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# HOUSEHOLD ECONOMIC ANALYSIS OF SAMBURU AND TURKANA COUNTIES

## LEARNING BRIEF

### INTRODUCTION & RATIONALE

Livelihood systems are a critical driver of nutrition and are influenced by economic, ecological, political, and social systems. Livelihood systems influence a household's ability to earn income and access and produce nutritious foods to meet nutrition and health needs. To effectively address livelihood deficits, programs must incorporate a deep understanding of the systems that support livelihoods as well as the diversity of household livelihood portfolios, which are influenced by households' location, socio-economic status, and exposure to shocks and stresses. As highlighted in the Labor Market Learning Brief, livelihood approaches require a mixed livelihoods framework to support a balanced household economy (income/expenditure) that allows production and purchase of nutritious foods and diverse diets. During Phase I of the program, USAID Nawiri conducted a baseline Household Economy Analysis (HEA), a livelihoods-based framework that analyses the way different households obtain access to the things they need to survive and prosper. The HEA provides the tools needed to thoroughly understand food insecurity and the outcomes of poverty, and to design appropriate and effective interventions that strengthen household livelihoods and resilience through increased incomes and, ultimately, contribute to sustainably reducing persistent global acute malnutrition (P-GAM).

Evidence from the HEA<sup>1</sup> is used to inform the design of a contextually appropriate and nutrition-sensitive program, targeting the most vulnerable populations, which are categorized as “very poor” and “poor” wealth groups. USAID Nawiri engaged FEG, a global leader in conducting HEAs, to undertake this study in Samburu and Turkana counties across the different livelihood zones. This learning brief is informed by the insights of the HEA together with other streams of work that include Cost of the Diet, Food and Labor Market studies (see related Learning Briefs for more detail).

## LEARNING JOURNEY

USAID Nawiri intended to explore households’ livelihood resilience factors and, in particular, their assets, current and potential income options, food sources, and the common shocks they face. Between February and June 2021, USAID Nawiri conducted the HEA baseline study in both Samburu and Turkana counties to better understand the socioeconomic characteristics of their populations; explore economic opportunities that can foster medium- to long-term economic resilience for the most vulnerable populations; and identify strategies for strengthening local markets to increase local availability of nutritious foods and incomes for poor households. The baseline profiled different livelihoods, livelihood strategies, and wealth groups to better understand vulnerabilities and identify key parameters for monitoring. Key variables of analysis included income sources and levels, expenditure patterns, food sources, hazards, and response strategies. It analyses households’ food and income needs, and identifies appropriate means of assistance, whether short-term emergency interventions or longer-term development activities or policy changes. It is based on the principle that an understanding of how people usually make ends meet is essential for assessing how livelihoods will be affected by acute or medium term economic or ecological change and for planning interventions that will support, and not undermine, their existing survival strategies and improve longer-term wellbeing.

USAID Nawiri held consultative workshops with both Samburu and Turkana County governments’ technical leadership to enhance understanding of the HEA study, including its utilization in promoting resilience capacities among the most vulnerable groups. The workshops led to the county leadership’s deeper understanding of the study and its findings, including how the evidence generated can influence decision-making at the county level and contribute to household livelihood resilience in the longer-term. To explore significant factors influencing livelihood systems in the two counties that are relevant for livelihood adaptation and income diversification, USAID Nawiri conducted focus groups and key informant discussions with men and women from different age and wealth groups, and a diversity of assets, skills, and experience. These conversations provided a historical perspective by contextualizing the analysis of a system undergoing rapid change, as well as insight into contemporary trends.

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<sup>1</sup> HEA is a livelihoods-based framework that analyses the way different households obtain access to the things they need to survive and prosper. It provides the tools needed to thoroughly understand food insecurity and the outcomes of poverty, and to design appropriate and effective interventions that strengthen household livelihoods and resilience through notably increased incomes and contribute to sustainably reducing persistent global acute malnutrition (P-GAM).

## INSIGHTS AND IMPLICATIONS

**INSIGHT N°1: Paradigm shifts and new coping strategies are required in rangeland communities' livelihood activities due to pastoral production systems being severely threatened by climate change.**

Across all the livelihood zones surveyed in Samburu and Turkana, the HEA demonstrated that food is mainly obtained through market purchase except for livestock products (meat and milk) where it is primarily consumed from the household's own production. When compared with previous HEA baseline studies conducted in 2012 and 2016, the contribution of livestock products (milk and meat) to annual food needs has decreased while food purchase has increased, i.e., in the Turkana Central Pastoral Zone. In Turkana's Turkwel Riverine Agropastoral Zone, the contribution of livestock products has decreased across the wealth groups, reflecting the decrease in holdings of animals and increased reliance on purchased food. Even though land area under cultivation has increased, the contribution of household level food production remained the same.

Consequently, families now rely on markets to meet 60-70% of their households' food needs. Meanwhile, reduced productivity of rangelands has heavily impacted livestock and crop production systems across the livelihood zones. With a diminishing productive asset base, low access to credit, and limited ability to produce market surplus for income, poor households risk falling deeper into the poverty trap. This situation is further compounded by restricted mobility due to reduced communal grazing, the privatization of grazing land, population growth, conflict, and COVID-19 pandemic restrictions.

**Implications:** Based on the above, HEA findings show that dependence on natural resources to sustain livelihoods pose a major challenge in the long run, and this is resulting in changes in livelihood strategies due to climate shocks. Therefore, in the aim of building resilient livelihoods, USAID Nawiri will invest in Resilience Design (agro-ecology) to increase the availability of year-round forage and water (see Milk Availability Study Learning Brief). This is based on the premise that interventions that only focus on just one part of the overarching system may improve production in the short-term, though the resilience of the system is limited if the ecosystem functions and services that are needed to support production over the long term are ignored.

Therefore, by using agro-ecology land management principles and practices, coupled with improved management and governance of land and water resources, communities will have the ability to improve soil health and vegetation and water quality and quantity (see Water Security and Governance for Nutrition Learning Briefs). USAID Nawiri aims to restore ecosystem services (nutrient cycling, erosion control, water retention) by addressing root causes of land degradation and building linkages to livestock production and productivity for the benefit of household nutrition through partnering with communities and county governments. As highlighted in the Governance Learning Brief, USAID Nawiri will also support generation, dissemination, and interpretation of (climate) risk information systems and messages for various stakeholders, including farmers and pastoralists.

**INSIGHT N°2: Income generation is at the center of securing access to food for the “poor” and “very poor” hence the need to enhance sustainable livelihood coping strategies, support access and use of resources to strengthen resilience capacities to mitigate the adverse effects of shocks and stresses.**

The HEA study revealed that income generation is a central component of survival and livelihoods protection. Various factors influence income options, such as distance from the nearest town, gender disparities, education, wealth groups born in, availability and access to natural resources, inclusiveness and efficiency of service provision, among others. The Labor Market assessment found that higher monthly incomes at the household level correlates with greater consumption of diverse and nutrient-dense foods.

Program design must account for the range of strategies that households pursue to increase access to cash and cope with various hazards in order to effectively support vulnerable households in expanding skills and building assets. Compromising on food consumption to protect livestock assets or meet unforeseen expenses is a common coping mechanism used by households in the assessed livelihood zones. Additionally, households seek various casual labor or self-employment options in urban locations. Both male and female pastoralists are investing in small, medium, and large-scale businesses, highlighting a paradigm shift in livelihood strategies in response to frequent and multiple climate shocks and stresses that undermine coping. Migration for work is common for the poor in agro-pastoral and urban zones, while much less common in pastoral zones. The Labor Market assessment notes that skill levels correlate with earnings, concluding that those who rely on unskilled labor options are the most vulnerable to chronic food insecurity and malnutrition.

The HEA indicates that cash incomes per household have decreased in most wealth groups in the Turkwel Riverine Livelihood Zone when compared between 2012, 2016, and 2021 baseline studies, mainly due to decreases in income from primary production-based livelihoods. What's more, household cash income levels have not kept up with inflation in the Central Pastoral Zone for poor and middle households when comparing 2011-12 and 2019-20 and for all wealth groups except the better off when comparing 2015-16 and 2019-20 baselines studies. Most income sources (self-employment, livestock, and labor) were very minor in the 2019-20 reference year. This change is most marked for the very poor wealth group.

An interesting outlier was in the Lake Turkana Fishing Zone (LTF), where the proportion of income obtained from fishing compared to other income sources greatly increased across all wealth groups. In a 2012 HEA study, very poor households in the LTF Zone obtained at least 20% of their total cash income from fishing. In the 2021 HEA, this increased to 80-90%. Finally, according to the Labor Market assessment, income growth for women, notably for paid employment opportunities, is hampered by lack of adequate childcare options. (See Labor Market Learning Brief for related implications for USAID Nawiri).

**Implications:** Pastoral households whose incomes depend on livestock through sale of animals and livestock products are heavily exposed to climate and economic shocks and stresses. On the other hand, pastoral households, which rely on markets to purchase most of their cereal needs, are particularly vulnerable to extreme fluctuations in livestock and cereal price ratios (terms of trade), such as those typically experienced during times of drought. Strengthening income activities, diversifying livelihood options, and improving relevant supply chains can improve access to affordable nutritious foods and income in the medium to long-term. Therefore, households that are able to rely on multiple risk-informed sources of income are often less sensitive to shocks than households that rely exclusively on a single source. USAID Nawiri will support more resilience economies as part of a strategy to

increase the resilience of the vulnerable households that rely on them through some of the following strategic approaches:

- A. Investment in risk-informed and shock-responsive off-farm and on-farm livelihood sources based on the livelihood zone as a diversification strategy to tap into emerging markets for dryland resources. Some of the investment will focus on improving access to the labor market through market-driven skills development, increasing access and linkages to financial services to enhance investment in diversified income sources, and improving women's agency for economic empowerment.
- B. Strengthening both formal and informal social protection systems that support household and community capacity to cope with shocks. The contribution of safety nets such as the Hunger Safety Nets Program is significant in assisting poorer households to address food and income gaps. USAID Nawiri will also focus on strengthening informal social protection mechanisms given evidence that shows that social capital contributes to household resilience with more impact being on food security and helping households to recover.
- C. Support women's economic empowerment and decision-making to overcome gender, generational inequalities and power relations that influence access and control of productive resources, practices, roles and participation.

**INSIGHT N°3: Gender-sensitive and resilience-building approaches in pastoralists livelihoods systems is a critical pathway to achieve and sustain nutrition outcomes.**

Livelihoods and pathways out of poverty in the drylands of the Horn of Africa are highly gender dependent. Women still have far fewer pathways to resilience relative to men. During the reference year (2019-2020), the proportion of female-headed households stood at 36.64% across the wealth groups. Employment is strongly gendered and many of the more lucrative employment options are mainly/only available to men. The HEA study indicates that absolute cash income for the very poor and poor female-headed households is 20% lower than male-headed households in the same wealth groups. Poor female- and male-headed households, however, share a very similar pattern of food access across all three livelihood zones in the reference year. Pathways to resilience in pastoral areas are determined by a household's wealth (including livestock assets); proximity to urban centers, markets, and services; and social and political capital -- all which women have very limited access to and control over. Better health and education are critical, but across the counties assessed, pastoralist girls and women have less access to education and health services relative to boys and men. Furthermore, livestock commercialization provides some opportunities to increase their capacity to cope with and adapt to shocks through trading in small ruminants and milk processing to increase their income. Yet, without women's increased agency, achieving certain well-being still remains a challenge.

In Samburu County, poor female-headed households own fewer livestock and obtain less income from sale of livestock and livestock products. They make up for this with more income from self-employment activities such as retail shops. The evidence of limited incomes for female-headed households identifies them as more vulnerable to economic and environmental shocks, emphasizing the need for USAID Nawiri to pay particular attention to female-headed households with children at risk of acute malnutrition. Low-income women in particular tend to hold weak market positions and they can be vulnerable to gender exploitation due to their lower economic and social power. An example is women fish traders in the LTF Zone who regularly find themselves subjected to sexual harassment and are forced to provide sexual favors to fishermen to gain access to good quality, fresh fish at reasonable cost.

Although women participate more often than men in off-farm income generating activities, they still face critical economic and social constraints over their involvement in these new opportunities (see Gender Learning Brief). Since women are unable to trade in major livestock assets, they are less likely to have savings. Further, women's mobility is limited as they are engaged to a greater extent in their household than men are, and their domestic responsibilities of raising children and fetching water limit the time they can spend away from home (see MIYCN and Water Security Learning Briefs). The HEA and Cost of Diet studies found that women's decision-making power is stronger when they have their own sources of income.

**Implications:** Gender inequalities in household decision-making, community participation, and market access limit women's ability to prepare for, respond to, and recover from shocks. Climate change is having different impacts on women and men's livelihoods due to differentiated vulnerabilities. Building resilience at individual, household, and community levels will largely depend on the suitability of interventions to the local context, particularly in relation to access and utilization of assets. It will also depend on the interventions' ability to address systemic barriers preventing women from accessing and using resources, such as social dynamics and power relations that create differences in vulnerability.

USAID Nawiri will develop tools to measure the impact of gender dynamics on resilience. In addition, in partnership with the county governments and local institutions, USAID Nawiri will establish a context monitoring system with gender specific indicators to further understand gender differences in climate change adaptation strategies to inform context-specific pathways to resilience for Samburu and Turkana counties.

The majority of resilience approaches focus on community and systems levels, however, due to socio-cultural barriers at the intra-household level, women are frequently excluded from access to resources and decision-making, and consequently are less able to take absorptive and adaptive measures to respond to shocks and stresses. USAID Nawiri will contextualize and facilitate a "Household Dialogues" approach based on the lessons learned from implementing Mercy Corps' "Building Resilience through the Integration of Gender and Empowerment" model in Nepal, Indonesia and Niger, which focused on addressing gender norms to build resilience through intra-household changes. USAID Nawiri will work to impact the following pathways: women's equitable participation in household decision-making, women's meaningful participation in community groups, and women's access to market linkages.

**INSIGHT N°4: Increasing livestock productivity continues to be an important strategy to improve access to nutrient rich foods in the marketplace and at the household level.**

Across the assessed livelihood zones, livestock ownership remains a key livelihood strategy across the wealth groups. During the HEA reference year (2019-2020), livestock sales contributed 70% of annual income for poor households in Eastern Pastoral Zone in Samburu County. These statistics show the importance of strengthening livelihoods resilience through livestock systems. The more a household owns livestock, the more capacity it has to produce and generate income, assuming that there are no limitations on access to pasture and water. Variations in ownership of these productive assets account for most of the income differences between wealth groups.

The Food Market assessment found that purchasing power and ability to buy more nutritious foods is inextricably linked to income from animal sales. The Labor Market assessment shows that, in pastoral zones, the role of livestock is diminishing in most households, especially among the poorest, due to

recurrent droughts. Among the poor and very poor, minimal incomes are derived from livestock, except for the Turkana Riverine Zone. In both pastoral and agro-pastoral livelihood zones in Samburu, livestock sales comprise 25% of reported cash income for the very poor, and between 30% and 60% for the poor. Supporting expanded livestock asset growth is important but must be done with caution as it becomes less clear to what extent livestock will continue to be a viable livelihood option for the poor and very poor in the context of recurring drought in Turkana. The greatest challenge is that few alternatives are being made available to these households. Livestock rearing remains a key sector for providing income growth and labor opportunities as well as a key aspect of livelihood protection which cannot be overlooked in the current context of climate change variabilities.

**Implications:** As poor and very poor pastoralists have increased their reliance on and investments in small ruminants, land scarcity and decrease in land ownership affect livestock grazing in extensive management systems. This has led to a significant reduction in land ownership and reduced mobility in some areas that were primarily owned by the community, disrupting traditional grazing plans and patterns. USAID Nawiri will focus on fodder production and conservation for dry season feeding, exploring barriers and incentives for adopting forage production and conservation practices. In addition, we will test whether promotion of fodder production and use has an impact on household nutrition and evaluate the value for money in investing in fodder promotion activities to inform scale-up options. (See Milk Availability Study Learning Brief). USAID Nawiri will also support county government and communities in the development of community-led resource management and secure land tenure. These efforts aim to advance the reforms needed to guarantee pastoralists' right to mobility and secure the investment necessary to demarcate routes and allocate dry season grazing rights in common-use rangelands.

**INSIGHT N°5: Investment in resilience monitoring/measurement to enhance program's and local actors' understanding of pastoralists' perception of and response to shocks are critical for sustainably improving nutrition.**

The HEA shows that pastoral communities engage in livelihood diversification activities that are still dependent on climate sensitive activities such as farming sorghum, maize, green grams, cowpeas and vegetables, and poultry and egg production. Others, mainly women, engage in non-climate-sensitive activities such as micro-business, casual labor, artisan work, basket making and handicraft products. Most of these livelihood activities are adapted to complement pastoralism, rather than as a substitute for livestock production.

Across agro-pastoral zones, vegetables are produced on a small scale, with opportunities to expand dependent on access to irrigation. The Food Market assessment found that demand for fresh produce is small but growing. However, moving production to scale is faced with challenges: without access to wholesale markets, expanding production is hampered by lack of aggregation, transport, and storage. Vegetable production at the household level is constrained by access to water and availability of household labor force. Where communities have access to arable land and irrigation from rivers or wells, they have the potential to expand their crop production with proper soil and water management practices.

In Turkana, the demand for fish within the county and from neighbouring counties could be an opportunity for some households to diversify livelihoods. In the LTF zone, incomes from fishing have shown an upward trend. But there is significant untapped potential for some households to engage in

micro enterprises in the fish value chain, including aquaculture. This is especially important as a shock strategy to further improve income for the poorer households with lower productive assets. This presents a value chain development opportunity in Turkana given the high demand for fish.

**Implications:** The impact of shocks among pastoral communities, such as the current drought, notably manifests itself in the form of livestock losses, which adversely affects the provision of subsistence, income, and other sociocultural goods and services to a pastoral household. The HEA has highlighted that most of the adaptive and coping strategies to drought are reactive and intensify exploitation of existing resources, which undermines the livelihoods that they are meant to complement. In partnership with both county governments and the National Drought Management Authority, USAID Nawiri will establish a Recurrent Monitoring System (RMS) to support government efforts to capture how individuals, households, and communities access resources and employ strategies to respond to shocks and stresses, and the effects on their short- and long-term well-being. USAID Nawiri will use the RMS to assess how program interventions are building resilience and to inform early action responses, such as launching the Development Response Fund.

Furthermore, USAID Nawiri will invest in integration of social behaviour change strategies within the various pastoral production systems with the aim of tackling systemic barriers that inhibit proactive coping measures including sustainable protection of the productive assets and investing in risk-informed livelihood diversification strategies, like fisheries, that can increase resilience and contribute to nutrition outcomes. Finally, USAID Nawiri has adopted a resilience-focused drought management cycle approach to ensure our drought response minimizes backsliding in well-being and lays the groundwork for faster recovery and a more secure future.

## **CONCLUSION & PRIORITY AREAS FOR ONGOING LEARNING**

The key insights summarised above provides critical information on key pathways towards building resilience livelihoods for improved nutritional outcomes, food production, and income growth opportunities across the livelihood zones. From the HEA, it is clear that there are shifting livelihood strategies in both counties due to frequent shocks. However, major coping strategies vary according to production systems in each livelihood zone, resource availability and access, gender dynamics, and social norms that determine adaptive resilience capacities. In conclusion, despite adaptations in livelihood strategies to cope with frequent shocks and stresses, water insecurity, conflict, lack of financial capital, poor extension service delivery, low productivity of crop and livestock production, poverty, gender and social inequality and diminishing land holding remain major constraints to the pastoral livelihoods. This must be addressed through support to balance the household economy (income/expenditure) based on local conditions and strengthened food production and market access to affordable, diverse and nutritious foods.

The HEA framework is made of two components: the baseline, that informed this brief, and an outcome analysis which uses the baseline and forecasts information to model how an identified shock, such as delayed rains, will impact households' abilities to meet their food and income needs in the upcoming months. USAID Nawiri will conduct the outcome analysis to test scenarios of the impact of shocks and assess how baseline access to food and cash is likely to be affected by the changes. The outcome analysis will also assess the contribution any additional or freed-up income from proposed livelihood interventions has on to the household economy. This will allow USAID Nawiri to fine-tune its resilient



livelihood strategies. Finally, the HEA baseline study still has to be undertaken on three additional livelihood zones in Turkana County for periodic context monitoring and update the 2016 baseline findings. These zones include Border Pastoral Zone, Kerio Riverine Agro-pastoral Zone and Lodwar Urban Zone.

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