly reliant on agricultural livelihoods, as in Somalia, the joint and compounding impacts of rising food prices and disruptions to income are vast. These synergistic effects have the potential to increase the rates of morbidity and mortality in an already stressed healthcare system.

The violent context in Somalia makes operating and maintaining a health system with adequate supplies and capacity challenging and accessing services dangerous and difficult. As a result, the health status of the population suffers not only from direct combat-related morbidity and mortality, and the multiplicative effects from reduced food and income, but also from health care system and public health deficiencies. These risks include an increase in the spread of infectious and chronic diseases (such as diarrhea and respiratory infections), increased rates of mortality for pregnant women, increased under-5-mortality, and a higher risk of SGBV.

Displacement itself puts added strain on existing healthcare services in an area. The more vulnerable situation for displaced persons, brings added risks from higher rates of inadequate shelter, greater dependence on humanitarian assistance and loss of community networks and social support that work together to affect their physical and mental health.

Maladaptive livelihood transformation

The most striking revelation enabled by this holistic mapping analysis is that food and livelihood systems are transformed by conflict into maladaptive states that undermine endogenous food systems and food security. Conflict initiates maladaptive cascades – a combination of mutually reinforcing negative coping strategies that have cumulative consequences. These maladaptive cascades initiated by conflict lead to pathways that diminish, degrade or disable local food systems. Often, the coping strategy used to deal with conflict navigates people into behavior that disrupts the food system in the medium to long-term, by reducing local food production, availability and access.

As conflict drives production, processing, transport and market costs higher or simply makes transport or doing business more risky or difficult, stakeholders in the system often reduce their activity. Farmers will cope by growing less crop or switching to cash crops if profits decline or limited mobility leads to excess waste. Some turn to bush products such as charcoal to compensate for income which further degrades the environment and undermines future food production. Manual processing as a coping strategy for lack of mobility to machine processing sites or diminished capacity among industrial processors leads to less food availability. Transporters reduce their risk with fewer trips or alternative cargos. All stakeholders may resort to alternative markets with less business.

These coping strategies, however, cannot meet the needs required of the local food system, generate enough return for risk and expense among food system stakeholders and undermine the flows of capital that allow that system to run and reinvest in itself. Ultimately, this leads to displacement and abandonment of food system livelihoods for alternatives which disables local food systems further increasing food import dependence. In addition to the cyclical relationship between conflict and food security as drivers of one another, the map reveals these more destructive pathways that can be difficult to overcome and not easily ameliorated by simply addressing conflict.

4.2 Conclusions and recommendations

While this research has been holistic in exploring conflict's impact on food systems, it focuses on many of the protracted and chronic conflict dynamics that impact food systems. The researchers keenly acknowledge that acute crises and flares of conflict and violence require their own interventions to minimize suffering and the loss of life that may run counter to some of the findings from this investigation. The recommendations set forth here are intended to be employed when appropriate and in conjunction with short term interventions to address acute crises.

4.2.1 PROGRAMMATIC RECOMMENDATIONS

1. **Design targeted protection interventions that support vulnerable stakeholders in the food system.**

Across mapping, surveys and qualitative consultations, this research revealed how reduced mobility and vulnerability of food systems stakeholders is a key component driving reduced availability of food, higher prices, and abandonment of food-related livelihoods.

Providing targeted protection services for vulnerable stakeholders - particularly women - in the food system is both an important service for at-risk populations, and an intervention with the potential to mitigate disruptions in the food system. Protection activities might include targeted health and psychosocial support for women vendors and merchants, and small-scale producers who sell directly in markets; targeted protection trainings for state security forces and informal authorities (such as community leaders, elders, and other actors) highlighting the violation of rights and disruption to the food system that arises due to the targeting of food systems stakeholders; and wider community awareness-raising, sensitization and a public information campaign around rights and entitlements to support a more enabling environment and shifting norms in armed actor behavior.

2. **Provide targeted support to local peacebuilding and conflict resolution mechanisms that directly engage displacement-affected populations broadly.**

In the broader context of the Durable Solutions framework, targeted support to social cohesion programming that supports relationship- and trust-building between displaced and host populations, leveraging aspects of the food system as catalysts for cooperation and exchange, would be valuable. Survey respondents consistently perceived displacement as a driver of further conflict, which can fuel further disruptions throughout the food system. Targeted efforts to support initiatives that enhance exchange, cooperation and interdependence within food system-related activities between host and displaced populations could help to address this, and potentially introduce innovative approaches to conflict resolution from marginalized community members.

3. **Invest in targeted support for public systems throughout Somalia broadly, and agriculture and agronomic knowledge particularly.**

The staggering rates of displacement in Somalia have created a context in which agricultural and agronomic knowledge and knowledge transfer suffers. This context lends itself to challenges related both to the ability of farmers to sustainably harvest their land, but it also threatens reintegration strategies following prolonged displacement. A sustained investment in public system support for the transfer of agronomic knowledge would benefit individual farmers, communities, and the food system broadly. This is particularly recommended in the context of a changing climate, necessitating the thoughtful and expansive transfer of agronomic knowledge.

A breakdown of public system support has resulted in an increase in agricultural livelihood abandonment. Federal and state Ministries across Somalia are currently fragmented, under-resourced, and poorly staffed. By reinvigorating the Ministries at the federal and state levels, programmatic efforts may be effective in promoting agronomic knowledge while reducing displacement and improving a failing food system.

4. **Explore similar investments in supporting innovative private sector financial instruments targeted at food system stakeholders.**

Evidence gathered from consultations including FGDs and KIIs highlighted a specific gap in the availability of systematic financial support among food systems stakeholders in Somalia. Scenario analysis of the FCM revealed that at significant levels of increase, this area could have broader system-wide effects. The failure in the public systems throughout Somalia are partly mirrored in the private sector as well when concerning the financial system. Small and micro-enterprises (SME) comprise much of the local food system stakeholders but very few products serve them effectively. In the context of a large cash-based transfer sector within the humanitarian response in Somalia, systematic financial support for food system-related stakeholders (including producers, transporters, and vendors), are lacking.

Interventions including more systematic programming for financial access, microfinance and support to the food system beyond, and as a complement to, more direct cash transfers for consumers, should be explored. Undertaking interventions of this kind will require careful conflict-sensitive mapping of resource mobilization strategies of armed actors in specific locations

to understand and mitigate potential unintended consequences.

Risk transfer mechanisms in the form of micro-insurance in addition to micro-loans and other forms of investments could benefit these food system businesses and prevent attrition due to lack of financial support or risk in pursuing food system related activities. Some of these products may require humanitarian assistance-funded reinsurance, subsidies, or relaxation of typical credit-risk analysis to be viable or some operational research to implement. These risks and challenges should not deter their development in the face of such significant threats to the local food system given the risks of irreparable harm from conflict induced maladaptive processes and widespread displacement. The critical nature of the current food system situation requires bolder approaches than currently provided especially when the default approach of direct food assistance acts to hasten the demise of local food systems.

1. **Pursue humanitarian assistance strategies that support local food systems and minimize negative externalities.**

The humanitarian assistance community, including donors, must take a conflict sensitive approach to understand not only how conflict and food security exist in relationship with one another but how specific humanitarian strategies related to food can reinforce the maladaptive transformations described above. There are unintentional negative consequences to long term food security and perpetuating conflict that may be avoided with a holistic understanding of how humanitarian assistance impacts local food systems. Donors should understand the food import pricing relative to local food and the relationship with challenges in producing, processing, and accessing local food. Directed strategies at overcoming these challenges and preventing maladaptive transformations should be considered as part of a holistic humanitarian assistance strategy.

An FCM approach can reveal potential avenues for supporting local food systems rather than dependence on food imports. For example, as many of the maladaptive coping strategies are centered around changing livelihoods, programming that can support food system livelihoods present an avenue for intervention. More specifically, the prohibitive costs of continuing to do business relative to profit drive these transformations and subsidies targeted at specific local food system businesses may be reasonable at times of stress. Accompanying cash transfer programming, a voucher system for use only on local food vendors or suppliers could help support local food systems. Finally, direct food assistance should be the least preferred mode of assistance made available and used under very specific criteria.

4.2.2 POLICY AND ADVOCACY RECOMMENDATIONS

1. **Undertake research on cash transfers targeted toward food system-related businesses and other food system inputs to identify potential risks and benefits.**

Cash transfers have long been a mechanism for the provision of humanitarian assistance in Somalia. Yet the majority of cash transfer systems in place are targeted towards consumers. The lack of inclusion of food system-related businesses and other food system components creates a gap between production and consumption. However, this research identified taxation and theft as a prominent industry and tool for those participating in the violence in Somalia. In light of this, research on the risks and benefits of cash transfers for food system-related components is recommended in the context of high taxation and targeted violence towards food system-related businesses.

2. **Pursue protection agenda and associated advocacy around cumulative impacts of taxation and mobility barriers (roadblocks).**

Humanitarian and development responses alone cannot fully address the depth and complexity of many of the obstacles affecting food security for people experiencing extreme poverty in Somalia. Political actors within Somalia primarily, and in the wider international system secondarily, have an important role to play in protecting food systems stakeholders. Targeted advocacy efforts can make an important contribution by first, raising awareness of the extent to which roadblocks and attacks on food systems stakeholders affect food security for the most vulnerable; and second, calling for policy action to better protect food systems stakeholders.

Potential policy asks to explore include greater consideration of roadblocks, transport barriers and attacks on food systems stakeholders in transit under

the remit of UN Security Council Resolution 2417 and associated reporting; greater consideration of the gendered effects of roadblocks, transport barriers and attacks on women food systems stakeholders under the remit of UN Security Council Resolution 1325 and associated reporting and briefings; and/or exploring international legal and accountability provisions related to attacks on food systems stakeholders and the gendered impacts where appropriate.

Moreover, respondents from this research consistently indicated the linkage between armed group taxation, mobility, and food system functioning. Increasing targeted advocacy efforts around taxation and mobility to inform policy implementation may play a large role in reducing transportation barriers, increasing mobility, and decreasing food insecurity.

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