RESILIENT LIVELIHOOD SYSTEMS FOR NUTRITION
INTRODUCTION

From increasingly erratic rainfall and prolonged dry spells to aggravation of existing communal and resource-based conflicts, the impacts of climate change are straining the already fragile balance pastoralist communities in Turkana and Samburu have long negotiated with the arid and semi-arid lands of Kenya, which they call home. Intense pressure on the livestock systems at the heart pastoralism has also laid bare the effects of historic socio-economic marginalization on community members as their traditional mechanisms for coping and adapting deteriorate. As a result, over the last two decades rates of persistent acute malnutrition in both counties have risen to alarmingly high levels, with especially devastating impacts on those segments of the population already experiencing vulnerability, including women, adolescent girls and boys, and children.

It is in this context that the United States Agency for International Development’s Bureau of Humanitarian Assistance-funded Nawiri program (USAID Nawiri) has developed a holistic livelihoods strategy that supports individuals and households to adapt and diversify their livelihoods with the intention of maximizing autonomy and self-reliance while building nutrition resilience in the context of a rapidly shifting landscape. This market-led and nutrition-centered resilient livelihoods strategy focuses on creating viable, diverse economic opportunities in historically underserved communities that bolster the production and access of nutritious foods and other supportive goods and services; increase access to sustainable, climate adaptive income streams critical to nutrition outcomes; and build demand for and consumption of nutritious foods. Layered with interventions that strengthen health and nutrition services and practices, promote gender and social inclusion, foster peace and governance, and enhance natural resource management, USAID Nawiri’s resilient livelihoods strategy is central to the program’s vision and goal of translating crisis into opportunity and sustainably reducing persistent acute malnutrition among 598,475 people—or 70% of the population in the 35 wards targeted—in Turkana and Samburu by 2027.

This document explores the resilient livelihoods strategy’s technical approaches; critical program adaptations in the context of five failed rainy seasons, the COVID-19 pandemic, and global food and fuel shortages that have deepened nutrition insecurity in the two counties since the program began; preliminary reach during the scale-up phase; and pending questions that will shape learning around and refinement of interventions in the years to come.

USAID Nawiri: Building Market-Based, Nutrition-Centric Resilient Livelihood Systems

Leveraging two years of research and ongoing learning, USAID Nawiri is designed to challenge the status quo and facilitate “business unusual” solutions to sustainably reduce persistent acute malnutrition in Samburu and Turkana counties. The Swahili word Nawiri translates into “thrive” in English, representing the program’s unwavering commitment to learning from the past and present to ensure communities can transform the underlying drivers of cyclical, persistent malnutrition. Strengthened, adapted, and diversified livelihood opportunities that are viable in the face of complex, interconnected shocks and stresses are fundamental to breaking these cycles and building nutrition resilience.
Background

Over the last two decades, climate change has challenged and tested the performance of livestock systems and their role in nutrition, income-generation, and shared identity among pastoralist communities in Samburu and Turkana Counties. Increasingly erratic and infrequent rains have degraded pastures and dried up water points, undermining traditional systems for managing grazing routes, intensifying identity and resource based conflicts, and weakening the animals families rely on for food, income and financial security, and a sense of belonging. This pressure has also exacerbated existing marginalization of women, girls, and youth, multiplying time poverty for women and girls, increasing early marriage of girls to access dowry funds, intensifying traditional pressure on young men and boys to prove their strength by protecting livestock, and increasing gender-based violence, among other impacts.

While the decade-old process of devolving governance decision-making has redirected substantial development resources toward Samburu and Turkana Counties, providing an opportunity to address their historical economic and political marginalization, it has also replicated some of the previous system’s hierarchical and extractive structures.¹ Many last mile communities in both counties still lack basic infrastructure, services, and market connectivity. These factors limit livestock productivity and trade, undermine access to affordable and nutritious foods complementary to livestock meat and milk as well as other nutrition commodities, and block critical linkages to private sector partners, inputs, and value chains. Ultimately, as climate pressure on livestock systems mounts, communities have been left with inadequate resources, services, and infrastructure critical to coping and adapting, reinforcing cycles of persistent, intergenerational acute malnutrition.

For communities to survive and thrive in the place they call home, this devastating crisis must be translated into an opportunity to address the systemic issues undermining nutrition resilience. This means fundamentally transforming access to and the availability of affordable, nutritious foods and nutrition commodities through increased food production—from livestock and crops to fish and poultry—and strengthening local and regional food systems to ensure they are able to facilitate the supply and consumption of affordable, safe, diverse, and nutritious foods in last mile communities. All community members, especially those historically excluded, must also have access to the resources critical to restoring and strengthening their livestock livelihoods while adapting and diversifying into new, resilient, nutrition-centric economic opportunities that provide clear pathways to nutrition security. USAID Nawiri’s resilient livelihoods strategy, outlined in the next section, provides such pathways.

ADVANCING MARKET-BASED, NUTRITION-CENTRIC RESILIENT LIVELIHOODS:
STRATEGIC APPROACH AND COMPONENTS

The Approach

Informed by a first-of-its-kind two-year research period, USAID Nawiri has leveraged 15 inception studies, coupled with evidence from decades of implementation in Samburu and Turkana, to interrogate how shocks, stresses, historic socio-economic marginalization, and systemic drivers of vulnerability have challenged traditional livelihood systems, and what must happen differently to facilitate sustainable reductions in acute malnutrition. Historically, livelihood development programs in the area have focused almost exclusively on direct asset transfers and skill-building, providing short-term access to income but failing to transform the underlying drivers of malnutrition or carve sustainable pathways out of poverty. Based on extensive research, the resilient livelihoods strategy outlined below aims to establish these pathways by addressing several critical barriers to sustainable economic opportunity and nutrition outcomes in Samburu and Turkana.

First, USAID Nawiri recognizes that sustainable, nutrition-centric livelihoods require a household and community enabling environment that facilitates and actively promotes marginalized groups’ participation in livelihoods. Second, the strategy acknowledges that livelihood activities can only be viable long-term if they catalyze sustainable local economic activity (i.e., increasing demand and supply of goods and services) that is resilient to shocks and stresses. This includes facilitating market linkages that, for example, deliver quality, affordable input supplies, provide points of sale and trade, and offer information and skill-building services even as the climate changes.

Finally, any strategy must focus first on increasing access and availability of affordable, safe, diverse, and nutritious foods through production activities that include but move beyond livestock products to build holistic local food systems.

To incorporate these considerations, USAID Nawiri’s resilient livelihood strategy begins with community-based peer-to-peer support groups, referred to here as “anchor groups,” that provide a safe space for building trust and confidence in exploring livelihood adaptation and diversification activities. Anchor

FIGURE 1

USAID NAWIRI’S ANCHOR GROUP MODEL

Community-based peer-to-peer support groups, or “anchor groups,” serve as the entry point for all resilient livelihoods activities.

“Thanks to Nawiri’s support, our quality of life as girls has improved. We are now able to enjoy a well-balanced diet within the comfort of our home, combining nourishing foods. For instance, for now we can prepare and enjoy a combination of ugali, vegetables, and meat.”

Sarah Kimak Amani

“My wife and my [2-year-old] daughter were both malnourished before Nawiri and now they are healthy and even putting on clothes. Some of us [young men] came back from the bush when we learned Nawiri was forming groups for young men. Soon we will reach our goal of opening a business. We want to show other young men here that even if they didn’t go to school they can leave things like raiding behind.”

Ewesit Ewe Ekaru

“I look like an employed woman now because my children can eat from my household—as the same time they are no longer in the nutrition program [treating children experiencing malnutrition at the community health facility]. I no longer ask any support from my husband, but we work together as a team to support our family. All is just because of Nawiri.”

Dorcas Lotilan

“Using the funds [unconditional cash transfer] I received from USAID Nawiri, I launched a business to ensure my family’s sustenance even after the USAID assistance ends. At my home, I maintain a kitchen garden that yields vegetables for my family’s consumption. In our VSLA meetings, held twice a month, we each contribute. I have utilized these loans to bolster my inventory and cover my child’s school fees.”

Lobenyo Nachuda

“USAID Nawiri found us in the middle of the river and helped us to the riverbank. However, as a community our goal is to reach the top of the hill. We are committed to a strong partnership with Nawiri to enable us to achieve this dream.”

Michael Loono Ekial Nawoto

GIRL-H GROUPS
Who: Girls and young women

BOY GROUPS
Who: Boys and young men

(REAP) FOR NUTRITION (R4N)
Who: Ultra-poor households, represented by adult women

ADAPTED MOTHER TO MOTHER SUPPORT GROUPS (AM2MSG)
Who: Pregnant women and mothers not participating in R4N

MEN-TO-MEN
Who: Adult men

TABLE 1

RESILIENT LIVELIHOOD SYSTEMS FOR NUTRITION | 4
group models (outlined in Figure 1) each target a key segment of the population and serve as a proxy for stakeholders within a household who are critical to ensuring sustainable reductions in malnutrition for all members of a given household.

Through consistent mentorship, anchor group members receive a minimum package of integrated, layered, and sequenced services, from basic literacy, numeracy and nutrition education to formation (or strengthening) of village savings and loans associations (VSLAs) that allow them to access financial services. To support a nurturing care and enabling environment, anchor group members also participate in household and community dialogues focused on subjects such as shared decision making, the household care environment, and opportunities for shifting potentially damaging practices. Ultimately, anchor group members engage in livelihood visioning exercises that help them prioritize livelihoods pathways based on their livelihood zone, village profiles, and personal interests—all supported by data gathered through the community integrated assessment and action planning (CIAAP) process.

To ensure the livelihood pathways anchor group members choose are economically and ecologically-viable within the context of shocks and stresses while promoting nutrition outcomes within communities, USAID Nawiri works to facilitate inclusive private sector partnerships, market linkages, and climate-adaptive business models that can support local livelihoods. As part of this, interested anchor group members are also provided with the support to

**ANCHOR GROUPS: A BRIDGE FROM CRISIS TO OPPORTUNITY**

Early in program implementation, USAID Nawiri pivoted into a comprehensive drought response designed to meet immediate needs in the face of escalating shocks and stresses, including five consecutive failed rainy seasons and the economic impacts of COVID-19 and global food and fuel shortages. Through a holistic package of cash assistance to drought affected households, integrated health and nutrition services, and thoughtfully layered and sequenced social behavior change and health and nutrition interventions, drought response participants were able to stabilize their households’ nutrition outcomes. Nearly all respondents (99%) of the fourth post-distribution monitoring (PDM) survey reported that cash assistance from USAID Nawiri had increased their households’ ability to meet basic needs.

Ensuring participants basic needs were met increased their willingness, ability, and readiness to engage in long-term resilient livelihood activities. Anchor groups served as the bridge connecting them from the crisis they were emerging from in the present to deeper investments in their futures. To date, at least one member of 60% of cash recipient households has joined an anchor group.

**NAWIRI RESILIENT LIVELIHOOD DELIVERY APPROACH**

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transition into the last mile service providers and buyers to facilitate remote communities’ access to inputs, commodities, information, and output markets. For example, as members of BOY and GIRL-H anchor groups begin reclaiming degraded lands for local vegetable production, other anchor group members are linking with agro-dealers to become local extension service providers, delivering high-quality seeds and other farming inputs to these new food producers. To ensure there’s enough demand to meet supply, social behavior change interventions help to build willingness to pay for and consume nutritious, diverse foods, while supporting shifts in health and nutrition and other key behaviors in the household critical to nutrition resilience.

Finally, by layering the program’s complementary interventions (e.g., health and nutrition service delivery and behavior change, gender and social inclusion) with resilient livelihoods activities, USAID Nawiri aims to provide not only the enabling environment for livelihood adaptation, but also create and generate demand for new business opportunities. For example, the focus on sanitation, hygiene, and adolescent sexual and reproductive health are creating markets for the production and purchase of women’s sanitary products, while household dialogues are increasing men’s willingness to allocate household budget for these items. Similarly, anchor group mentors help to facilitate connections between emerging goods and services and key input suppliers and traders, helping expand the market opportunities both in terms of supply and demand. Ultimately, by supporting growth in local economies through market-led, resilient, and nutrition-centric livelihood opportunities for individuals and households in Turkana and Samburu, USAID Nawiri is facilitating local food systems transformation critical to nutrition resilience in the context of increasing shocks and stresses.

The Components

The following interconnected and mutually-reinforcing set of resilient livelihood components describe the opportunities for livelihood adaptation and diversification that USAID Nawiri is supporting.

• **Strengthening Foundational Livestock Systems**: This resilient livelihoods strategy centers livestock as the foundational food and income source from which communities might adapt and diversify income streams. To restore and enhance livestock systems, USAID Nawiri focuses on strengthening the productive resource base through improved rangeland management, increased supply and demand of feed and fodder, enhanced management of livestock near the homestead (often led by women), expansion of animal health services through the private sector, and improved vertical livestock trading. All of these elements are designed to help adapt pastoral livelihood systems to the reality of climate change for the purposes of improving and sustaining access to and consumption of diverse nutritious foods.

• **Diversifying Agricultural Production Opportunities**: To increase the availability of nutritious and diverse foods in the drylands, the resilient livelihoods strategy focuses on expanding agricultural systems to facilitate increased crop, fish, and poultry production where each of these activities is ecologically appropriate and economically viable. For example, villages with high water access, including during dry seasons and droughts, are targeted for nutritious crop production, while communities around Lake Turkana are supported to develop a more economically inclusive, locally-accessible fish trade. Through local service providers, USAID Nawiri is catalyzing trade and consumption in diverse nutrition foods across the two counties.

• **Expanding Off-Farm and Non-Farm Livelihood Opportunities**: From extension services to product aggregation and transport, USAID Nawiri’s off-farm livelihood opportunities are designed to grow and engage entrepreneurs in the local food system. This includes supplying inputs that allow emerging and established local producers to adapt sustainable, resilient business models, or providing points of aggregation, distribution and retail, allowing nutritious foods to move from villages where there is a surplus to those where, for example, crop-based agriculture is not ecologically appropriate. In addition, non-agriculture related (or non-farm) livelihoods, such as the sale and/or manufacture of clothing, shoes, handicrafts, or sanitation and hygiene products, provide new opportunities to diversify incomes, connecting communities to essential but previously unavailable goods critical to health and nutrition outcomes. Given community members adapting or diversifying their livelihoods often
require a range of new knowledge and skills, USAID Nawiri facilitates capacity building in areas such as functional and financial literacy and vocational, entrepreneurship and life skills training, all of which are critical to pursuing off-farm and non-farm livelihood opportunities.

- **Financial Inclusion for Livelihoods Adaptation:** In support of adapting incomes through climate-resilient on-farm, off-farm, and non-farm opportunities, USAID Nawiri’s resilient livelihood strategy’s financial services component aims to increase access to financial literacy, savings, credit, business planning, and other financial inclusion services, while serving as a financial incentive for critical service delivery actors, such as anchor group mentors and community health volunteers, to provide last mile services.

The remainder of this section details each of these mutually reinforcing components and demonstrates how they are designed to provide comprehensive livelihood adaptation and diversification options in the context of a changing climate and other interconnected shocks and stresses that have undermined nutrition in Samburu and Turkana. While USAID Nawiri is still scaling up resilient livelihoods activities after pausing to focus on stabilizing communities through the drought response, each component section includes a sampling of preliminary insights into the program’s current reach and impact.

**STRENGTHENING FOUNDATIONAL LIVESTOCK SYSTEMS**

Central to arid landscape management, livestock-rearing in pastoralism provides critical access to animal-based foods such as meat and milk, serves as a social safety net and trade asset for other staple goods, and remains one of the most climate-adaptive livelihoods in the drylands despite more frequent and severe droughts. Given livestock will remain the economic engine of the drylands, USAID Nawiri’s livestock systems strengthening approach focuses first on increasing livestock productivity for both home consumption and local sale. To start, USAID Nawiri partners with livestock producers identified through the anchor groups to invest in growing, supplying, and utilizing fodder critical for animal nutrition, especially in dry periods where pasture is less reliable.

Understanding that improving animal health outcomes is also central to increasing livestock productivity, the program has formed robust partnerships with government entities, the private sector, and community disease reporters focused on improving animal disease surveillance and reporting mechanisms. To ensure livestock health services are available and accessible in last mile locations, USAID Nawiri is partnering with the county governments to support selected qualified individuals from GIRL-H and BOY Groups to pursue approved livestock health courses and later connect to established agro dealers.

To improve livestock farmers’ access to market information and early warning weather information so they can make decisions regarding when to destock their herds, stock feed and fodder, and seek disease and vector prevention livestock health services, USAID Nawiri is pursuing an innovative partnership with the National Drought Management Association (NDMA), livestock marketing associations, and local radio stations, which ensures analyzed market and climate information is translated into local languages and included during trade segments of the prime time radio news bulletins. The program is also partnering with the Kenya Meteorological Department and the Department of Livestock to support climate information access and use through participatory fora to inform livestock production decision making.

Ecosystem rehabilitation of vital grazing lands through sustainable, inclusive natural resource management is equally essential to increasing the productivity of livestock systems, helping reduce climate and conflict risk and vulnerability, protect biodiversity, and maximize the health benefits of these services for humans and animals. Formation of or support for existing village governance structures—including hybrid committees, Ward Development Planning Committees (WDPCs), and Village Councils (VCs)—

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3 Hybrid committees are designed to convene leadership from all community resource management structures across the village, ideally bringing together representatives from committees focused on topics such as peace, grazing, water, land, health, and environment-related to form one conversation about how to manage natural resources at the community level with the goal of reducing of persistent acute malnutrition.
to develop and manage participatory rangeland management (PRM) plans is the primary vehicle for revitalizing cooperative, sustainable management of rangelands and resolving tension around natural resources that has driven cycles of conflict.

A second category of activities focuses on increasing the viability and vertical integration of livestock meat and milk supply chains, linking last mile producers now better equipped to fetch a better price with local traders willing to pay for healthier animals. A central part of this strategy is USAID Nawiri’s Rural Entrepreneurs Access Program for Nutrition (R4N) poverty graduation component, which supports women within ultra-poor households in starting businesses. Overall, 31.39% of R4N participants have started livestock businesses critical to last mile connectivity. These new livestock businesses are organized into village livestock aggregation groups, linked with larger scale traders through livestock marketing associations with an aim of increasing their access to regular market information and better prices for livestock.

4 Livestock marketing associations (LMAs) are a collection of livestock traders and farmers governing a sale yard or livestock market, whereas livestock aggregation groups convene R4N livestock traders who can aggregate their goats to sell to wholesalers at more competitive prices. Livestock aggregation groups are now linked to LMAs so they can be recognized officially, granting them access to large scale traders in markets, market intelligence, and support during disputes with larger scale aggregators.
ADAPTING AND DIVERSIFYING AGRICULTURAL PRODUCTION OPPORTUNITIES

The program’s longitudinal study, household economic analysis (HEA), and the food market systems assessment all indicated that food insecurity and the absence of dietary diversity in Turkana and Samburu are rooted in poor availability and access to sufficient, safe, diverse, and nutritious foods outside of the livestock sector. A number of factors—water scarcity, expensive and poor quality inputs, weak governance and extension services, and limited demand and suppressed willingness to pay for some agricultural goods and services, to name a few—have thwarted previous efforts to support non-livestock agricultural activities in the two counties. Accordingly, USAID Nawiri has invested heavily in designing interventions in the context of these barriers, focusing on strengthening the systems around agricultural production through government, private sector, and community partnerships that balance ecological, economic, and cultural considerations to introduce climate-adapted production opportunities in crop, poultry, and fish that are both economically viable and benefit household and community nutrition outcomes.

The markets-based model aims to incentivize and provide opportunities for program participants (e.g., community group mentors, poverty graduation business members, community disease reporters, lead farmers, and other anchor group members) to transition into independent local service providers who can liaise with more established private sector actors to connect last mile producers suppliers (e.g., seed, fertilizer; poultry input suppliers), to loan service agents. These linkages are critical to providing access to appropriate, adequate, and timely supply of inputs; extension services essential to farmers’ ability to address shocks and stresses; critical risk and market information; and most importantly markets that foster economic and social cohesion between communities producing foods and those unable to do so because of ecological concerns. Through partnerships with the county government and National Irrigation Authority (NIA), USAID Nawiri is supporting the rehabilitation of irrigation canals and management of the invasive prosopis species, which has overrun much of the arable land in Turkana.

Finally, county level consultations highlighted gaps in willingness to pay for nutritious foods and cultural beliefs preventing purchase and consumption of specific nutritious food groups. To address these issues, the program has integrated dietary behavior change approaches to the production system interventions, training agro-dealers and market actors to promote maternal, infant and young child nutrition (MIYCN) through interactions with communities, reinforcing existing messaging through anchor groups and household dialogues.

Production of Affordable, Nutritious Vegetables and Other Crops  USAID Nawiri’s cost of diet modeling revealed that producing leafy vegetables at home could reduce families’ annual food budgeting by up to 26%, while selling surplus crops would sustainably reduce households minimum food expenditures, a critical adaptation given significant increases in food prices in communities where 60% of the population relies on markets to supply food. To increase year-round access and availability of diverse, nutritious crops in last-mile communities, USAID Nawiri has developed a multi-scale, markets-based approach to climate-smart, agro-ecologically informed agriculture. In areas with reliable, ecologically viable water sources, the program is promoting home gardens through anchor groups. Anchor group members have also been recruited into producer groups to engage in both household-level and larger-scale farming. Groups are linked to water user associations and rangeland management structures and provided land and supported in using ecologically appropriate irrigation technologies. Participants are focusing on growing micronutrient and mineral-rich, climate-adapted crops including indigenous vegetables (e.g., amaranthus, night- shades, cowpeas, spider plants), fruits, cereals (e.g., sorghum, millet), pulses (e.g., pigeon pea, cow pea, green gram), tubers (e.g., sweet potato), and groundnuts—foods essential for child nutrition.

Poultry USAID Nawiri has been careful to ensure livelihood diversification within agricultural systems maintains critical connections to livestock value chains. Poultry is one such nutrient-rich, complementary food source with low barriers to access. Yet, the MIYCN study revealed that cultural perceptions of

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6 USAID Nawiri’s joint market monitoring initiatives (JMMI) and seasonal HEA indicates the minimum expenditure basket (MEB) has risen to Ksh. 25700 from 13,253 in Turkana and 18,420 in Samburu from 16,388 since April 2022.
chickens (i.e., because the birds scavenge waste matter they are perceived to be dirty and inedible) have disincentivized raising them for home consumption or income generation in the livelihood zones surveyed. Because poultry rearing is relatively new to most areas, the program is focusing on dietary social behavior change approaches such as cooking demonstrations, health and nutrition education, and use of community level champions to promote purchase and consumption. Anchor group members looking to diversify in this area will receive vouchers enabling them to purchase two-month-old fully-vaccinated chickens and start-up feeds through links to agrodealers. Further, supporting market linkages between agricultural input dealers and anchor group members interested in transitioning into local service providers who can facilitate long-term access to climate-smart poultry inputs and equipment.

Fish  Similar to poultry, fish are a nutritious, but under consumed food source, despite an active fishing industry in Lake Turkana. Longitudinal study findings illustrate that global acute malnutrition rates are consistently 35% higher among the fisherfolk than in other livelihood zones, suggesting fish is not consumed locally, but rather exported by a few traders outside of the counties. At the intersection of domination by outside value chains, limited access to higher quality equipment and repair and maintenance services, overfishing, and other ecologically unsustainable practices, fishing communities near Lake Turkana remain some of the most exploited, malnourished, and marginalized. In collaboration with the Turkana County Department of Fisheries and Aquaculture and the Kenya Marine Fisheries Research Institute, USAID Nawiri will work through county and sub county fishery managers and the Beach

BY THE NUMBERS  ADAPTING AND DIVERSIFYING AGRICULTURAL PRODUCTION OPPORTUNITIES

2000  17,436
Ha of Land Under # of Households Engaged in Crop Production Crop Production

With support from USAID Nawiri, 2000 hectares of previously unproductive land are now under crop production across Samburu (300) and Turkana Counties (1700), engaging a total of 17,436 households, and increasing the supply of affordable, nutritious foods in last-mile communities.

152
Total # of Anchor Groups Trained to Date in Poultry and/or Fish Production

USAID Nawiri has provided poultry and/or fish livelihood diversification training to 130 AM2MSGs, two GIRL-H Groups (62 participants), two BOY Groups (62 participants), and 18 R4N Groups (55 participants). Training includes knowledge and skills on sustainable fish and poultry production, management, and dietary nutrition and feeding practices, among other topics. Cooking demonstrations targeting adolescent girls and boys, older women and men, and other community-level groups have also begun.

When USAID Nawiri arrived and initiated discussions about the essential role of diverse, nutritious diets, Lokonyen Abuel realized that she and her neighbors were paying premium prices for vegetables to travel all the way from Lodwar, the county center, to their village of Nadung’a in Northern Turkana.

It is for this reason that she decided to join the producer group even though she was nervous about farming for the first time in her life. “From my set-up, I’ve grown knowing that livestock is the only way,” she reflected. “This is my first experience [farming], and it’s working. The hard work we are doing is really giving us fruits. If you go to the [health] facility, those numbers are really reduced. As a result of the diversification of these foods, with these greens coming in, it also improves the lives of these small children.”
Management Units (BMU) to engage fisherfolk and anchor group members interested in diversifying into fishing with capacity sharing activities (e.g., sustainable fishing practices, habitat protection, water safety, boat construction) aimed at addressing these challenges.

As with poultry and crop inputs, USAID Nawiri will facilitate market linkages between authorized fishing equipment suppliers and anchor group members interested in transitioning into local service providers to facilitate access to high quality inputs and subsidized starter kits for the 1,200 estimated fisheries participants. Through linkages with emerging local traders (i.e., anchor group members), and behavior change interventions around fish preservation and processing techniques, USAID Nawiri will support a vibrant local fish trade that benefits vulnerable households in malnutrition hotspots. Partnerships will place special emphasis on food quality and sanitation standards of fisheries products, strengthening local understanding of market demands and opportunities, enhancing the quality and value of artisanal lake products (including hygiene as a limiting factor), improving market access, and ensuring local capacity to negotiate fair premium pricing for improved products. Finally, USAID Nawiri will organize fish traders across the fishing livelihood zone and link them with R4N traders to stimulate consumption of fish and fish products in non-traditional fish consumption zones.

**EXPANDING OFF-FARM AND NON-FARM LIVELIHOOD OPPORTUNITIES**

Off-farm livelihood adaptations aim to strengthen agricultural systems and the income generating power of smallholder farmers through new and improved linkages to input and output markets, extension services, aggregation, processing and wholesale, and other supportive functions critical to improving and protecting local food systems in the face of shocks and stresses. Non-farm livelihoods present similar income generating opportunities in the expansion of goods and services outside of agricultural systems. Many of these, such as sanitation and hygiene products like sanitary pads or services like latrine construction, directly support nutrition outcomes, while others simply provide the income critical to investing in household nutrition.

Three sets of grants are designed to support adaptation into off-farm and non-farm livelihoods. The first provides grants to youth (including young parents) to build livelihood assets through workforce development training focused on functional and financial literacy and market-driven vocational, life, and entrepreneurship skills. For example, youth engaged in technical and vocational education and training will undertake a six-month course, followed by three months of theory and a three month internship in trades such as masonry, electricians, hairdressing, and handicrafts. To support a sustainable system for youth training and mentorship, grants are also available to government and private sector business development and incubation service providers for the purposes of developing and teaching curricula that support youth in identifying new livelihood opportunities, starting small and micro enterprises, and/or connecting with wage employment opportunities in key growth sectors. A third set of grants focuses on strengthening off-farm and non-farm diversification into key livelihood sectors such as gums and resins, beadwork, basketry, value addition of honey, and retail and wholesale trade.

Finally, USAID Nawiri’s R4N poverty graduation model has also proven a significant engine for market connectivity and growth in the off-farm and non-farm spaces. R4N provides business grants to small business groups of three women, each from ultra-poor households. Through extensive training in a wide variety of topics, (from health and nutrition to business development) support for market linkages, access to savings and loans through savings groups, and coaching and mentorship, these business groups form small businesses aimed at generating income to support their households’ nutrition outcomes while providing essential services and products to their communities. Participating households also receive a consumption stipend for six months to ensure they have sufficient funds to meet household nutrition needs and improve nutrition outcomes without having to siphon money away from the business to do so. Finally, USAID Nawiri’s partnership with anchor groups to become local service providers, and their linkages with established agro-dealers and traders, further allows for off-farm income diversification that supports resilient, nutritious local food systems.

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7 Secondary data analysis of traditional poverty graduation models illustrated that increased incomes were not automatically leading to a higher variety of nutritious foods in businesses’ households. While lack of knowledge about or preparation skills around nutritious foods was considered a factor, the cost of diet study illustrated that the high price of nutritious foods remained a major barrier for the ultra-poor. This was a primary rationale for the consumption stipend.
During year 4 of implementation, 700 youth are already engaged in or will soon be engaged in technical and vocational educational training (TVET) in Samburu and Turkana. A second set of 48 youths have received on-the-job training in sandal and shoe making, beadwork, and fabrication of metal boxes with Micro and Small Enterprise Authority (MSEA) master trainers.

700
# Youth Engaged in TVET During Year Four

48
# Youth Engaged in On-the-Job MESA Training

During year 4 of implementation, 700 youth are already engaged in or will soon be engaged in technical and vocational educational training (TVET) in Samburu and Turkana. A second set of 48 youths have received on-the-job training in sandal and shoe making, beadwork, and fabrication of metal boxes with Micro and Small Enterprise Authority (MSEA) master trainers.

To date, a total of 12,000 ultra-poor women have established 4,000 businesses across Turkana (2,450) and Samburu (1,550) Counties through the R4N. 60% are dukas (i.e., market shops) while 31% focus on livestock trading. Through monthly nutritional counseling sessions, dukas are working to stock a variety of nutritious foods in last mile communities.

4,000
# of Businesses Established by Women from Ultra-Poor Households

Monitoring data for 8,700 of the first cohort of households who participated in R4N shows general improvement in complementary feeding indicators among children 6-23 months: 19.7% up from 5% in minimum dietary diversity (MDD) in Turkana (33.20% up from 21.30% in Samburu); 40.6% in minimum meal frequency (MEF) up from 23.6% at baseline (51.20% down from 57.80% in Samburu); and 19.7% in minimum acceptable diet (MAD) up from 0.7% (33.20% up from 13.80% in Samburu).

~19
Percentage Point Increase in MAD in both Turkana and Samburu Among Children (6-23 mo.) in R4N Cohort 1 HH

Of the total businesses, 27% are already meeting the total business value graduation target of Khs 62,500 ($469) at the midline, bolstered by improved market linkages and increased R4N participant confidence in business management. Increased small business activity and product diversity in last mile villages is translating into fewer trips to larger town markets (and significant transport money and time saved) for all community members, USAID-Nawiri participants and non-participants alike.

27%
Percentage of R4N Businesses Already Meeting the Total Business Value Graduation Target at Midline

“If I can get somebody to help me start a business,” Diana Lokoyen Topo remembers thinking to herself. “Then I’ll be able to really do something. My call was answered by USAID Nawiri.” Her household and the households of two trusted friends, Rebecca Akabonyo and Arupe Esekon, were selected as R4N businesses, and they soon banded together to build a network of small shops along the road. Diana and her partners are receiving financial and life skills training, mentorship focused on managing and growing their business, and contribute to a savings fund to cope with shocks and stresses or reinvest in their business.

This is just the beginning of her engagement with USAID Nawiri, but already, business is steady. She’s been able to save money for health emergencies and her children’s schooling. Diana is already expanding her shop, trading skirts for traditional wooden vessels which she plans to sell at the Maasai Market in Nairobi, as well as taking on lodgers and preparing them meals—a service previously unavailable in Riokomor. Cultural norms governing women’s roles have often complicated their ability to invest in their own businesses, further highlighting the influence her success could have on other women in the community considering taking similar risks. As one of four male engagement champions through Nawiri’s AM2MSGs, Diana’s husband is also influencing his peers through his deep support for her work.
USAID Nawiri’s food market assessment report illustrated a number of factors preventing ultra-poor households in the last-mile communities from engaging and investing in climate-adapted income-earning opportunities, among them: limited access to working capital and financing, poor infrastructure, and high fuel and transport costs. Further, to effectively understand the financial services landscape, including the level of activity in Samburu and Turkana counties, USAID Nawiri undertook capacity analysis of VSLAs across 178 AMTMSGs in Samburu and 189 in Turkana. The assessment showed that 94% (345) of the VSLAs had low capacity, 2% (7) had medium-capacity, 3% (11) high capacity, and only 1% (4) were self-reliant. For these ultra-poor households, access to inclusive financial services is a prerequisite for engaging in resilient livelihoods activities. For this reason, USAID Nawiri is collaborating with county governments to select, vet, and screen private sector partners capable of providing innovative, sustainable, flexible, and scalable savings and lending models with reach in last-mile communities. Of critical importance are digital financial services and marketplace platforms that allow business owners to connect with buyers providing better prices. Through capacity building and network strengthening, USAID Nawiri is committed to facilitating these private sector partners’ ability to provide services well after the program.

R4N participants have formed 514 savings (and loan) groups, financial mechanisms which have been supportive of a total income growth of $267,138 (total income/revenues from business engaged by VSLA participants less total expenses such as food, health, water, transport, education). This represents a livelihood protection threshold.

USAID Nawiri has already made significant progress facilitating access to inclusive financial services. For example, 8,010 GIRL-H participants in 318 savings groups are reporting KES 11,719,810/US $90,152 in savings, KES 4,736,840/US $36,437 in inter-loan activities, and KES 1,431,970/US $11,015 in social funds. Access to financial services is already enabling participants across anchor groups to actively engage in profitable income generating activities such as retail and grocery businesses or livestock trade. A recent home gardening monitoring survey of 51 AM2MSGs also showed the central role of VSLAs in enhancing rural farmers’ access to credit to purchase farm inputs and use extension services critical to producing nutrient-dense vegetable crops for their families.

For many community members in Samburu and Turkana, access to financial services is the difference between their willingness/ability to actually start a business or not. This was certainly the case for the Ayole BOY Group who started their VSLA in October 2022. Meeting every Saturday, they each deposit their KES 100 into the savings kitty, and a set amount of KES 20 for the social fund. Before long, they were already providing loans to their membership.

“One member from our group secured a loan to launch a mobile phone airtime sales business, while two other members borrowed funds to purchase fishing nets, and another member used a loan to initiate a motorbike spare parts enterprise,” said member Julius Eris. “Additionally, a number of us are currently obtaining loans to pay for our children's school fees.”

In January 2023, a mini-group of five members borrowed KES 15,000 to start a butchery business, which now sells fresh goat meat and operates a small eatery serving goat meat stew, grilled goat meat, and grilled intestines popularly known as mutura.
EMERGING LEARNING QUESTIONS

USAID Nawiri understands that truly diversifying livelihoods in a context shaped by dynamic and complex climate and economic shocks and stresses requires a deep commitment to critical inquiry, robust monitoring, and ongoing reflection and learning—principles which must permeate the organization from operational structures and program management practices to team culture. In the interest of learning with and from our peers, this section presents cross-cutting challenges and complex learning questions which are emerging during implementation. As with the challenges surfaced during USAID Nawiri’s first two years of research which formed the basis for the program’s first design, these emerging areas of inquiry—stated here as learning questions—also represent essential opportunities for clear-eyed inquiry into what works in adapting and diversifying livelihood opportunities with the ability to sustainably reduce acute malnutrition in Samburu and Turkana. This will inform ongoing implementations and adaptation in USAID Nawiri implementation and be utilized in ongoing dialogues and partnerships with government, private, and public stakeholders who will lead service delivery of future livelihoods activities.

How can livelihood adaptation best support both economic viability and meet household nutrition outcomes in the face of shocks and stresses? To ensure all members of the household’s nutrition needs are consistently met, the team is moving past existing measures (e.g., number of income streams for a given household) to explore: 1) the combination of production for household consumption and income for food purchase and consumption that is appropriate and how this shifts in contexts where food production is less ecologically appropriate and/or markets are thinner; 2) how to support households in regularly assessing the shock and stress-adaptivity or sensitivity of a given livelihood stream to inform decisions about ongoing and potentially temporal (e.g., seasonally, in anticipation of a shock or stress) income adaptation and production techniques, types, and planting and harvesting periods; and 3) how to hedge against market saturation and adapt a given income stream to shocks and stresses by supporting households in diversifying their work within that stream (e.g., diversification of products within a market kiosk, diversification in crop planting) as a best practice. These questions will help to nuance current understanding of minimum production and income needs to meet nutrition needs in highly volatile markets.

What incentives will catalyze long-term private sector engagement with last mile communities, in a manner that creates more robust markets and business opportunities? USAID Nawiri is committed to working through actors who know and will be present within systems long after the program, but as teams get deeper into implementation, the incentive structures for ensuring private actors will access and link communities and local service providers with the right kinds of services and inputs is proving complex. For example, while well experienced in livestock rearing, many communities have never farmed in their lives, making long-term solutions to extension services essential to sourcing inputs around and capacity development in strong, shock and stress adaptive, and ecological sound agricultural practices. Poor road infrastructure, insecurity, tight regulation around service provider certification, and perceptions of risk surrounding the viability of these markets are key factors around which the team is investigating opportunities for incentivization. This will also explore opportunities for more localized markets for livestock and crop production to supply local markets, hospitals, schools and other services.

Are Nawiri’s SBC strategies sufficient in building demand for goods and services that support nutrition resilience while providing participants opportunities to diversify their income streams? For new livelihood opportunities in areas such as poultry and fish, extension services, or water infrastructure maintenance and repair—all of which are indirectly or directly supportive of nutrition resilience—USAID Nawiri is developing culturally appropriate, innovative SBC strategies that build demand and willingness to pay for these products. The program is also seeing examples of small business owners adopting a primary role as champions of nutrition education within their communities by, for example, providing dietary advice, malnutrition screening, and cooking demonstrations within their businesses. Program teams are committed to understanding how intervention incentive and facilitation structures can institutionalize the use of customer-facing, community-based businesses to promote nutrition education while expanding community expectations around the role markets should play in providing access to diverse products and services critical to nutrition resilience. For example, R4N is considering adding a graduation metric that requires (and capacity building support for) small businesses
to engage in some kind of nutrition-centric messaging or education with customers. These kinds of incentives will ensure small businesses have the tools, training, and mandate to serve as catalysts for uptake of the health and nutrition behaviors critical to nutrition resilience.

**How can government policy and regulation, market incentives, and other mechanisms support an environment more friendly to smallholder farmers and businesses?**

USAID Nawiri’s efforts to support diversification in on-farm, off-farm, and non-farm spaces have surfaced many challenges for small businesses, especially those in last mile markets. For example, smallholders typically have less access to natural resources (e.g., water, land) and financial products such as insurance—all factors with significant impacts on business viability and competitiveness in Samburu and Turkana. And, in especially thin and truly remote markets, the number of obstacles multiply, with transport costs, road conditions, and insecurity only insurmountable to wholesalers who reach a certain size and have a distinct advantage.

**What level of cash circulation is critical to maintaining small business growth (and household and community impacts on nutrition outcomes)?**

With the end of the consumption stipend for the R4N Phase 1 Cohort and UCTs, there is undoubtedly less cash circulating in the community, and many small business owners have attested to having a high percentage of customers who were receiving the UCTs and consumption stipends. Program teams will be monitoring closely how this decrease in available cash impacts small business owners and the communities’ access to and availability of nutritious foods, and what adaptations must be made to ensure business viability.

**How must water management be improved at multiple scales to ensure truly ecologically responsible expansion into crop-based agriculture?**

With crop-based production activities accelerating in Samburu and Turkana, communities are using more water for household and larger scale production, and in some cases home use. Yet the water source assessments the program is conducting to approve, for example, rehabilitation of water infrastructure or greenlighting of production activities, do not always account for the many ways the community may choose to use the water—well beyond the scope of the project originally assessed. As the program continues to support crop production, program teams are committed to understanding how to support communities in developing site management plans and using tools, assessment and decision making frameworks, and governance mechanisms to manage water sources and ensure they remain viable assets for the community long-term.

**How can natural resource management approaches be used as a model for participatory governance and ecological regeneration across program interventions?**

USAID Nawiri’s participatory rangeland management processes have proven an excellent model for both ecological restoration and regeneration and increased inclusivity and transformation around systemic issues driving conflict in Samburu and Turkana. As the program supports communities in diversifying into crop based agriculture, programs are interested in exploring how similar community-based participatory resource management processes may increase inclusion, shared ownership, and conflict management around and the ecological restoration of production lands, especially where increases in sedentary agriculture may put crop-based farmers at odds with pastoralists.

**How can donors and governments incentivize and truly facilitate true communication, collaboration, and integration among aid actors in a traditionally competitive environment?**

USAID Nawiri understands that while the program is supporting communities in diversifying their livelihoods, often through markets-based opportunities, many aid actors remain focused on meeting the very real humanitarian need at the intersection of ongoing drought, price volatility and inflation, and other key shocks and stresses such as natural resource conflict. While partnerships are central to USAID Nawiri’s work in Samburu and Turkana, at times coordination structures have failed to prevent misaligned actions on behalf of aid actors—such as direct delivery of food commodities that undermine small business production and provision of the same goods. The program is interested in engaging with other aid actors, donors, and government to understand what incentives, policies, and structures might be critical to facilitating deeper collaboration and coordination that prevents actions detrimental to the fragile but promising gains community members are making in diversifying their livelihoods.