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# Nawiri



## **RURAL ENTREPRENEUR ACCESS PROJECT (REAP) WORKING GROUP**

FORMATIVE RESEARCH REPORT

OCTOBER 2021



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## ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ASALs	Arid and Semi-arid Lands
CHAs	Community Health Assistants
CHS	Community Health System
CHVs	Community Health Volunteers
FGDs	Focus Group Discussions
FAO	Food and Agriculture Organization
GIFT	Global Individual Food and Consumption Data Tool
HCD	Human-centered Design
HIV	Human Immunodeficiency Virus
MIYCN	Maternal, Infant, and Young Child Nutrition
NGOs	Non-governmental Organizations
RAs	Research Assistants
REAP	Rural Entrepreneur Access Program
RCT	Randomized Controlled Trial
RTI	Research Triangle International
USAID	United States Agency for International Development
UNICEF	United Nations Children’s Fund
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization





## EXECUTIVE SUMMARY

### INTRODUCTION

The graduation approach, or “poverty graduation,” is a sequenced, time-bound set of interventions intended to provide holistic support to meet the multidimensional needs of ultra-poor households, build skills and assets to establish sustainable livelihoods, protect against shocks, and sustain well-being. USAID Nawiri intends to leverage and adapt the BOMA Project’s Rural Entrepreneur Access Program (REAP) in a pilot aiming to impact nutrition outcomes among participant households and their wider communities. Nawiri conducted this formative study to obtain information to guide the “REAP for Nutrition” pilot design. The findings will inform Nawiri about ways in which the ultra-poor may be sources of nutrition resilience for their communities and enable design of nutrition-specific activities that can either be incorporated into or layered onto poverty graduation programming to address persistent acute malnutrition in Turkana and Samburu Counties.

### STUDY OBJECTIVES

The objectives of this formative study were to:

1. Understand how REAP affects time use of REAP participants, REAP graduates, male partners, and other household members.
2. Identify key household expense items and who makes decisions about them.
3. Investigate opportunities for REAP businesses to increase availability of nutritious foods in REAP households and in their communities.
4. Assess the types of information participants receive from REAP trainings; other health and nutrition topics of interest; appropriate delivery channels; and transfer of information from REAP participants to community members.

### METHODS

This formative study was conducted among pastoralists and agropastoralists in Samburu County and pastoralists, agropastoralists, and fisher folk in Turkana County. We conducted 54 focus group discussions (FGDs) with REAP participants, REAP graduates, male partners, and non-REAP participants and 13 “day in the life” observations with REAP participants. The FGDs included participatory time use and proportional piling exercises to map time use by season. Time use data from the FGDs was categorized into the following types of activities: income-generating, learning, childcare, livestock care and farming, household, community-level care, health seeking, finance, and relaxing/socializing. FGD participants were also asked to list and rank their main expense items and use pictorial cards to show whether the woman, man, both, and/or someone else is the main decision-maker for each item depicted.

### RESULTS

- ***Time use in Samburu County:*** In Samburu County, both agropastoral and pastoral REAP participants increased time spent on income-generating activities and decreased time spent on livestock care and household activities after they joined REAP. Their male partners increased time spent on household activities and, in some cases, on income-generating activities. School-aged children of REAP participants also increased time

spent on household activities, including caring for younger children. In some cases, they assisted their mothers with REAP business activities. These changes shifted some of the burden of household and livestock and farming activities from REAP participants to their male partners and children. This gave REAP participants more time to focus on their businesses. Among REAP graduates, the amount of time spent on income-generating activities remained the same after they finished REAP, indicating that they continued with their business activities.

- ***Time use in Turkana County:*** The time use picture of REAP participants varied somewhat by livelihood in Turkana County. For pastoral REAP participants, the time use pattern was similar to REAP participants in Samburu: increased time spent on generating income and a decrease in other activities. For agropastoral REAP participants, time spent generating income and on livestock care and farming increased, while time spent on household activities stayed the same. For fisher folk REAP participants, time spent on different activities before and during REAP remained the same. In contrast to male partners in Samburu County, male partners in Turkana County did not increase time spent on household activities during REAP. Children of REAP participants increased time spent on household activities and livestock care and farming, which helped their mothers have more time to focus on their businesses. Pastoral and fisher folk REAP graduates increased time spent on generating income after REAP, indicating that they intensified their business activities.
- ***Main expense items and decision-makers in Samburu County:*** The expense items REAP participants and graduates spent the most money on were food, business, education, and clothes/household items. In addition to food and education, male partners also included savings, medical expenses, and buying livestock as expenses. REAP participants and graduates generally said that male and female partners jointly decide about these top expense items, with some reporting that women make decisions about business expenses. Male partners said that women make decisions about food and, in some cases, business expenses, and that most other decisions are jointly made.
- ***Main expense items and decision-makers in Turkana County:*** REAP participants, REAP graduates, and male partners spent the most money on food, education, medical expenses, and clothes/household items. Women were generally considered the main decision-makers for food and clothes/household items, while education and medical expenses were joint decisions or decided by men.
- ***Leveraging REAP businesses to provide nutritious foods in Samburu County:*** Study participants listed a variety of foods sold by REAP businesses, although fruits were very limited. Non-REAP participants said that REAP businesses in their communities helped increase access to foods by selling them in appropriate quantities and at a reasonable price. Participants wanted REAP participants to sell a wider variety of fruits, legumes, and green leafy vegetables.
- ***Leveraging REAP businesses to provide nutritious foods in Turkana County:*** REAP businesses were reported to sell a limited variety of foods in Turkana (e.g., no eggs, meat, or fruits). Non-REAP participants expressed a desire for REAP business to sell more fruits and vegetables, roots and tubers, and animal source foods, such as fish and beef.
- ***Trainings for REAP participants in both counties:*** REAP participants and graduates in both counties were happy with the REAP trainings because they created opportunities to acquire more knowledge and skills and subsequently transform their lives. Although trainings were appreciated by all participants, many indicated a need for practical

sessions, such as cooking demonstrations, in the trainings. Participants also wanted additional information on maternal, infant, and young child nutrition (MIYCN), kitchen gardens, handwashing equipment, latrines, and animal health. A noteworthy ripple effect of the REAP trainings was the sharing of information with family members and friends.

- ***Preferred communication channels in both counties:*** In both counties, REAP participants suggested including nutrition topics in their REAP trainings and making the information from REAP trainings more widely available through chief barazas, community health volunteers, radio talk shows, posters, noticeboards, and fliers. They also encouraged inviting men to sessions on nutrition and designing special strategies for sharing health information with pastoralists who migrate.

## **RECOMMENDATIONS**

- The REAP for Nutrition pilot design should consider that increased demands on women's time when they participate in REAP may result in children, especially girl children, taking on additional tasks in the household and may reduce women's time available to engage in MIYCN activities.
- Nawiri partners should develop and implement a male engagement strategy as part of the REAP for Nutrition design. This could leverage positive results in terms of women's empowerment and harness men's potential as change agents in the wider community.
- Depending on the male engagement strategy adopted, REAP for Nutrition could incorporate a gender transformative approach to health communication that helps to consolidate joint decision-making or women-led decision-making for key expenses and other household decisions.
- Based on requests from REAP participants and graduates, the pilot should incorporate practical skills-based components, such as cooking or kitchen garden demonstrations, into REAP trainings. Any increases in time spent on REAP skills-based training should be offset by dropping other training modules or by using other training strategies. The pilot design may also consider opening some trainings to the wider community, including men, and use existing, preferred communication channels to facilitate this process.
- REAP businesses were avenues for providing access to nutritious food to REAP participants and their household members. REAP for Nutrition pilots should carry out an intentional linkage strategy to ensure continuous access for communities to affordable nutritious foods through REAP business groups. The linkage strategy should be coordinated with the Nawiri market assessment study and upcoming market pilots.

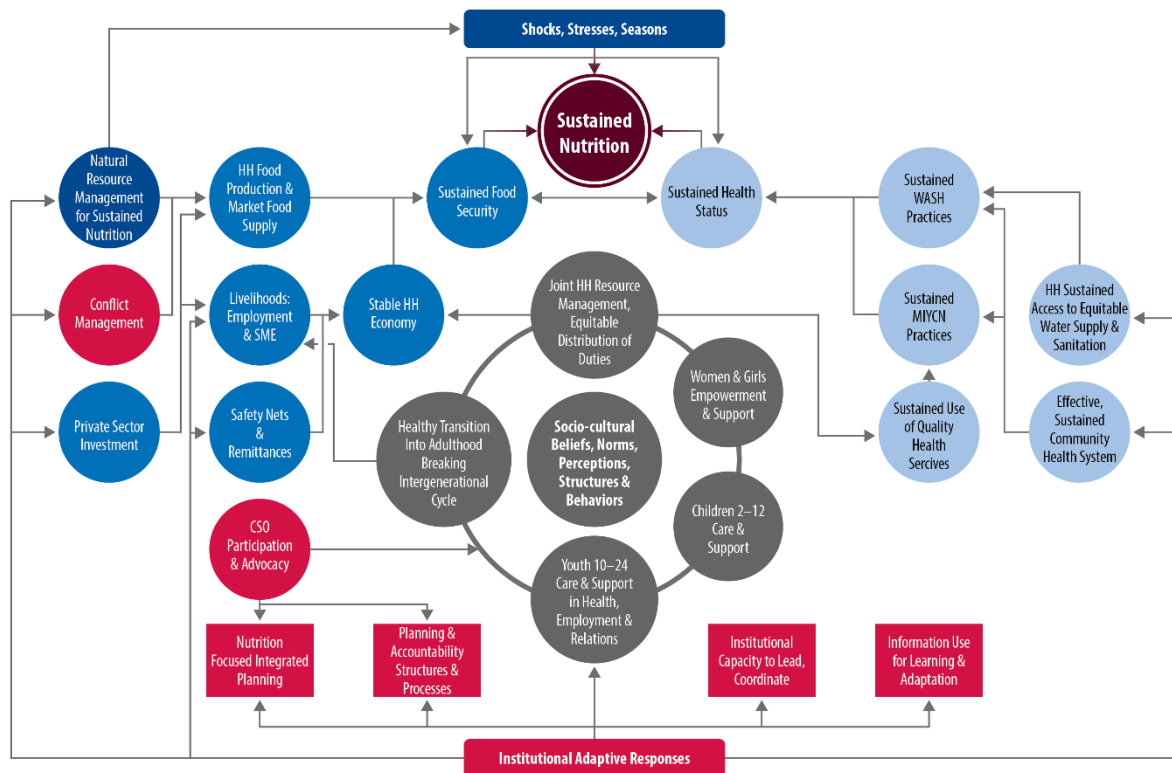
## **1. BACKGROUND**

### **1.1 THE KENYA NAWIRI PROJECT**

The goal of USAID Nawiri is to sustainably reduce levels of persistent acute malnutrition in Kenya's arid and semi-arid lands (ASALs). In Samburu and Turkana Counties, USAID Nawiri is facilitated by a Mercy Corps-led consortium of partners that share a commitment to putting county governments and their citizens in the driver's seat of their own journeys to self-reliance. In the first phase of Nawiri, the consortium is conducting desk reviews, formative data collection, and implementation research to identify household and systemic drivers of acute malnutrition. Nawiri is using the information collected to tailor and test program activities to ensure they address the key drivers of acute malnutrition.

Nawiri has developed an initial theory of change for the program (**Figure 1**) based on a conceptual framework of acute malnutrition in Africa’s drylands (Young 2019), adapted from the UNICEF nutrition framework (UNICEF 1991). Nawiri’s theory of change indicates that a variety of interrelated factors contribute to nutrition in this context. As shown in the medium blue section on the left side of Figure 1, livelihoods made through small and medium enterprises contribute to a stable household economy, which contributes to sustained food security and improved nutrition.

**Figure 1: Nawiri’s Theory of Change**



## 1.2 POVERTY GRADUATION AND NAWIRI REAP

One of Nawiri’s strategies for working with small and medium enterprises to improve food security and nutrition is through the BOMA Project’s Rural Entrepreneur Access Program (REAP), which has responded to the unique needs of the ultra-poor in the drylands of northern Kenya since 2009. REAP is a “poverty graduation” program that uses a sequential, layered set of interventions targeting ultra-poor households with the aim of achieving a sustainable livelihood. Evidence shows that graduation is cost-effective and leads to sustainable and significant gains in both economic and social outcomes for extremely poor households across diverse contexts (Banerjee et al. 2015; Gobin, Santos, and Toth 2017). REAP has demonstrated positive and significant impacts on income, savings, asset accumulation, and food security (Gobin, Santos, and Toth 2017; Sanders et al. 2019; Sanders et al. 2018). It promises enrolled women gains in agency and decision-making power (BOMA Project 2018a), with indications that graduates will sustain many gains beyond the life of the program (BOMA Project 2018b). However, the extensive research on graduation—

in general and specific to REAP—has not to date sought or provided specific evidence that the approach can contribute to improved nutrition, especially among infants and young children. One exception to this was a 2018 randomized controlled trial (RCT) in Bangladesh, which concluded that poverty graduation can have positive long-term health and nutrition effects and lead to positive externalities in communities (Raza, Van de Poel, and Van Ourti 2018). Beyond this example, most graduation programs have not historically been designed to directly affect or measure nutrition outcomes.

Nawiri posits that the ultra-poor enrolled in the REAP program may be sources of nutrition resilience for their communities in a number of ways, including: providing access to nutritious foods to “last mile” communities through their businesses, extending credit in foodstuffs to group members and trusted customers, providing loans to members and non-members for health emergencies and food purchases, and disseminating critical nutrition information learned in trainings to untargeted households.

Nawiri plans to use a human-centered design (HCD) process to develop a nutrition-oriented version of REAP, known as REAP for Nutrition. As part of the information-gathering for the HCD process, Nawiri has identified specific information gaps related to the REAP program and how it currently influences women’s time use and decision-making. Information also is needed to understand how REAP participation affects other members of the family; how REAP participants and others use their income, credit, and savings; whether REAP businesses can be used as “last mile” sellers of nutritious foods in their communities; and how the information REAP participants learn through the program is applied and spread to others in their communities. This information is particularly important in understanding how Nawiri can best position the ultra-poor as sources of nutrition resilience for their communities, maximizing targeted investments that deliver sustained reductions in acute malnutrition at scale.

The insights gained from the qualitative research described in this report will be combined with findings from other REAP research conducted by Nawiri, learnings from other ongoing research that BOMA is conducting with different partners, and findings from other Nawiri working groups, particularly those focusing on the community health system (CHS) and MIYCN. Together, these will inform the design of REAP for Nutrition pilots that will aim to reduce extreme poverty through building sustainable livelihoods while improving nutrition for participants and reducing acute malnutrition in children younger than two years of age in participants’ homes and in the community.

## **2. METHODS**

### **2.1 RESEARCH OBJECTIVES**

The overall objective of the REAP formative data collection and analysis is to generate in-depth information to inform prototypes that can be tested rapidly. The most promising prototypes will then be incorporated into the design of REAP for Nutrition pilots for launch in Samburu and Turkana Counties.

The specific objectives of formative data collection and analysis are to:

1. Determine the influence of participation in REAP on the time use of women, men, girls, and boys as it relates to critical health- and nutrition-related behaviors such as

childcare; infant, and young child feeding practices; and use of health care and other services.

2. Explore decision-making dynamics through the income and savings behaviors of REAP participants and identify opportunities to link such decisions to behaviors that support household food security and nutrition.
3. Investigate opportunities for REAP businesses that can be leveraged to increase availability of nutritious foods and related products to participants and their communities.
4. Assess the types of information participants receive from REAP trainings and how participants apply it.

## **2.2 RESEARCH QUESTIONS**

This formative research endeavored to answer the following questions:

1. How does enrollment in REAP affect the time use and behaviors of REAP participants and their household members, such as other women, men, girls, and boys?
2. How do women enrolled in REAP (and their household members) spend their income, savings, and credit accessed through REAP activities? Who are the main decision-makers for key expense items?
3. How can REAP businesses be leveraged to provide communities with access to more nutritious foods?
4. How do REAP participants apply knowledge gained from health and social messaging training delivered through REAP and other channels? What other relevant topics should be considered as part of REAP for Nutrition? What delivery channels are most appropriate to deliver information to REAP participants, male partners, and community members?

## **2.3 STUDY DESIGN**

This formative research was conducted among pastoralists and agropastoralists in Samburu County and pastoralists, agropastoralists, and fisher folk in Turkana County. Within these livelihood categories, participants were purposefully drawn from REAP-targeted communities in rural and peri-urban areas that have differential access to health facilities, markets, and other support services. The study included focus group discussions (FGDs) and “day in the life” observations. Separate FGDs were conducted with REAP participants, their male partners, REAP graduates, and non-REAP participants in the same communities. Observations were conducted with REAP participants. The distribution of FGDs and observations by livelihood and county is shown in **Table 1**. The formative research team conducted 54 FGDs with REAP participants and graduates, their male partners, and non-REAP participants across the three livelihoods and 13 “day in the life” observations with REAP participants.

**Table 1: Distribution of FGDs and Observations by Livelihood and County**

	Samburu	Turkana	Total	Total # of Participants
<b>Focus Group Discussions (FGDs)</b>				
REAP participants (female)				
▪ Pastoral	4	2	6	36
▪ Agropastoral	3	2	5	30
▪ Fisher folk	n/a	2	2	12
REAP graduates (female)				
▪ Pastoral	4	3	7	42
▪ Agropastoral	3	2	5	30
▪ Fisher folk	n/a	2	2	12
Male partners				
▪ Pastoral	4	2	6	36
▪ Agropastoral	3	2	5	30
▪ Fisher folk	n/a	2	2	12
Non-REAP participants (female)				
▪ Pastoral	4	2	6	36
▪ Agropastoral	3	2	5	30
▪ Fisher folk	n/a	3	2	18
<b>Total</b>	<b>28</b>	<b>26</b>	<b>54</b>	<b>324</b>
<b>“Day in the Life” Observations</b>				
▪ Pastoral	4	2	6	6
▪ Agropastoral	3	2	5	5
▪ Fisher folk	n/a	2	2	2
<b>Total</b>	<b>7</b>	<b>6</b>	<b>13</b>	<b>13</b>

Data collection locations by county and livelihood are presented in **Table 2**.

**Table 2: Villages Selected for REAP Formative Data Collection by Livelihood and County**

County	Pastoral Villages	Agropastoral Villages	Fisher Folk Villages
Samburu	Nkaroni, Bendera-Ngilai, Ndonyo Uasin, and Nachola/Marti (4 FGDs)	Lolmolog, Malaso, Mbaringon (3 FGDs)	n/a
Turkana	Kalotum and Lomopus (2 FGDs)	Kakwanyang and Monti (2 FGDs)	Kalokol and Katiko (2 FGDs)

## 2.4 DATA COLLECTION PROCEDURES

### 2.4.1 FGDs and Participatory Exercises

The main topics for focus groups included time use of participants and their husbands by season before and during REAP; REAP graduate time use by season during and after REAP; and non-REAP participant general time use. We also asked about children’s time use (as reported by their parents); household expenditures of business income; household decision-making for key expenses; types of foods REAP businesses sold to the community; communication channels for health behavior change; and desired topics for future health trainings. The FGD guides were developed in English and then translated into both Turkana and Samburu languages.

The FGDs included participatory time use and proportional piling exercises to map time use by season. We assessed time use by first asking participants to name the different seasons in their livelihood zones, then list daily activities in each season. We gave each participant 20 beads and asked them to divide the beads to represent the amount of time they spent on each activity. They repeated the process for dry and rainy seasons.

FGD participants then listed the items on which they spent their income, savings, and credit. Each participant was given six beads and asked to rank the list using the beads (i.e., three beads for the item that used most of their income, savings, or credit on; two beads for the item they spent the second most on; and one bead for the item they spent the least on). They were then each given a set of four cards showing a man, a woman, a man and a woman, and other people in the household. Participants were asked to place the relevant card next to each expense item to indicate the main decision-maker for that item.

FGDs were led by a moderator, who was assisted by a notetaker. The discussions were recorded using a digital voice recorder. Moderators and notetakers prepared rapid summaries of the discussions on the same day of the discussions. In addition, the recordings were transcribed and translated into English.

### 2.4.2 “Day in the Life” Observation Data Collection

The observation tool was designed to collect information on the types of activities—particularly infant and young child feeding and caring practices—and amount of time spent in minutes on each within the natural environment of REAP participants with children < 2 years of age. We conducted observations of REAP participants to understand how their participation affected daily MIYCN; water, sanitation, and hygiene (WASH); and other practices; and how they had adapted their practices to facilitate their participation in REAP. The observation tool was developed in English. It was not translated to local languages because the research assistants were fluent in English, and they filled it out themselves.

Observations were conducted by a data collector at the women’s homes. They were generally conducted continuously from 8 a.m. to 6 p.m. on a single day for each REAP participant selected. Data collectors recorded their observations on a structured paper observation form.

### 2.4.3 Research Assistant Training and Supervision

Six moderators, six supervisors, and six note takers were trained for three days (March 15–17, 2021) on how to conduct FGDs and engage with the households of REAP participants for observations. The training included a piloting exercise on the third day. Key topics included



training objectives, COVID-19 protocols, background information on USAID Nawiri and the REAP Formative Study, and qualitative and observation data collection methods and tools. In addition, the research assistants reviewed the interview guides for the various types of participants, and instructions for how to set up FGDs and tag and record group discussions. We used feedback obtained from the pilot sessions and tools to make slight adjustments to the data collection plan and tools. The research assistants who collected the data had previous experience conducting qualitative interviews. During fieldwork, a technical team from RTI, Mercy Corps, Save the Children, BOMA, Ministry of Health, and Ministry of Trade supervised.

#### 2.4.4 Participant Eligibility and Selection

Participants were considered eligible if they were 18 years of age or older, female (for REAP participants, graduates, and non-REAP) or male (for male partners to REAP participant); if they had a child <2 years old; and had signed the consent form. A simple random sampling technique was used to pick final participants for the FGDs. Two alternate candidates were provided for each group. Non-REAP participants were from the same wealth group as REAP participants.

### 2.5 DATA ANALYSIS

We analyzed FGD transcripts using thematic content analysis methods (Hsieh and Shannon 2005). We developed a codebook of deductive codes based on the question guides and inductive codes based on themes that were identified in the moderators' summaries. We coded the data using NVivo software. In the FGD analysis, we made comparisons between the types of participants, livelihoods, and counties. For REAP participants and male partners, we made comparisons between the time before they joined REAP and the time when they were in REAP. For REAP graduates, we made comparisons between the time they were in REAP and the time after they graduated from REAP.

We entered data from the participatory exercises (pile sorting and proportional piling) in the FGDs and analyzed the data descriptively in Excel. We computed percentages of the total number of beads given to participants to evaluate patterns and identify participants' perceptions of the most important uses of their time, income, savings, and credit. To facilitate comparisons of time use across types of participants, we grouped the activities into the categories shown in **Table 3**.

**Table 3: Activity Categories and Definitions from FGD Participatory Exercises**

Activity Category	Activities Included
Income-generating	Small business, REAP business, charcoal burning, selling livestock, weaving/basketry, broom-making, fish business (including smoking fish), murrum collection, market visits, and casual labor
Learning	REAP trainings
Childcare	Taking care of babies/children, breastfeeding, and feeding children
Livestock care and farming	Herding, milking animals, watering animals, poultry farming, and agricultural farming

Activity Category	Activities Included
Household	Fetching water, fetching firewood, construction of manyattas, cooking food, cleaning the house, sweeping the compound, searching for food, collecting wild fruits, washing dishes, and preparing food
Community-level care	Preparing building construction materials, digging wells, and volunteering (e.g., as a community health volunteer)
Health seeking	Health treatment for family, health treatment for self, immunization, nutrition services, and antenatal care visits
Finance	Borrowing, debt recovery, and savings group meetings
Relaxing and socializing	Playing traditional games, visiting neighbors, social meetings, Tree of Men meetings, preaching, and attending weddings

We entered the “Day in the Life” observation data into an Excel file and analyzed the data descriptively by county using the Stata (statistical software). Mean, median (interquartile range), and the total number of hours REAP participants spent on different activities were calculated. We used the same activity categories and definitions for the observation and FGD time use analyses with two exceptions. For the observations, we separated breastfeeding from other childcare because we observed women spending a lot of time on breastfeeding in relation to other childcare tasks and we wanted to highlight this in the observation results. For the observations, we also added a selfcare activity category, which included bathing, fixing hair, and similar activities. Selfcare activities were not included in the FGD activity categories because they were not mentioned by FGD participants.

### 3. RESULTS – SAMBURU COUNTY

#### 3.1 DEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS IN SAMBURU COUNTY

We conducted 28 FGDs and seven observations in two livelihood zones (agropastoral and pastoral) in Samburu County. A total of 168 participants were involved in the FGDs, including 42 REAP participants, 42 REAP graduates, 42 REAP male partners, and 42 non-REAP participants (**Table 4**). The average number of children aged <5 years per household across the livelihood zones was 1.8.

**Table 4: Demographic Characteristics of FGD Participants in Samburu County**

Characteristics	REAP Participants	REAP Graduates	Male Partners	Non-REAP Participants
Participants (n)	42	42	42	42
Mean (SD) age in years	32 (10.2)	34.5 (10.1)	44.7 (11.4)	35.4 (11.9)
Age range in years	20–60	21–58	29–70	24–73
Mean (SD) children <5 years	1.9 (0.6)	1.9 (0.7)	1.8 (0.5)	1.6 (0.9)

Four pastoral and three agropastoral REAP participants were observed in Samburu (Table 5). The average household size for observation participants in Samburu was 6.1 individuals. Participants had children ranging in age from four months to 17 years of age.

**Table 5: Demographic Characteristic of Observation Participants in Samburu County**

Characteristic	Pastoral	Agropastoral
Participants (n)	4	3
Mean (SD) household size	11 (7.1)	5.7 (1.2)
Total number of children (n)	27	16
Mean (SD) age of children in years	6.2 (4.6)	9.8 (4.9)

### 3.2 TIME USE BY REAP PARTICIPANTS, REAP GRADUATES, MALE PARTNERS, AND NON-REAP PARTICIPANTS IN SAMBURU COUNTY

This section covers time use and behaviors of agropastoralists who are current REAP participants, REAP graduates, REAP male partners, and non-REAP participants before, during, and after REAP activities and between dry and rainy seasons. The results are triangulated between FGDs and observations.

Table 6 summarizes the key findings related to time use of REAP participants, REAP graduates, male partners, and non-REAP participants. The activities for each group are shown in order: the items that received the most votes in the proportional piling are listed first for each type of participant and time period. Graphs showing the details of all activities by livelihood (agropastoral or pastoral), type of participant, and season are found in Annex 1.

**Table 6: Time Use Results from Proportional Piling During FGDs in Samburu County**

Type of Participant	Major Activities Before/During	Major Activities During/After	Changes in Time Use
Agropastoral REAP participants	Livestock care and farming Household activities	Livestock care and farming Household activities Income-generating activities	↓ Livestock care and farming ↓ Household activities ↑ Income-generating activities
Pastoral REAP participants	Income-generating activities Household activities Livestock care and farming	Income-generating activities Household activities Livestock care and farming	↑ Income-generating activities ↓ Household activities ↓ Livestock care and farming
Agropastoral REAP graduates	Household activities Income-generating activities	Income-generating activities Migration	↑ Income-generating activities ↓ Household activities

Type of Participant	Major Activities Before/During	Major Activities During/After	Changes in Time Use
	Livestock care and farming	Livestock care and farming	↓ Livestock care and farming ↑ Migration
Pastoral REAP graduates	Income-generating activities Livestock care and farming Household activities	Income-generating activities Livestock care and farming Household activities	↔ Income-generating activities ↔ Livestock care and farming ↔ Household activities
Agropastoral male partners	Livestock care and farming Income-generating activities	Livestock care and farming Income-generating activities Household activities	↔ Livestock care and farming ↑ Income-generating activities ↑ Household activities
Pastoral male partners	Livestock care and farming Income-generating activities Relaxing/social activities	Livestock care and farming Income-generating activities Relaxing/social activities Finance activities Household activities	↔ Livestock care and farming ↔ Income-generating activities ↓ Relaxing/social activities ↑ Finance activities ↑ Household activities
Agropastoral non-REAP participants	Household activities Livestock care and farming		n/a
Pastoral non-REAP participants	Household activities Income-generating activities Livestock care and farming		n/a
Other family members and children	Household activities Livestock care Assisting with REAP business		↑ Household activities ↑ Livestock care ↑ Assisting with REAP business

↓ indicates decreased time use, ↑ indicates increased time use, ↔ no change in time use

Among agropastoral REAP participants, livestock care, farming, and household activities were core activities before and during REAP. Income-generating activities were added to the list of core activities during REAP. Relaxing/social activities and learning activities were new activities adopted during REAP, although these took a relatively small proportion of time. Time use on income-generating activities, such as REAP business, small business, and selling livestock, increased during REAP. The increase in time spent on income-generating and

learning activities aligns with the introduction of REAP businesses and training into participants' schedules after becoming REAP participants. The reduction in time spent on livestock care and household activities suggests that participants shifted these responsibilities to other family members to free time for their REAP businesses or other income-generating activities.

Among pastoral REAP participants, generating income, household activities, livestock care, and farming were key activities both before and during REAP. Time use on livestock care (e.g., herding), farming, and household activities was reduced during REAP, which could be attributed to participation in REAP learning activities, including trainings. These reductions indicate that REAP participants shifted some of these tasks to other household members, such as children and other relatives.

Among agropastoral REAP graduates, household activities, income-generating activities, livestock care, and farming were the core activities during REAP. Time use on income-generating activities and migration increased after REAP, while livestock, farming, and household activities decreased in that time period. The reduction in time spent on household activities and the increase in time spent on income-generating activities suggest that REAP graduates may have shifted some of their tasks to other family members.

Among pastoral REAP graduates, income-generating activities, livestock care and farming, and household activities were core activities both during and after REAP. Time spent on most activities was similar during and after REAP, except for learning activities, which reduced after REAP because graduates were no longer participating in REAP trainings.

Among agropastoral REAP male partners, livestock care, farming activities, and income-generating activities were the main activities before and during REAP. Time used on generating income increased during REAP. Time used on household activities was relatively little but increased during REAP. This could be attributed to male partners helping their wives with REAP businesses and household chores (**Box 1**).

Among Samburu pastoralists, livestock care, farming activities, and income-generating activities were core activities that did not change during REAP. Time used on household and finance activities increased during REAP. This could be attributed to reduced time spent on relaxing/social activities. Increased time use on household activities could also be attributed to male partners helping their wives with household chores.

Among agropastoral non-REAP participants, key activities were household activities, livestock care, and farming activities. Participants explain the reason for spending a large proportion of their time on household chores in **Box 2**.

**Box 1: REAP Male Partners Helping their Wives with Activities**

“We have additional activities to the usual ones after our wives joined REAP. These [new activities] are household chores, like looking after children, and REAP business.” **FGD REAP Participant, Male Partners, Samburu Agropastoral**

“Our activities have changed after our wives joined REAP. We fetch water and firewood and take care of children.” **FGD REAP Participant, Male Partners, Samburu Pastoral**

**Box 2: Time Spent on Household Activities**

“We always wash clothes and dishes and conduct other general cleaning of the house and compound because it is our daily routine irrespective of the season.” **FGD Non-REAP Participant, Samburu Agropastoral**

Among pastoral non-REAP participants, core activities were household activities, income-generating activities, and livestock care and farming activities.

REAP participants and REAP graduates reported that, during their participation in REAP, other household members helped with daily activities. This enabled participants to focus on REAP activities during the day. Some REAP participants indicated that they had to wake up early to do household activities, while others multitasked their REAP business activities with other activities. Some participants mentioned that they did not have anyone to help them. Most of the REAP graduates mentioned that the time management training they completed during REAP enabled them to better utilize their time. In general, household members mostly helped with activities outside the REAP business, such as looking after young animals, fetching water and firewood, herding, cooking, and buying goods in the market. REAP participants and graduates explained the importance of engaging family members to take over some of their tasks so they could focus on their REAP business (**Box 3**).

**Box 3: Time Use by Household Members**

“Our husbands assist us now that we have additional REAP businesses. They look after our goats, which we buy from markets, and ensure they are secured against theft.” **FGD REAP Participant, Samburu Pastoral**

“For my case, I have other household members who chip in to help me with other extra responsibilities outside REAP business. They help me in cooking food for the family.” **FGD REAP Graduate, Samburu Agropastoral**

Most REAP participants had children aged 8 to 15 years who helped with activities. Children assisted by constructing manyattas, fetching water and firewood, going to the market, herding, doing household chores (e.g., cooking, washing dishes, caring for children, milking livestock, building fences), and helping sell items in the REAP business. According to REAP participants, their participation in REAP affected the time use of both female and male children 8 to 15 years of age. Female children mostly helped with herding, fetching water and firewood, cleaning livestock sheds, purchasing food at the market, taking care of younger children, and household chores. Male children mostly helped with herding, cooking, fencing the homestead, and fetching firewood. Notably, the responsibility of childcare was taken up by some school-going children, as explained in **Box 4**.

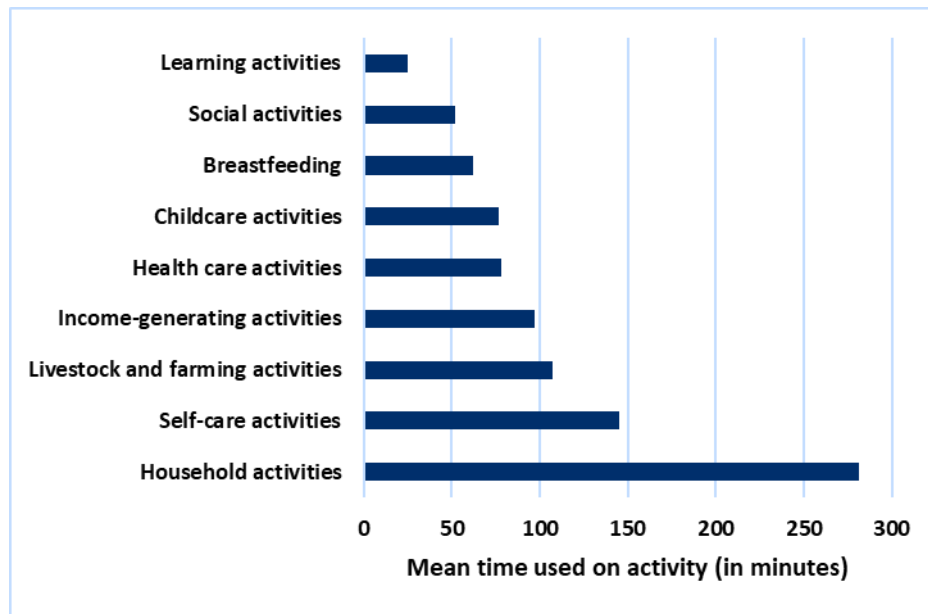
**Box 4: Time Use of School-Going Children**

“She works when she is not in school by taking care of the smaller children, cooking food, fetching water and firewood, and doing cleaning.” **FGD REAP Participant, Samburu Pastoral**

### **3.3 “DAY IN THE LIFE” TIME USE OBSERVATIONS IN SAMBURU COUNTY**

Daylong observations of a small number of REAP participants show a somewhat different picture of women’s time use. The most observed activities were household activities, followed by self-care, livestock and farming activities, and income-generating activities (**Figure 3**). We kept the time women spent breastfeeding separate from other childcare activities to show that breastfeeding alone takes nearly as much time, on average, as all other childcare activities. The differences between time use reported in the FGD and observed are likely related to women’s perceptions of how much time they spend on different activities in general (from FGDs) in contrast to direct observations of how they spent their time in a single day.

**Figure 2: REAP Participants’ “Day in the Life” Observation of Time Use in Samburu County**



### 3.4 HOUSEHOLD EXPENSES AND DECISION-MAKING FOR MAIN HOUSEHOLD EXPENSES IN SAMBURU COUNTY

Table 7 presents the results of participatory free listing and ranking exercises conducted during the FGDs in Samburu County. It shows the top-ranked expense items that participants purchased either with the income from REAP businesses or with other sources of household income, and who in the household is the main decision-maker for that item (man, woman, both, or another person). Food and education were the top two ranked expense items for all female participants, except non-REAP agropastoralists, who ranked education in fourth place. It is not surprising that food ranked as the top item for most groups, given that the REAP program targets the ultra-poor and non-REAP participants included in this research had similar economic status as REAP participants. Other key expenses were business-related, especially for current REAP participants, clothes and household items, and buying livestock. Male partners ranked some expense items (e.g., medical expenses) highly that were not ranked highly by female participants, which may indicate that men are usually responsible for covering these costs for the family.

Across types of participants and livelihoods, participants reported that the man and woman were joint decision-makers for many of the top-ranked expense items, with a few exceptions. Agropastoral REAP participants and pastoral male partners said that the woman is the main decision-maker for business expenses. Agropastoral REAP participants said that the woman is the main decision-maker for medical expenses, while pastoral male participants reported that the man is the main decision-maker for medical expenses. The woman was also chosen as the main decision-maker for food expenses by agropastoral and pastoral male partners. Agropastoral REAP graduates reported that the woman is the main decision-maker for purchases of clothes and household items.

**Table 7: Top-Ranked Expense Items and Main Decision-Maker for Those Expenses by Type of Participant and Livelihood in Samburu County**

	AGROPASTORAL		PASTORAL	
	Top-Ranked Expense Items	Main Decision-Maker	Top-Ranked Expense Items	Main Decision-Maker
REAP participants	Food	Both	Food	Both
	Business	Woman	Education	Both
	Education	Both	Business	Both
	Buying livestock	Both	Clothes and household items	Both
	Medical expenses	Woman	Transport	Both
REAP graduates	Food	Both	Food	Both
	Clothes and household items	Woman	Clothes and household items	Both
	Education	Both	Business	Both
	Business	Both	Education	Both
	Farming expenses	Both	Savings	Both
REAP male partners	Food	Woman	Food	Woman
	Savings	Both	Medical expenses	Man
	Buying livestock	Both	Business	Woman
	Education	Both	Education	Man
	Medical expenses	Man	Clothes and household items	Both

### 3.5 LEVERAGING NUTRITION THROUGH REAP BUSINESSES IN SAMBURU COUNTY

#### 3.5.1 Types of Foods Accessed through REAP Businesses by Non-REAP Participants in Samburu County

In general, all types of respondents reported that various foods were sold to the wider community by REAP participants. Specific foods that respondents said were sold by REAP businesses are shown in **Table 8** and are grouped by the Food and Agriculture Organization (FAO)/WHO Global Individual Food and Consumption Data Tool (GIFT) nutrition-sensitive food groupings (Food and Agriculture Organization of the United Nations n.d.).



**Table 8: Foods Available through REAP Businesses in Samburu County, Categorized by Food Group**

Food Group	Food Items Available from REAP Businesses
Cereals and cereal products	Maize, rice, wheat flour, maize flour, pasta, biscuits
Roots and tubers	Potatoes
Pulses, seeds, and nuts	Green grams, beans
Eggs	Eggs
Fish and shellfish	Fish
Meat	Beef, mutton, chicken
Vegetables	Kale, cabbage, onions, carrots, tomatoes
Fruits	Avocado
Fats and oils	Cooking oil
Sweets and sugar	Sugar
Beverages	Tea leaves

REAP businesses helped improve availability of nutritious food by selling fruit, meat, milk, and vegetables. They made it possible for community members to access these foods by selling them locally in appropriate quantities and at a reasonable price (Box 5).

### 3.5.2 Foods Desired for Local Purchase through REAP Businesses in Samburu County

In general, non-REAP participants wanted REAP businesses to sell a wider variety of foods. Samburu agropastoral non-REAP participants would like more REAP participants to sell chicken, lentils, green grams, cow peas, yellow beans, carrots, sorghum, and fruits, such as mangoes, bananas, pineapples, oranges, and avocados. Samburu pastoral non-REAP participants would like REAP participants to sell cow peas, yellow beans, lentils, fish, meat, pumpkins, fruits (e.g., bananas, apples, mangoes, oranges, and papayas), and vegetables (e.g., kale and spinach).

#### Box 5: Availability of Food through REAP Businesses

“REAP business has contributed immensely because we used to eat only maize flour with salt and oil, but now we can have a balanced diet.” **FGD Non-REAP participant, Samburu Agropastoral**

“REAP businesses are making a lot of food available for community to buy. In fact, they sell them at an affordable quantity and price.” **FGD Non-REAP participant, Samburu Agropastoral**

### 3.5.3 Leveraging REAP Businesses for Nutrition in Samburu County

In Samburu County, across both livelihoods, REAP participants reported that profits made from REAP businesses were used to purchase and grow nutritious food for the family and to purchase food for sale to community members. This was confirmed by a non-REAP member (**Box 6**). In addition, profits from REAP businesses were used to initiate other income-generating businesses. The wider community benefited whenever profits were used to initiate small-scale agricultural projects, like kitchen gardens, that provided a local source of vegetables and fruits.

#### **Box 6: Nutrition Benefits from REAP Business**

“Through REAP businesses, I can buy the children nutritious food, fruits and even have a kitchen garden, plant potatoes so that my children will not lack the nutritious food.”  
**FGD Non-REAP participant, Samburu Agropastoral**

## 3.6 KNOWLEDGE GAINED FROM REAP TRAININGS AND DESIRED TRAINING TOPICS AND COMMUNICATION CHANNELS IN SAMBURU COUNTY

### 3.6.1 Knowledge Gained from REAP Trainings in Samburu County

Most REAP graduates and REAP participants said that they were trained by BOMA on a variety of topics, including savings, business management, customer care, family planning, hygiene, sanitation, credit, and COVID-19 protocols. In addition, Samburu pastoral REAP graduates and REAP participants were trained on prevention of female genital mutilation (FGM) and the importance of girl-child education. REAP participants and graduates described how different aspects of the REAP trainings benefited them by giving them business skills, helping them improve household sanitation and hygiene, and informing them about the disadvantages of FGM (**Box 7**). In general, REAP graduates and REAP participants were happy with BOMA trainings because they were opportunities to acquire more knowledge and skills and subsequently transform their lives.

#### **Box 7: Benefits of REAP Training for REAP Participants and Graduates**

“The training I got has helped me because I am able now to do business and use the savings I got in the business and still maintain the business.” **FGD REAP Participant, Samburu Pastoral**

“BOMA taught ... us the benefits of boiling water before drinking or before using it in the house.” **FGD REAP Graduates, Samburu Agropastoral**

“Our girls no longer go for FGM because we have been taught the disadvantages of it.” **FGD REAP Graduates, Samburu Pastoral**

Most of the Samburu agropastoral non-REAP participants acknowledged that they received information from REAP participants—particularly on hygiene, savings, family planning, HIV/AIDS, COVID-19, and business. Some respondents indicated that the information on savings motivated them to start businesses, join women’s groups, and save their income.

### 3.6.2 Requested REAP Training Topics in Samburu County

Most participants noted a desire for cooking demonstrations. They also requested more information on MIYCN, family planning, digging latrines, handwashing equipment, kitchen gardens, animal health, fitness, and on guidance and counseling.

Samburu agropastoral REAP participants and graduates requested more trainings on hygiene, nutrition, sanitation, business management, and credit. In addition, they noted that more practical sessions (e.g., demonstrations on cooking, water treatment, and how to practice good hygiene) should be included during trainings (**Box 8**). Most suggested that these training sessions could be conducted twice a month or as frequently as possible.

**Box 8: Request for Water Treatment Training**

“During the dry season, the water is usually dirty, and we would like to be taught on how to treat water.” **FGD REAP Graduate, Samburu Agropastoral**

### 3.6.3 Preferred Communication Channels in Samburu County

REAP participants suggested that trainings on new topics, such as nutrition, could be held during REAP meetings and during chief barazas (i.e., meetings) to reach more people (**Box 9**). Other proposed communication channels were community health volunteers (CHVs), health care workers, radio talk shows, and phone calls. Participants suggested that pastoralists should be considered a priority population for health-related trainings, with a special strategy created to accommodate their migration habits. Participants also proposed that male partners should be included in REAP training sessions on nutrition because they need nutrition knowledge to support their female partners (**Box 10**).

**Box 9: Preferred Channels of Communication**

“Face to face meetings like the chief barazas where more women are available, and the information can reach more people.” **FGD REAP Graduate, Samburu Pastoral**

Most of the non-REAP participants proposed that information received by REAP participants during trainings should be shared to the rest of the community through REAP participants and mentors, men, churches, chief barazas, NGOs, health care workers at health facilities, and CHVs. Non-REAP participants also requested to be invited to the REAP trainings whenever possible.

**Box 10: Including Male Partners in Trainings**

“Male partners should be involved in these trainings so that they gain knowledge and give support to female partners when the need arises.” **FGD REAP Graduates, Samburu Agropastoral**

When participants were asked about their current sources of nutrition information, they reported receiving information through CHVs; mother-to-mother support groups; trainings by NGOs; roadshows; chiefs; television; Digisomo (talking books used for health education); posters at health facilities (**Box 11**); fliers and noticeboards; talking walls (drawings with health behavior change communication messages, often found in health facilities); children who are in school; phone calls, and nutrition booklets. The radio stations that most often share health information are *Serian FM*, *Mayian FM*, *Sidai FM*, and *Mchungaji FM*. Participants preferred to listen either in the evening or early in the morning when they were at home but explained that reception is sometimes poor.

Most participants reported that they trusted CHVs and health care workers to provide nutrition information, mainly because these individuals were knowledgeable experts, came from the same community, used local language to communicate information, were accessible, and ensured confidentiality. Most REAP participants and graduates also reported that they trusted REAP trainings and BOMA mentors.

**Box 11: Posters for Disseminating Nutrition Information**

“Posters at the health facility have different varieties of food, like kales, pumpkin, spinach, banana, eggs, chicken, meat, oranges. The posters show foods with vitamins that one should eat for good nutrition.” **FGD REAP Graduate, Samburu Agropastoral**

**4. RESULTS – TURKANA COUNTY**

**4.1 DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS IN TURKANA COUNTY**

We conducted 26 FGDs and six observations across three livelihood zones (agropastoral, pastoral, and fisher folk) in Turkana County. A total of 160 participants were involved in the FGDs, including 36 REAP participants, 42 REAP graduates, 42 non-REAP participants, and 36 REAP male partners (Table 8). On average, the number (SD) of children aged <5 years across the livelihood zones was 2.0 (±0.1).

**Table 9: Demographic Characteristics of FGD Participants in Turkana County**

Characteristics	REAP Participants	REAP Graduates	Male Partners	Non-REAP Participants
Participants (n)	36	42	36	42
Mean (SD) age in years	34 (7.9)	36.7 (7.9)	38 (9.2)	31.1 (5.9)
Age range in years	19–56	25–55	24–56	19–43
Mean (SD) children <5 years	2.1(0.6)	2.0 (0.9)	2.2 (0.6)	1.9 (0.8)

Two observations were conducted in each livelihood zone of Turkana, for a total of six (Table 9). The average household size was 6.7 (±1.9). Participants’ children ranged in age from one week to 18 years.

**Table 10: Demographic Characteristic for Observation Participants in Turkana County**

Characteristic	Pastoral	Agropastoral	Fisher Folk
Participants (n)	2	2	2
Mean (SD) household size	6.5 (0.7)	8.0 (2.8)	5.5 (2.1)
Total number of children (n)	9	12	8
Mean (SD) age of children in years	5.3 (3.2)	7.9 (6.4)	5.1 (5.2)

## 4.2 TIME USE BY REAP PARTICIPANTS, REAP GRADUATES, MALE PARTNERS, AND NON-REAP PARTICIPANTS IN TURKANA COUNTY

This section covers time use and behavior changes of REAP participants, REAP graduates, REAP male partners, and non-REAP participants before, during, and after REAP, as well as in the dry and rainy seasons, across the three livelihoods.

**Table 10** summarizes the key findings related to time use among REAP participants, REAP graduates, male partners, and non-REAP participants across the three livelihoods in Turkana County. The activities for each group are shown in order—the items that received the most votes in the proportional piling are listed first for each type of participant and time period. Graphs showing the details of all activities by livelihood (agropastoral, pastoral, and fisher folk), type of participant, and season are found in **Annex 3**.

**Table 11: Time Use Results from Proportional Piling During FGDs in Turkana County**

Type of Participant	Major Activities Before/During	Major Activities During/After	Changes in Time Use
Agropastoral REAP participants	Income-generating activities Household activities Livestock care and farming	Income-generating activities Household activities Livestock care and farming	↑ Income-generating activities ↔ Household activities ↑ Livestock care and farming
Pastoral REAP participants	Income-generating activities Household activities Livestock care and farming	Income-generating activities Household activities Livestock care and farming	↑ Income-generating activities ↓ Household activities ↓ Livestock care and farming
Fisher folk REAP participants	Income-generating activities Household activities	Income-generating activities Household activities	↔ Income-generating activities ↔ Household activities
Agropastoral REAP graduates	Income-generating activities Household activities Livestock care and farming	Income-generating activities Household activities Livestock care and farming	↓ Income-generating activities ↑ Household activities ↓ Livestock care and farming
Pastoral REAP graduates	Household activities Income-generating activities Livestock care and farming	Income-generating activities Household activities Livestock care and farming	↓ Household activities ↑ Income-generating activities ↓ Livestock care and farming

Type of Participant	Major Activities Before/During	Major Activities During/After	Changes in Time Use
Fisher folk REAP graduates	Household activities Income-generating activities Livestock care and farming Learning activities	Income-generating activities Livestock care and farming Household activities	↑ Income-generating activities ↓ Livestock care and farming ↔ Household activities ↓ Learning activities
Agropastoral male partners	Income-generating activities Livestock care and farming Household activities	Income-generating activities Livestock care and farming	↔ Income-generating activities ↑ Livestock care and farming ↓ Household activities
Pastoral male partners	Income-generating activities Livestock care and farming Household activities	Income-generating activities Livestock care and farming Household activities	↔ Income-generating activities ↔ Livestock care and farming ↔ Household activities
Fisher folk male partners	Income-generating activities Livestock care and farming	Income-generating activities Livestock care and farming	↑ Income-generating activities ↓ Livestock care and farming
Agropastoral non-REAP participants	Income-generating activities Household activities		n/a
Pastoral non-REAP participants	Income-generating activities Household activities Livestock care and farming		n/a
Fisher folk non-REAP participants	Income-generating activities Household activities		n/a
Other family members and children	Household activities Livestock care		↑ Household activities ↑ Livestock care

↓ indicates decreased time use, ↑ indicates increased time use, ↔ no change in time use

Among agropastoral REAP participants in Turkana income-generating activities, livestock care and farming activities, and household activities were the main activities before REAP. Income-generating activities, livestock care, and farming increased during REAP, while household activities remained the same.

The most common income-generating activity among agropastoral REAP participants in Turkana was basketry (**Box 12**).

For pastoral REAP participants, core activities both before and during REAP were income-generating activities, household activities, and livestock care. Time used on income-generating activities increased during REAP. Time spent on household and childcare activities was reduced in that time, which could be attributed to relatives helping with these tasks.

For fisher folk REAP participants, income-generating and household activities were core activities before and during REAP; time spent on these and other activities did not change. Their most common income-generating activities were fishing, charcoal burning, and weaving.

Among agropastoral REAP graduates, the core activities were income-generating activities, household activities, and livestock care and farming both during and after REAP. Time spent on these activities did not change.

For pastoral REAP graduates, core activities during REAP were household, income-generating activities, and livestock care and farming. After REAP, income-generating activities increased to become the core activity category, while time spent on household and livestock care activities went down. This could be attributed to help relatives provided.

For fisher folk REAP graduates, income-generating, household, livestock care, and farming were core activities during REAP. After REAP, income-generating activities increased; household activities decreased; and livestock care and farming activities remained the same. Learning activities also decreased after REAP because graduates were no longer attending REAP trainings.

Fishing is a major income-generating activity for fisher folk, (**Box 13**), but other common activities include charcoal burning, table banking, basketry, and herding.

It is notable that REAP graduates in all livelihoods in Turkana County spent more time on income-generating activities after REAP, which indicates that they continued to pursue or expand their businesses.

The core activities of agropastoral REAP male partners before REAP were income-generating, livestock care, and farming. During REAP, income-generating activities remained

**Box 12: Basketry is an Important Income-Generating Activity**

“Basketry is our main income generating activity because there is a lot that can come of palm leaves like making brooms, mats, and baskets. When we sell them, we get money to buy basic things, like food, clothes, and medicine.” **FGD REAP Participant, Turkana, Agropastoral**

**Box 13: Why Spend Time on Fishing**

“Fishing activity takes the lead during both the dry season and the rainy season because it is the main activity that provides food that can be accompanied with other foods like ugali. At the same time, we depend on fishing to earn a living, and this caters for our need. That is why we spend most of our time in this business.” **FGD REAP Participant, Fisher Folk**

at the same level, livestock care and farming activities increased, and household activities decreased.

Among pastoral REAP male partners, core activities both before and during REAP were income-generating (**Box 14**), livestock care and farming, and household activities. Time spent on activities before and during REAP remained the same.

**Box 14: Time Use on Livestock Trading**  
“My main economic activity is selling animals mostly the goats throughout the years. I can buy them and feed them for some time and then I will sell and earn more profit.” **FGD REAP Male Partner, Turkana Pastoral**

For fisher folk male partners, income-generating activities (e.g., basket weaving and murrum collection), livestock care, and farming activities were the core activities both before and during REAP. Income-generating activities increased slightly, while livestock care and farming activities decreased during REAP.

The core activities of agropastoral non-REAP participants were income-generating and household activities, such as fetching water and firewood, among others.

**Box 15: Migrating to Care for Livestock**  
“One of the main activities that we engage in during the dry season is migrating with livestock to far places to look for water and pasture for the livestock. Sometimes we can take weeks or even months there until the rain comes.” **FGD Non-REAP Participant, Turkana Pastoral**

Among pastoral non-REAP participants in Turkana, the most common activities were income-generating activities, household activities, and livestock care, such as herding and migrating for pasture (**Box 15**).

Among fisher folk non-REAP participants in Turkana, top activities were household activities and income-generating activities.

Most REAP participants and graduates reported the involvement of other household members—brothers, sisters, children (mostly school-going), and husbands—in household chores during REAP. This enabled participants to focus more on REAP activities during the day (**Box 16**). Some indicated that they had to wake up early to complete activities that enabled them to effectively conduct REAP business throughout the day; other participants multitasked REAP business activities whenever possible. Some participants reported that they did not have anyone to help them.

**Box 16: Time Use by Other Household Members**  
“My children at home help me in performing other tasks that I do not get time to do, such as collecting firewood, while I am focusing on the business.” **FGD REAP Graduate, Turkana Fisher Folk**

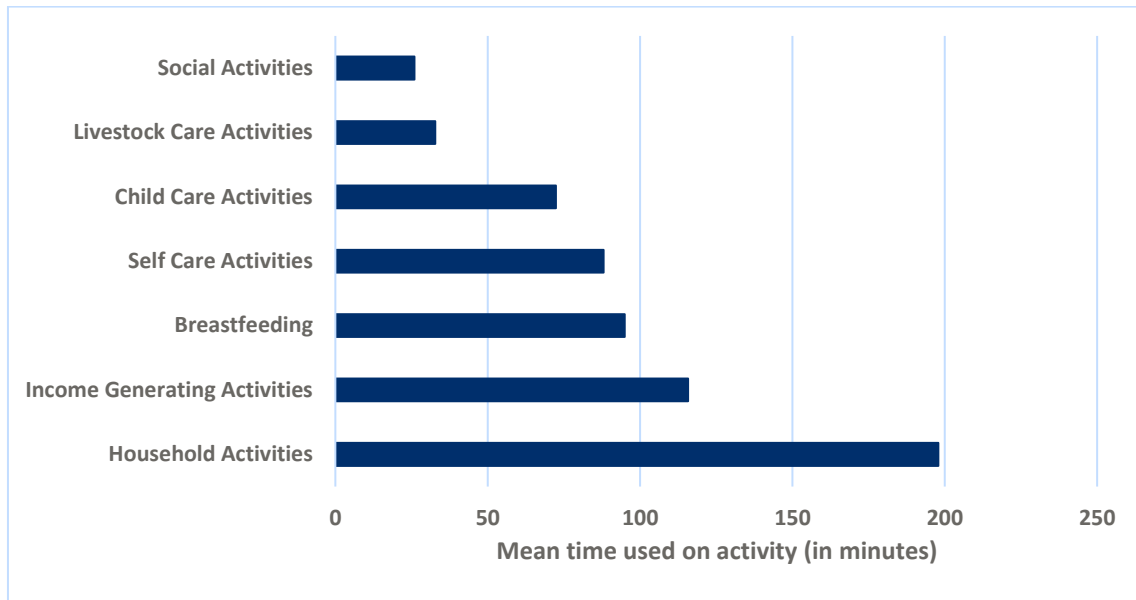
Across the three livelihoods in Turkana, time use for children aged 8 to 15 was similar. REAP participants with school-going children aged 8 to 15 years engaged them in helping with household chores like cooking, washing utensils, fetching water and firewood, and herding. Children undertook these activities after school or during school closures. Children also helped with REAP business-related work, such as delivering money or products to customers and looking after livestock.



### 4.3 “DAY IN THE LIFE” TIME USE OBSERVATIONS IN TURKANA COUNTY

Observations of REAP participants in Turkana showed that household activities took the most time, followed by income-generating activities, breastfeeding, and self-care activities (Figure 3). Compared to FGD data on time use, these observations showed household and income-generating activities as the most time-consuming, although in the inverse order. Results from observations in Turkana also show that breastfeeding is a major component of childcare among REAP participants.

**Figure 3: REAP Participants’ “Day in the Life” Observation of Time Use in Turkana County**



### 4.4 HOUSEHOLD EXPENSES AND DECISION-MAKING FOR MAIN HOUSEHOLD EXPENSES IN TURKANA COUNTY

Table 11 shows the results of participatory free listing and ranking exercises conducted during FGDs in Turkana County. For REAP participants, graduates, and male partners, food, education, medical expenses, and clothes/household items were the top-ranked items across all livelihoods.

Women were most often named as the main decision-maker for food and clothes/household expenses. Education expenses were generally decided jointly. Medical expenses were either decided jointly or by the male partner. Men claimed they were responsible for making decisions about business expenses. Where the table shows Both/Woman or Both/Man, it indicates that equal numbers of participants gave those responses about the main decision-maker for that expense item.

**Table 12: Top-Ranked Expense Items and Main Decision-Maker for Those Expenses by Type of Participant and Livelihood in Turkana County**

	Agropastoral		Pastoral		Fisher Folk	
	Top-Ranked Expense Items	Main Decision-Maker	Top-Ranked Expense Items	Main Decision-Maker	Top-Ranked Expense Items	Main Decision-Maker
REAP participants	Food	Both	Food	Woman	Food	Woman
	Education	Both	Education	Both	Education	Both
	Medical expenses	Both	Medical expenses	Both	Medical expenses	Both
			Clothes and household items	Both/Woman	Clothes and household items	Woman
					Business	Woman
REAP graduates	Food	Woman	Food	Woman	Education	Woman
	Education	Both	Education	Both	Food	Both
	Medical expenses	Both/Man	Medical expenses	Both	Medical expenses	Both
	Clothes and household items	Both/Man			Clothes and household items	Woman
	Buying livestock	Man			Buying livestock	Both
REAP male partners	Medical expenses	Both	Food	Woman	Food	Woman
	Food	Woman	Education	Both	Education	Man
	Education	Both	Medical expenses	Both	Medical expenses	Both
	Clothes and household items	Both	Clothes and household items	Woman	Clothes and household items	Woman
	Transport	Man	Business	Both	Business	Man

## 4.5 LEVERAGING NUTRITION THROUGH REAP BUSINESSES IN TURKANA COUNTY

### 4.5.1 Types of Foods Accessed through REAP Businesses in Turkana County

**Table 13** shows the types of foods that participants reported as accessible in the community by the FAO/WHO GIFT food groups (Food and Agriculture Organization of the United Nations n.d.). The variety of foods available through REAP businesses in Turkana County is limited, especially in comparison with the foods reported in Samburu County. Some REAP participants reported that they experienced shortages of vegetable and fruit supplies, due to slow volume of supplies to the wholesaler. Because of high demand, wholesalers were forced to repackage products into smaller quantities, making it difficult for REAP businesses to resell the products at an affordable price.

**Table 13: Foods Available through REAP Businesses in Turkana County, Categorized by Food Group**

Food Group	Food Items Available from REAP Businesses
Cereals and cereal products	Maize, wheat flour, rice, spaghetti, biscuits, maize flour
Roots and tubers	Potatoes
Pulses, seeds, and nuts	Beans
Eggs	n/a
Fish and shellfish	Fish
Meat	n/a
Vegetables	Cabbage, kale, tomatoes, peas
Fruits	n/a
Fats and oils	Cooking oil
Sweets and sugar	Sugar
Beverages	Tea leaves, mineral water, soda
Milk	Milk
Condiments	Royco/spices

### 4.5.2 Foods Desired for Local Purchase through REAP Businesses in Turkana County

In general, participants across livelihoods proposed that REAP businesses should ensure that nutrient-dense foods are available and easily accessible to the community. Suggested foods include animal source foods (fish and beef); cereals (rice); vegetables (kale and tomatoes); fruits (mangoes, avocados, bananas, lemons, and oranges); roots and tubers (potatoes, sweet potatoes, cassava); and milk

#### Box 18: Foods Desired for Local Purchases from REAP Businesses

“We wish to see the REAP participants selling fruits such as the bananas. Banana is one of the best fruits and I will wish the REAP business to start supplying us though it is a perishable food especially the ripe banana.” **FGD REAP Participant, Turkana Fisher Folk**

“We would like to see eggs being sold.” **FGD REAP Male Partner, Turkana, Agropastoral**

and milk products (powdered milk). Most Turkana agropastoral participants would like REAP businesses to sell more sweet potatoes, cassava, and fruits. Most Turkana pastoral participants would like mangoes, bananas, avocado, oranges, lemons, powdered milk, soft drinks, and meat to be sold by REAP businesses. Turkana fisher folk would like meat; vegetables (kale, tomatoes); fruits (bananas, mangoes, avocado, oranges); and potatoes to be sold.

### 4.5.3 Leveraging REAP Businesses for Nutrition in Turkana County

Study participants proposed that REAP businesses be used to provide REAP participants, their households, and the wider community access to more nutritious foods by:

- Using part of business profits to purchase quality and nutritious foods.
- Linking REAP businesses with external markets: buying and selling nutritious food varieties otherwise not locally available.
- Specializing in specific foods and working with nearby REAP businesses to eliminate competition by agreeing to sell different products, which would help REAP businesses stay profitable while making a wider variety of foods available to the community.
- Increasing awareness about REAP businesses to increase customers and enable businesses to expand.

They also suggested making nutritious foods more accessible to communities would be facilitated by increasing financial support for expansion of REAP businesses through access to government loans. BOMA could also provide training for REAP participants to increase awareness on the importance of consuming nutritious foods, and thus trigger demand by the wider community.

## 4.6 KNOWLEDGE GAINED FROM REAP TRAININGS AND DESIRED TRAINING TOPICS AND COMMUNICATION CHANNELS IN TURKANA COUNTY

### 4.6.1 Knowledge Gained from REAP Trainings in Turkana County

Most REAP graduates and participants said that they were trained by BOMA on WASH, savings, business management, customer care, family planning, credit, and COVID-19 protocols. **Box 17** describes one REAP graduate's experiences with REAP trainings on family planning.

In general, REAP graduates and REAP participants were happy with BOMA trainings because they provided an opportunity to gain knowledge and skills. Further, participants reported that they increased their adherence to COVID-19 protocols. In line with this, REAP participants had installed handwashing equipment in their homes and businesses.

#### **Box 17: Training on Family Planning**

“We were also given trainings on family planning. We were told that it is advisable to space children in terms of their age difference. We were told that there are many forms of family planning methods.” **FGD REAP Graduate, Turkana, Agropastoral**

Some participants mentioned that they shared information with family and friends so that they could also benefit from it. Some Turkana agropastoral non-REAP participants indicated that REAP participants provided them with useful health information, as well as information on savings and business that motivated them to start businesses, join women’s groups, and save their income (**Box 18**).

**Box 18: Learning from REAP Participants**

“On a personal level I can say that this REAP program has brought some good knowledge and information regarding health not just to REAP participant but also to some of us who are not the members of REAP. In fact, it is the REAP members that do share the information to us and give us insight on number of topics about health.” **FGD Non-REAP participant, Turkana Agropastoral**

“We are learning the importance of proper management of business to make profit, save and use the money to expand the same business or plan to open another one.” **FGD Non-REAP Participant, Turkana Agropastoral**

#### 4.6.2 Requested REAP Training Topics in Turkana County

Turkana REAP participants said that they would like more time allocated to training on hygiene, nutrition, sanitation, business management, and credit. In addition, topics on adolescent relationships were deemed important to helping youth in the community maintain healthy relationships.

Study participants proposed that trainings should include practical elements, such as cooking demonstrations (**Box 19**).

#### 4.6.3 Preferred Communication Channels in Turkana County

REAP participants suggested that trainings on nutrition could be delivered through health facilities and health practitioners, particularly during clinic days; places of worship and religious leaders; weekly or monthly chief barazas; women’s groups meetings; county government health department roadshows; and teachers at primary or secondary schools.

In general, participants stated that key sources of health information were (1) local CHVs, who are accessible and trusted by participants; (2) local health practitioners, who are skilled and experienced and perform demonstrations for easy understanding; (3) local village elders, who are easily accessible for engagements and follow-ups; (4) local civil society organizations and NGOs (**Box 20**); and (5) mass media, especially local FM radio stations *Maata, Akicha*, and *Ekeyokon*, which have interactive programs during which listeners can call in for clarifications.

**Box 19: Desire for More Practical Sessions**

“We would like the trainers to introduce practical trainings where people are practically trained on different foods. For example, there are foods that we as a community do not know how to cook, it will be better if we will practically be taught how to cook these foods so that we may gain experience first-hand.” **FGD Non-REAP participant, Turkana**

**Box 20: Preferred Communication Channels**

“We also trust training from people like you. Some organizations like Mercy Corps and Save the Children have always sent their people to come to the village to teach us about various factors on health and nutrition.” **FGD Non-REAP participant, Turkana Pastoral**

Participants noted preferences for listening to radio programs in the evening or after work, when they were more relaxed and most family members were available, allowing for maximum concentration on programming (**Box 21**). On the other hand, some participants suggested that information could be disseminated any time of the day, which could also enhance interest in listening to different programs.

**Box 21: Preferred Time for Listening to Local Radio**

“In the evening, because this is the time we relax at home after the daily activity and at this time we are not held up.” **FGD Non-REAP participant, Turkana Agropastoral**

## **5. SUMMARY OF KEY FINDINGS**

The findings of this study are intended to be used by Nawiri to adapt REAP to incorporate or layer elements that can improve nutrition outcomes of recipient households and the wider communities of Turkana and Samburu Counties. The main findings across counties, livelihoods, and different types of study participants are outlined below.

### **5.1 TIME USE BY PARTICIPANTS, MALE PARTNERS, AND CHILDREN**

Most REAP participants and graduates spent the majority of time on REAP businesses during REAP across all livelihoods. Even after graduating, they continued to dedicate much of their time to REAP business activities. They dedicated this extra time and effort to earn more profits, which helped them address many household needs, including buying food for children. REAP male partners in Samburu County were more engaged in household chores during REAP, while those in Turkana County did not report a change in time spent on household activities. Children of REAP participants also increased time spent on household chores, including childcare, and livestock and farming activities. Assistance from children and male partners with household and other activities helped REAP participants focus on their businesses during REAP.

### **5.2 EXPENSES AND DECISION-MAKING**

Food, education, clothes/household expenses, business, and medical expenses were the top-ranked expense items across all types of participants and livelihoods. In Samburu, most decisions about top-ranked expenses were made jointly by the woman and man. In Turkana, women were the main decision-makers on food and clothes/household items, while making decisions about education and medical expenses was joint.

### **5.3 LEVERAGING ACCESS TO NUTRITIOUS FOODS THROUGH REAP BUSINESS**

REAP businesses sell a variety of foods in Samburu County and a more limited selection of foods in Turkana County. In both counties, non-REAP participants would like to see REAP businesses sell more fruits, vegetables, and other foods, such as roots, tubers, and animal source foods. It is important for the foods to be sold in appropriate quantities and at a reasonable price, so they are affordable to community members.

### **5.4 REAP TRAININGS AND COMMUNICATION CHANNELS**

REAP graduates and REAP participants were happy with the REAP trainings because they created opportunities to acquire more knowledge and skills. REAP participants shared

information from trainings with family members and friends. Participants indicated that REAP trainings could include some practical sessions (e.g., demonstrations on cooking and kitchen gardening). REAP participants would like more information on MIYCN, handwashing equipment, latrines, and animal health. REAP participants suggested including nutrition topics in their REAP trainings and making information more widely available through chief barazas, CHVs, radio talk shows, posters and fliers, and noticeboards. They also encouraged inviting men to sessions on nutrition and designing special strategies for sharing health information with pastoralists who migrate.

## **6. RECOMMENDATIONS**

### **1. *Adapt a pilot design that accounts for time use of various household members.***

This research sought to understand whether REAP participation reduced women's time spent on childcare activities. We found that this was generally not the case, even though REAP participants and graduates spent more time on business activities during REAP. Other household members—men and children—did compensate by picking up other activities that women may have otherwise carried out. The results are not conclusive as to whether the domestic workload of children was heavier in REAP households compared to non-REAP households, as the design did not allow for comparison. However, school-going children of REAP members did spend their afterschool time looking after other children and doing other household chores. Girl children who spend several hours of the day performing domestic activities have poor performance in school and increased school dropout rates. Therefore, even if the patterns of child domestic work among REAP participant households are within the normal range in this context, there is an opportunity to take this information into account in the REAP for Nutrition pilot design. Our findings related to time use of REAP participants and their household members and to the perceived importance among REAP graduates of training on time management suggest that the training should be retained in the REAP for Nutrition pilot and discussions of time use with REAP participants together with their male partners could be incorporated.

### **2. *Develop and implement a male engagement strategy.***

A study in Burkina Faso showed that improvements in women's empowerment across four domains (purchasing decisions, health care decisions, family planning decisions, and spousal communication) contributed to a nutrition-sensitive agriculture program's impact on reducing wasting (Heckert, Olney, and Ruel 2019). Of these domains, the largest share was attributable to spousal communication. Our research found that women were the main decision-makers for food and household items, while many other decisions were made jointly. Men tended to be the main decision-makers for medical expenses and livestock purchases. While these findings are encouraging, there is still room for improvement in engaging male partners alongside women in REAP to encourage joint decisions that would impact nutrition. Further, men are currently not involved in the trainings offered to REAP participants and their involvement, particularly if there are nutrition components, is essential. The pilot design team should consider an engagement strategy that is intentional about involving men, highlights issues of family dynamics (including time use), and provides a potential platform for men to influence community members who are not directly enrolled in REAP.

3. ***Elaborate and implement a linkage strategy to promote access to affordable nutritious food through REAP businesses.***

This study showed that REAP businesses provided access to food not only for REAP participants and their households, but for the wider community. In addition, REAP businesses were able to increase access to various foodstuffs that were not available pre-REAP project, particularly in Samburu County. However, demand for vegetables and fruits were higher than the supply available through REAP businesses. There were also high costs associated with stocking nutritious foods, particularly in transporting food to markets, compounded by the COVID-19 related control measures. While demand dynamics will be better understood through other research studies Nawiri has undertaken, the design of REAP for Nutrition pilots should include a linkage strategy to facilitate a continuous supply chain of affordable, nutritious foods for sale by REAP businesses. Such a strategy would include timely and appropriate market information for decision-making, measures to reduce the burden of transportation costs and post-harvest losses, and strategies to ensure reliable access, even during shocks.

4. ***Initiate and support practical sessions in REAP trainings.***

REAP participants appreciated trainings on topics such as hygiene and sanitation, savings, business management, customer care, family planning, credit management, and COVID-19 protocols. They suggested including additional topics on MIYCN, handwashing equipment, latrines, and animal health. In addition, they requested practical cooking and kitchen garden demonstrations. The pilot design may also consider the inclusion of non-REAP participant women and men as audiences for some trainings.

5. ***Support communication channels for nutrition information dissemination.***

REAP participants requested more information on nutrition through their REAP trainings or through other channels layered onto REAP. Other community members could be reached with nutrition messages by opening REAP trainings to more community members or through chief barazas, community health volunteers, or radio talk shows. BOMA has been testing several innovations for disseminating information, including USB keys that can be plugged into a radio for listening any time and interactive voice recording (IVR) phone messaging in local languages. Learning from those experiences could be useful for adapting strategies for nutrition information dissemination in REAP for Nutrition pilots.



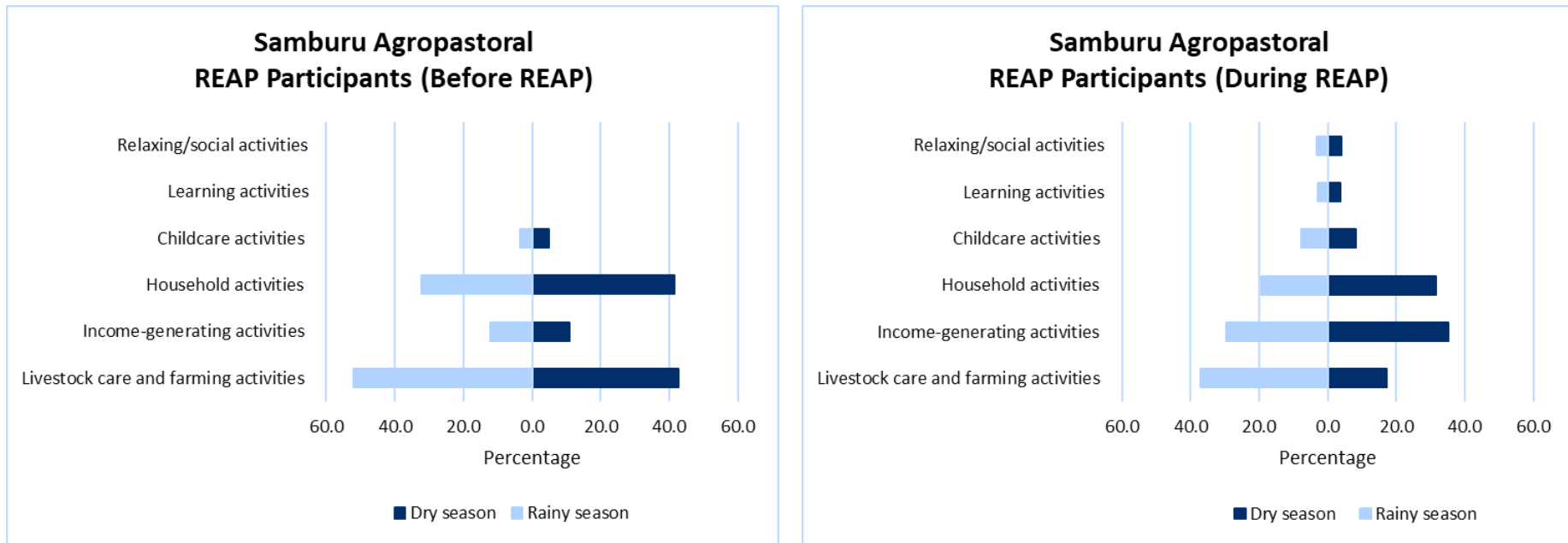
## REFERENCES

- Banerjee, A., E. Duflo, N. Goldberg, D. Karlan, R. Osei, W. Pariente, J. Shapiro, B. Thuysbaert, and C. Udry. 2015. "A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries." *Science* 348 (6236): 1260799. <https://doi.org/10.1126/science.1260799>. <https://www.ncbi.nlm.nih.gov/pubmed/25977558>.
- BOMA Project. June 2018a. *Increasing Voice, Choice and Agency: An Analysis of BOMA Participants from the Bill & Melinda Gates Foundation Funded Cohort*. BOMA Project. <https://bomaproject.org/wp-content/uploads/2018/08/Analysis-of-the-Endline-Survey-for-the-REAP-WGCD-Cohort-8-30-18.pdf>.
- . June 2018b. *A Longitudinal Assessment of REAP: A Follow-Up on Program Participants 3-5 Years After Graduation*. BOMA Project. <https://bomaproject.org/wp-content/uploads/2018/10/Longevity-Study-Exec-Summary.pdf>.
- Food and Agriculture Organization of the United Nations. n.d. "FAO/WHO GIFT | Global Individual Food Consumption Data Tool." Accessed October 6. <http://www.fao.org/gift-individual-food-consumption/methodology/food-groups-and-sub-groups/en/>.
- Gobin, V. J., P. Santos, and R. Toth. 2017. "No Longer Trapped? Promoting Entrepreneurship Through Cash Transfers to Ultra-Poor Women in Northern Kenya." *American Journal of Agricultural Economics* 99 (5): 1362-1383. <https://doi.org/10.1093/ajae/aax037>.
- Heckert, J., D. K. Olney, and M. T. Ruel. 2019. "Is women's empowerment a pathway to improving child nutrition outcomes in a nutrition-sensitive agriculture program?: Evidence from a randomized controlled trial in Burkina Faso." *Social Science and Medicine* 233: 93-102. <https://doi.org/10.1016/j.socscimed.2019.05.016>. <https://www.ncbi.nlm.nih.gov/pubmed/31195195>.
- Hsieh, H. F., and S. E. Shannon. 2005. "Three Approaches to Qualitative Content Analysis." *Qualitative Health Research* 15 (9): 1277-88. <https://doi.org/10.1177/1049732305276687>. <https://www.ncbi.nlm.nih.gov/pubmed/16204405>.
- Raza, W. A., E. Van de Poel, and T. Van Ourti. 2018. "Impact and Spill-Over Effects of an Asset Transfer Program on Child Undernutrition: Evidence From a Randomized Control Trial in Bangladesh." *Journal of Health Economics* 62: 105-120. <https://doi.org/10.1016/j.jhealeco.2018.09.011>. <https://www.ncbi.nlm.nih.gov/pubmed/30339989>.
- Sanders, Catherine, Francis Kimani, The BOMA Project, CARE International Kenya, and Expanding Opportunities. June 2019. *PROFIT Financial Graduation Endline Report*. Republic of Kenya, PROFIT, IFAD, BRAC. <https://bomaproject.org/wp-content/uploads/2019/07/PROFIT-Financial-Graduation-Endline-Report-June-2019.pdf>
- Sanders, Catherine, Nsimbe Samuel, Francis Kimani, and Expanding Opportunities. December 2018. *PROFIT Financial Graduation Midline Report*. Republic of Kenya, PROFIT, IFAD, BRAC. <https://bomaproject.org/wp-content/uploads/2019/01/BOMA-Project-PROFIT-Graduation-Midline-Report-Dec-2018.pdf>.
- UNICEF. 1991. "Strategy for improved nutrition of children and women in developing countries. United Nations Children's Fund." *Indian Journal of Pediatrics* 58 (1): 13-24. <https://doi.org/10.1007/BF02810402>. <https://www.ncbi.nlm.nih.gov/pubmed/1937618>.
- Young, H. 2019. *Nutrition in Africa's drylands: a conceptual framework for addressing acute malnutrition*. Tufts University (Tufts University). [https://www.agrilinks.org/sites/default/files/nutrition\\_in\\_africas\\_drylands\\_v3.1.pdf](https://www.agrilinks.org/sites/default/files/nutrition_in_africas_drylands_v3.1.pdf).

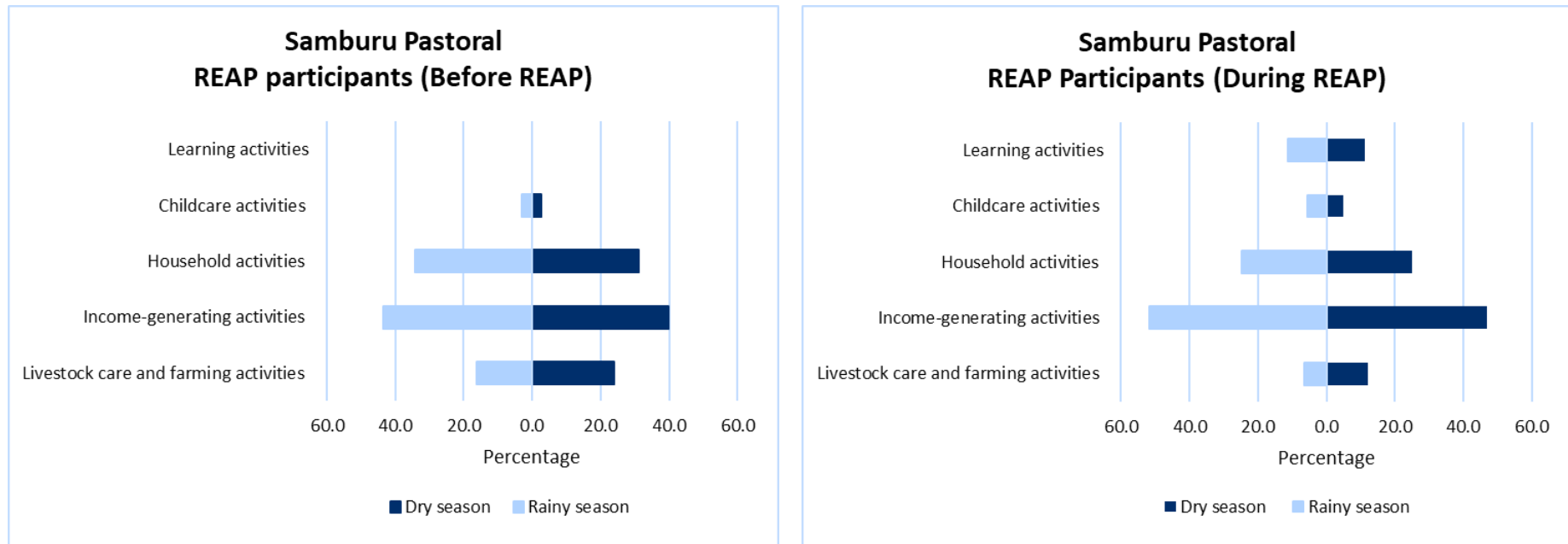
## ANNEX 1: TIME USE GRAPHS FOR SAMBURU COUNTY

The time use graphs in Annex 1 were based on results of free listing and proportional piling exercises that were conducted during focus group discussions (FGDs) with REAP participants, REAP graduates, male partners, and non-REAP participants. The x-axis on the graphs shows percentages based on proportional piling.

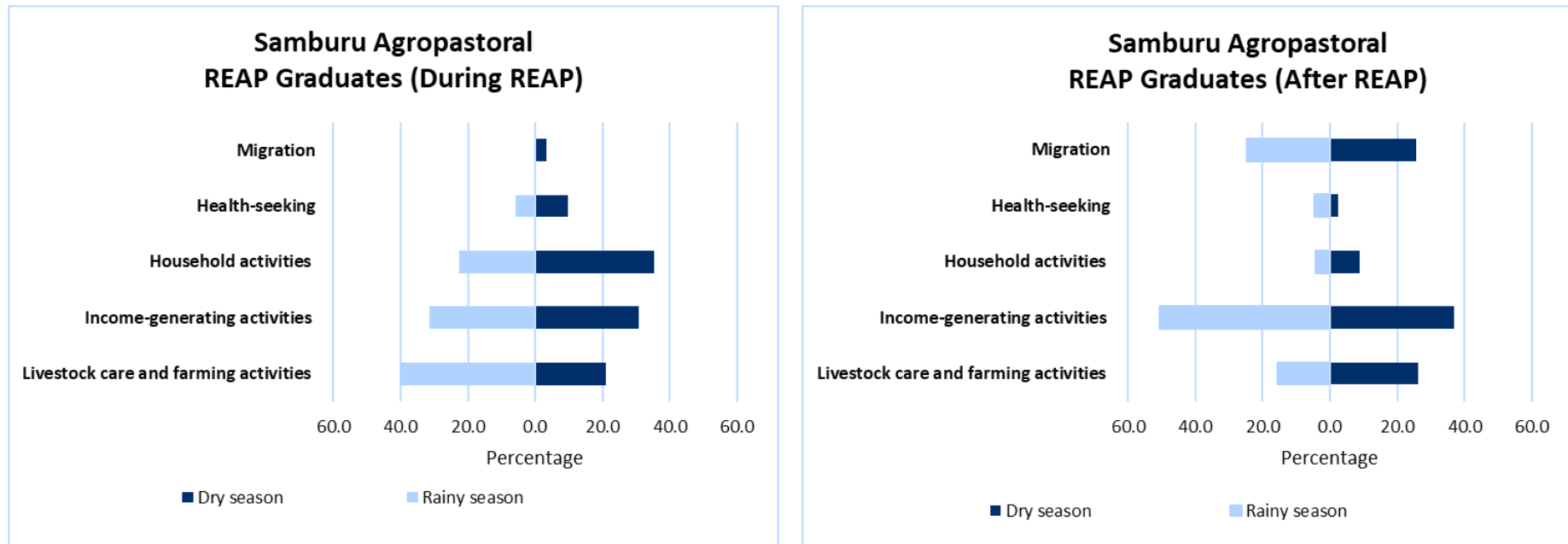
**Figure 1-1: Samburu Agropastoral REAP Participants' Time Use Before and During REAP**



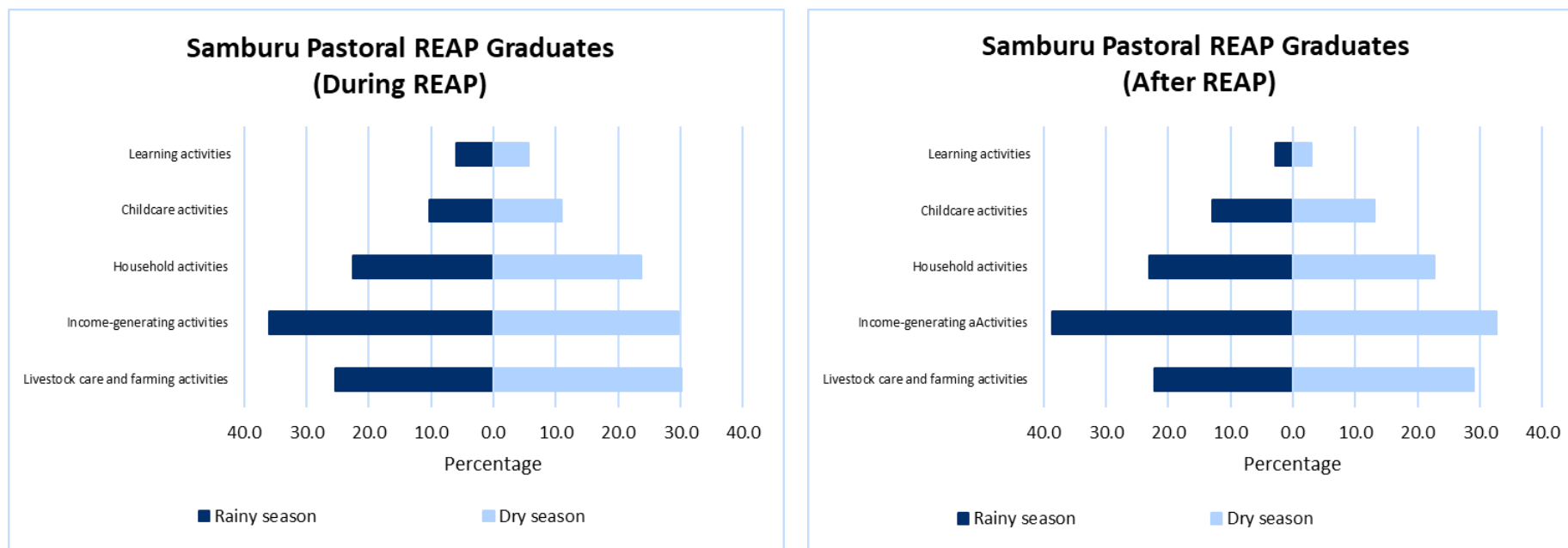
**Figure 1-2: Samburu Pastoral REAP Participants' Time Use Before and During REAP**



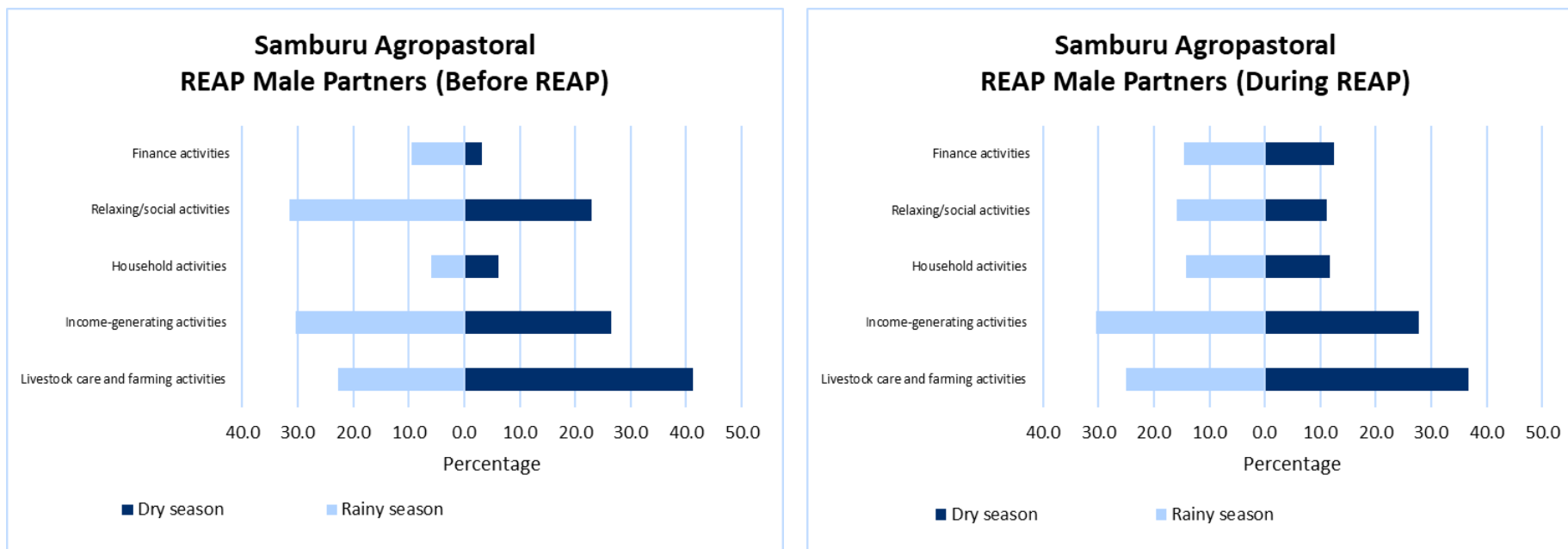
**Figure 1-3: Samburu Agropastoral REAP Graduates' Time Use During and After REAP**



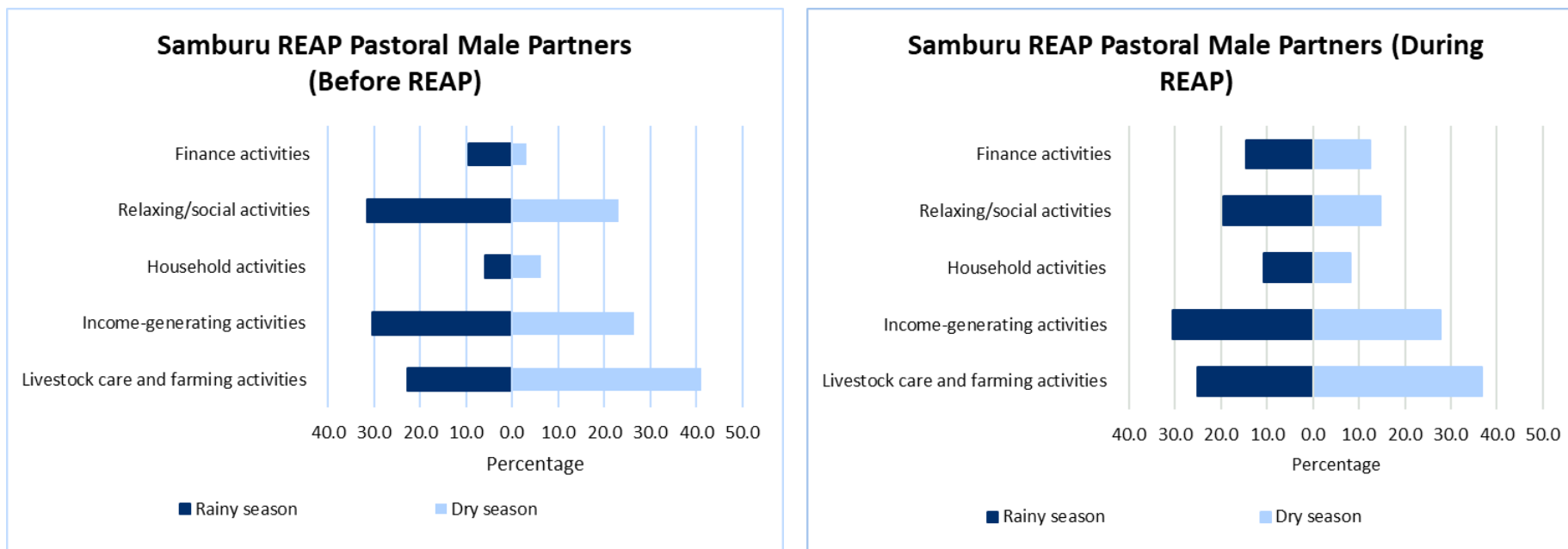
**Figure 1-4: Samburu Pastoral REAP Graduates' Time Use During and After REAP**



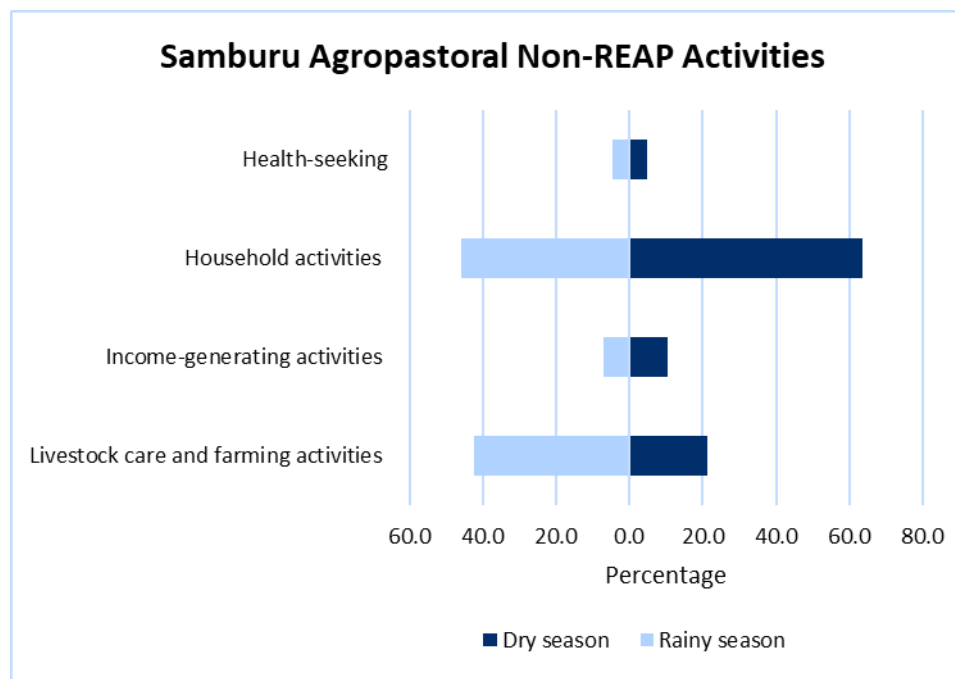
**Figure 1-5: Samburu Agropastoral REAP Male Partners' Time Use Before and During REAP**



**Figure 1-6: Samburu Pastoral REAP Male Partners' Time Use Before and During REAP**

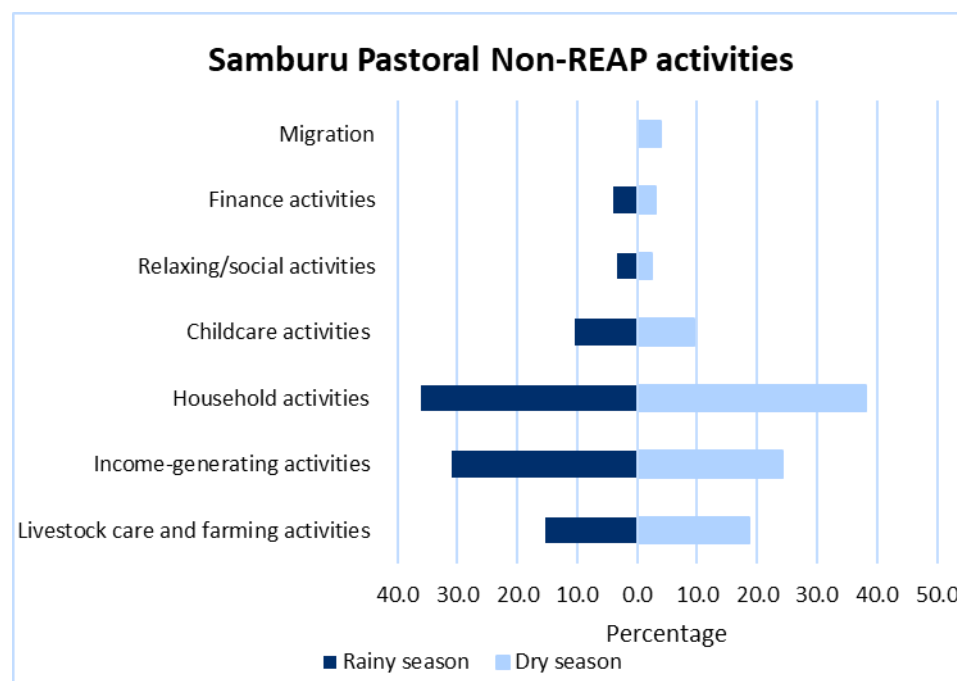


**Figure 1-7: Samburu Agropastoral Non-REAP Participants' Time Use**





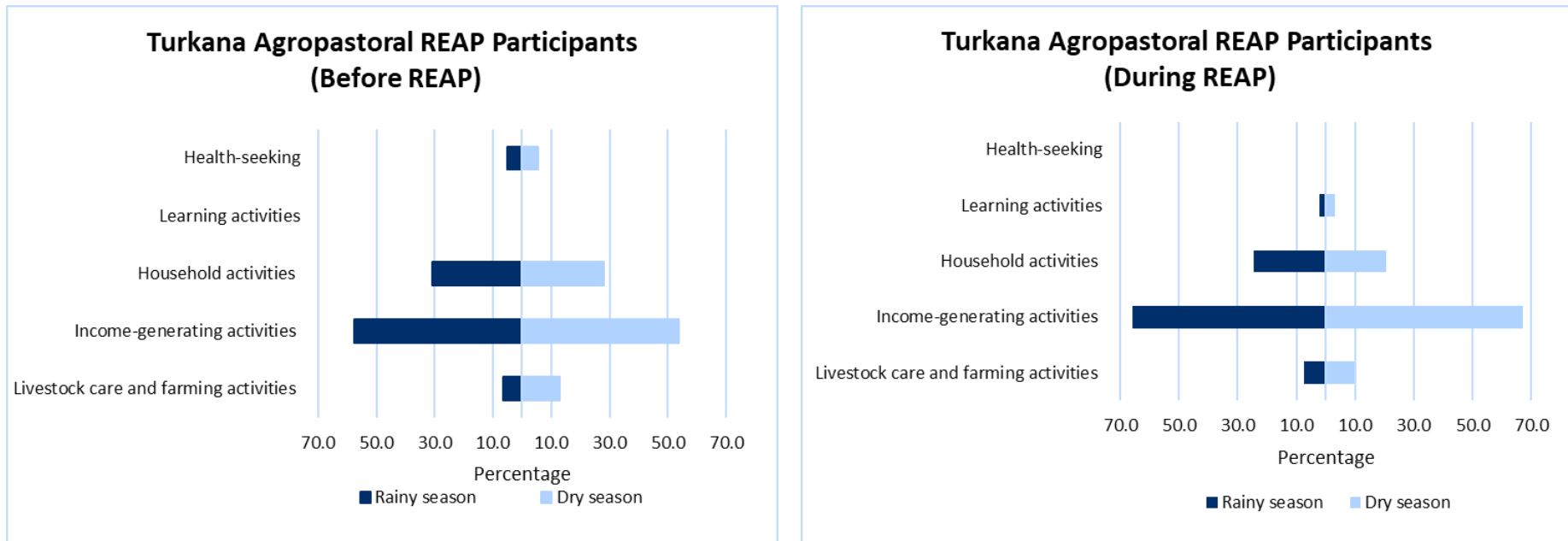
**Figure 1-8: Samburu Pastoral Non-REAP Participants' Time Use**



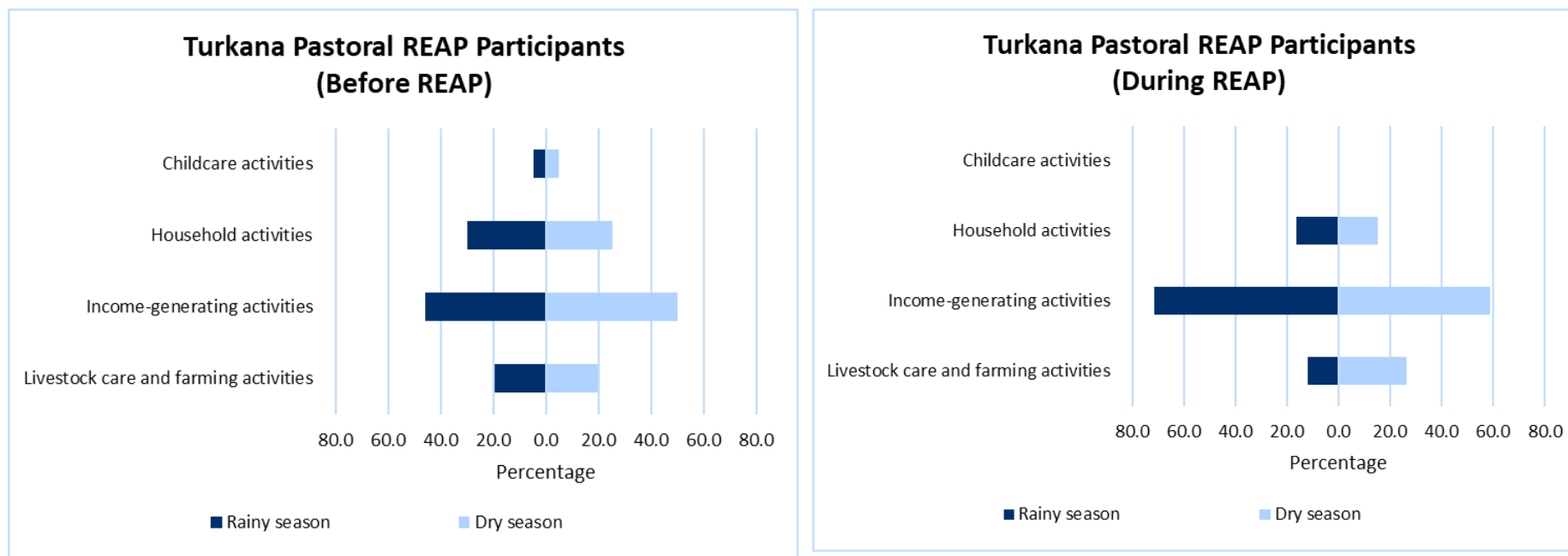
## ANNEX 2: TIME USE GRAPHS FOR TURKANA COUNTY

The time use graphs in Annex 2 were based on results of free listing and proportional piling exercises that were conducted during FGDs with REAP participants, REAP graduates, male partners, and non-REAP participants. The x-axis on the graphs shows percentages based on proportional piling.

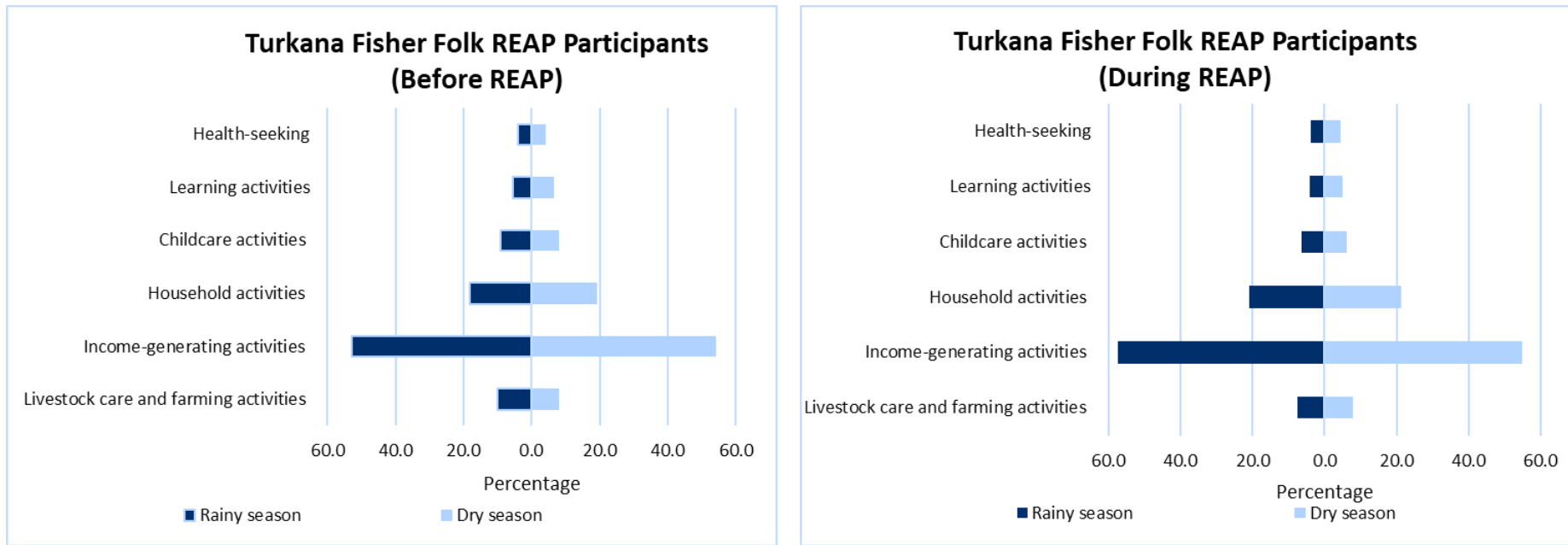
**Figure 2-1: Turkana Agropastoral REAP Participants' Time Use Before and During REAP**



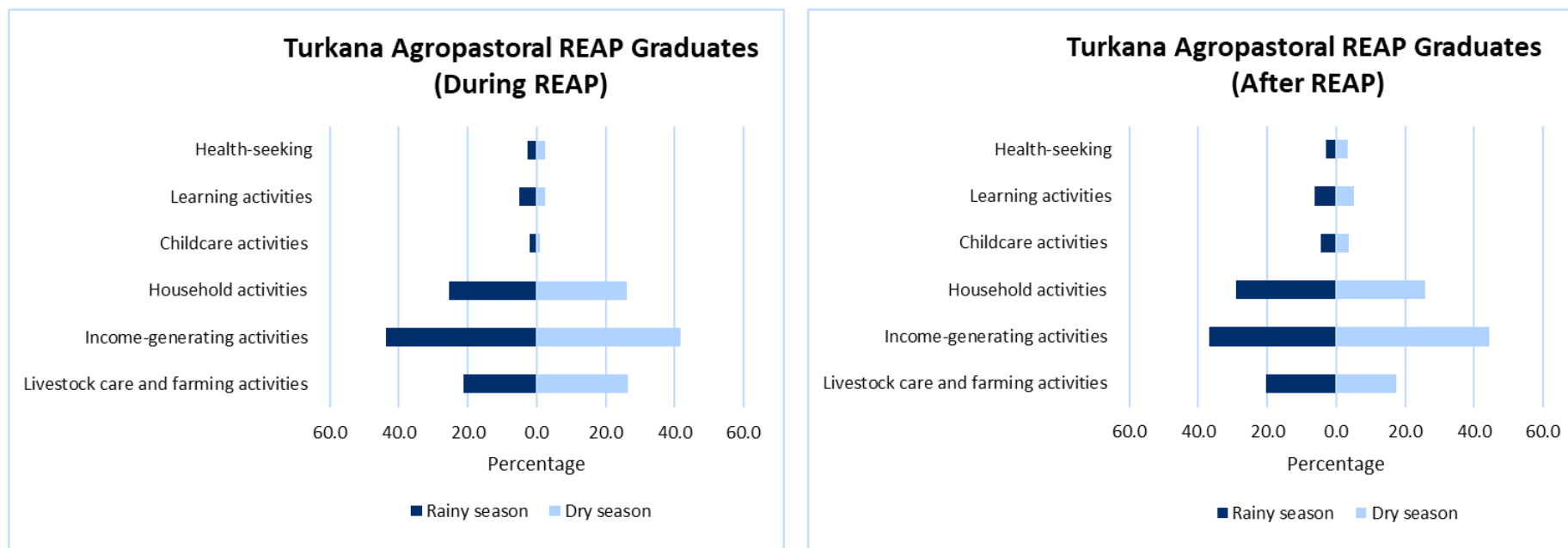
**Figure 2-2: Turkana Pastoral REAP Participants' Time Use Before and During REAP**



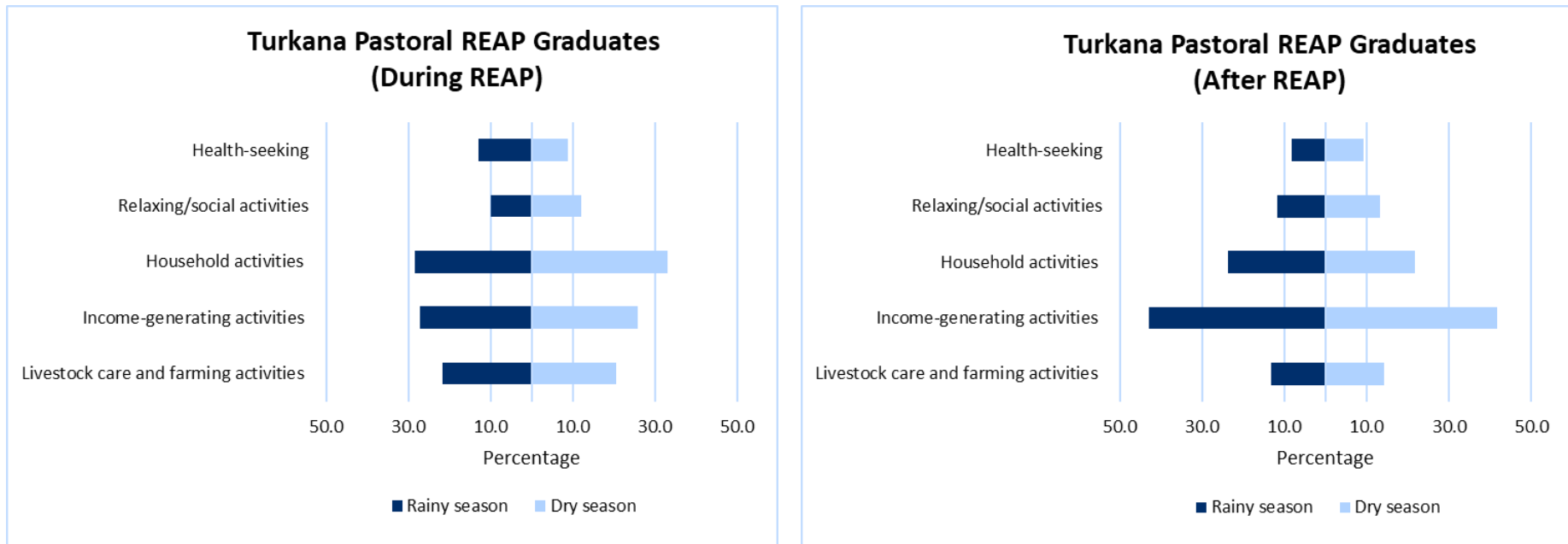
**Figure 2-3: Turkana Fisher Folk REAP Participants' Time Use Before and During REAP**



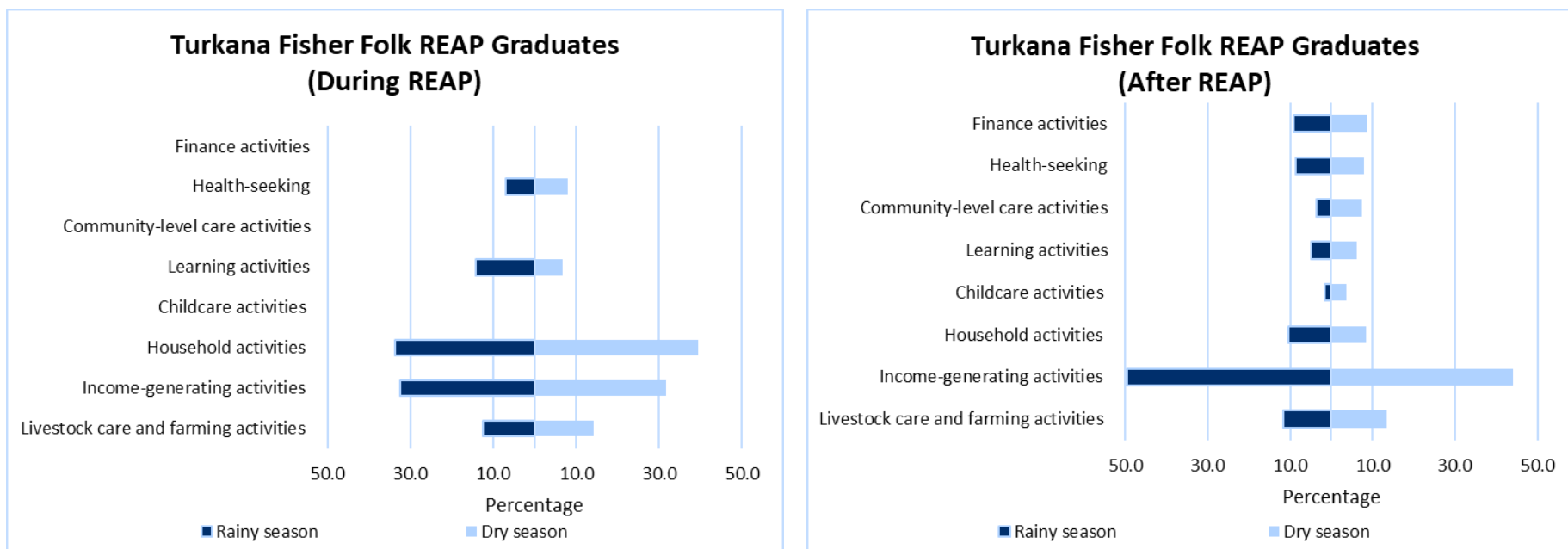
**Figure 2-4: Turkana Agropastoral REAP Graduates' Time Use During and After REAP**



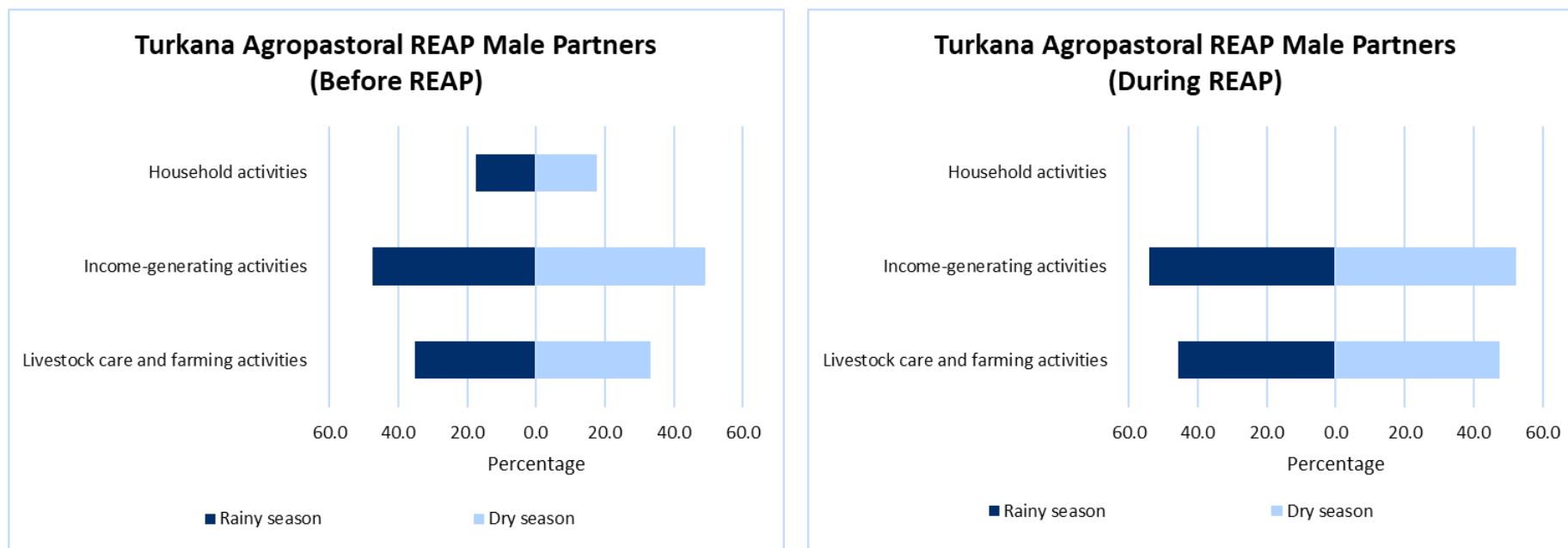
**Figure 2-5: Turkana Pastoral REAP Graduates' Time Use During and After REAP**



**Figure 2-6: Turkana Fisher Folk REAP Graduates' Time Use During and After REAP**

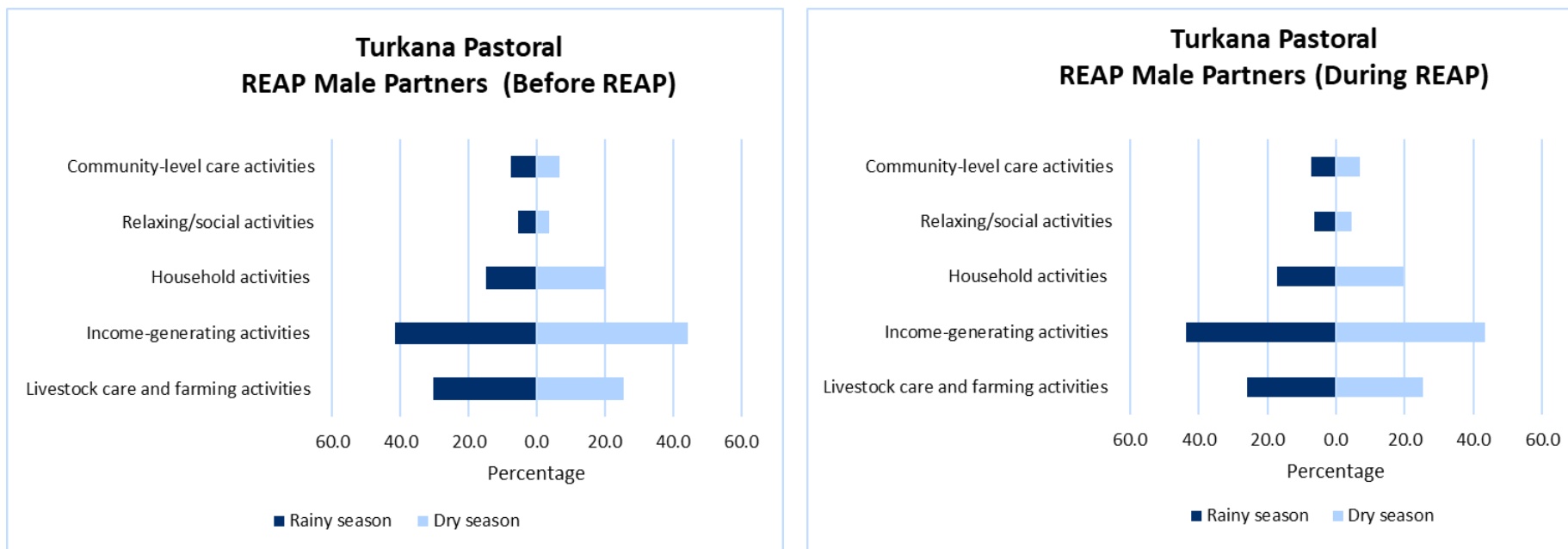


**Figure 2-7: Turkana Agropastoral REAP Male Partners' Time Use Before and During REAP**

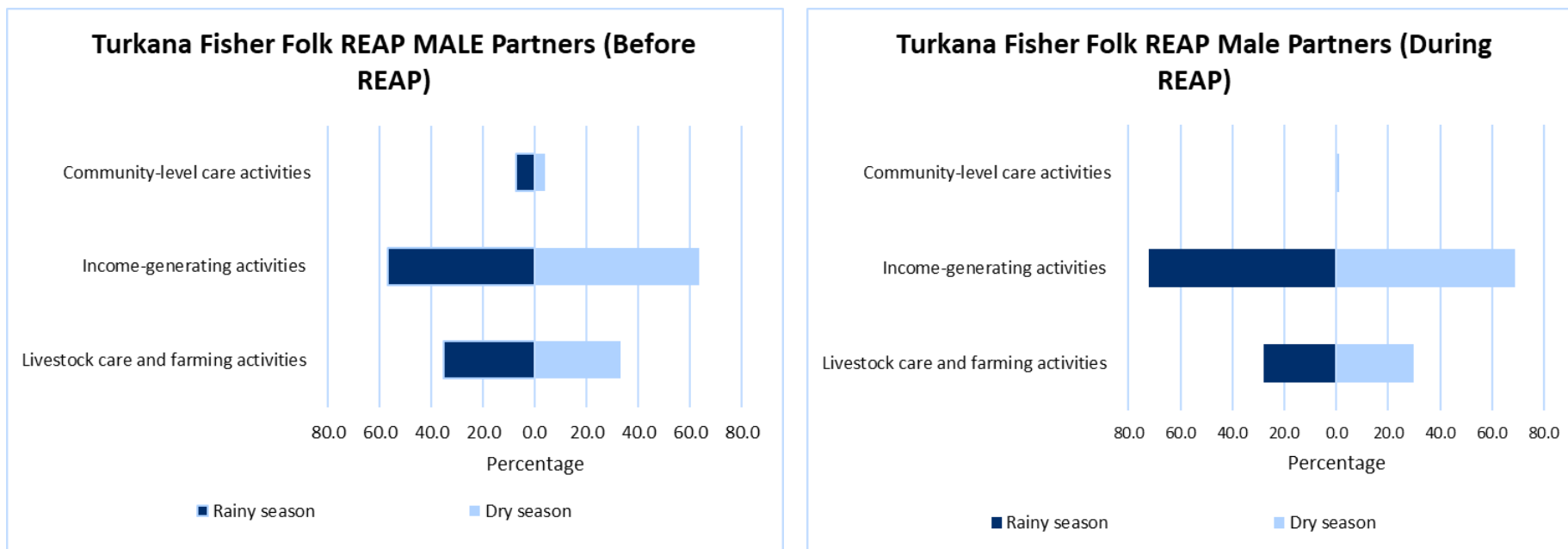




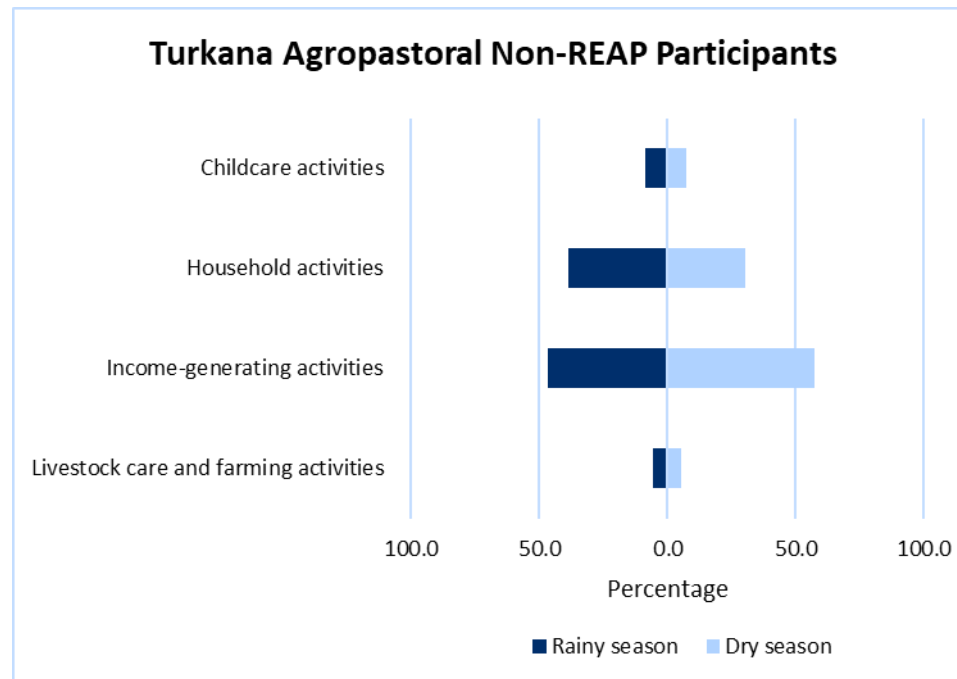
**Figure 2-8: Turkana Pastoral REAP Male Partners' Time Use Before and During REAP**



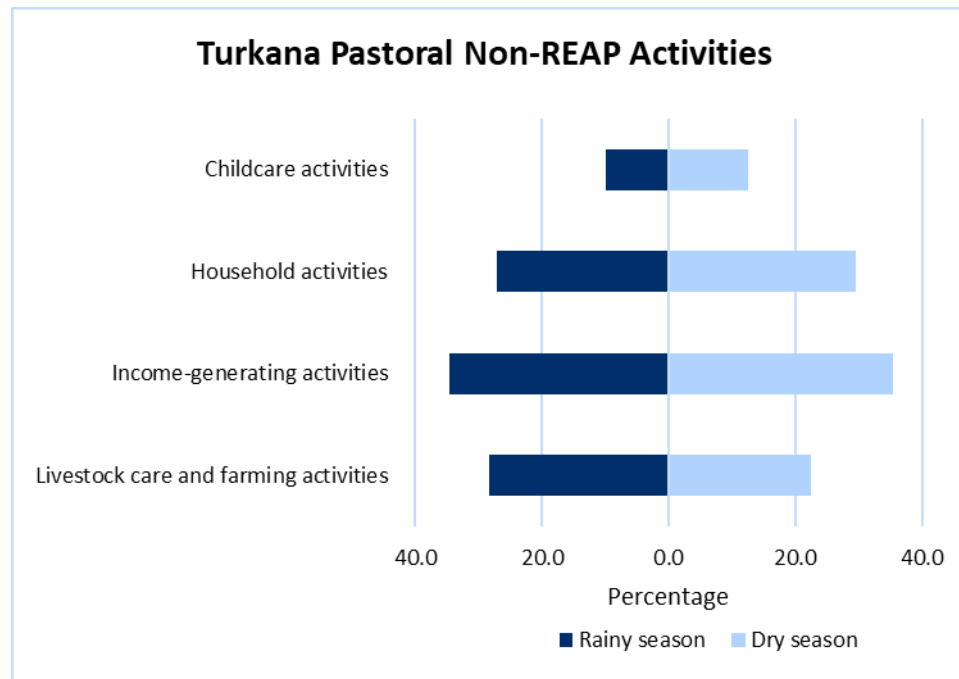
**Figure 2-9: Turkana Fisher Folk REAP Male Partners' Time Use Before and During REAP**



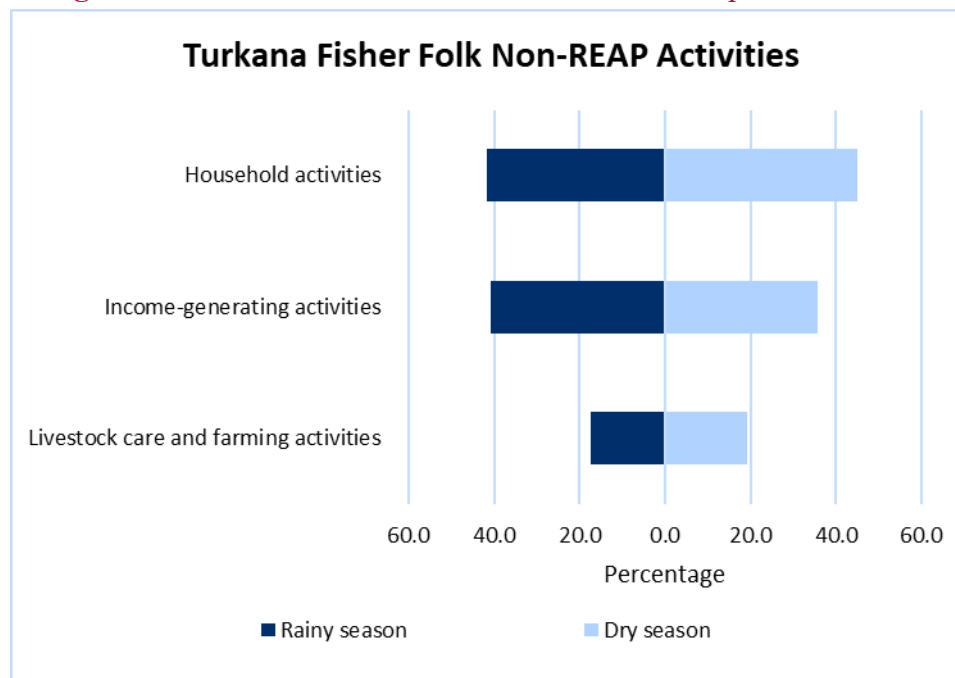
**Figure 2-10: Turkana Agropastoral Non-REAP Participants' Time Use**



**Figure 2-11: Turkana Pastoral Non-REAP Participants' Time Use**



**Figure 2-12: Turkana Fisher Folk Non-REAP Participants' Time Use**



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