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Coping with the Unexpected:

How Youth Face Shocks and Stressors to Agriculture and Food Systems

May 30, 2024

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Coping with the Unexpected: How Youth Face Shocks and Stressors to Agriculture and Food Systems

May 30, 2024

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ACRONYMS AND ABBREVIATIONS

CSISA	Cereal Systems Initiative for South Asia
CSO	Civil society organization
DRSLP	Drought Resilience Sustainable Livelihood Program
FAO	Food and Agriculture Organization
FGD	Focus group discussion
FTF	Feed the Future
GOK	Government of Kenya
LSP	Local service provider
NEET	Not in Employment, Education, or Training
NGO	Nongovernmental organization
PYD	Positive youth development
SACCO	Savings and credit cooperative
SOPs	Standard operating procedures (Government of Bangladesh's response to COVID-19)
UN	United Nations
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
USD	United States dollars
WFP	World Food Programme
YASLA	Youth in Agri-food Systems Learning Activity

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INTRODUCTION

The United States Agency for International Development (USAID) Bureau for Resilience, Environment, and Food Security's Youth in Agri-food Systems Learning Activity (YASLA) is designed to support USAID to better understand how young people engage in and contribute to agri-food systems and their communities' self-reliance. Agri-food systems—described as the complete set of actors involved in production, processing, trading, distribution, and consumption of food and water; and the interlinkages among these processes—face a broad range of challenges. For example, youth may have difficulty in obtaining decent work and dignified livelihoods from agriculture. Agricultural production involves inherent risks, including weather events, price shocks, and pressure to expand in order to feed and nourish a growing population. Agriculture is, therefore, responsible for the environmental impacts of food production and subject to external shocks and stressors. Shocks and other severe stressors (e.g., the COVID-19 pandemic, desert locust infestations, and conflict) have caused significant disruption to food systems and severe economic dislocation to many who work in the food sector. Logically, youth who participate in food systems are affected by these shocks and stressors, but it is not always clear how and to what extent the impacts on youth differ from the impacts on adults. YASLA undertook a study to help fill that gap by identifying, where they exist, differential patterns in how youth and adults cope with these shocks and stressors and where opportunities may exist for USAID to improve its support for youth in agri-food systems in response to these shocks drawing on the **positive youth development** framework and USAID's **resilience capacities** framework.

Background and Research Questions

Since 2011, USAID has supported the use of a positive youth development framework to guide youth-related activities. Figure 1 below illustrates how the four domains of positive youth development—agency, assets, contribution, and enabling environment—are central to fostering youth access to and participation in formal and informal systems, whether related to economic opportunity, governance, civic participation, or public service delivery.

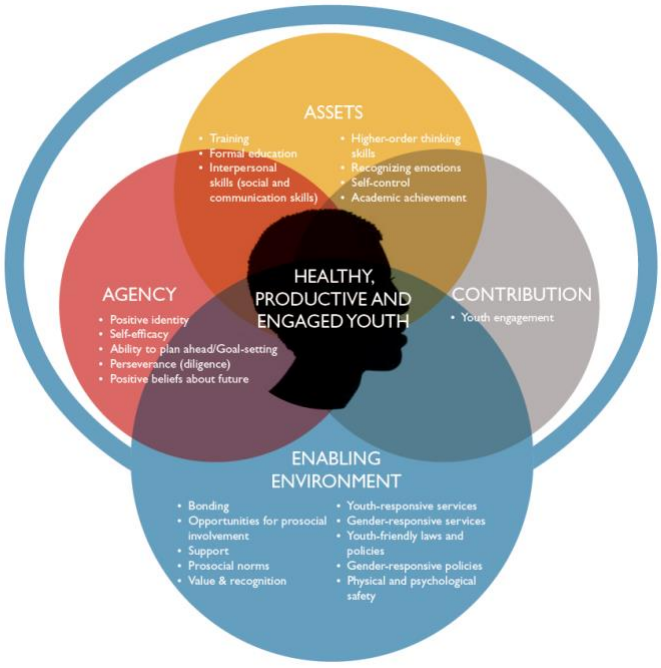

Figure 1. USAID's positive youth development framework

In a similar fashion, USAID has developed a conceptual framework for resilience capacity. This framework focuses on three key stages: absorptive, adaptive, and transformative (generally depicted as a continuum), which USAID defines as follows:

Absorptive resilience capacities are abilities used to minimize exposure and sensitivity to shocks and stresses through preventative measures and appropriate coping strategies that ensure short-term survival while trying to avoid permanent negative impacts. For example, disaster risk reduction, financial services, and health insurance.

Adaptive resilience capacities are abilities that enable informed choices and changes in livelihood and/or other strategies in response to longer-term social, economic, and environmental change. For example, income diversification, market information, and trade networks.

Transformative resilience capacities are the governance mechanisms, policies and regulations, cultural and gender norms, community networks, and formal and informal social protection mechanisms that constitute the enabling environment for systemic change. For example, infrastructure, good governance, and formal safety nets.

As noted above, what is not clear from the literature and experience to date is how these two frameworks interact and what might be different for youth and older adults in responding to shocks and stressors. In light of that evidence gap, the team designed a study to begin to explore a set of research questions:

1. What are the resilience practices (i.e., coping strategies[1] or transformative[2] approaches) that youth use in response to shocks and stressors (e.g., COVID-19, desert locust infestation, and conflict)? To what extent do they differ from the approaches used by adults?
2. How do youth view themselves and their roles as actors in the food system (i.e., can they be leaders, are they empowered to innovate solutions to problems caused by shocks and stressors)?
3. How do youth perceive the broader food system environment when it is subject to a shock or stressor? Who are the major actors who support youth? What resources do youth use? What are the barriers youth find to achieving their goals?
4. What impacts do youth expect to see as a result of Russia's war on Ukraine? How will fluctuating prices for key commodities (e.g., wheat, fertilizer, etc.) affect their livelihoods or businesses? What opportunities might emerge from this new shock?

Methods

A research team composed of a Lead Researcher at Making Cents International, youth researchers from Restless Development, and local research partners, working in collaboration with the USAID Bureau for Resilience, Environment, and Food Security Senior Youth Advisor, implemented a qualitative research design, involving in-person focus group discussions and key informant interviews with youth in Bangladesh and Kenya, as well as a digital survey open to youth globally. The team selected data collection sites based on relevance to the research questions and criteria of interest to USAID, as identified through consultations with USAID Regional Bureaus, USAID Bangladesh, and USAID Kenya. In Bangladesh, the Mission requested that the sites align with the Feed the Future zones of influence and the zone of resilience, which yielded the selection of Barisal and Khulna as zones of influence and Cox's Bazar as the zone of resilience. In Kenya, the Mission identified Isiolo and Marsabit as areas of

[1] Coping strategies are approaches that people use to manage the impacts of shocks and stressors.
[2] Transformative capacity is the capacity to create a fundamentally new system when ecological, economic, or social systems make the existing system untenable.

significance, as both were heavily affected by the desert locust infestation but otherwise had different characteristics of interest. Marsabit is more remote and rural, with few economic options other than agricultural production, small-scale retail, and transport. Isiolo is better connected, more diverse, and has a wider range of economic activity than Marsabit, but agri-food systems still play a significant role in the local economy.

Literature Review. The team conducted a rapid literature review to understand how youth responses to COVID-19, desert locust infestations, and conflicts compared to adult responses. They searched Academic Search Premier, Africa-wide Information, AgEcon Search, AGRICOLA Agriculture (ProQuest), Agriculture & Environmental Science Database, Coronavirus Research Database (ProQuest), Econlit, and JSTOR, Google Scholar, World Bank working papers, United Nations (UN) and FAO sources, in addition to news articles and blogs. Using COVID-19, desert locust infestation, and conflict as key words, the team scanned the literature from January 1, 2000 to February 28, 2021.

Focus Group Discussions (FGDs). The team conducted 10 FGDs—6 in Bangladesh and 4 in Kenya—involving 93 youth (i.e., 45 young men and 48 young women). They organized two single-sex focus groups in each of the five sites (i.e., Barisal, Cox's Bazar, and Khulna in Bangladesh and Isiolo and Marsabit in Kenya). The team recruited participants who had been involved with a USAID activity in Bangladesh or were referred by local experts in non-governmental organizations (NGOs), civil society organizations (CSOs), or government agencies that support youth in agri-food systems in Kenya. The focus groups provided insight into youth experiences across a range of agri-food system activities and allowed the team to explore gender differences in those experiences.

In Bangladesh, the study team recruited 53 peri-urban youth (i.e., 27 young men and 26 young women) who participated in USAID-supported horticulture, aquaculture, livestock, and mechanization activities. Across sites, the youth involved in the Feed the Future (FTF) Horticulture, Fruits, and Non-food Crops Activity raised vegetables, fruits, and grains, and some also engaged in the processing of those products. The youth from the FTF Bangladesh Livestock and Nutrition Activity raised livestock (i.e., cattle and goats), sold feed and medications, or provided veterinary care services (e.g., primarily vaccination or artificial insemination). Aquaculture participants raised or processed fish. The participants from the Cereal Systems Initiative for South Asia (CSISA) Mechanization and Extension Activity worked as machine service providers, servicing an array of farm equipment. Table 1 below shows the distribution of participation across sites and activities, as well as the age ranges and sexes of the youth who participated.

Table 1. Number of Bangladesh Focus Group Respondents by Activity, Site, Sex, and Age Range

USAID Activity	Barisal Young Men	Barisal Young Women	Khulna Young Men	Khulna Young Women	Cox's Bazar Young Men	Cox's Bazar Young Women	Total Number of Participants
FTF Horticulture, Fruits, and Non-food Crops	5 (18-26)	5 (23-29)	3 (19-27)	3 (19-28)	3 (21-22)	3 (25-29)	22
FTF Bangladesh Livestock and Nutrition	4 (26-29)	3 (28)	3 (24-27)	3 (22-29)	3 (22-29)	2 (28-29)	18
FTF CSISA Mechanization and Extension Activity			2 (24-25)	2 (22-24)	2 (24-25)	2 (27-29)	8
FTF Aquaculture and Fisheries Activity			1 (29)	2 (25-28)	1 (28)	1 (21)	5
Total	9	8	9	10	9	8	53

In Kenya, the study team recruited 40 youth, including 19 from peri-urban areas and 21 from rural areas (i.e., 18 young men and 22 young women), who have engaged with local agricultural extension support offices in Isiolo and Marsabit. The large majority of the youth were primarily vegetable growers (37 of 40), and two produced cereals while one produced fruit. Seven of the rural young men also diversified their vegetable-growing businesses with raising livestock—primarily goats, but one of the seven also tended cows and poultry. Table 2 below shows the distribution of participation across sites and sectors, as well as the age ranges and sexes of the youth who participated.

Table 2. Number of Kenya Focus Group Respondents by Agricultural Sector, Site, Sex, and Age Range

Agricultural Sector	Isiolo Young Men	Isiolo Young Women	Marsabit Young Men	Marsabit Young Women	Total
Vegetables	7 (24-29)	10 (20-28)	3 (21-29)	10 (22-29)	30
Grains/Cereals		2 (24)			2
Fruits			1 (27)		1
Livestock and Vegetables			7 (21-29)		7
Total	7	12	11	10	40

Key Informant Interviews. Following the focus groups, the research team selected seven youth (i.e., four in Bangladesh and three in Kenya) who had interesting experiences that illustrated one of the resilience capacities described above (i.e., absorptive, adaptive, transformative). The research team conducted semi-structured interviews and used the transcripts of these interviews to supplement the data in the focus groups and to develop short spotlights on youth experiences that are found throughout the document. Three of these interviews served as the basis for the spotlights included in this report.

Limitations

This assessment has a few important limitations:

- First, this was a small-scale study with limited responses, as described above. The data are not generalizable or representative, even of youth in the food system in the areas included in the study.
- Second, it is important to acknowledge the temporal nature of the study. The data collected represent a snapshot in time, and respondents may not have yet fully known the full range of impacts of the shocks and stressors described below or the long-term impacts of the coping mechanisms they used.
- Finally, much of the data included in the study is subject to recall bias. Data collection occurred almost two years after the initial shocks of COVID-19 and desert locusts first hit participants' communities. Given the severe nature of the shocks, the research team believes that recall was better than average given the time lapse, but it is not possible to know the extent to which some of the information could be inaccurate.

LITERATURE REVIEW

COVID-19

Globally, the COVID-19 pandemic caused severe disruption to farm, value chain, and marketing dimensions of agri-food systems. Several academic and non-academic papers have evaluated the impact of COVID-19 on agri-food systems, but with little focus on young people's engagement in agri-food systems. Despite that, it is useful to summarize the state of the field here.

The COVID-19 pandemic affected the four pillars of food security (i.e., availability, accessibility, utilization, and stability) and agricultural production in developing countries. The pandemic aggravated the existing food insecurity, particularly in weak agricultural systems (Erinle et al., 2021).

Availability of food was negatively impacted by a lack of inputs and restrictions on movements, including agricultural labor in many countries. Foreign and local supply chains of fertilizers, machinery, seeds, and agrochemicals were disrupted through the restriction of imports and movements, logistical constraints, and the slow-down of operations (Amjath-Babu et al., 2020). For example, a study of smallholder bean farmers in 11 countries in sub-Saharan Africa found that from March to April 2020, COVID-19 caused substantial loss to bean production in the form of limited access to seed, farm inputs, hired labor, and agricultural finance (Nchanji and Lutomia, 2021).

The restriction on movement had compound impacts on production in East Africa, which experienced a desert locust infestation simultaneously with the outbreak of COVID-19. Lockdown measures disturbed desert locust control efforts, resulting in massive loss of crops, pastures, and forest cover. This worsened the disruption of the agri-food system and damaged food security (Omer and Hassen, 2020) in affected areas.

Food accessibility was also negatively impacted. For example, one study documents how COVID-19 significantly affected the handling and storage, processing and packaging, and distribution and marketing of agricultural products in Ethiopia. Handling and storage disruptions were caused by labor shortages, loss due to stockpiling, improper storage technologies, and cancellation of orders. Processing and packaging problems were the result of a reduction of production, labor layoffs, poorer quality products, shortages of capital, shortages of key technical personnel, and the psychological impacts of COVID-19 on workers. Distribution and marketing were directly affected by food scarcity, import and export bans, retreat of value chain actors, food price hikes, loss of hard currency, and a slowdown of trading (Omer and Hassen, 2020). Another study asserts these same factors reduced the supply of fruits and vegetables to developing countries during the pandemic (Erinle et al., 2021). Some researchers found that communities in Latin America responded by resorting to family farming and agroecology to control the impact of COVID-19 on food security (Tittonell et al., 2021).

Utilization and stability of food prices were also severely affected by COVID-19. Many agriculture and food processing operations were either closed or the workforce was reduced during the pandemic (Erinle et al., 2021). One of the common responses to decreased accessibility of food was reduced consumption, including among those working in the agri-food sector. Alam and Khatun (2021) reported that farmers consumed fewer meals per day as a result of lower income. Similarly, Talukder et al., (2021) observed an overall decrease in purchasing power due to the COVID-19 lockdown, which increased food insecurity generally and, in turn, decreased the revenues of producers and suppliers as well as increased their food insecurity.

The papers reviewed under this section neither focused on youth nor mentioned their participation in agri-food systems. But because youth are a critical part of the agricultural labor force in many countries, it can be inferred that if there are production losses to farmers, damage to livelihoods, job losses, income losses, and disrupted food chains, youth have been affected. The lack of attention to youth, however, makes it difficult to understand specific differences in how youth and adults were affected.

Desert Locust Infestation

The Food and Agriculture Organization (FAO) (2020d) reports on the 2019 rapid spread of desert locusts across the Great Horn of Africa, which affected eight countries in eastern Africa, including Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Djibouti, Uganda, and Tanzania. Desert locust infestation is capable of completely stripping an area's vegetation, and this can result in significant damage to croplands and pastures. The recent locust swarm invasion in Africa has already caused damage to hundreds of thousands of hectares and, in turn, has affected agriculture-based livelihoods and food security in fragile regions, which had already been devastated by other shocks like drought, flooding, macroeconomic crisis, and armed conflict, among others. The locust swarm led to an estimated 20.2 million people in severe food insecurity in the eight countries.

Research on prior experiences elsewhere in Africa (i.e., Sudan in 1998 and West Africa in 2004) revealed that migration of youth to urban areas was one of the key impacts of desert locust infestation (Emana, 2002, Brader et al., 2006). Both events caused significant disruption to food security and exacerbation of poverty. In the 2004 desert locust infestation in Burkina Faso, Mali, and Mauritania, regions with low agricultural potential were the most affected by the desert locust infestation. High pre- and post-harvest crop losses resulted in food shortages, price changes and discounted prices, insufficient availability of grazing areas, and extensive migration to urban areas. Cereal damage resulted in a loss of 80 percent in Burkina Faso, 90 percent in Mali, and 90-100 percent in Mauritania. The resulting cereal shortage triggered changes in price levels, leading to less demand. Mali and Burkina Faso lost one-third of their crops, and all three countries lost 85-90 percent of leguminous crops. Livestock production experienced an inverse change, where the fall in animal prices led to a significant decrease in the value of herds and the purchasing power of the producers. External aid was provided to these countries in the

form of food aid to about 90 percent of the households that were severely affected. The long-term impact was the same in all areas of the countries included in the study: migration of young people, high household poverty rates, a decrease in the agricultural workforce, and a rise in food insecurity (Brader et al., 2006). As with the COVID-19 literature, however, these studies did not tease out differences in responses by youth and adults except in migration.

Several studies also examined the compounded impacts of desert locusts, COVID-19, and/or conflict on food security. Over 15 years, Showler and Lecoq (2021) studied 13 countries in Africa and Asia (i.e., Chad, Ethiopia, Mali, Niger, Mauritania, Pakistan, Saudi Arabia, Somalia, Sudan, Western Sahara, Yemen, Eritrea, and India) that are desert locust breeding areas to understand the relationships among them. They found that desert locust monitoring and control are weakened by insecurity, such as rebellions, insurgencies, civil and international war, banditry, terrorism, and minefields. Insecurity slows down desert locust operations directly and indirectly. Direct insecurity occurs when obstacles are encountered in desert locust control operations in breeding areas. Conflict also fosters insecurity indirectly through weak government functioning and the diversion of funds, personnel, and equipment from desert locust control. These challenges exacerbate the impacts documented in the literature noted above, but, with the exception of migration, differences in responses between youth and adults do not emerge in the literature. These studies did note the increase in poverty in agricultural areas and the migration of youth to urban centers when significant disruption occurs in rural economies. Youth seek non-farm opportunities in urban centers, and this creates significant gaps in the agricultural workforce, potentially slowing recovery.

Conflict

Conflict has a wide range of heterogeneous impacts on youth. Youth are often involved in armed conflict as combatants, and a wide range of studies have documented the gendered impacts of conflict on youth. Very few sources, however, examined the impacts on youth in agri-food systems. As with the other bodies of evidence, there is a gap in the research around this topic.

Upreti et al., (2014) discuss the different dimensions of food security in the post-conflict political context of Nepal. The ten-year armed conflict from 1996 to 2006 did not only disrupt agri-food systems, but also resulted in chronic food shortages (MoAC, 2009). These symptoms led to massive migration of the youth from the villages. While migration was a common response to other conflicts, it may have been more severe in this one because of the Maoists' "one house one youth" policy, which expected all households to give one person to the revolutionary cause. The loss of youth from the agricultural labor force led to longer-term food shortages in Nepal and left most cultivable lands to go fallow every season. Several other studies also documented the occurrence of this phenomenon (Ghale and Upreti 2005; Gersony 2003; Seddon and Hussein 2002; Upreti 2004a and 2004b; Pokharel 2004; UNDP 2004; Upreti 2002).

Other studies not only noted the migration patterns, but changes in other areas, particularly in protracted conflict, that are consistent across both youth and adult populations. For example, in Colombia, Arias et al. (2019) found that small farmers shifted to activities with short-term yields and lower profitability, and some even shifted their focus towards subsistence activities (i.e., less land used for seasonal crops and more lands used for mixed crops and cattle ranching). Similarly, Rockmore (2019) found that in Northern Uganda, as the risk of violence increased, households reduced their livestock holdings and shifted towards smaller, less risky animals that can be kept within villages, reducing the average value of livestock holdings by 65 percent and the mean annual consumption by 25.5 percent. Bruck et al. (2018) found that, before and after the 2014 Gaza conflict, food security in Palestinian households was not directly affected, but household resilience capacity, key in resisting food insecurity, did decrease. This is because a household's adaptive capacity is reduced through increased income instability and decreased income diversification.

IMPACTS ON YOUTH IN BANGLADESH

Background and Context

Bangladesh is a country of approximately 171 million people in South Asia with economic activity concentrated in the agriculture and services sectors (i.e., 40.6 percent and 39.0 percent of employment, respectively), lagging educational attainment (i.e., 37.5 percent of the population with less than a basic education, including 35.9 percent of men and 41.1 percent of women), and significant gender disparities in education and economic engagement (ILO, 2023). For example, men's labor force participation was 80.7 percent in 2017, compared to 36.4 percent for women; a similar pattern emerges in the share of youth not in employment, education, or training (NEET)—only 9.8 percent of young men but 44.5 percent of young women are NEET (ILO, 2023). Bangladesh has a large youth population. According to United Nations Population Fund (UNFPA) Bangladesh, youth aged 15-24 comprise 20 percent of the population (UNFPA Bangladesh, n.d.), posing both an opportunity for accelerated economic growth and a challenge in fostering systems that create opportunities for them.

Before the COVID-19 pandemic, agri-food systems and related human health outcomes had improved significantly in Bangladesh, despite myriad challenges, such as vulnerability to natural calamities, climate change, environmental degradation, agri-food system mismanagement, and poor logistical infrastructure. However, COVID-19 and the Government of Bangladesh's response (i.e., standard operating procedures (SOPs) that closed businesses, mosques, schools, and most government functions and restricted travel for weeks at a time) resulted in widespread unemployment and, consequently, decreased household consumption. The Government of Bangladesh initiated a stimulus package (USD 590 million) called the Emergency Action Plan with USD 89 million of support from the World Bank's Livestock & Dairy Development Project to support cash transfers to marginalized farmers, a marketing program to facilitate collection of livestock products for public marketing during the lockdown, and provision of equipment to farmers to support storage of dairy products during the market disruption.[3]

Despite these measures, Bangladesh saw an additional 20 percent of its population fall below the poverty line due to COVID-19 (PPRC-BIGD, 2020). Farmers in Bangladesh experienced substantial economic loss, particularly small and marginalized farmers, as well as small-scale farm produce traders (Talukder et al., 2021). For example, vegetable growers in Bangladesh were unable to get their goods to urban or international markets, and this altered the patterns of trade. Growers sold more of their crops directly to local consumers, and they distributed their goods to family and friends as well, which potentially depressed the local markets for those crops further. These steps resulted in significant losses per acre for the farmers, who earned only one-half to one-third of what they would have earned prior to COVID-19 (Alam and Khatun, 2021). Huge post-harvest losses resulting from farmers not being able to sell their produce damaged the agri-food system (Mostafa, 2020; Bhuyan, 2020; FAO 2020a).

Agricultural inputs were also affected. Most farmers in Bangladesh are heavily dependent on rural migratory laborers or machinery owners to offer land preparation, planting, irrigation, harvesting, and post-harvesting services on a fee-for-service basis. These are crucial operations needed for agricultural productivity, but they were interrupted due to social distancing and lockdown measures (Mottaleb et al., 2016; FA0, 2020b; NAWG, 2020). Some studies assert that Bangladesh's agri-food system became dysfunctional due to COVID-19, and that fear and self-isolation were crippling outcomes of the pandemic as well (Roy, 2020). Differences among men and women, youth and adults, however, have not been carefully explored in the studies that have emerged since COVID-19. The discussion of focus group results below attempts to contribute to filling that gap.

[3] https://www.worldbank.org/en/results/2022/09/06/bangladesh-livestock-sector-boosted-in-covid-19-crisis

Bangladesh Focus Group Findings

Impacts of COVID-19

COVID-19 and the shutdowns enforced by governments worldwide yielded a range of well-documented negative outcomes for youth, including disruption of schooling and loss of work and income opportunities. Bangladeshi FGD respondents identified three critical areas of impact from their perspectives: reduced consumption and increased malnutrition, long-term impacts on earning and saving, and emotional and psychological harm. A discussion of each follows.

Reduced Consumption and Increased Malnutrition

One of the immediate responses to COVID-19 among poorer households was to reduce the consumption of food and other daily necessities, leading to undernourishment and, in some cases, malnutrition. The youth shared that many of them routinely ate fewer meals than before COVID-19 because their households had limited income, and their movements were restricted. They commonly substituted lower-priced foods that were shelf-stable and less fresh and nutritious than their preferred diets. Misinformation about the relationship between milk and COVID-19 caused a drop in their consumption of milk—limiting the calcium and other nutrient intake to support bone mineralization during a critical growth period (i.e., late teens) for the younger men who participated in the groups.[4] While none of the participants were able to clearly point to any changes in their physical development, they were very aware of the undesirable outcomes of poor nutrition, particularly over an extended period of time. Those who were parents, both young men and young women, expressed concern about their inability to provide a healthy variety of foods for their young children, many of whom were in critical growth windows during the pandemic period.[5]

> "We used to consume vegetables, fish, and meat twice a week before or could wear good clothes or even provide quality education for our children. None of this was possible during the pandemic." —Young Woman, Barisal

> "The villagers stopped consuming cold milk because there was a rumor that it spreads COVID-19… we had losses, and we could not drink our milk either." —Young Woman, Khulna

Long-term Impacts on Earning and Saving

One of the first impacts youth felt as a result of the pandemic and shutdowns was the closure of their educational institutions starting in March and April 2020. Students studying on residential campuses were sent home, and even agricultural extension services were disrupted. Among the FGD participants, more young women than young men reported that their education had been disrupted, but given the small number of participants overall, it is not clear if that was the result of selection bias or a reflection of a wider pattern.

At least one-third of the participants were also parents of young children, and they bore the burden of their children's education being disrupted as madrasas and public schools closed. The **young women respondents with children spent additional time parenting** as a result, while few of the young men respondents noted any changes in their time allocated to parenting.

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[4] It is important to note that participants also cited broader impact on the reduced consumption of milk and dairy products, particularly among children in their communities, but this study focuses on the impacts directly on youth.

[5] Although it became clear that many FGD participants were parents based on their responses, the study team did not screen participants based on their family composition or parental status. Therefore, it is unclear what percentage of respondents had primary care giving roles in their families. Based on responses in the focus group discussions, however, at least one third of participants were parents.

Despite the resumption of educational services by the time the focus groups occurred, only a few of the FGD participants had returned to school. Once disrupted, they were off-track, and in many cases, their **families could no longer afford to support their return to school**. Participants expressed their frustration that the interruption to their secondary education would have **long-term impacts on their earning ability**.

In addition to the concerns about long-term earnings, youth perceived significant changes in their immediate earnings opportunities as well. For youth who relied on the food system for their livelihoods, the **common coping strategy of reducing consumption** among many households led to losses in their business income, whether from livestock or produce. These losses were particularly difficult for youth who had invested in livestock, as maintaining their herds requires ongoing investments. Yet, reducing their herds to save money would also reduce their long-term potential for business income. This was particularly problematic for youth, as **many had little in the way of savings to cushion the impacts on their businesses, particularly compared to some of the older adults in their communities**.

> "During COVID-19, we suffered a lot. We would milk cows, but there was no market… so we poured the milk away…but later we fed cows with less feed to reduce the milk they produce." — Young Man, Cox's Bazar

Youth whose livelihoods were earned in processing and distribution roles in the agri-food system faced similar challenges. They were unable to sell their products as they had prior to the pandemic. The lockdowns limited their movements, restricting how they could operate, and these youth could not always operate only from home. Youth in these areas of the value chain had more options than their peers who worked in production, however, and that will be discussed in the section below on income diversification.

Given the hardships they faced, many youth expected to receive support from local or national government agencies based on media reports and the narratives of elected officials. Despite the Emergency Action Plan disbursements in the dairy sector, of the 11 FGD participants who were engaged in livestock, poultry, or dairy operations, only three received funds. All three recipients of government funds were young women. Two were in Khulna, while the third was in Barisal. Others found they were ineligible for support, including those youth who had been students prior to the pandemic, regardless of the source of support for their studies. Young men in Khulna, in particular, noted the betrayal they felt at **not receiving support,** presumably because it was evident that some women in the community were receiving support.

> "During COVID-19, we did not receive a lot of support from the Government, so we learned that we have to have means of living without [Government] support." — Young Man, Cox's Bazar

Many FGD participants further described their **increased appreciation for the value of saving** as a result of the pandemic shocks and the inability of many young people to access governmental or other support (e.g., from relief agencies). They now viewed savings as important resources for supporting themselves when unexpected things happen.

> "I would wear simple cotton clothes as I couldn't buy [any other types of clothes] from the markets. My family solely consumed vegetables [that we grew] for their daily meals to survive the pandemic. Due to COVID-19, I learned how to save money." — Young Woman, Barisal

Emotional and Psychological Impacts

Perhaps the most striking impact discussed among FGD participants that stands out as being particularly centered on youth was the variety of mental health consequences of the pandemic and governmental responses to it. Many of the FGD participants described how COVID-19 caused emotional and psychological suffering, resulting from loss of income, food insecurity, and an inability to provide for oneself or one's family. **Gender norms and roles** emerged as important influences in how COVID-19 affected young people's psychosocial well-being. **Male youth described feelings of guilt** for their perceived failure to support their dependents or inability to access expected government support. They viewed these barriers to their livelihoods as undermining their ability to meet gendered expectations of them as men as providers for their families. **Young women reported increased restrictions on their freedom of movement**, which were frequently already more curtailed than those experienced by men, owing to religious and cultural norms. Some reported being prohibited from leaving their homes at all, while their male relatives could still venture out, further isolating young women and burdening young men with pressure to provide for their families. **Both young women and young men added that mental health issues were intensified by restricted socialization**. Before the lockdowns, they had the ability to meet with their peers, family, and other social contacts and share challenges, which helped them cope better. At the onset of COVID-19, this was limited by the SOPs put in place to prevent the spread of COVID-19. **The FGD participants spoke about their own anguish, primarily depression and anxiety**. Young women more often discussed their own feelings, while young men cited the experiences of others. Some also reported that they knew at least one young person who took their life as a result of COVID-19 or had even contemplated **suicide** themselves. This was particularly true in Barisal.

> "I suffered depression and felt like dying… My life became stagnant, and I was always in a state of uncertainty.…suicide seemed like a better option as I couldn't share with others how bad my circumstances were." — Young Woman, Barisal

> "…A young man in my village committed suicide last year because of being unemployed at the age of 30. He [had] many interviews but was unable to land a job. [He] probably couldn't handle the extreme pressure he was getting from his family and close ones. This was the main problem that we faced—we couldn't earn or even go to the market and sell something. This [combination of factors] put us under a lot of pressure." — Young Man, Barisal

Impact of Russia's War on Ukraine

Young people interviewed in Bangladesh said that the conflict in Ukraine intensified the challenges they faced. This was mostly felt in the increases in fuel prices and utilities. While these impacts were universal, youth had fewer resources, savings, and experience to draw on to mitigate the impacts on their livelihoods and standards of living. The coping strategies for this shock to the agri-food system were different because its effects compounded the COVID-19 impacts. Youth consistently reported earning lower profits or recording losses. As their savings were low or, in some cases, non-existent following COVID-19, most experienced a protracted decrease in their standard of living. Unlike COVID-19, the FGD participants felt that the war did not present any opportunities for them, as described in the quotes below.

> "…My business strategy has been changed due to the war. Since people's buying capacity is decreasing daily, I now offer my products in much smaller quantities to decrease the prices for one batch...the Russia-Ukraine war didn't create new opportunities like COVID-19 [did]." — Young Man, Cox's Bazar

"We're currently bearing a loss margin right now in order to retain the customer base." —Young Woman, Khulna

"I was gradually recovering from the business losses, but soon after the pandemic, the Russia and Ukraine war significantly impacted the prices of commodities in the local market. Due to this, I couldn't buy the commodities that were necessary for the business. Right now, my poultry farm is almost wiped out since more than 60 percent of the stock has been cleared due to losses or sold at cheaper prices." — Young Man, Barisal

"Due to the Russia and Ukraine war, oil prices have increased drastically. I still drive my bike along the same route, but my expenses are more than before. The oil prices are now 135 takas [USD 1.35] per liter. The soybean oil prices have also increased multifold as have the rest of the food prices." — Young Man, Barisal

"…the Russia-Ukraine war has severely impacted cattle food prices. The feed that we used to buy at 1,200 taka [USD 12] is now 1800 taka [USD 18]. But the price of the milk hasn't increased accordingly. We still sell milk at 40 takas [USD .40] per liter. We bought corn at 1100 taka [USD 11] after COVID, but now the prices have increased to 1800 [USD 18]. Bhushi was 800 taka [USD 8]. Now it's 1,700 taka [USD 17]. We used to buy salt for 220 takas [USD 2.20], now that's 450 takas [USD 4.50]. Even the prices of the arable grasslands have increased due to the war and fuel prices." — Young Man, Barisal

Resilience Practices and Coping Strategies

Overall, the research team's synthesis concludes that Bangladeshi FGD participants felt that steps were taken to prevent and reduce the spread of COVID-19 at the cost of their dietary needs and preferences, livelihoods and long-term economic prospects, and mental wellness. Despite these challenges, youth demonstrated their determination to survive and succeed through a series of coping strategies that allowed them to mitigate the impacts of the pandemic for themselves and others or, in some cases, turn adversity into opportunity.

Lockdown Workarounds

One of the initial strategies that some of the young men reported resorting to was subverting the lockdown provisions to be able to continue some of their livelihood activities. Some young men and young women reported working in secret in remote portions of their farms, while others worked at night to avoid detection by the authorities. Downsizing farm operations was another common response, which also led to some shifts in the traditional roles men and women played in some areas of agriculture. For example, one young woman noted that she took a role in family businesses that she otherwise would not have, contravening local gender norms to support the family farm.

"My father's farming business requires farmers to come to tend the crops, which [costs] 500 takas [USD 5]. So, my mother and I decided to reduce these costs by helping my father with farming work… something women don't do [in my experience]." — Young Woman, Cox's Bazar

Youth working in distribution areas of the food system reported adopting new methods of selling their goods by relying on various technologies. For example, rather than working in the local market, youth devised new systems for connecting their customers to their products.

"In the absence of delivery men, I had to deliver fish myself by taking the necessary COVID-19 measures [use of personal protective equipment and packaging guidelines]. I've collected and delivered fish via bicycle from Dumuria, from across Rupsha to this side of Khulna [a distance of about 25 km]." — Young Woman, Khulna

"I called and emailed people to promote my business. And I also emailed delivery platforms, like FoodPanda, for support. I tried to increase my customer base through different channels." — Young Woman, Khulna

Youth continued to use these new systems after lockdowns ended while also reverting to their earlier approaches, thereby diversifying their business models.

Income Diversification and Transformative Youth Leadership

One of the primary strategies identified in the literature review for increasing and reducing fluctuations in income is **income diversification**. While most youth respondents said they had to "think outside the box" to generate income, only a few of the Bangladeshi FGD participants provided concrete examples of how they transformed that into successful revenue generation.

Some youth had success in **value addition**. A few youth in dairy and aquaculture were able to expand their production businesses to include an initial processing stage as well. These youth were able to offer different products that lasted longer and ensured a continuing income flow.

"When cold [fresh] milk wasn't being consumed by villagers, I converted that into clarified butter and sold it in the market." — Young Woman, Barisal

In one case, the youth was able to effectively create a new organization that provides **training to others in aquaculture** to produce a variety of fish products in **compliance with local food safety standards**. She has been able to expand her organization and employ more people, which she believes will change their lives for the better. She described her experience as transformative leadership and a point of pride.

"I now have an organization that guides the fisherwomen by providing skills training on producing dry fish and powder safely, since they were also struggling during the pandemic." — Young Woman, Cox's Bazar

Savings and Investing Groups

As a result of the limited support youth received during COVID-19 (see section below on Supports), across sites, youth reported that they took it upon themselves to **create or join savings groups and savings initiatives** in the wake of COVID-19. These groups included people of varying ages, but they served only men or women; no group included members of both sexes. The young women's groups were geared towards **empowerment (i.e., agency and financial security) and social network building specifically to address mental health concerns (e.g., coping with stress) and to build social capital**. The young men's groups were predominantly **finance- and marketing-oriented, focusing on the fulfillment of the provider role** in contrast to their female counterparts. They may have had some of the same social network-building outcomes, but the FGD participants did not cite those.

Youth Roles in Agri-food System

Overall, FGD respondents viewed themselves as having multiple roles in the agri-food system. At least two in each focus group saw themselves as **leaders in the food system**, sometimes through opportunities within existing structures, and sometimes in roles that they created for themselves. Their success in these roles varied, however, as they indicated that some of their efforts brought them into **tension with existing power structures and interests**.

Youth Leadership Opportunities

As a result of the pandemic, some youth experienced an increase in the spaces in which they could exercise leadership. The FGD participants took steps to support themselves, their social networks, and their communities through a variety of economic and civic initiatives. These efforts enabled them to exercise agency,[6] build their own and others' assets, and contribute in a variety of ways to the well-being of the community.

> "…we have a cooperative society. I am the general secretary of the cooperative society of my ward. In my ward, farmers used to bring their products to a collection point, and from there, we used to make arrangements to sell those products on a van in our village." — Young Man, Barisal

> "…I formed a union …, where we would have meetings, discuss problems, and also provide crop harvesting skills.… We sat for discussions to identify survival methods at the grassroots level. This included outlining steps to harvest crops; it was applicable for male and female farmers. At first, though, it was more focused towards women to promote them into being engaged in some livelihood activity." —Young Woman, Barisal

> "…along with my teammates, we provide food for underprivileged people, like rickshaw pullers." — Young Woman, Khulna

> "... in my area, I, along with a few other youths, took the responsibility of burial [costs] of those who died due to COVID. This team was comprised of 15 members who are still earning during COVID." — Young Man, Khulna

> "…with my leadership, I created an awareness campaign with my team's help, which has almost 12 youths from our society. Together, we provided voluntary services and promoted important messages like safety and cleanliness instructions within the society." — Young Man, Cox's Bazar

Despite the initiative youth demonstrated and the contributions these initiatives made to their communities, youth shared that they faced challenges from other interests in the community. Some reported that politicians and businesses felt their interests threatened by youth initiatives, and their **actions to undermine the youth eroded their confidence and sense of contribution to the community**.

> "… a lot of people want to take the leadership role in society, but there is a group of influential people in the society who doesn't want or let the youth come into leadership roles." — Young Man, Barisal

[6] Agency is the ability to act intentionally and autonomously.

Youth Leadership Aspirations post-COVID-19 Pandemic

COVID-19 provided **opportunities for young people to be agents of change** and brought new clarity to their **aspirations** on leadership roles they would like to fulfill in the future. In each community, participants identified challenges with which they and others struggle and shared their hopes of how they might fill those gaps. The male participants' aspirations focus predominantly on economic advancement for themselves and their communities. Young women's goals, however, were broader, addressing livelihoods, nutrition, and gender equity, as shown below.

> "…My project will have a cash inflow and outflow management system, a time-management system, and a strategy to identify what problems people are facing. It will also need storage technology for dairy-based products, market access, consistent buying and selling rates, teamwork, scope for skills development, loan facilities, influential buyers, and cross-linkages between different trades, for example, the dairy sector and pharmaceuticals. I also want the chance to provide farming skills at home… In addition, for me, I want to teach people livestock management and treatment for animals. I would also source medicines from good companies and try to provide medicine and veterinary care through phone or social media." — Young Woman, Barisal

> "Since I work with SDGs [Sustainable Development Goals] and nutrition, I want to teach them how to ensure their and their family's nutritional needs…I also want to empower the youth from social and family barriers by counseling them after they've completed their [Secondary School Certificate] and [Higher Secondary Certificate]. Apart from that, I will also equip them to form a group and connect them across livelihood sectors for training so that they can be self-sufficient when funding their education and needs. There are many religious families who don't allow their children to mix freely with the opposite sex. I want to support those women who face the same obstacles in life as me. They will know [the skills they need] so that they can live a life of dignity in society." — Young Woman, Cox's Bazar

> "I want to start the production of natural fertilizer, commonly known as honey compost, in my area. There are a lot of dairy farms in my area, so if there was a way to collect all the waste and create this natural fertilizer then it can be easily sold to the farmers and given to local households that are farming on a small scale. Although I'm very busy these days, this is one of my dream projects. Someday if I get funding, I would love to work on this project…" — Young Man, Barisal

> "I want to make the agriculture news and information services easily accessible. Also, provide training on managing and operating modern machinery. Besides, since we don't need all the machinery all of the time, we need to create an efficient network to properly optimize the usage of machinery based on seasons and low land and plain lands." — Young Man, Khulna

Broader Food System

A final line of inquiry focused on how youth perceive the broader food system environment when it is subject to a shock or stressor. Who are the major actors who support youth? What resources do youth use? What are the barriers youth find to achieving their goals?

Support from Key System Stakeholders

FGD participants identified a range of key stakeholders that should be involved in addressing the challenges they face, including government, NGOs, the private sector, microfinancing organizations, and banks. As noted above, FGD participants shared that they did not receive support as they expected during COVID-19. In addition to the three who received government support, a few others mentioned they had received loans from NGOs, but these had high interest rates and collateral requirements. Further, the repayment terms also often do not align with the income cycles for agri-food system workers, particularly producers. Therefore, it was only those who already had savings accumulated who could access this financial support, which precluded many youth working in the agri-food system.

> "Access to [financial] support is very difficult. Providers are not coming to us. There is no facilitating approach. Many times, I have been denied assistance. NGOs were ready to provide a loan if we can show them our farms. But they take an interest rate of 18 percent with monthly installments, which is too high." — Young Woman, Khulna

It is also noteworthy that the Emergency Action Plan mentioned earlier as a response to COVID-19 seemed to have not been implemented consistently, or at least transparently, across sites, as the experience shared by youth in Barisal and Khulna show below.

> "A few days back, some government officials from the Department of Livestock Services created a list of a few farmers in Jhalokathi Upazilla to provide loans at low interest rates. The list was later sent to the Al Arafa Bank manager. After contact with the manager, he requested us to visit his branch office. From there, a representative team visited our farms. Later, they assured us they would provide loans at 4 percent interest rates. After that, I kept communicating with them and invested around 50,000 takas [USD 500] of my own money. But at the eleventh hour, they informed us that they can't provide the loan. One more observation here is that in order to get a one lakh [100,000] taka [USD 1,000] loan from the bank, we were required to create four separate accounts. But once we establish the accounts, they start showing their true colors. In going through all the processes, I have wasted more than 50,000 takas [USD 500] in the last six months running in between banks...and the Department of Livestock Services office but got no solution." — Young Man, Barisal

> "…I received 10,000 takas [USD 100] from the Livestock Department since they could not feed the cows. I got the support after they came to do a survey on the cows and their nutrition. It was very necessary to have received that support during the pandemic and the war." — Young Woman, Khulna

Few youths specified which NGOs or microfinance organizations supported them. However, several who participated because of their involvement in USAID-sponsored activities noted the support from ACDI/VOCA, in particular, in boosting their income-generating activities.

Youth also identified parents and peers as stakeholders in the system; however, participants indicated that parents had no more influence than they and their peers to address the gaps in services.

Support Required to Recover from COVID-19 Shocks

FGD participants who had participated in USAID programming had a high awareness of how their resources and enabling environment can support their agency and positive youth development. They attributed this awareness to social media, peers, social networks, awareness campaigns created by

development partners, and, lastly, youth-focused projects in or near their communities.[7] This awareness framed their response to questions about what they needed in terms of support to recover from COVID-19 and to mitigate future shocks. Some of the key support areas youth identified included transportation of their goods from farms to market areas, tax holidays, financial support, storage of their products, and connection to the international markets.

"…training, farming resources, transportation support is required." — Young Woman, Barisal

"…transportation support is required. Those who help with market access, such as wholesalers, are also essential." — Young Woman, Cox's Bazar

"…The government banks may offer us loans without complications and at lower interest rates…The Department of Livestock Services, which is responsible for government extension services, must closely monitor the syndicates and maintain stable raw material pricing… NGOs can give leverage in interest rates, particularly for youths." — Young Man, Barisal

"…There is a need for an efficient waste management system, …Loan provisions and financial assistance from banks and government. Provide good seed supply, fertilizer, organic pesticide, a shed for vegetable storage, and a van for delivery." —Young Woman, Khulna

"We need a village supermarket, which caters [to] all the needs of agriculture-based families. Savings management and loan provisions are also needed… A survey needs to be conducted to assess the skills of entrepreneurs. There needs to be a provision for working on the side of studying for students, so that there's some financial security for them. There could also be a social development fund or community-specific fund." — Young Woman, Khulna

"Agencies need to provide trade-specific training packages. Also, to provide better trade facilities and user-friendly loans." — Young Man, Khulna

"We need to fund farmers based on [value chains] and later link farmers from different [value chains] to work together when creating a network among them and establishing a sustainable ecosystem that helps entrepreneurs and farmers." — Young Man, Cox's Bazar

Key Recommendations from Bangladeshi Youth Perspectives

As noted above, youth identified a range of issues that they face daily, and their recommendations centered around addressing those, such as the need for increased access to finance, improved transport systems, creation of communal collection and storage for agricultural products, and effective support from the government, particularly in preventing what they believed to be market manipulation. Some youth also noted the lack of reliable information for decision-making in a dynamic environment where the agri-food system is changing rapidly. They saw a need to improve information flows, through education, extension, and other means, to help them maximize their output and profitability. These were very common points, as shared in the young people's voices below.

[7] Other participants largely let the USAID program participants respond to this question first and then chimed in at the end.

"…We need to conduct a survey and a proper environment assessment for farming, so that we can find out which skill sets are necessary for the existing labor. Also, it is a strong network from which we can benefit by providing and sharing information and skills among us." — Young Man, Khulna

"…I would control the prices of the fish and focus on market management. That is because the fish market, including the feed and larvae supply chain, has been manipulated by a few ill-motivated business owners." — Young Woman, Khulna

"I would have really focused on marketing our products and introduced new seed and fertilizer selling agents because the current agents are stocking the products to virtually manipulate the market and introduce an abnormal price hike." — Young Woman, Khulna

"…To incorporate multilevel livestock farming in a single space, including dairy cows, beef fattening cows, and goat farming to maximize profit and minimize losses. One of these currently ranks fourth in goat production. Besides, there is a huge market for the Black Bengal male castrated goat in our country. Furthermore, the goat is easier to raise, if the PPR [Peste des Petits Ruminants] vaccine is provided twice in a lifetime, then the goat develops antibodies in its system." — Young Man, Barisal

"…we need a few services that can help all of us to become more stable and more robust as a community. For instance, introducing a community-based loan system, incorporating more youth power in the sector, but, because adults sometimes cannot get up to our pace. Incorporating more and more organic alternatives for the existing chemical components." — Young Woman, Barisal

"…I think we need to motivate and train youths in cattle farming and dairy business in the same year. There are lots of new technologies and modern farming methodologies that can benefit new farmers." — Young Man, Cox's Bazar

"…I would like to introduce new power systems, like solar and biogas plants, but we do not have access to them. That's why right now waste is like a curse for us rather than a source of renewable energy." — Young Woman, Cox's Bazar

"…I would incorporate a few services altogether. Training, software to provide knowledge for the farmers, introduce farmer-friendly loans, improve the marketing and sales department by creating awareness, and control the prices of fish feed and the larvae. Last, provide exporting facilities directly from the farmers to other locations of the country or even abroad." — Young Man, Khulna

Photo by: Md Masudur Rahaman/World Fish

SPOTLIGHT

Youth Social Entrepreneurship amid Crisis

Ayesha is 22 and owns a business called Palongki Pushti, which she founded in 2020 to produce and sell dried fish and dried fish powder. Her experience highlights the nature of transformative resilience capacity at the individual and community levels. Ayesha was able to draw on her acumen, her organizational skills, social connections, and desire to improve local conditions to advance the economic and nutritional well-being of people in her community.

Ayesha was the youngest child in her family and grew up in a conservative household. Most of her family and neighbors believed she should marry immediately after completing secondary school—telling her they believed going to college to study was "immoral." Fortunately for Ayesha, her mother staunchly supported her continued education and she was able to begin university classes. On her way to classes every day, Ayesha often noticed the markets she passed where they sold dried fish and noted its popularity. Ayesha was also a youth volunteer in her community, which provided her with a way to engage with others in the community despite the strictures her family placed on her.

When the pandemic caused her university to close, Ayesha became severely depressed. She was isolated from friends and peers and terrified about what the future held because it had already been difficult for her to continue her education amidst pushback from her family. Her mother suffered a stroke during this time as well, deepening Ayesha's depression. "That was the darkest point in my life. It was all very overwhelming. That is when I had these dark thoughts of ending everything," she says.

After about a month, Ayesha began seeking ways to stay busy and motivated. She explains, "I did a lot of reading online. Also, since I was already volunteering as a youth partner, I was part of a Facebook group called 'Digital Skills for Bangladesh.' Through this group, I became one of 1,000 young individuals throughout the country who received a free membership with Coursera for 6 months. This was a great opportunity." She also sought new outlets for peer contact, joining a youth group under the JAAGO Foundation. While she found that helpful, her neighbors denigrated her character for going to the youth group meetings. However, Ayesha found further support on a Facebook page called DLeader. "I would regularly write posts on whatever I had studied, and based on my activity and quality of writing, I was approached by an assistant professor, also an internationally certified career coach, who offered to coach me. I received a lot of guidance from her. She never gave me direct answers to queries, but

rather, as my coach, would encourage me to take my time and think about an answer. This was truly invaluable. DLeader was also a platform where members could talk about mental health in a safe space," she says.

Around this time, Ayesha first started thinking about doing something with dried fish. Her early research revealed that one of the recurrent problems with dry fish was the hygiene and safety in the preparation phase, because it was common knowledge that local producers often used harmful chemical insecticides instead of organic options during the drying process to cut costs and gain short-term profits at the expense of customer satisfaction and goodwill.

Ayesha's goal for her business was to earn goodwill and be *the* reliable source for the products she offered. So, she decided to do her own sourcing and preparing. She sought out the wives in the local fishermen's community, many of whom relied solely on their husbands' seasonal income when they returned from months-long fishing voyages. Ayesha soon started a group of 30 enthusiastic local women who could source fish from their husbands. She trained the women on hygienic preparation of dried fish and began selling the products.

However, Ayesha soon faced two hurdles. "The biggest challenge during that time was mobility. Due to the lockdown, it was difficult to physically move about, and in my line of work, especially when communicating with my producer's group, it is imperative to be physically present because they don't have access to a lot of technology and the Internet, so online meetings were out of the equation. During lockdown, when most people were stuck indoors, I used to carry out my volunteering errands, which was possible due to the [identification card] I carried with me. This is how I also continued to make deliveries and run errands for my business. I would do the two together, so that helped." The second challenge was that the margins on hygienically prepared dried fish were quite low.

Ayesha began researching case studies around the world on the preparation of powdered protein and nutrient sources, which gave her the idea to produce fish powder. She says, "That very day, I went to our kitchen and ground up some dried fish with a mortar and pestle. When I saw that the result was pretty decent, I realized that this could actually work!" Ayesha extended her research and soon realized that nobody in Bangladesh had worked with this before, and the only case she found was a project in another country.

She began experimenting further, first with dried shrimp and then with the mola fish. Once she had developed a production method that was simple and hygienic, Ayesha researched ways to integrate the fish powder into the local cuisine and market it. Once she felt she had all the information necessary, she began production. Ayesha eventually acquired a Trade License and properly established her business. She is also one of four youth partners with a youth project. As part of the project, which spanned 6.5 months, Ayesha received funds to purchase new equipment and support her plan to provide training to a minimum of 500 fisherwomen in dry fish production over the next 5 years. "One of the things I deeply researched for my business was the nutritional aspects of fish powder and how it can be an additional supplement in many foods. I have already witnessed its acceptance in our community, and we are currently working on more ways to successfully integrate it into snacks and food for children. All this, I would not have thought about it if I hadn't been at my wit's end during COVID-19, so something good did come out of that horrible chapter in my life," she shares.

Ayesha credited her mother's support as the single most critical factor in her success, followed by the mentoring that was available through the DLeader platform. Financial support from a youth project was also essential. In addition, she cited her self-awareness, her intrinsic motivation, and her expertise as the primary characteristics that helped her cope throughout the COVID-19 pandemic. These allowed her to take advantage of her knowledge, unimpeded access to internet resources, and curiosity to create a new pathway for herself and for women in her community.

SPOTLIGHT

Youth Moves into Food System for New Opportunities — *Adapting (with Support) for Success*

Mohammad (a pseudonym to protect his identity) is 27 years old and works primarily as a veterinary physician who specializes in performing artificial insemination, which he learned from American Dairy Ltd. Currently, he's also serving as a local service provider (LSP) at ACDI/VOCA on a yearly contract. As an LSP, he meets with a group of farmers, currently numbering around 20, and gives them the necessary education they need to successfully raise cattle and goats. In addition, he also discusses the importance of proper nutrition at home, as well as the benefits of using organic fertilizer on crops.

His journey into a professional career started differently. Starting in 2014, Mohammad provided private tutoring services while attending university to be able to support himself and contribute to his family's upkeep. "I started my tutoring sessions at 5 a.m. and continued up to 9 p.m.," he says. Despite his long days, Mohammad was unable to build much in the way of savings. Demand for tutoring dropped at the end of each school year, and the time he dedicated to tutoring prevented him from taking up other occupations. When the pandemic resulted in lockdowns, he was unable to make a living as a tutor because classes were canceled, and people were staying indoors. Consequently, he experienced a 90 percent decrease in his income. He had to return to his hometown with his family after losing his job. He also noted that he was full of despair at this point, uncertain of how he would support himself and where his life was going.

Upon returning home, Mohammad opened a pharmacy with the support of a modest loan from BRAC Bank. He also served the area's poultry farms as a supplier of poultry feed. He was inspired by seeing that poultry farmers were successful in recruiting more young people to work in the industry. He remarked on that success to some of the youth in his community and suggested that they create their own side businesses of raising koyel birds. He provided birds to the youth at startup and then supplied them with the feed and medicines they needed from his store. As they began successfully generating profit, his earnings increased. Even then, however, he did not feel he was financially stable as repeated closures of local markets meant that he was unable to sell his goods, including medicines and chicken feed.

Looking for a new direction, Mohammad reached out to a paternal uncle who was connected to American Dairy Ltd. From that connection, he entered the field of veterinary medicine after completing artificial insemination training. Additional support from ACDI/VOCA helped him develop a wide range of knowledge and abilities and introduced him to many new people and groups. He eventually began working as an LSP for ACDI/VOCA and participated in subsequent training sessions that have enabled him to expand his services.

Mohammad felt that his strong resolve, talents, and expertise were critical to his ability to adapt repeatedly throughout the COVID-19 period. He needed to take care of his family in one way or another. That family was also the source of his strength. He said, "The emotional and intellectual backing of my loved ones was crucial to my success in life." While outside resources were also critical (i.e., the loan from BRAC, training from American Dairy Ltd., and access to training and networks through ACDI/VOCA), he says, "No one helped me when I had nothing, but now that I've made some progress, they're happy to lend a hand. Many groups have come by to look over my store and my financial records to see if they feel comfortable lending me money." Support was only available after he found a way to succeed without it.

IMPACTS ON YOUTH IN KENYA

Background and Context

Kenya is a country of approximately 54 million people in East Africa with economic activity concentrated in the services and agriculture sectors (i.e., 51.4 percent and 33.6 percent of employment, respectively) and closing gender gaps in education and economic engagement (ILO, 2023). Kenya's female-to-male labor force participation rate was 95.6 percent in 2022 (ILO, 2023). Kenya's significant youth (ages 15-29) population—29 percent of the population (World Bank, 2023) —faces many challenges, however. For example, as of 2019, the share of employment that was informal was 86.5 percent, and a substantial portion of youth aged 15-24 were NEET—15.0 percent of young men and 24.3 percent of young women (ILO, 2023). The desert locust infestation and COVID-19 pandemic caused disruptions to the progress made over the past years.

The desert locust infestation originated in the Arabian Peninsula in the spring of 2018, spread to northern Ethiopia and Somalia in the summer of 2019, and spread further to southern Ethiopia, southern Somalia, Kenya, and parts of Uganda and Tanzania between the winter of 2019 and spring of 2020 (Mercy Corps, 2020) as rains came after several years of drought. The infestation seriously damaged 197,163 hectares of cropland and about 50 percent of pasture in Ethiopia, Kenya, and Somalia, with an estimated cereal loss of more than 300 million kilograms. This directly affected production from approximately 806,400 farming households (FAO, 2020f) and resulted in more than 20 million being food insecure in these East African countries: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, and Uganda (WFP, 2020b).

In March 2020, Kenya began to see an emergence of COVID-19 cases as the pandemic spread (World Health Organization, 2023), and the Government of Kenya (GOK) immediately imposed severe restrictions. As of March 25, 2020, GOK issued a dawn-to-dusk nationwide curfew, required employers to direct non-essential workers to work from home and to ensure physical distancing for essential workers; prohibited public gatherings; severely limited movement into and within the country, including preventing migration of people from higher prevalence urban areas to lower prevalence rural areas; and closed airports, schools, daycare centers, and religious institutions. Markets and public transportation continued to operate on a limited basis, with additional requirements for sanitation and hygiene. The GOK launched an emergency internet system in many areas of the country to permit work, learning, and commerce from home, but penetration was not universal, and access required households to have use of internet-enabled devices (Wangari, 2021).

The results of these policies were intended to protect people from sickness and death, but the economic consequences were severe, particularly amid and in the wake of the desert locust infestation. Agricultural exports in 2020 were less than half of what they were in 2019, and the horticulture sector, for example, shed most of its workforce (CSIS, 2020). The sections below explore the specific impacts identified by youth in the agriculture sector in Isiolo and Marsabit.

Kenya Focus Group Findings

Impacts of Desert Locust Infestation and Drought

The key impacts of the desert locust infestation and drought included loss of production and revenues, decreased consumption, disrupted educational pathways, and increased pollution of water sources. Focus group respondents initially noted that there were few differences in the impacts for youth and adults in their roles in the food system (e.g., as vegetable growers), mainly because the respondents were old enough to be out of school. The area they first identified as being specific to youth was the disrupted educational pathways, discussed further below. As the discussions deepened, however, participants identified a range of impacts related to family life that were more critical for youth than for older adults.

Loss of Production and Revenue

The most critical and consistent response to questions about the impacts of desert locusts and drought was the loss of farm produce and loss of revenue.

> "Access to water has really been affected by the drought—farmers no longer have enough water to farm or even for basic household use." — Young Woman, Marsabit

Vegetable farmers (i.e., youth and adult, male and female) were particularly hard hit, as their crops require water to grow and as **the locusts destroyed crops** of leafy vegetables (e.g., cabbages, kale, etc.).

> "The farmers have been very much affected by the invasion of locusts, and they have since lost 70 percent of their farm produce since the locusts destroyed everything." — Young Man, Marsabit

> "Locusts bore holes in the leaves then farmers are unable to sell farm produce because of the poor quality." — Young Woman, Isiolo

The **COVID-19 restrictions exacerbated these losses**, as transportation restrictions limited their ability to obtain inputs and get food to markets, and farmers could not sell the remaining produce beyond their local areas in many cases.

> "The price of major inputs like fertilizers have gone up by more than 50 percent in some instances, and the Government has stopped distributing free fertilizer to the farmers." — Young Women, Isiolo

Many of the focus group participants noted that they had not yet recovered their losses from the desert locust infestation. Some of the farmers noted that these challenges affect more than just the farmers who work their own land, but also those who work as laborers for hire, as there is little work to be done.

Reductions in Consumption

A second clear and consistent pattern in the experience of youth was a reduction in household consumption. In both Marsabit and Isiolo, communities experienced **increases in hunger and malnutrition** as food items like meat, vegetables, and fruits became unavailable as the desert locust infestation continued and, when available, were costly and not affordable to most households.

Most of the focus group respondents, male and female, shared that **the number of meals per day in their households had decreased** from three to two, three to one, or two to one. Their meals consisted of whatever they had grown that had been saved from the locusts, and, as relief supplies began to become available, staples provided through the World Food Programme (WFP) and other relief agencies.

> "The locusts really feed on the plants, especially the leaves/leafy parts, and as such, there is no adequate food left for farmers or for their livestock." — Young Woman, Marsabit

It was not clear from responses how much of the support from relief agencies was the result of the desert locust infestation and how much was based on the years of drought that preceded the desert locusts. A few respondents seemed to think support was in place prior to the desert locust infestation.

> "The lack of rains has resulted in drought and famine, and most households are even getting relief food." — Young Woman, Marsabit

Disrupted Educational Pathways

As a result of decreased household income, families made hard choices about how to reduce their expenses. After the lockdowns ended, in Marsabit and Isiolo, families unenrolled children and youth in schools due to the unaffordability of school fees, given households' reduced incomes.

Some schools responded by allowing students to remain in school and repeat a prior grade at no additional cost to their families to keep children in school until parents could afford the school fees again.

Increased Pollution of Water Sources

The desert locust infestation also increased the pollution of water sources that were already stressed by drought. As one respondent noted, the remains of the locusts wind up in water sources, choking smaller ones and making water sources unpalatable and, in some cases, unhealthy.

> "The locusts, after their lifespan, die and fall into the water bodies like the rivers, which is another problem." — Young Woman, Marsabit

Impacts on Family Life

Participants also identified several gendered and age-related impacts related to family life:

- **Early marriages**: Respondents reported that some parents in their communities had married off their daughters early to reduce the burden on their own households.
- **Migration**: Young men, in particular, migrated away from rural areas to find livelihoods elsewhere.
- **Imbalance of unpaid care work**: Some participants, young women and men, felt that men used disasters as an excuse not to find work yet still expected the women to take care of them in addition to the traditional unpaid care work they already performed.

- **Domestic conflict, separation, and divorce**: COVID-19 movement restrictions, migration of many men to towns to look for other opportunities, as well as financial stress due to farming losses, led to more domestic conflicts, separation, and divorces among youth.
- **Shifting gender roles**: Although great efforts have been made toward empowering young women through donor activities and GOK investments, young men have been left behind. Young women in Isiolo noted that both younger and older men are now not in a position to be able to relate to the empowered women or to see a clear, positive male gender role for themselves. The young men in Isiolo and young women in Marsabit did not address this. However, young men in Marsabit seemed to hold to more traditional perceptions of gender roles and norms.

> "The drought and famine have given men an excuse not to work because they say that they can't find jobs, and so they stay [home] but still want to be taken care of – all they do is stay home and eat without chipping in." — Young Woman, Isiolo

> "Women have their role that is different from those of the men. For example, men were well equipped in terms of chasing the locusts. While male farmers are able to do a lot of farm work whilst women are not well equipped (sic)." — Young Man, Marsabit

Impact of Russia's War on Ukraine

In Isiolo and Marsabit, Russia's war on Ukraine further exacerbated the compounded impacts of drought, desert locust infestation, and COVID-19. The impacts were consistent in both sites, and the participants were only able to identify **migration** as being a significant difference between impacts on youth and adults.

- **Shortages in farm inputs**: High-quality fertilizers were no longer available.
- **Increases in cost of living**: Participants noted how increases in fuel prices affected everything that they do not produce locally, given the distances to trade hubs.
- **Additional spur for migration**: Youth, and specifically young men, moved from rural to urban areas seeking opportunities.
- **Changes in the consumption of nutritious foods**: Specific food items were very difficult to obtain, such as milk. Pregnant women were not able to get the variety of nutritious food needed. Even when NGOs brought relief food, it comprised mostly maize, sorghum, and beans, but no vegetables or meat were distributed.

No youth in the study identified opportunities as a result of Russia's war on Ukraine, perhaps as a result of the severity of the earlier shocks already visited upon youth in Isiolo and Marsabit.

Resilience Practices and Coping Strategies

Given the range of impacts, youth reported that they had employed a wide range of coping strategies, including reliance on savings and borrowing, alternative livelihoods, adaptation of methods and substitution of inputs, migration, increased drug and alcohol use and sexual activity, and increased utilization of family planning services. While many of these coping strategies were the same as those used by older adults in their communities, youth were less able to use them effectively.

Reliance on Savings and Borrowing

One of the primary coping strategies focus group participants identified was an increased reliance on savings. Youth indicated that they were less able to use this approach than older adults, as they had less

savings than their elders in the community. They also reported that some farmers were able to get loans, but primarily through village savings and loan associations. However, participants reported that savings and credit cooperatives (SACCOs), one of the cornerstones of microfinance in Kenya, were reluctant to lend to adult and youth farmers in Marsabit and Isiolo in the wake of the desert locust infestation because they had little collateral left.

Alternative Livelihood Strategies

A second core strategy youth identified was to diversify or adapt their livelihood strategies. For example, some youth switched crops or abandoned crops altogether, a strategy that one young man in Isiolo characterized as being "everyone's" solution. Young men in Marsabit noted that many farmers began different lines of work, such as beekeeping, or chose to rear animals, shifting from cows to goats as they require less forage. In Isiolo, one young man similarly noted that he knew people who switched from onion farming to goat rearing.

Some farmers reduced the sizes of the plots that they farm to make them easier and more affordable to manage.

> "Insufficient water has also led to planting less acreage as a coping strategy." — Young Woman, Isiolo

> "Households became creative in dividing the land they could use for consumption crops [household consumption] and cash crops." — Young Man, Isiolo

While helping them cope in the short term, the trade-off to shifting to consumption-focused farming is that they then have a much lower potential for future earnings in the near term. Among focus group participants, more women than men identified this as a response to the desert locust infestation.

> "They have also changed the type of crops that they are farming, like from farming maize to vegetable gardens [for their own consumption]." — Young Woman, Isiolo

Young men particularly noted the prevalence of other youth deciding to open kiosks and other small businesses rather than farming. This exit of young men from production, and sometimes from the agriculture sector entirely, along with migration (discussed below), has created **additional pressure on for-hire labor on farms**.

> "The few available workers have more than doubled their charges. For example, to hire labor to pump water once per week to their farms used to cost KES. 50 [about USD 5] per instance, but now the laborers are charging KES. 100 [about USD 10] per instance." — Young Woman, Isiolo

Adaptations and Substitution of Inputs

Young women in Isiolo noted two specific positive adaptations that had come from the recent shocks: digging of boreholes as a source of water and experimentation with different styles of planting, such as box planting. Boreholes reduce reliance on rainfall for irrigation. Box planting reduces the requirement for inputs, such as water. These efforts reduce the uncertainty and cost of farming for young farmers.

In Isiolo, both young women and young men identified the substitution of less costly inputs in their growing processes as an important coping mechanism.

"The cheap fertilizer that the farmers are now accessing is not good for the crops since it is so acidic; hence, it causes the crops to wither and wilt." — Young Woman, Isiolo

The utilization of less preferred inputs, however, often has negative side effects, as identified above. If the use of lower-quality products must be sustained over time, it can introduce new problems for farmers and, in some cases, for the community at large, depending on the scope of side effects.

Migration

Young men, in particular, cited migration as a coping strategy, and they were also reported (by men and women) to opt for migration, whereas few young women did. Respondents had little information on migration patterns or what those who chose to migrate did in their new communities. They also did not share any information on remittance flows, and it is therefore not clear to what extent, if any, support flowed back to the communities from migrant youth.

Increased Drug and Alcohol Use and Sexual Activity

Young men and young women in Isiolo also noted an increase in drug and alcohol use to cope with challenges. Young women also specifically indicated that their peers had engaged in early sex, which led to teen pregnancies as a result of being "idle."

Increased Use of Family Planning Services

Young women in Isiolo reported that women, both young women (up through 29) and older women (over 30), have become more vigilant about family planning to avoid having children they do not feel they can support. Based on the responses, this seems to have come only as a result of the compounded stresses of the desert locust infestation, drought, COVID-19, and Russia's war on Ukraine.

Youth Roles in Agri-food Systems

Overall, FGD respondents viewed themselves as being only marginal actors in the agri-food and water systems, both before and after the shocks. As a result of the desert locust infestation, youth had a few new opportunities to take on leadership roles in their communities and in their groups. However, the lack of funding targeted to youth-led or youth-focused programs continues to hamper the design and implementation of strategies and solutions.

Youth Leadership Opportunities

Only some of the youth in the young men's focus group in Isiolo saw themselves as leaders in the food system, specifically coming from areas in which they had been encouraged by adults in the community to lead efforts on writing letters to government officers or coordinating water rationing schedules.

"The youth got opportunities to write letters to the agricultural officer to request support in dealing with the locusts. The youth leader farmers stepped in and wrote the letter to ask for support for chemicals to spray on the crops to reduce destruction of crops by the locusts. Through this initiative, the government distributed chemicals and employed some of the youths that were unemployed." — Young Man, Isiolo

"The youth also got an opportunity to coordinate usage of water by practicing water rationing." — Young Man, Isiolo

It is important to note that youth would not have taken those initiatives if not encouraged by adults in their community. Further, these roles did not appear to be sustained beyond the initial crisis. It,

therefore, seems that customary social norms limit potential youth leadership contributions, at least to some extent. A comment from a young woman in Isiolo similarly points to the need for youth-targeted funding, which may indicate that earmarking funds for youth may be necessary to foster youth leadership in existing social hierarchies.

> "Some of the farmers are youth leaders in their communities. However, there is lack of funding, and so it's hard to come up with innovative solutions, which require resources to be implemented." — Young Woman, Isiolo

Youth Leadership Aspirations Post-Desert Locusts

As noted above, most FGD respondents identified few leadership opportunities beyond those related to desert locust response. One exception was a young woman in Marsabit who knew of a range of opportunities to promote health awareness on behalf of a donor program in the region.

> "There are opportunities for youth to promote awareness in health, especially on children's health, like nutritional matters, water treatment, water harvesting strategies, etc." — Young Woman, Marsabit

Broader Food System

A final line of inquiry focused on how youth perceive the broader food system environment when it is subject to a shock or stressor. Who are the major actors who support youth? What resources do youth use? What are the barriers youth find to achieving their goals?

Support from Key System Stakeholders

Youth identified three primary categories of stakeholders that support youth in the food system. The first of these was the government at both national and county levels through the Agricultural Services departments, extension officers, and county agricultural services departments for the provision of farm inputs, drought-resistant seeds, fertilizers, greenhouses, capacity strengthening and training, and extension services, such as soil sampling and testing.

> "The Agricultural Services Department of the county/national government—they provide support and capacity building in water systems, capacity building for the use of drought-resistant seeds, dam liners, greenhouses, etc." — Young Woman, Marsabit

> "The county government is an actor since it has also provided the youth with farm inputs…such as pigeon pea seeds. They have also been issuing the youth with fertilizers and at the same time taking them to seminars for education." — Young Man, Isiolo

> "The Department of Agriculture has helped in giving youth drought-resistant seeds for planting." — Young Man, Marsabit

> "Participation of the county government enabled sustainability of programs, and they also provided extension services and assisted in soil sampling." — Young Man, Isiolo

> "KARI [Kenya Agricultural Research Institute] has also been available, especially in educating people on what to plant and when. They also helped with seeds." — Young Man, Marsabit

The second category of stakeholders were the SACCOs and village savings and loan association that provided savings services and access to credit/loans throughout the desert locust infestation.

> "There also other actors, like the tomato SACCO, that has helped in searching for markets for the produce of tomatoes of young farmers." — Young Man, Isiolo

The final category of stakeholders was non-governmental organizations and donors, such as the WFP, Drought Resilience Sustainable Livelihood Program (DRSLP), Food for the Hungry, and Caritas, which provided bursaries and scholarships for farmers' children in school, capacity strengthening and training, extension services, irrigation systems, food relief and cash transfers, mechanization of farming activities for youth, and connecting water to farms owned by youth farmers. All of these worked in partnership with the national and local governments.

> "DRSLP has helped in connecting water to youth farmers." — Young Man, Marsabit

> "Caritas has supplied seeds and poultry keeping…day-old chicks…[and] capacity building for poultry keeping." — Young Woman, Marsabit

> "WFP has upped farmer skills through capacity building and provision of extension services and, at the same [time], offered fertilizers. In addition, they have assisted in piping layouts for drip irrigation." — Young Man, Isiolo

> "WFP has helped in distributing relief food to people and also water when the problems of hunger and access to water were at their worst. They have also helped in mechanization of farming by distributing hand-pushed ploughing machines to farmers." — Young Man, Marsabit

Support Required to Recover from Desert Locust Infestations

While youth acknowledged support from many sources, most FGD participants felt that the support was insufficient. Young men in Isiolo identified a range of areas of expanded support they thought would be helpful, including crop/livestock insurance to cover losses caused by shocks and stressors; additional training and capacity strengthening amongst youth farmers; sinking of boreholes; improvements in water harvesting mechanisms; installation of solar power/clean energy as an alternative source of energy to deal with effects of climate change; and alternative forms of farming, such as pigs, poultry, and dairy farming, that would also promote the production of biogas. Young women in Isiolo had similar ideas but also added introduction of hydroponics farming; introduction of greenhouse farming; treatment of sewage water for recycling purposes; and an increase in the number of extension offices to expand service offerings.

In Marsabit, young men focused on support for greenhouses, boreholes, and the expansion of beekeeping.

> "All farmers should be helped [to] set up beehives—where there were more beehives, the locusts didn't invade." — Young Man, Marsabit

Young women in Marsabit, however, saw a much broader set of needs for support: water harvesting and storage strategies (e.g., dam liners, tanks, gutters for houses, etc.); water minimization in farming; river damming and water storage; accessing drought-resistant seeds; reforestation; capacity strengthening on management of drought-resistant livestock; capacity strengthening on group management and use of farm equipment and technology; stockpiling of pesticides for future infestations; increased access to

credit for restocking of livestock; scholarships for farmers' children; and women's support groups focused on supporting individual and familial mental health needs.

Key Recommendations from Kenyan Youth Perspectives

Based on their experiences with the most recent desert locust infestation and drought, compounded by COVID-19 and Russia's war on Ukraine, youth identified six specific areas of support that would improve the ability of youth and others to recover from these shocks and stressors more effectively in the future.

1. Prioritize access to, storage of, and availability of water for youth farmers during the occurrence of natural disasters.
2. Focus recovery efforts should be on all youth farmers in the targeted counties, not only on specific regions within the counties.
3. Provide support for as long as the disasters are occurring, preferably in the form of cash and food assistance. Given the long-running drought in the Marsabit and Isiolo regions, this has significant implications for cost.
4. Work directly with youth and other farmers as much as possible to reduce channeling resources and support through the local and national governments.
5. Increase the intensity and geographic scope of valuable capacity strengthening and training services. Programs should focus on using farming methods that require the least water and help conserve water.
6. Engage deeply with the community, including young women and young men, before extending support so as to ensure that youth farmers actually receive the support that is most timely and needed.

Photo by: Adobe Stock Images

SPOTLIGHT

Youth Adapts and Moves up the Value Chain for a Profit

As an example of adaptive resilience capacity, Jackie (a pseudonym to protect her identity) explained how drought and lack of water caused her to shift from vegetable farming to processing and marketing fruits, which ultimately yielded a higher profit than she had made from vegetables. Jackie's story shows that, at times, simple observation is sufficient to identify opportunities to enhance income-generating activities.

"Before these calamities, there was enough and sufficient water—the rivers were flowing with water. They had not dried up," said 24-year-old 'Jackie' from Isiolo. "You could pump water to your farm at any given opportunity. The price of petrol, which we use to pump water, was lower as well, and therefore the profit margins were high at that time.

We used to sell [heads of] kale at 15 or 20 shillings (0.12-0.16 USD), and we could still make some good profit. That money really supported me. I used half of what I made to go to college and study general agriculture. It's now really difficult because there isn't sufficient water, even though for me, I am not so much affected financially because my parents support me with finances to do farming.

Before I went to college or even when I was in high school, I used to farm onions, but since I was still a student, it was under the care and control of my mother, and I used to do intercropping of cowpeas (i.e., kunde), spinach, and onions. The cowpeas could be within a short time, say a month, and when I harvest and sell, I would raise the money so that I could get water to irrigate the onions. When I harvested the onions, the market was not so friendly at that time, and I almost [had] a loss. I decided, instead of reinvesting the money in farming, [to go] back to school. I went to college and abandoned farming for a while. I also started hawking small goods for a living.

When I was doing farming, I was connecting with other businesspeople, and I used to enquire a lot from them [to] get a lot of good advice. When the pandemic came, I consulted my sister [about trying] out some business, but the business idea failed for lack of capital.… Out of that venture, I tried to farm watermelon and pineapple and hawking because I had 10,000 shillings (80 USD) capital. After doing business with it, I only made 5,000 (40 USD), which was so little I decided I cannot continue with the

business. So, I went back to my former customers who run groceries and used to send me orders. They started sending me watermelons and pineapples. I cut them [into] pieces and [sold] them, and it was profitable. For example, [for] one watermelon I could get 250 shillings (2 USD) as profit. I could sell 3 watermelons and 10 pineapples in a day, and it made a lot of economic sense to me."

KEY LESSONS LEARNED

A key finding that emerges from the experiences of the 93 youth who participated in this study is that their outcomes depended in large part on their economic and social resources prior to the shock or stressor occurring. This largely shaped their options and behavior in their coping strategies.

Coping strategies ranged from absorptive to adaptive and even transformative in a few cases, as illustrated by Ayesha's story. Common solutions included **depletion of savings—both personal and business**—of which they generally had less than adults in their communities; **increased reliance on borrowing**, especially in Kenya; **downsizing farm operations**; **and decreased long-term earning capacity** through both discontinued education/skills development and depletion of savings for reinvestment.

It is important to recall that this was also in a broader context of mostly negative coping strategies: decreases in the number of meals households consumed per day; substitution of less nutritious foods as items like meat, vegetables, and fruits were less available or not affordable; school leaving; increases in early sex and pregnancy (Kenya); increases in social isolation (Bangladesh, especially for girls); emotional and psychological distress, including around the male gender role; and additional unpaid care work, especially for women. As these examples indicate, gendered/norm-based challenges were heightened as a result of the shock or stressor for youth, but not necessarily for older adults.

On the positive side, youth diversified their livelihood strategies (e.g., setting up kiosks, switching crops or animals to rear)**, focused on value additions, and used technology to reach out to customers.**

One of the key challenges in analyzing the data from this assessment was that the impacts of COVID-19, desert locust, drought, and Russia's war on Ukraine appear to be the same for youth and adults, and youth even reported that they were the same. Despite the similarities with impacts on and coping strategies used by adults over the age of 29, the impacts on youth must be viewed in light of two key distinguishing factors: (1) psychological resilience, including risk assessment and decision-making, is not fully developed until the mid- to late-20s, and (2) youth ability to employ coping strategies/resilience capacity is different. Therefore, key differences did emerge in terms of how youth and adults dealt with the shocks and stressors:

- **Experiences of severe stress** – Participants spoke of the severe psychological and emotional distress caused, resulting in suicidal ideation and divorce for some participants. The participants did not report similar experiences for older adults who had greater experience and resources.
- **Adoption of dangerous coping mechanisms** – Youth also highlighted the reliance on coping mechanisms with potential negative long-term impacts, including early sexual activity and early pregnancy and alcohol and substance use.
- **Shorter coping window or increased deprivations** – Participants noted the more limited resource base for youth to fall back on, and they, therefore, experienced more deprivations than older adults in many cases.
- **Long-term economic ramifications** – Given the foreshortened educational opportunities and depleted savings, these shocks and stressors decreased youth capacity for earning and savings and increased the potential for intergenerational poverty.

- **Shifting of gender roles** – Young men were less able to remain in the provider role than older men; strictures on women intensified or relaxed in different situations.

Youth in both countries had similar perceptions of their roles in the food system and in their communities more broadly. Youth had limited opportunities to engage in wider community decision-making, but active peer networks were critical for youth in almost all sites. Most importantly, many respondents felt they were small-scale actors without much influence. When asked about what they would like to do, young men reported aspirations related to the male gender role of provider that were predominantly economic, while young women aspired to improve livelihoods, nutrition, and gender equity. Despite their perceptions of their current status, about a third of the youth believed they could be leaders with outside support (e.g., support of community members or training). A few had the opportunity to take on leadership roles in response to the shocks and stressors in their communities. Further, a few respondents initiated their own activities in response to needs in the community during COVID-19.

It is also notable that across communities, respondents identified personal relationships as a key support throughout the pandemic and desert locust infestation. Youth, both male and female, felt there was little or no help from the community. They did, however, note that having a supportive family member was critical, as was the psychosocial support they provided for one another. In both countries, a few respondents pointed to governmental programs, NGOs, or community savings groups that provided cash or other support on a limited basis, often without clear criteria from the youth perspective.

Based on the results of the assessment, USAID, governments, and other donors and civil society actors could take steps to strengthen the appropriateness of responses to shocks and stressors for youth populations, particularly in countries with large youth populations. The following considerations might be useful in tailoring responses to support youth in the food system:

- Ensure that local mechanisms exist for youth to engage in peer-to-peer dialogue for psychosocial support, guided by the equivalent of professional or para-professional counselors as appropriate. These mechanisms should have protections built in, whether through anonymous participation or pre-screening to match groups based on need and attitudes, to prevent bullying of any participants whose identities or ideas might not conform to social norms.
- Work with community leaders to create opportunities for youth contribution in response to and recovery from shocks and stressors to both reduce the adoption of negative coping mechanisms and to help position youth as valuable members of the community.
- Ensure that any cash or in-kind benefit program has clear criteria for participation that are easily understood, even by those with limited education.
- Plan for the reintegration of youth into the education system, with additional subsidies, if needed and feasible, to minimize the loss in future earnings potential.

Resilience Capacities and the PYD Framework

Several common themes emerged through the experiences shared by youth in Bangladesh and Kenya that are related to USAID's PYD framework, which deserve additional attention here. The youths' experiences in Bangladesh and Kenya during and after the shocks of COVID-19 and desert locust infestation and drought point to at least a partial mapping of the PYD framework to resilience capacities:

- Absorptive capacity rests largely on assets and agency—the resources to manage a shock or stressor and the self-efficacy to act as needed to manage the resources at hand.
- Adaptive capacity requires assets, agency, and a supportive enabling environment—particularly at the household and community levels.

- Transformative capacity builds on that base and necessitates the inclusion of contribution and sometimes a fifth element—connection.

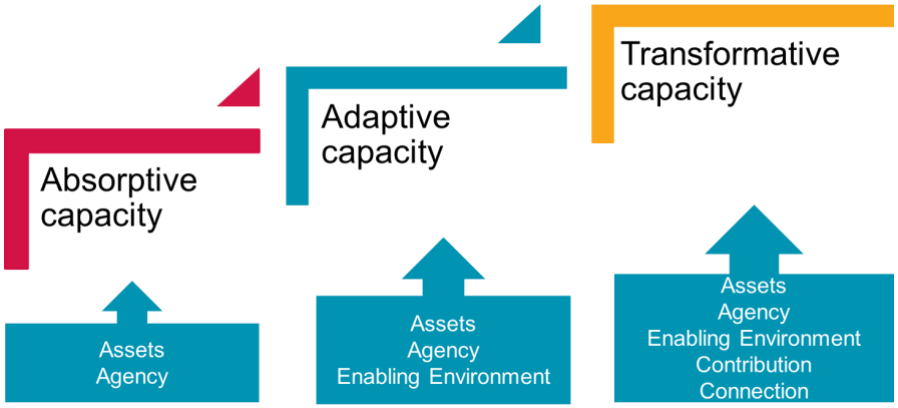

Figure 2. Relationship between PYD and Resilience Conceptual Frameworks

Transformative capacity—the capacity to achieve a state of being better off than before a shock or stressor—is indicative of a change in position, an increase in influence, and, under the best of circumstances, a prosocial orientation, or connection to the community, that improves the lives of not only one individual or household, but others in the community as well.

Assets

Young people described how existing resources or assets (e.g., financial and social) often served as an indicator of who would be most harshly affected by shocks or stressors. This finding aligns with a substantial body of research on disaster risk management and disaster response. However, youth who are in a role of supporting themselves and/or their families, as opposed to those who are still dependent on their families, often have a more limited resource base to fall back on than adults do. This typically means they can manage a shorter coping period or will experience increased deprivations compared to adults.

One of the expected long-term ramifications of COVID-19 and desert locusts and drought for youth, though not for older adults, was a decreased capacity for earning and savings, and a potential increase for intergenerational poverty. Youth whose education was disrupted and never continued, those who depleted their savings and liquidated assets, and who dramatically downsized operations may never fully regain the financial well-being they would have in the absence of that shock. Given the sense of helplessness that some had, and the dearth of support from government and other actors in the agriculture and food system that most experienced, youth attitudes toward consumption and savings may shift. Youth reported their heightened sense of need to accrue savings and achieve self-sufficiency. Despite this increased interest in savings, however, youth come out of this experience with an increased vulnerability to future shocks, as those who had savings spent them, and others resorted to coping strategies that may have compromised their physical health and nutrition. Coping strategies such as the reduced consumption of nutritious foods during critical growth periods by both youth and young children of youth, drug use, early sex, and early marriage may have exacerbated the decreased capacity for earnings and savings for some youth, potentially resulting in negative long-term impacts (e.g., ill-health or disability).

Enabling Environment

The enabling environment is a critical element in the PYD framework because it creates pathways or barriers to youth participation in systems, such as the agri-food system in this case. The enabling

environment functions at multiple levels: household, community, value chains, and legal/policy frameworks.

Study participants said they relied primarily on household and community support for strength through shocks and stressors. Support from parents and families was a critical element in the transformative resilience capacities of youth; that is, it was a key factor in the success of youth who were able to emerge from shocks and stressors in a better situation than they had before. Family support for youth varied, however, and social norms and pressures affected both young men and young women. Some families allowed for a shift in gender roles, for example, allowing young women more latitude to engage in agriculture. Some did not, however, and the coping strategies that a few young women employed brought them into conflict with their families. In addition, social norms that require men to fulfill the role of provider for the household continued unabated, with few supports available. These pressures on both young men and young women were extreme enough to lead to suicide or thoughts of suicide in many cases.

It is not clear what the long-term effects of these shifting gender roles might be. For some young women, the opening up of opportunities may have positive results, but the experience of COVID-19 undermined one of the primary gender roles for young men, with no positive substitution and no support for the adjustment.

Most youth noted that external support was minimal, despite the enumeration of programs that youth in both countries provided. The rapidity with which support from government or other sources becomes available is critical, given the shorter periods on which youth can survive on their savings or manage increased deprivations, as is clear communication about eligibility and universality (e.g., the livestock support program in Bangladesh). Targeting criteria can also be significant, as household roles are not always clear; for example, youth may reside within their parents' household but also be the primary wage earners for the household.

Agency

One of the key differences between the youth who succeeded in finding opportunities as a result of COVID-19 or the desert locust infestation was a sense of self-assuredness, a belief in one's own abilities. This is linked, at least in part, to the familial and peer support noted above but also to having a sphere in which to act. COVID-19 limited those spheres of activity for youth, which had significant mental health impacts, at least in the short term, including a perceived reduction in agency. Youth who experienced the COVID-19 pandemic had no other personal frame of reference for what are perceived to be long-term hardships. The pandemic, desert locust infestation, and drought, all compounded by Russia's war on Ukraine, occurred at a pivotal moment in their development, and it will become a critical frame of reference for them for future shocks and stressors. Lacking any other frame of reference, the situation seemed hopeless to many, and they felt helpless. Mental health support was generally not available to them, and although the study participants may have come through the experience and felt themselves to be stronger now, they noted the grieving in their communities for youths who died by suicide.

Another factor related to agency or self-efficacy is the ability to make decisions and assess risks one faces. One of the key differences for youth under the age of 26 experiencing a shock, such as COVID-19, is that their risk assessment and decision-making faculties are not yet fully developed. Research has demonstrated that trauma or stressors in adolescence compromise the ability of youth to function, limiting their agency and their potential. The severe stress that many youth experienced during COVID-19 may result in longer-term mental health challenges that have been documented as resulting from trauma or endemic stressors, including post-traumatic stress symptoms, depressive symptoms, anxiety symptoms, and externalizing behavior problems (Dorsey, et al. 2016).

Contribution

As noted in the case studies and the discussion of youth initiatives in response to COVID-19 and desert locusts and drought, youth recognized the importance of their knowledge and their need to act and contribute to their communities. However, the contributions that youth identified were all predicated on having pre-existing connections within the community, either through specific organizations or social networks, and, typically, having financial resources to dedicate to the effort. Therefore, youth who were among the more marginalized likely had few opportunities for contribution.

FINAL THOUGHTS

While this study is small in scale, it provides important insights into the differences between how youth and older adults in similar circumstances are able to cope with shocks and stressors that affect their communities and their food systems, as well as the various supports youth may need in those circumstances that differ from what older adults may need. This study helps to fill, in a small way, some of the gaps in the evidence base about what works best for youth in resilience and food security-related programming and in deepening partnerships with young people and other stakeholders in agri-food systems, which is one of YASLA's primary goals.

The research team hopes that the information provided helps Missions (and counterpart agencies) support youth more effectively in the wake of future shocks and stressors. Although specific conditions will differ by shock/stressor and location, some of the lessons learned in this study likely have wide applicability for Mission strategies. We also hope that the more context-specific lessons learned may assist Missions in identifying key questions that may be important to consider in rapid needs assessments to inform future responses.

Finally, the research team would also suggest that USAID consider what additional research may be helpful to inform how strategies and programming could be better tailored to youth needs in response to shocks and stressors. As the evidence base remains sparse, almost any response to a shock or stressors represents an opportunity to capture more information about how to partner with youth effectively to meet their needs and foster transformational resilience capacities.

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