

ENHANCING SMALLHOLDER FARMERS' RESILIENCE TO CLIMATE CHANGE EFFECTS (EFREC)

FINAL BASELINE REPORT

JANUARY 20, 2025



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However, any errors herein are my own.

Odongo Hannington Jawoko
Consultant

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ACRONYMS

AFARD	Agency For Accelerated Regional Development
CDO	Community Development Officer
CSA	Climate Smart Agriculture
CSOs	Civil Society Organizations
DAC	Development Assistance Committee
DCED	Donor Committee for Enterprise Development
DFO	District Forest Officer
EFREC	Enhancing Smallholder farmers' Resilience to Climate Change Effects
EUR	Euro
FG	Farmer Group
FGD	Focus Group Discussion
IGA	Income Generating Activity
KG	Kilogram
KII	Key Informant Interview
LC	Local Council
LG	Local Government
LLG	Lower Local Government
M&E	Monitoring and Evaluation
ETE	End-Term Evaluation
PRA	Participatory Rural Appraisal
PWD	Person With Disability
RA	Research Assistant
SACCO	Saving & Credit Cooperative Organization
SPSS	Statistical Package for Social Scientists
UGX	Uganda Shillings
USD	US Dollar
VSLAs	Village Savings & Lending Associations

EXECUTIVE SUMMARY

About the project

The Enhancing Smallholder Farmers' Resilience to Climate Change Effects (EFREC) project that is targeting 200 households (60% females) with 1,400 people seeks to enhance the quality of life and climate resilience for families in Pakwach sub county, Pakwach district, Uganda by improving production, equity, and adaptive livelihood capacity in rural communities of Atyak parish to cope with climate risks. This will be achieved by organizing the 200 households into Climate Action Groups (CAGs), training them in Climate Smart Agriculture (CSA) practices, providing improved agricultural inputs and facilitating the CAGs to form Village Savings and Lending Associations (VSLAs).

Why the baseline study

The baseline was conducted to develop a gender-sensitive evidence-based monitoring and evaluation plan for benchmarking and tracking the project progress through establishing the baseline status of the project performance measurement indicators by gender; using the findings to identify critical strategies necessary for improving project performance; and develop a robust monitoring and evaluation plan (filled project logframe).

The methodology used

Data was collected from all the targeted beneficiary households using a qualitative and quantitative-based survey questionnaire designed and uploaded on Kobo Collect tool.

The findings

- Distribution and characteristics of beneficiary households: The 200-beneficiary households aged 20-72 years selected in Atyak parish of Pakwach sub county. The mean age of the beneficiary households is 38 years and their average household size was 8 people. While 84% had some form of education, 77% are married.
- Households food security (SA.1): Only 11% of the beneficiary households are food secure. Female headed households are no different from male headed households.
- Households income security (SA.2): Majority of the population (75%) are income insecure and are highly vulnerable to climate change risks.
- Self Reliance (SA.3): The overall self-reliance score for the beneficiary smallholder households is 1.7 (low) with no difference for both female and male headed households.
- Livelihood coping strategies: The beneficiary households adopt several strategies which help them to cope and mitigate shocks whenever they arise which include reducing size of meals (89%), use of savings (77%), selling of labour (77%), reduction in the number of meals (74%) and petty trade (69%).
- Climate Smart Agriculture: Overall, the 93% of the households were using crop CSA practices. The highest adoption of CSA practices are in the use of crop rotation (92.5%), soil and water conservation measures (87.5%), integrated pest and disease control measures (81.5%) and drought resistant crop varieties (79%).

- Production and productivity: The households are diversifying their crop production by growing of many crops where cassava (97%) and sorghum (73.5%) the staple food crop were the main crops being grown. The households are mainly planting local varieties on very small acreage with very low yields per unit area.
- Income generation and diversification: Only 58% of the beneficiary households (53% women and 68% men) have an Income Generating Activities (IGAs) mainly in selling cooked foods, farm produce, and petty trade in general merchandises. The average monthly income earned from these IGAs is UGX 139,665 (females UGX 120,721 and males UGX 174,085).
- Participation in VSLAs: The average amount saved per week is UGX 8,623 (UGX 8,163 females and UGX 9,640 males). Already 69% (74% females and 61% males) are members of a community savings group.
- Business management practices: Only 18.5% of the beneficiary smallholder households use good business management practices. The female beneficiary smallholder households performed better than their male counterparts in having business goals and linking with suppliers, the men are good at separating business and personal finances and keeping business records.
- Biodiversity conservation and mind set change: The average headload of firewood consumed per week per household is 2.4 headloads. There are few of the households (23%) using improved energy saving stove. The average time taken to collect firewood is 8 hours. And 71% (74% females and 65% males) have experienced violence when collecting firewood. the population on their own had planted 3,815 trees that were growing on their compounds.

The following are suggested recommendations for improvement:

Building smallholder resilience to climate risks requires a multisectoral approach delivered in a bundled service manner as livelihood assets interact with activities in a rather complex way. For instance, to translate the available land into a productive asset requires skills building (human capital), use of improved technologies (seeds, soil conservation, vegetation regeneration), and access to finance and markets. The recommendations below therefore build on the project design to enable it be effectively delivered:

- Involve as many young, educated people into the peer extension system. This will allow for a lifelong access to better skills training in the communities given the limited access to local government extension system.
- Large families pose a real challenge to ever gains smallholder farmer household make as improved incomes will not means improved well-being. This will require exploring how to integrate family planning issues into the community extension services and outreach services to aid families in deciding the family sizes they can ably support without abusing the rights of women to access family planning services.
- Nutrition education should not only focus on knowledge and skills of planning and managing nutritious meals. Deliberate efforts should be made to address the prevailing discriminatory gender norms that still restrict females from eating some food types.
- The limited uptake of fruits will require a deliberate inclusion of fruit tree seedlings as part of the tree growing initiative that the project will promote.
- The training of poultry paravets should be conducted with a business orientation both for the paravets and the households so that win-win gains are attained by both actors. In addition, poultry and poultry product consumption should be mainstreamed in the nutrition education so that households take up seriously poultry rearing. Finally, given the gender benefits poultry keeping has for women, this emphasis should be emphasized.

- The alternative income generating activities (IGA) promotion should look beyond what the current households are undertaking. The project team should support pro-active thinking in business opportunity identification and testing to avoid crowding out current enterprises. In addition, business management practices should be improved in line with each entrepreneurs capacity.
- Savings with a purpose has been a best practice in ensuring VSLA transcend Christmas savings. The project team should link VSLA to family development plans as well as owning business with a purpose. This will ensure that plans inform savings from which loans are taken for business wherefrom profits are used to meet the planned goals.
- While energy saving stoves will improve reduction in wood fuel needs, the longtime it will take for family planted trees to provide to provide firewood means that in the short-term community dialogues is urgently needed to reduce the violence women face while searching for firewood.
- The training on human and women rights should be provided to both elected and technical officials so that all can improve their knowledge and awareness on women rights and how to respect them.

01 INTRODUCTION

1.1 Background to the project

Uganda has in the last two decades experienced an alarming trend of climate change. The average temperatures have risen by about 1.3oC and annual rainfall decreased at a rate of about 3.5%. The hitherto two rainy seasons is no more as in the September 2022 Afro barometer study, 57% national and 62% West Nile respondents reported that drought and floods has become more severe in the last 10 years. This situation is not any different in Pakwach district – the proposed project area - where the primary means of livelihood is rain-fed subsistence crop agriculture. This adverse climate change characterized by prolonged droughts, frequent floods and intermittent strong winds, and hailstorm has made subsistence farming ineffective to provide secure livelihoods for the rural population. Low yields (inadequate food to meet family needs between seasons) ultimately push many families to water catchment degradation and to destroy forests, wetlands, and hilltops for more farmland to be able to grow some crops as well as to cut firewood and produce charcoal as alternative income sources. Failed harvest also means limited or no income to afford other basics of life, and gender-based violence. The Enhancing Smallholder Farmers' Resilience to Climate Change Effects (EFREC) project, with funding from Ayuntamiento de Valencia and Diputación Foral de Bizkaia through Manos Unidas, will targeting 200 households (60% females) with 1,400 people, therefore aims to enhance the quality of life and climate resilience for families in Pakwach district, Uganda. Its specific objective is to enhance production, equity, and adaptive livelihood capacity in rural communities of Atyak, Pakwach sub county, to cope with climate risks.

1.2 The Objectives of the Baseline Study

The overall objective of the baseline study is to develop a gender-sensitive evidence-based monitoring and evaluation plan for benchmarking and tracking the project progress.

The specific objectives of the baseline study are:

1. establish the baseline status of the project performance measurement indicators by gender;
2. using the findings, identify critical strategies necessary for improving project performance; and
3. develop a robust monitoring and evaluation plan (filled project logframe).

1.3 The Scope and Deliverables of the Baseline Study

Based on the Terms of Reference (TOR), the baseline study was conducted from December 3, 2024 to January 15, 2025 in Atyak parish, Pakwach Sub county, Pakwach district, West Nile, Uganda covering all the project stakeholders (targeted smallholder farmers, local government officials, and cultural, opinion and religious leaders). The key deliverables of the study included:

- a) Inception report with the study design, budget, work plan, and data collection and analysis methods, study ethics, and data collection instruments (including checklists and questionnaires)
- b) Kick-off meeting to discuss/review the inception report
- c) Designing approved tools in a digital KoboCollect software.
- d) Field mission to train data collectors and collect data through profiling all 200 beneficiary households.
- e) Draft study report in English no more than 30 pages excluding annexes for review and feedback. The report must include executive summary, objectives of the study, methodology, the participants, and limitations and mitigation measured used, findings, recommendations (on both project delivery strategies and performance targets) and filled log frame and M&E plan.
- f) Final study report including annexes, data sheets in Excel, and relevant documents especially filled log frame.
- g) Internal presentation of findings for learning of all AFARD staff

02 APPROACH AND METHODOLOGY

2.1 Introduction

In view of the baseline study objective, the baseline study used a mixed method approach that included quantitative, secondary data review, qualitative and participatory data collection and analysis methods. This enabled effective triangulation of data from the various sources. The baseline study also incorporated the Self-Reliance Index Score (SRIS) to assess the movement toward self-reliance among smallholder households. Table I below summarises the the choice of indicators, data sources and methods used. Documents shared by the project management were reviewed to inform understanding of the project.

Table 1: Baseline objectives (drawn from the TOR) and data collection methods

Questions	Focus	Sources	Data Collection Methods
Establish the baseline status of the project performance measurement indicators by gender;	Project indicators	• Project documents • Policy documents. • Local government officials, community leaders and AFARD staff	• Household survey • Document review; • Key informant interviews (KIIs)
Using the findings, identify critical strategies necessary for improving project performance;	Current best practices in project indicators of focus	• Project indicator data analysis • Best practice reports	• Review of findings • Document review
Develop a robust M&E plan (filled project logframe).	Developing an M&E plan with filled logframe	Baseline report	Filled logframe

2.2 Smallholder farmer profiling methodology

To achieve the specific objectives of the baseline, all the beneficiary households were profiled with respect to knowledge and practices in agricultural production, equity, and adaptive livelihood capacity to cope with climate risks. These addressed the issues of vulnerability to climate change, sustainability, and socio-economic aspects with the focus on adaptation strategies, food security, and gender norms in the project.

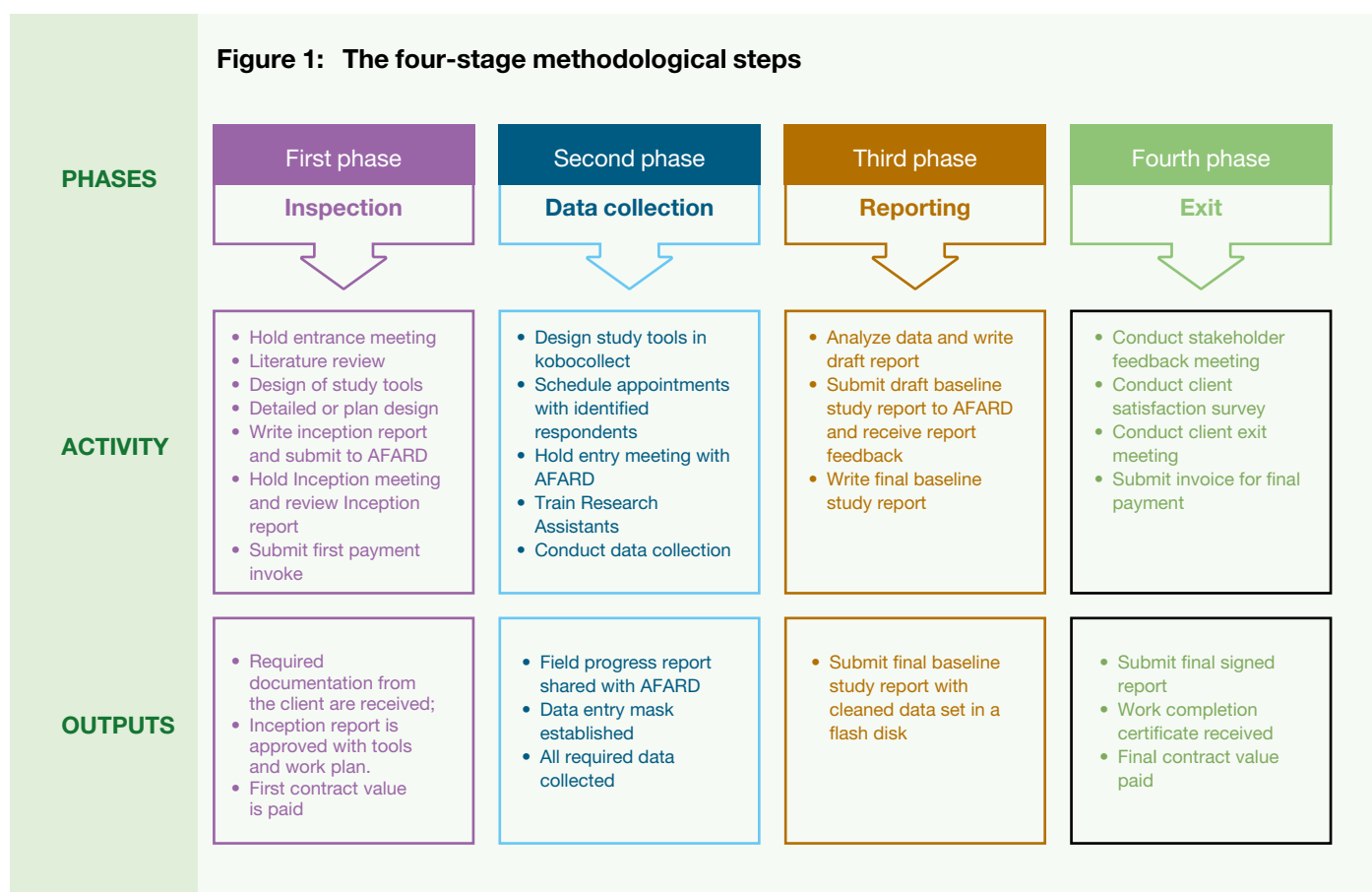
2.3 Baseline study phases

The baseline study employed a four-step stages. The figure 1 below presents a summary of all key steps that were taken to conduct the baseline study. While the focus of the inception phase was on study instruments approval, field mission focus on primary data collection, reporting ensured that preliminary report is submitted and presented to AFARD team and the final dissemination stage will focus on the submission of final study report and the related data. Important to note are:

- Household survey was conducted using the Kobo Collect software so that every profiled beneficiary can be tracked overtime.

- Four (04) research assistants (RAs) with diploma and university education who are familiar with the selected project Sub County and district, local language, and experience with digital data collection besides owning a smartphone participated in the data collection. They were trained for 1-day on how to conduct interviews, do data recording online, and adhere to research ethics issues including health and safeguarding. The training involved a mock session and pretesting of the agreed upon instruments.
- The team worked very closely with AFARD project team and local government officials including local council (LC 1) to ensure that all the primary units of analysis were reached.

Figure 1: The four-stage methodological steps



2.4 Methods of data collection

The various data collection methods used included quantitative, qualitative and participatory methods as is presented below:

- Document review: AFARD five year strategy, EFREC project proposal, result chain/theory of change and log frame were reviewed to build synergies between the baseline results and implementation strategies.
- Household survey: A structured questionnaire was administered to all the beneficiary households covering all indicators needed for the monitoring and evaluation.
- Key Informant Interviews (KIIs): Using an interview guide, this was conducted with sub county and district government officials and local leaders.

2.5 Data management and ethical issues

To ensure that the consultancy service was provided in line with the Terms of Reference and at an appropriate professional level, the following quality control measures were used:

- **Joint review of study instruments:** The study team together with AFARD staff members were involved in this process to ensure data consistency with their internal programme management system.
- **Pre-testing of study instruments:** Prior to the main fieldwork to ensure reliability, acceptability, feasibility, question flow, and the duration of the interview a pre-test of the study tools was done. This helped to modify the survey tools.
- **Social mobilization for data collection:** To increase the response rate, AFARD project staff undertook prior mobilization of the respondents for a timely administration of the study tools.
- **Introduction letter:** AFARD team availed the field team with a letter of introduction to facilitate acceptance by the various local institutions.
- **Consent and confidentiality:** The consultant's team (research assistants), in line with the Data Protection and Privacy Regulation 2021, sought consent from respondents to participate in the study.

2.6 Limitation of and solutions used in the study

The baseline study process experienced the following limitations:

- The spatial settlement of selected beneficiaries meant long distance travelled between the project beneficiary households in the project villages. This increased the cost (time) for the consultant as data collectors. Project staff supported this process by ensuring they ferried some of the data collectors to the targeted households as the Team Lead had meetings with other stakeholders.
- The fieldwork period coincided with the Christmas holiday and as is the social norm the beneficiary households were involved in the preparations for the festive season thereby delaying the interview time. Patience was exercised by the data collectors to ensure that all households were reached.

03 FINDINGS OF THE BASELINE STUDY

The baseline study findings below describes the characteristics of project beneficiaries who were engaged in the baseline study and provides analysis of the baseline status of the project results.

3.1 Demographic characteristics of project beneficiaries

Table 2: Characteristics of project smallholder farmers

Indicators	Male	Females	Total
Number of respondents	71	129	200
% share	35.5	64.5	100
Average number of people			
Total (all ages)	8.0	8.9	8.6
Children (0-17 years)	4.8	4.7	4.8
Youths (18-35 years)	2.5	2.2	2.3
Adult (36 -60 years)	0.8	1.1	1.0
Elderly (61 years and over)	0.1	0.2	0.2
Persons with disabilities	0.3	0.3	0.3
Persons with HIV/AIDS	0.1	0.2	0.2
Persons with chronic illnesses	0.4	0.4	0.4
Total orphans	0.4	0.4	0.4
Teenage parents	0.3	0.2	0.3
Mean age (years)	36	39	38
Education status:			
No education (%)	2	15	17
Primary education (%)	18	43	60
Secondary education (%)	15	8	22
Vocational education (%)	1	0	1
Marital status:			
Single (%)	2	2	4
Married (%)	33	45	77
Separated/divorced (%)	1	5	6
Widow(er) (%)	13	1	13

The data was collected from all the 200 project smallholder farmers who were aged 20-72 years in Atyak parish of Pakwach sub county. It is evident from Table 2 above that:

- Female constitute the majority (64.5%) of the beneficiary members as compared to males (35.5%). This is above the project designed target of 60%. Both the community leaders and project staff confirmed that this reach was only possible due to the participatory beneficiary selection approach whereby the local communities selected who should benefit as opposed to government approach where selections are done in “offices thereby excluding many women and youth from otherwise beneficial projects.”

- The average age of the smallholder farmers is 38 years. This young adult age groups provides a beneficial category for a “purpose driven” resilience building as is designed in the family development plan approach as young people are energetic and with the right commodities they can adopt better resilience strategies, faster.
- Each smallholder farmer household has very many people (an average of 08) to take care of. Given that these households have 13% persons with disabilities, 5% persons living with HIV Aids and 9% teenage parents, it will be a daunting task for the project to build their resilience capacity.
- More than 77% of the smallholder farmers are married and the remaining 23% were involved in marital relations in the past.
- Majority of the smallholder farmer (84%) have some form of education. This is important for the adoption of the recommended agribusiness and financial management necessary for them to grow their agribusinesses and financial net worth.

3.2 Project specific objective indicators status

EFREC has three specific objective indicators as is shown below:

- SA.1. By the end of the project 70% of the targeted population in Atyak are food secure. At least 60% of this population are women.
- SA.2. By the end of the project 50% of the targeted population in Atyak are income secure to withstand climate shocks. At least 60% of this population are women.
- SA.3. 90% of the targeted population in Atyak have become resilient to climate change effects

Below we present the the beneficiary households’ status in food security, income security, and resilience to climate change

3.2.1 Households food security (SA.1)

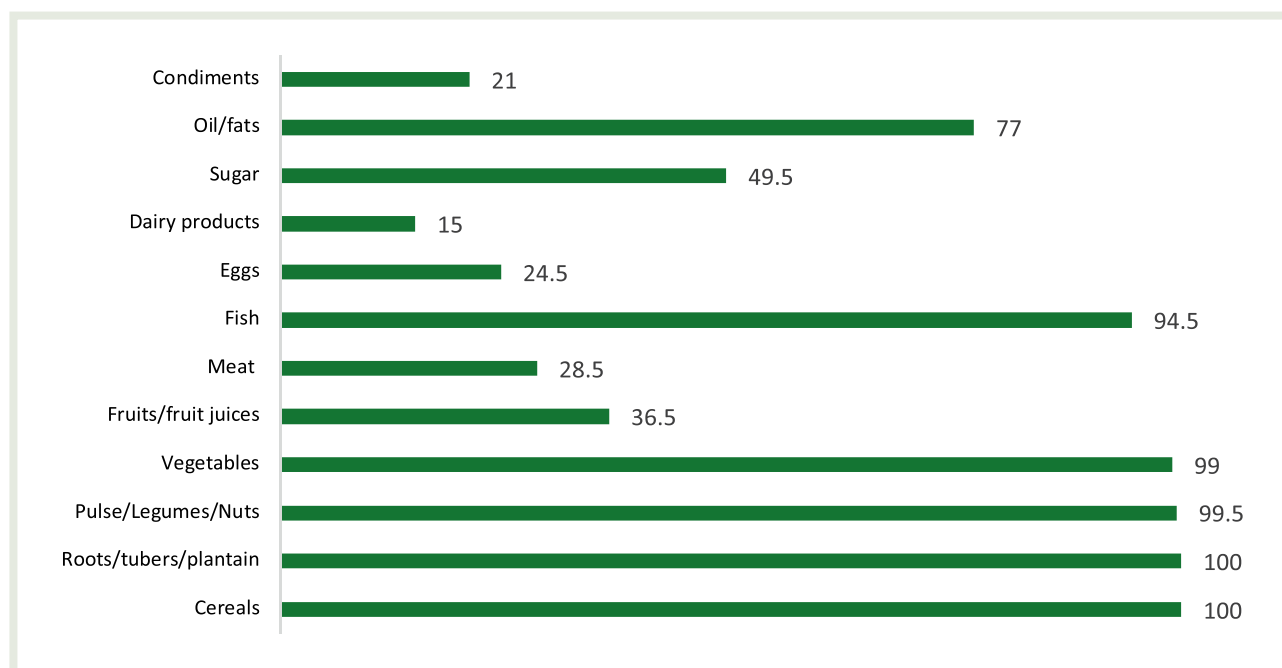
AFARD monitoring and evaluation strategy defines food security as a situation where a beneficiary household meets all the criteria of, it: eats three meals a day; eats 7/12 food times; girls and women eat forbidden foods; boys and men do not complain when they eat green leafy vegetables; and shares food as a family.

Respondents were asked on the above. The findings as table 3 show is that only 11% of all the respondent households were food secure. There was no market difference between female headed and male headed households. However, discriminatory gender norms are ripe in the project area as females are still restricted some food types, not all family embers share the same food, and generally males dislike eating green vegetables. Seen together with figure 2 that shows the most common food types that is eaten, there is need to promote fruit growing, poultry keeping and access to dairy products.

Table 3: Household food diversity (%)

	Males	Females	Total
Food secure	11.3	10.9	11
Eat three meals a day	45	47	46
Eats 7/12 food times	55	64	61
Girls and women eat forbidden foods	66	57	61
Boys and men do not complain when they eat green leafy vegetables	47	40	43
Shares food as a family	96	98	98

Figure 2: Household food diversity eaten last week (%)



3.2.2 Households income security (SA.2)

To assess EFREC project's impact on the reduction of beneficiary smallholder household poverty, AFARD uses asset poverty measurement approach as proposed by Haveman and Wolff (2004). The preference for this approach is because asset poverty measures the economic ability, using productive assets, an individual or household has to sustain a basic needs level of consumption during temporary hard times for a period of 3 months. Leonard and Di (2012: 1-4) stretched this period to 9 months because asset accumulation at levels equal to nine-months' worth of income at the international income poverty level or greater ably improves a family's odd of permanently escaping poverty. By use of this method, a household is asset poor if its net worth is unable to meet its consumption needs over a 3-month period. It is considered non-poor if its net worth is able to meet its 9-month consumption needs.

To compute a household's net worth first, all its productive assets are valued at the current market price. Second, the asset value is added to the current cash savings (i.e., cash at hand, bank, and debt lent to others). Third, the current value of debts taken from other people/firms is deducted from the asset and cash savings value to get a financial net worth. Finally, the financial net worth is subjected to the required household consumption at the revised international poverty line of US\$ 2.2 per person per day. At USD 1= UGX 3,700, this means a household of 8 people needs UGX 65,120 per day or UGX 23,768,800 annually (or USD 17.6 daily and USD 6,424 annually).

Using the above analysis, table 4 shows that only 25% are income secure. Majority of the population (75%) are income insecure and are highly vulnerable to climate change risks.

Table 4: Financial Net Worth

Sex	Financial net worth (UGX)	Income secure (%)	Asset poor (%)
Female	3,957,060	20	52
Male	3,997,443	34	24
Total	3,970,079	25	75

3.2.3 Self Reliance (SA.3)

To understand the social and economic ability of the beneficiary smallholder household members to meet essential needs in a sustainable manner and with dignity, a Self-Reliance¹ assessment was done. The Self-Reliance Index (SRI) score contains twelve domains focused on a household's basic needs (housing, food, education, and health care), resources (employment, finance, assistance, and debt), and sustainability (savings, safety, social capital, and health status). Domains measure conditions and assets that increase the likelihood that a household will be able to continue meeting their needs in the future.

The SRI score for the beneficiary households were recorded as 1 and 5. Where 1 is the household with the lowest SRI, 2-3 is the medium SRI and 4-5 is a household with the highest SRI respectively. Table 4 shows that the overall self-reliance score for the beneficiary smallholder households is 1.7 (low) with no difference for both female households (1.7) and male households (1.6). The extra low SRI scores were recorded for health care, financial social capital, and assistance.

Table 5: Beneficiary Household Self-Reliance Index Score

No	Domain	Males	Females	Total Score
1	Housing adequacy	2.4	2.4	2.4
2	House rent	1.8	1.8	1.8
3	Food	2.3	2.5	2.4
4	Education	2.0	2.0	2.0
5	Health care	0.8	1	0.9
6	Health status	1.5	1.5	1.5
7	Community involvement	1.8	2.3	2.1
8	Safety A	2.4	2.4	2.4
9	Safety B	0.8	0.7	1.8
10	Employment	1.1	1.2	2.2
11	Financial/In-kind resources	1.7	1.7	1.7
12	Assistance	0.6	1	0.8
13	Debt	1.5	1.5	1.5
14	Savings	1.1	1.1	1.1
15	Financial social capital	1	0.7	0.8
16	Relational social capital	1.3	1.5	1.4
Total score		24.1	25.3	24.8
Self Reliance Index (SRI)		1.6	1.7	1.7

3.2.4 Livelihood coping strategies

To assess the effect of climate and environment changes on the livelihood of the beneficiary households, the respondents were asked whether they have experienced any climate and environment changes in the last 1-2 years and what form. All the beneficiary households (100%) reported having experienced climate and environment shocks in different form (see table 6 below) but mainly in the form of droughts (52%) and floods (45%). This finding was also confirmed by the local government leaders as they pointed out:

¹. The social and economic ability of an individual, a household or a community to meet its essential needs in a sustainable manner. See <https://www.refugeeselfreliance.org>

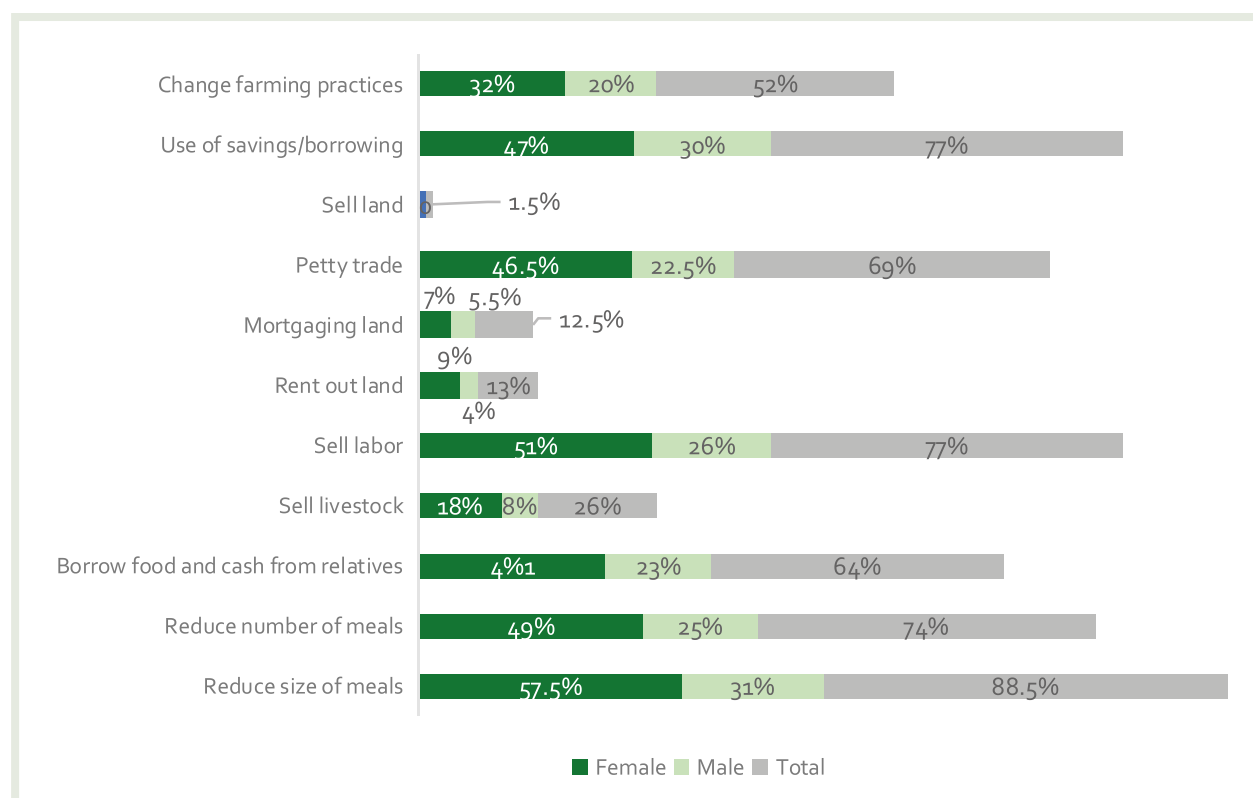
Pakwach sub county faced flooding from river Nile which since 2020- 2023 has grossly affected settlements of the people as many houses were submerged. Displaced families meant limited education for children. It also meant food and income as families had to grapple with new ways of earning a living. Since late 2023 when many families returned to their homes, a number of families are unable to meet their basic needs (KII LG official).

Table 6: Climate change shocks experienced in the last 2 years (%)

	Female	Male	Total
Droughts	52	52	52.0
Floods	44	47	45.0
Pests and diseases	3	1	2.5
Strong wind	1	0	0.5

To understand how the beneficiary households respond to the climate change and environment related shocks, the respondents were asked to mention the coping mechanisms they usually adopted. The beneficiary households adopt several strategies which help them to cope and mitigate shocks whenever they arise. Figure 3 shows that the top five strategies used include reducing size of meals (89%), use of savings (77%), selling of labour (77%), reduction in the number of meals (74%) and petty trade (69%).

Figure 3: Household coping mechanisms



3.3 Project result indicators status

Below we present the baseline status of the project indicators around its three key result areas.

3.3.1 Result 1- Climate Smart Agriculture

R1.1. After 12 months of implementation, 8 Climate Action Groups have been established and officially registered within Pakwach sub county, each comprising a minimum of 15 female constituents (60% females).

At the time of the study, all the 08 climate action groups were somehow formed but not yet registered as they had to undergo a number of group dynamics trainings, linkages, and certification processes.

R1.2: 130 (78 women) out of the targeted 200 smallholder farmers in Atyak use at least 4 of the 6-climate smart agricultural practices promoted.

One aspect of EFREC project's is improving crops and livestock production using climate smart agricultural practices so that beneficiary households can manage the uncertainties and risks associated with climate change. To ascertain current practices, beneficiary households were asked about their use of the various climate smart agriculture (CSA) practices in their crop and poultry farming. The findings show that 93% (93% males and 92% females) of the households were using crop CSA practices. Figures 4 and 5 below shows that the highest adoption of CSA practices are in the use of crop rotation (92.5%), soil and water conservation measures (87.5%), integrated pest and disease control measures (81.5%) and drought resistant crop varieties (79%), and with parity for both female and male beneficiary households. The adoption of CSA practices for poultry are however dismal.

Figure 4: Crop climate smart practices

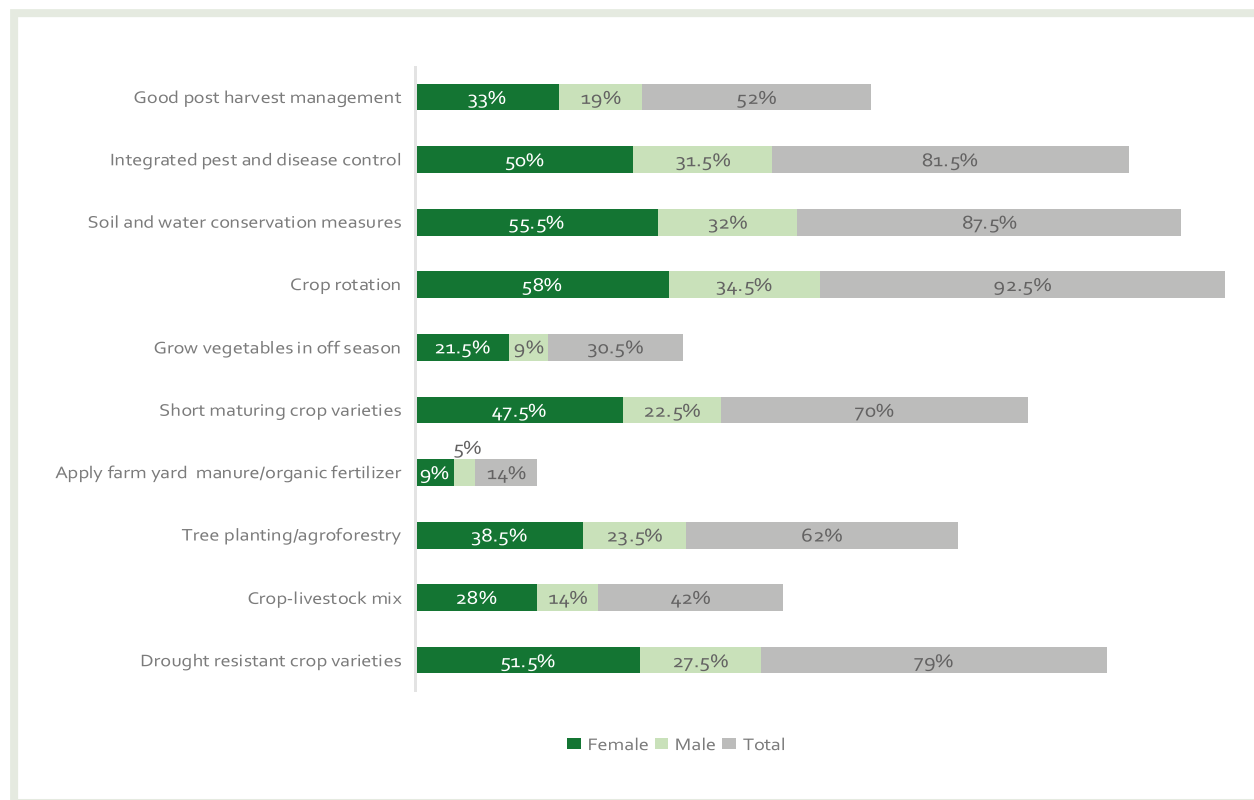
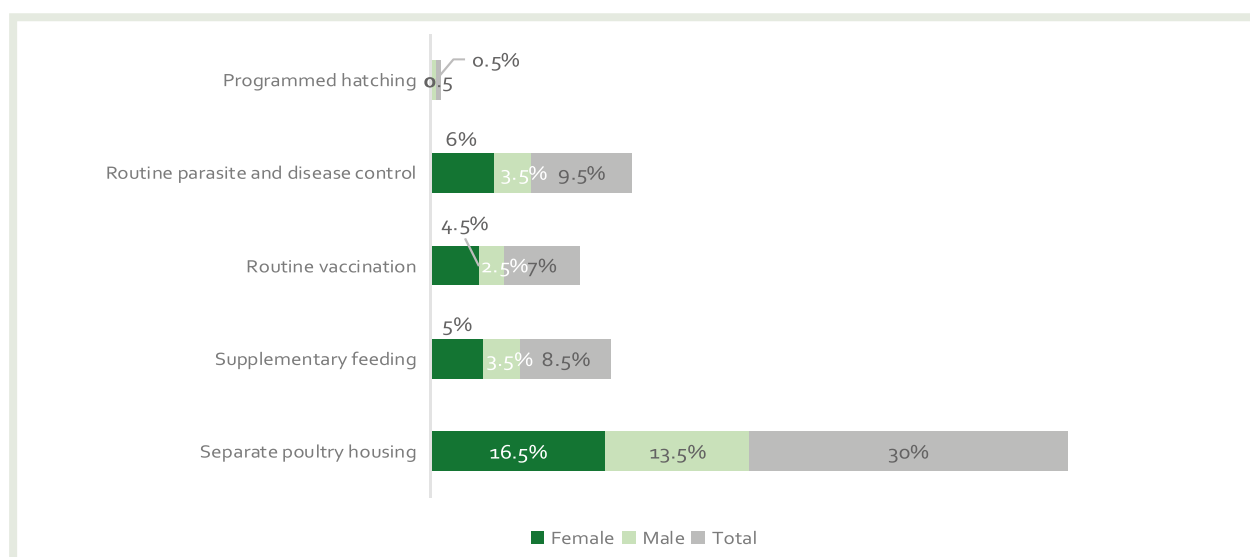


Figure 5: Adoption of poultry CSA practices



R1.3: At the project's conclusion, 200 smallholder farmers in Atyak report a minimum average increase of 30% in production.

One aspect of EFREC project's is increasing productivity and production of crops and livestock in a way that the beneficiary households can diversify their food and income sources thereby becoming more resilient. The beneficiary households were also asked about the production and productivity of the project selected priority commodities. Table 7 shows that the households are diversifying their crop production through the growing of many crops. However, cassava (97%) and sorghum (73.5%) the staple food crop were the main crops grown. Yet, by use of mainly local varieties (local seeds/planting materials) on very small acreage, there is very low yields per unit area. This justifies why the targeted beneficiary households face high food and income insecurity.

Table 7: Productivity levels of project priority commodities

Crop grown			Average acreage			Average production			Sale amount in UGX			
Crop	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Cassava	63.5	33.5	97	1.8	1.7	3.5	4.8	9.5	14.3	163,460	263,725	427,185
Sweet potato	27	20.5	47.5	0.2	0.3	0.5	0.4	0.8	1.2	10,000	23,333	33,333
Sorghum	41.5	32	73.5	0.5	0.8	1.3	1	6	7	52,000	76,923	128,923
Simsim	47	27	74	0.8	1.1	1.9	1.5	1.3	2.8	110,059	69,631	179,690
Ground nuts	26	17.5	43.5	0.6	0.4	1	0.8	0.5	1.3	29,546	30,000	59,546
Maize	14.5	10.5	25	0.08	1.1	1.2	0	1	1	0	158,000	158,000

3.3.2 Result 2 - Income generation and diversification

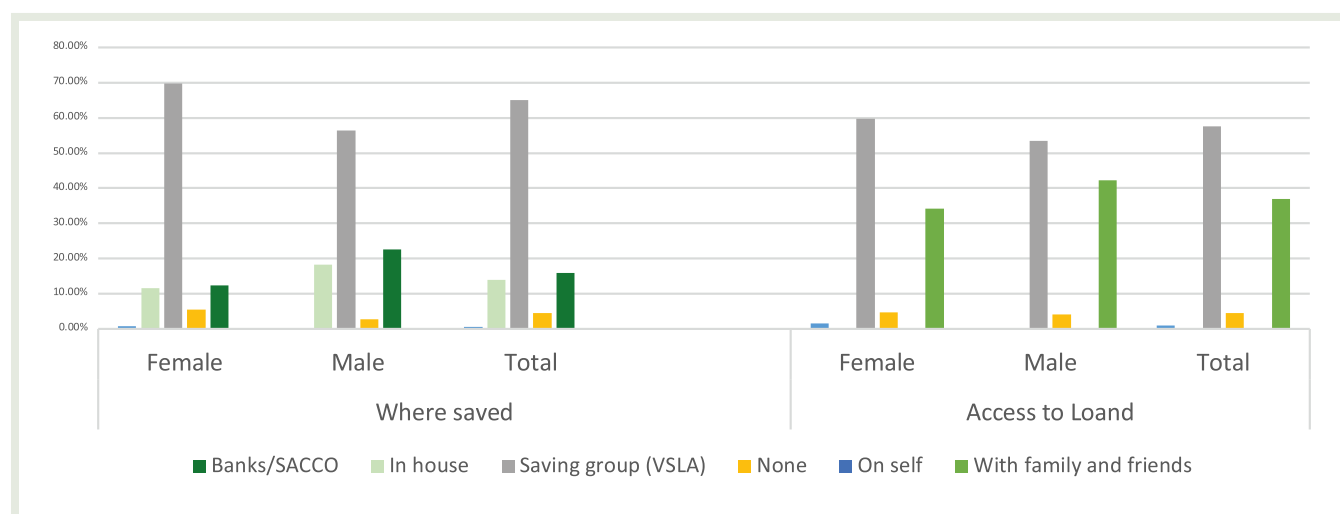
R2.1: 84 out of the targeted 120 women smallholder farmers in Atyak own alternative income generating activities.

While the project target to have 70% of women owning alternative income generating activities (IGA), the baseline study found that only 58% of the beneficiary households (53% women and 68% men) currently have an IGA. These IGAs are mainly in selling cook foods, farm produce, and petty trade in general merchandises. The average monthly income earned from these IGAs is UGX 139,665 (females (UGX 120,721 and males UGX 174,085).

R2.2: 60 out of the 120 targeted women led households in Atyak save €5 monthly in their VSLA.

At the project cost (exchange rate of EUR 1 = 3,800 UGX), only 12.2% of the overall beneficiary households (9.6% women and 18.6% men) save an equivalent of €5 weekly. The average amount saved per week is UGX 8,623 (UGX 8,163 females and UGX 9,640 males). Already 69% (74% females and 61% males) are members of a community savings group. Discussions with local leaders and some group members revealed that “many of the so-called VSLAs are not run according to best practices. The members felt the need to start savings. They were not trained and some do not even have any VSLA kit.” Figure 6 below shows that majority of the people (males and females alike) depend on these saving groups for both access to savings and loans. And when it comes to loan, reliance on family and friends is also high. This can curtail the progress with which families build enterprises or buffer shocks especially those that affects the entire community members.

Figure 6: Where families save or access loans



R2.3 60 out of the targeted 120 women smallholder farmers in Atyak improve their commercial management capabilities.

EFREC seeks to build the entrepreneurial capacity of beneficiary smallholder households. However, to ensure that beneficiary [agri]businesses grow, the project target to promote selected better business management practices such as having a business goal, conducting sale promotion, separating personal and business finance, keeping business records, and links with input suppliers. Adoption is only considered when one puts to use any three of these practices. Therefore, to assess the status in use of these core practices, the study asked the beneficiary smallholder households questions that are summarized below in table 8. It was evident that only 18.5% (22.5% males and 16.3% females) of the beneficiary smallholder households use good business management practices. While female beneficiary smallholder households performed better than their male counterparts in having business goals and linking with suppliers, the men are good at separating business and personal finances and keeping business records.

Table 8: Business management practices (%)

	Males	Females	Total
Use any 3 better business management practices	22.5	16.3	18.5
Has a business goal	34	38	37
Conducts sale promotion	3	2	2
Separates personal and business finance	27	23	24
Keeps business records	21	16	18
Links with input suppliers	7	8	8

3.3.3 Result 3 – Biodiversity conservation and mind set change

Table 9: Environment and biodiversity conservation indicators

	Males	Females	Total
Average headloads of firewood used per week	2.3	2.5	2.4
Average sales price of weekly firewood (UGX	18,571	22,500	21,111
Average number of hours spent collecting firewood	8.0	7.3	7.8
Use improved energy cook stove (%)	20	24	23
Experienced violence when collecting firewood (%)	65	74	71
Average total number of trees planted per household	29	14	19
Total number of trees planted surviving	2,037	1,778	3,815

R3.1. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a 50% reduction in firewood used for cooking.

As table 9 shows, the current firewood consumed per week per household is 2.4 headloads. Female headed households due to their larger family sizes use more firewood than male headed households. This is also because few of the households (23%) are using improved energy saving stove.

R3.2. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a decrease in the time spent fetching wood on a weekly basis.

The average time taken to collect firewood is 8 hours. An elderly woman noted that with rampant tree cutting now all community land where they used to harvest firewood is no more. They now have to trek long distances in search of firewood. And 71% (74% females and 65% males) have experienced violence when collecting firewood. A woman reported that at one time her “panga knife was confiscated by the man on whose land they trespassed to collect firewood.”

R3.3. 10,000 trees planted at the family and community level

Although the project at baseline study time had not distributed any inputs to the beneficiary households, including tree seedlings, the population on their own had planted 3,815 trees that were growing on their compounds. A key informant pointed out that this tree planting initiative is being drummed by government and cultural and religious leaders alike. It is because the communities that was once called a bush is now devoid of trees.

R3.4. Local authorities report having improved their knowledge on women’s rights and how to ensure them within the local communities.

Key Informant Interview (KII) with Lower Local Government (LLG) and District Local Government (DLG) officials revealed that it is mostly the technical staffs and especially departments that directly handles women’s issues (community based services, Sub county offices) that know well about women’s rights and how to ensure they are respected. All other technical departments (extension services) and women and youth council members dismally know about women rights. Asked about the international human and women rights, many of these leaders could hardly mention more than 1-2 rights. Asked about how climate change affects women rights even elicited limited response. This response was not any different for males and female leaders. Therefore, the planned training of women councilors and technical department heads at the LLG and DLG levels on the rights of women will go along way to improve their knowledge and awareness on women rights and how to respect them.

04 FILLED LOGFRAME

Results	Indicators	Males	Females	Total
Specific objectives	SA.1. By the end of the project 70% of the targeted population in Atyak are food secure ² . At least 60% of this population are women.	11.3%	10.9%	11%
	SA.2. By the end of the project 50% of the targeted population in Atyak are income secure ³ to withstand climate shocks. At least 60% of this population are women.	34%	20%	25%
	SA.3. 90% of the targeted population in Atyak have become resilient to climate change effects	0	0	0
Result 1 (Implementation of climate smart agriculture)	R1.1. After 12 months of implementation, 8 Climate Action Groups have been established and officially registered within Pakwach sub county, each comprising a minimum of 15 female constituents (60% females).	0	0	0
	R1.2: 130 (78 women) out of the targeted 200 smallholder farmers in Atyak use at least 4 of the 6-climate smart agricultural practices promoted.	93%	92%	93%
	R1.3: At the project's conclusion, 200 smallholder farmers in Atyak report a minimum average increase of 30% in production (of cassava)	9.5 bags	4.8 bags	14.3 bags
Result 2 (Income generation and diversification)	R2.1: 84 out of the targeted 120 women smallholder farmers in Atyak own alternative income generating activities.	68%	53%	58%
	R2.2: 60 out of the 120 targeted women led households in Atyak save €5 monthly in their VSLA.	18.6%	9.6%	12.2%
	R2.3 60 out of the targeted 120 women smallholder farmers in Atyak improve their commercial management capabilities.	22.5	16.3	18.5
Result 3: Biodiversity conservation and work on mindset change including human and women's rights)	R3.1. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a 50% reduction in firewood used for cooking.	2.3	2.5	2.4
	R3.2. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a decrease in the time spent fetching wood on a weekly basis.	8.0	7.3	7.8
	R3.3. 10,000 trees planted at the family and community level	2,037	1,778	3,815
	R3.4. Local authorities report having improved their knowledge on women's rights and how to ensure them within the local communities.	Low	Low	Low

05 RECOMMENDATIONS

Building smallholder resilience to climate risks requires a multisectoral approach delivered in a bundled service manner as livelihood assets interact with activities in a rather complex way. For instance, to translate the available land into a productive asset requires skills building (human capital), use of improved technologies (seeds, soil conservation, vegetation regeneration), and access to finance and markets. The recommendations below therefore build on the project design to enable it be effectively delivered:

- Involve as many young, educated people into the peer extension system. This will allow for a lifelong access to better skills training in the communities given the limited access to local government extension system.
- Large families pose a real challenge to ever gains smallholder farmer household make as improved incomes will not means improved well-being. This will require exploring how to integrate family planning issues into the community extension services and outreach services to aid families in deciding the family sizes they can ably support without abusing the rights of women to access family planning services.
- Nutrition education should not only focus on knowledge and skills of planning and managing nutritious meals. Deliberate efforts should be made to address the prevailing discriminatory gender norms that still restrict females from eating some food types.
- The limited uptake of fruits will require a deliberate inclusion of fruit tree seedlings as part of the tree growing initiative that the project will promote.
- The training of poultry paravets should be conducted with a business orientation both for the paravets and the households so that win-win gains are attained by both actors. In addition, poultry and poultry product consumption should be mainstreamed in the nutrition education so that households take up seriously poultry rearing. Finally, given the gender benefits poultry keeping has for women, this emphasis should be emphasized.
- The alternative income generating activities (IGA) promotion should look beyond what the current households are undertaking. The project team should support pro-active thinking in business opportunity identification and testing to avoid crowding out current enterprises. In addition, business management practices should be improved in line with each entrepreneurs capacity.
- Savings with a purpose has been a best practice in ensuring VSLA transcend Christmas savings. The project team should link VSLA to family development plans as well as owning business with a purpose. This will ensure that plans inform savings from which loans are taken for business wherefrom profits are used to meet the planned goals.
- While energy saving stoves will improve reduction in wood fuel needs, the longtime it will take for family planted trees to provide to provide firewood means that in the short-term community dialogues is urgently needed to reduce the violence women face while searching for firewood.
- The training on human and women rights should be provided to both elected and technical officials so that all can improve their knowledge and awareness on women rights and how to respect them.

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List of persons interviewed

No.	Name	Designation	Local Government	Contact
1.	Gwoktho Chephas	Local Council 3 Chairperson	Pakwach sub county	0772419679
2.	Olum Christopher	Agricultural Officer	Pakwach sub county	0782325029
3.	Canpara Robert	Principal Entomologist	Pakwach District Local Government	0772855719
4.	Picho David	Forest Officer	Pakwach District Local Government	0782430438
5.	Olwor Patrick	Senior Community Development Officer	Pakwach District Local Government	0773075332

EFREC PROJECTS: LOG FRAME FOR THE PHASE 2024 - 2026

Results Chain	Indicators	Contextualization	Means of Verification	Risks/ Assumptions	Baseline and Targets	
					Baseline Value 2024	Target Dec 2026
Overall aim: Enhance the quality of life and climate resilience for families in Pakwach district, Uganda Please develop 1 outcome indicator reflecting each result area						
Enhance production, equity, and adaptive livelihood capacity in rural communities of Atyak, Pakwach sub-county, to cope with climate risks	SA.1. By the end of the project 70% of the targeted population in Atyak are food secure. At least 60% of this population are women.	A food secure household is that which eats at least three meals daily; eat at least 7 of 12 food types weekly; shares food equitably among men and boys, women and girls as a family, and have men and boys eating green vegetables without any complaint.	SA.1.VS1 Nutritional baseline study	Macro-economic instability (inflation, currency devaluation, border trade).	Females 11% Total 11%	Females 70% Total 70%
	SA.2. By the end of the project 50% of the targeted population in Atyak are income secure to withstand climate shocks. At least 60% of this population are women.	An income secure household is one with a net worth (from both liquid and productive assets less debt) able to afford them three-month cost of living above the US\$ 1.90 international poverty line	SA.2.VS1. Income baseline study.		Females 20% Total 25%	Females 50% Total 50%
	SA.3. 90% of the targeted population in Atyak have become resilient to climate change effects	Refers to the measure on self-reliance index score of 4-5.	SA.3.VS2. Livelihood options thriving against climate change effects (Production records)		0%	90%

RESULT AREA 1: Climate smart agriculture						
O-1: Improved sustainable management of natural resources in Atyak rural communities, promoting equitable and resilient production in the transition towards agroecology.	R1.1. After 12 months of implementation, 8 Climate Action Groups have been established and officially registered within Pakwach subcounty, each comprising a minimum of 15 female constituents (60% females).	A CAG is a farmer group (25 members, each representing a household) committed to promoting climate resilient model village approach through a shared village charter.	R1.1.VS1 Official registers; R1.1.VS2 Registration certificates	Erratic weather conditions may affect productions.	0	8
	R1.2: 196 (118 women) out of the targeted 200 smallholder farmers in Atyak use at least 4 of the 6-climate smart agricultural practices promoted.	Climate smart agriculture practices refers to any of the following: timely planting, correct spacing, tree planting, use of drought resistant crop varieties, crop - small livestock mix, tree planting/agroforestry, soil and water conservation (intercropping with cover crop), integrated pest and disease control (organic pesticides), and good post-harvest management (better drying & storage facility)	R1.2.VS1 Climate smart production records		Females 92% Total 93%	Females 98% Total 98%
	R1.3: At the project's conclusion, 200 smallholder farmers in Atyak report a minimum average increase of 30% in production.	This refers to the production of a crop (number of 100Kgs bags per acre land) and for animal (number of animal unit) due to project support	R1.3.VS1 Production records		Cassava 14 Bags	Cassava 19 Bags

RESULT AREA 2: Income generation and diversification						
O-2: Improved access to resources for women in rural Atyak communities through an equity-focused approach.	R2.1: 84 out of the targeted 120 women smallholder farmers in Atyak own alternative income generating activities.	Alternative income generating activity is any activity that earns the farmer income which is not a farming activity.	R2.1.VS1 Income records; R2.1.VS1 Production records	Fraud by leaders in VSLA may discourage savings	Females 53%	Females 70%
	R2.2: 60 out of the 120 targeted women led households in Atyak save €5 monthly in their VSLA	Refers to the monthly value of stamp value paid weekly savings in CAG owned VSLA that can be used to manage any climate change risks in case they occur	R2.2.VS1 VSLA records		Females 10%	Females 50%
	R2.3 60 out of the targeted 120 women smallholder farmers in Atyak improve their commercial management capabilities.	Refers to use of any 3 of the following: has a business goal; conducts sale promotion; separates personal and business finance; keeps business records; links with input suppliers	R2.3.VS1 Attendance lists; R2.I3.VS2 Trainer report		Females 16%	Females 30%
RESULT AREA 3: Environment and biodiversity conservation and work on mindset change including human and women's rights						
O-3 Strengthened environmental care and conservation capacities in the communities of Atyak through the adoption of forest resource protection and regeneration practices with gender equity..	R3.1. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a 50% reduction in firewood used for cooking.	Refers to the number of bundles or headloads that are used for cooking every week	R3.1.VS1. Household Consumption records	Weather conditions may affect the survival of trees seedlings planted	2.4 bundles	1.2 bundles

	R3.2. 95% percent of women or individuals responsible for firewood collection, out of the 200-targeted households in Atyak, report a 50% decrease in the time spent fetching wood on a weekly basis.	Refers to the number of hours spent fetching firewood weekly	R3.2.VS1. Household activity calendar	8 hours	4hrs
	R3.3. 10,000 trees planted at the family and community level	A count of number of trees provided by the project to the targeted households but are surviving	R3.3.VS1. Plantation report; R3.I3.VS2. Photographs	3,815	10,000
	R3.4. Local authorities report having improved their knowledge on women's rights and how to ensure them within the local communities.	Refers to LG officials reporting that they use the knowledge and skills acquired as a result of the project to initiate women rights observance in their jurisdictions.	R3.4.VS1. Attendance lists R3.4.VS2. Interviews to local government officials	Low	High

