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MONITORING REPORT

WILDLIFE WORKS

Project Title	The Kasigau Corridor REDD+ Project Phase II: • Water project • Marketing and sales support to 49 craft groups (Hadithi) • Support and training to the EcoFactory, which includes the Local Clothing Factory, the Soap Factory, eco charcoal and the greenhouses • Improved family planning as well as sexual and reproductive health education to women within the community
Project Start Date	January 1st, 2010
Project End Date	December 31st. 2039
Monitoring Report number	01
Date of Report	November 2022
Project ID	12-2022
Monitoring Period	25 September 2020 – 26 September 2022
Prepared By	Barun Gurung and Daniele Ramiaramanana,
Contact Information	Barun Gurung: 77-6412 Kepano Pl, Kailua Kona, HI 96740 USA; Daniele R: Pres Lot II P 110 Tambohobe Fianarantsoa 301 Madagascar

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1. PROJECT DETAILS

1.1. SUMMARY DESCRIPTION OF THE IMPLEMENTATION STATUS OF THE PROJECT

The Wildlife Works Kasigau Corridor REDD+ Project is located in Southeastern Kenya, between Tsavo East and Tsavo West National Parks, in Maungu, Taita Taveta County. The project activities provide an important source of alternative livelihoods to local communities that largely depended on wildlife and forest resources in the past. Several targeted activities for women's empowerment have been implemented which focus investments that yield benefits to women through increased incomes, improved agribusiness skills, increased discretionary time, and improved health.

Kasigau is one of the most arid and semi-arid regions of Kenya, with water shortage being the most important challenge that the local population faces. This is particularly true for women, who are mainly responsible for fetching water for households, and a normal day involves walking long distances to collect clean water for drinking and other household uses. To address the need for water, the project has introduced water storage tanks and water collection points by building and improving rock water catchments.

The project has also focused on income generation activities for women through the production and sale of handicrafts. Additional income for women provide alternative livelihood options while addressing the interrelated problem posed by drought, food insecurity, and crop damage due to wildlife/human conflicts.

Providing health education to women in the communities has also been an important cornerstone of project activities. The project has supported the efforts of third-party partners to provide improved family planning and sexual and reproductive health education to women in the community. The program calls on community health volunteers to conduct awareness campaigns for family planning, the fight against sexually transmitted diseases, and to provide information on access to health services for women.

Apart from family planning services, the local health centre is seeing increased attendance in antenatal care and deliveries in the health facility under the supervision of trained personnel, resulting in improved maternal health. Prior to the project, there was a lack of information on Sexual Reproductive Health (SRH) and access to health services among women in the communities.

Finally, the project provides opportunities for women, to **access new technologies** on eco-friendly farming, eco charcoal, tailoring and greenhouse to improve women's well-being. The main benefits for women include increased and diversified skillsets to enhance agricultural production and income.

1.2. PROJECT DEVELOPER

Organization name	Wildlife Works Carbon LLC
Contact person	Mike Korchinsky
Title	President and Founder of Wildlife Works
Address	242 Redwood Highway Mill Valley, Ca 94941 USA
Telephone	(415)-332-8081
Email	mike@wildlifeworks.com

1.3. OTHER ENTITIES INVOLVED IN THE PROJECT

Organization name	WOCAN
Role in the project	Technical support for application of the W+ methods
Contact person	Dr. Jeannette Gurung
Title	Executive Director
Address	77-6412 Kepano Place, Kona, HI. 96740
Telephone	+ 1 808 464 1703
Email	jeannettegurung@wocan.org

1.4. PROJECT START DATE

The Kasigau Corridor REDD+ Project Phase I and II started on January 1st, 2010 and the expected end date is December, 31st 2039. The specific start dates for each set of activities is as follows:

- Water project: 2012 – present
- Marketing and sales support to 49 craft groups (Hadithi): 2010 – present
- Support and training to the EcoFactory, which includes the Local Clothing Factory, the Soap Factory, eco charcoal and the greenhouses: 2010 – present
- Health education: Family planning as well as sexual and reproductive health education to women within the community: 2021 – present

1.5. PROJECT CREDITING PERIOD

The crediting period for the 4 domains is 2 years: 15 October 2020 – 16 October 2022

1.6. PROJECT LOCATION

Project location varies according to the project.

For the water project, the GPS coordinates are :

-_3_._6_2_8_3_°S_,_ _3_8_._7_2_4_0_°E_ _
-_3_._8_4_7_2_°S_,_ _3_8_._6_6_7_6_°E_ _
-_3_._6_4_5_7_°S_,_ _3_8_._6_7_7_6_°E_ _
-_3_._7_3_9_7_°S_,_ _3_8_._6_3_4_9_°E_ _
-_3_._7_8_4_7_°S_,_ _3_8_._6_4_9_1_°E_ _
-_3_._5_0_0_4_°S_,_ _3_8_._3_7_0_5_°E_ _
-_2_._8_1_1_3_°S_,_ _3_9_._0_1_2_4_°E_ _
-_2_._8_1_1_3_°S_,_ _3_9_._0_1_2_4_°E_ _
-_3_._6_8_7_1_°S_,_ _3_8_._6_5_9_0_°E_ _
-_2_._8_1_1_3_°S_,_ _3_9_._0_1_2_4_°E_ _
-_3_._7_1_4_3_°S_,_ _3_9_._0_5_8_2_°E_ _
-_3_._7_2_5_5_°S_,_ _3_9_._0_2_4_8_°E_ _
-_3_._5_3_2_4_°S_,_ _3_8_._4_7_4_5_°E_ _
-_3_._7_1_6_5_°S_,_ _3_8_._6_5_9_8_°E_ _
-_3_._8_4_7_4_°S_,_ _3_8_._6_7_8_6_°E_ _
-_3_._8_0_0_0_°S_,_ _3_8_._6_5_6_0_°E_ _
-_3_._8_1_6_3_°S_,_ _3_8_._6_4_0_3_°E_ _
-_3_._8_4_7_4_°S_,_ _3_8_._6_7_8_6_°E_ _

3_._7_3_1_4_°S_,_ _3_8_._6_6_1_5_°E_ _

-_3_._7_3_9_9_°S_,_ _3_8_._6_8_5_1_°E_ _
-_3_._4_5_4_1_°S_,_ _3_8_._6_2_2_2_°E_ _
-_3_._6_3_8_6_°S_,_ _3_8_._3_7_1_4_°E_ _
-_3_._4_9_5_3_°S_,_ _3_8_._3_9_0_6_°E_ _
-_3_._4_9_5_3_°S_,_ _3_8_._3_9_0_6_°E_ _
-_3_._4_9_5_1_°S_,_ _3_8_._6_1_0_8_°E_ _
-_3_._8_1_5_8_°S_,_ _3_8_._6_8_4_9_°

For agri business activities, the GPS coordinates are

-_3_._8_5_7_8_°S_,_ _3_8_._6_6_4_3_°E_ _
-_3_._6_6_9_7_°S_,_ _3_8_._9_4_1_2_°E_ _
-_3_._4_9_3_4_°S_,_ _3_8_._3_3_5_1_°E_ _
-_3_._4_8_8_9_°S_,_ _3_8_._7_5_7_0_°E_ _

For health support, the project is implemented in Marungu location.

Projects to enhance women's skills in eco-friendly farming, greenhouses, tailoring and eco charcoal are located in different villages of Kasigau, Mackinnon, Marungu, Mwachabo, Mwatate and Sagalla

1.7. TITLE AND REFERENCE OF W+ METHODS

Measuring changes in women's **health, income, knowledge / education and time savings** generated through Wildlife Work project interventions.

2. IMPLEMENTATION STATUS

2.1. IMPLEMENTATION STATUS OF PROJECT ACTIVITIES

The project started in 2010 and is continuing

2.2. WHERE APPLICABLE, DESCRIBE HOW NON-DOUBLE COUNTING MEASURES ARE BEING IMPLEMENTED.
NA

2.3. WHERE APPLICABLE, DESCRIBE HOW NON-PERMANENCE RISK FACTORS ARE BEING MONITORED AND MANAGED.
NA

2.4. METHODOLOGY DEVIATIONS
There were no method deviations

2.5. PROJECT DESCRIPTION DEVIATIONS
NA

2.6. RESULTS AND KEY FINDINGS

2.6.1. Time domain

The Time W+ Domain was applied to measure the time savings in women's lives as a result of access to water. The following is a summary of the findings for the Time domain:

- The average time savings for an individual project beneficiary is 99 minutes per day.
- **This amounts to a 41% change from baseline conditions**
- The total number of women beneficiaries is 27771
- The total number of W+ Time units is 1,138,611

2.6.2. Health domain

The health W+ Domain was applied to measure the changes to women's health status. The following is a summary of findings for the Health domain.

- The average health score for individual beneficiary is 15.86, whereas the health score for non-beneficiary households is 13.71.
- The total change in health status of beneficiaries from baseline conditions is **16%**
- The total number of women beneficiaries is 1068
- The total number of W+ Health units is 17,088

2.6.3. Income domain

The Income/Assets W+ Domain was applied to measure the changes in women's income and assets. The following is a summary of findings in the Income/Assets domain.

- The total change in income for Hadithi beneficiaries is 186 Kenyan shillings per individual. This amounts to a change of 5 % from baseline conditions
- The total change in savings is 152 shillings which gives a change of 20% from baseline conditions
- **The average percentage of change in income and savings is 12.5%**
- The total number of women beneficiaries is 1506
- The total number of W+ Income/Assets units is 18,825

2.6.4. Education and Knowledge Domain

The Education and Knowledge W+ Domain was applied to measure the ability of women beneficiaries to recall and apply knowledge/skills. The following is a summary of findings in the Education and Knowledge domain.

- The average knowledge score for individual beneficiary is 8.20 whereas the knowledge score for non-beneficiary is 4.42.
- The total change in Education and Knowledge for project's beneficiaries from baseline conditions is **93%**
- The total number of women beneficiaries is 75
- The total number of W+ Education/Knowledge units is 6,975

3. RESULTS

3.1. TIME SAVING DOMAIN

3.1.1. Data and parameters

Data and Parameters Available

Data / Parameter	Number of women beneficiaries
Data unit	Wc.p
Qualitative data	*NA*
Description	The number of women benefiting from the water project
Source of data	Project records
Justification of choice of data or description of measurement methods and procedures applied	The sample size parameters are as follows: • Population size = 27771 • Assumed proportion =50% • Level of acceptable error = 10% • Level of significance= 90% • Required sample size Treatment area = 68 • Control sample =34 • Total sample size = 102 • Final considered sample size = 127 Two sets of surveys were applied: Beneficiaries of the Water Project; and non -beneficiaries serving as a control population.
Purpose of the data	The purpose of the data was to establish the time savings by Beneficiaries of the Water Project by comparing it to non-Beneficiaries
Comments	*NA*

Data and Parameters Monitored

Indicator	TsTravel time
Data unit(s)	Average two-way travel to collect water in minutes
Description	Average two-way travel to collect water
Source of data	Survey
Description of methods to collect information and procedures to be applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.

Purpose of the data	This corresponds to the W+ Time formula
Comments	NA
Indicator	TTsu
Data unit(s)	Total time spent for collecting water
Description	Time spent on two -way travel per day
Source of data	Survey
Description of methods to collect information and procedures to be applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.
Purpose of the data	This corresponds to the W+ Time formula
Comments	NA

Monitoring plan

Results Chain	**OUTCOME**	**INDICATORS**
Immediate Outcome	Time savings	The increase in time savings is significant to allocate to other activities
Intermediate Outcome	Quality use of time saved	Travel time saved that can be spent in helping children with their studies, undertaking income generating activities, participating in social and recreational activities
End outcome	Increased income and decision making by women	NA

Do No Harm indicators

Indicators	Women Beneficiaries reported that they did not face any time or opportunity constraints in benefiting from the water project
Question (s)	Did you have to sell household assets in order to pay for water installation, operation or maintenance?

3.1.2. W+ results

Results

W+ Domain	Time
Indicator	Increased discretionary time available
Description	Time - saving increased by 41% from baseline conditions
Situation	A large number of women reported reallocating saved time into 'care' activities such as cleaning the house (60%), production activities such as working in the field (21%), and income generation (72%). A smaller proportion of the saved time was reallocated to social and recreational activities or helping children with their school work. Even with time savings resulting from the water project, women's disproportionate work burden in relation to men remains unchanged, and time poverty continues to be a defining factor in women's lives. This has crucial implications for the ability of women to participate more meaningfully in project activities that are targeted towards improving their livelihoods.
Prospects	It is important to address this fundamental asymmetry through future programming on gender awareness for women and particularly men to become gender-sensitive and support women in 'care work' to relieve their work burden.

Summary Analysis of Results

Current Performance

Women are primarily responsible for water collection used for drinking and cooking in the household. The implementation of water pipelines, water collection points, and rock catchments have saved time for women. Around 27,771 women from different villages of Taita Taveta County in Southeastern Kenya have benefited from the project.

Calculation of the percentage of change

Sample size

A total of 127 women were interviewed: 81 were beneficiaries; and 46 were non-beneficiaries. The interview population was selected from Kasigau, Machinnin, Marungu, Mwachabo, Mwatate and Sagalla locations.

Sampling frame

Sample size was calculated in compliance with the general guidance on sampling by UNFCCC/CCNUCC for project activities and program of activities (version- 02.0). [1]

Table 1: sample size calculation for time domain

Population size		27771	
Assumed proportion		50%	
Level of acceptable error		10%	
Level of Confidence		90%	
Required Sample Size (treatment area)		68	
Final sample size collected	**Treatment**	**Control**	**Total**
	81	46	127

Calculation of W+ Time

In order to calculate the percentage of change in time expanded for water collection per day from baseline conditions, the average time saved by beneficiaries was calculated and compared to that of non-beneficiaries, and divided by baseline value (time spent by non-beneficiaries in this case)

Table 2*: Average two- way time spent in minutes to water collection, for drinking and cleaning, and for animals in a day*

Respondent type	**Average two - way time in minutes per day**		
	n	Mean	Std. Dev.
Beneficiary	81	243.1	359.2
Non Beneficiary	46	342.5	575.6

The results depict that water collection time for beneficiary households per day is 243 minutes compared to 343 minutes for non-beneficiary households. The beneficiary households saves almost 100 minutes per day because of the project intervention.

Table below details the average time spent by both type of households.

Table 3: *W+ time variables*

User	**Calculation**	**Description**
Wc,p	27771	Total beneficiaries
TTsu (Beneficiary)	243.1	Total time spent in collection of water per day by beneficiary households
TTsnu (NON-Beneficiary)	**342.5**	Total time spent in collecting water per day by non-beneficiary households

[1] *http://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf*

The formula used for calculating W + is as follows:

Total time saved [TS(S)]= Time spent for water related activities by beneficiary Households (-) Time spent for water related activities by non- beneficiary households

The percentage of change is calculated by

[(Time spent for water related activities by beneficiary Households (-) Time spent for water related activities by non- beneficiary households)/ Time spent for water related activities by non-beneficiary households]*100

W+ Time = Percentage change *Total beneficiaries

Table 4: *Detail of the W+ time calculation*

Average time saved by women beneficiaries daily (in Minutes) **(TTs-TTsnu)**	99
Percentage Change from baseline **[(TTs-TTsnu)/Ttsnu)]*100**	41%
Total beneficiaries (Wc,p)	27771
Total W+ units for the Time domain (41 * 27771= 1 138 611)	1,138,611

3.2. HEALTH DOMAIN

3.2.1. Data and parameters

Data and Parameters Available

Data / Parameter	Number of women beneficiaries
Data unit	Wc.p
Qualitative data	NA
Description	Total number of women beneficiaries from Health project
Source of data	Project Reports
Justification of choice of data or description of measurement methods and procedures applied	The sample size parameters are as follows: • Population size: 1068 • Assumed proportion : 50% • Level of acceptable error: 10% • Level of significance :90% • Required sample size (Treatment): 65 • Considered sample size : 130 Two sets of surveys were applied: beneficiaries of health support of Wildlife work services (81), and to non-beneficiaries (49) to serve as a control population.
Purpose of the data	The purpose of the data was to establish changes in the health status of project beneficiaries by comparing it to non-beneficiaries
Comments	NA

Data and Parameters Monitored

Indicator	A - State of general Health
Data unit(s)	Composite health score
Description	State of general Health
Source of data	Survey
Description of methods to collect information and procedures to be applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.
Purpose of the data	This corresponds to the W+ Health formula
Comments	NA

Indicator	F- Maternal and Reproductive Health services for women
Data unit	Access to maternal and reproductive health services
Description	Maternal and Reproductive Health services for women
Source of data	Survey
Description of methods to collect information and procedures applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.
Purpose of the data	This corresponds to the W+ Health formula
Comments	NA

Indicator	G - Incidence of Sexually Transmitted Infections (STIs)
Data unit	Access to STI health services
Description	Incidence of Sexually Transmitted Infections (STIs)
Source of data	Survey
Description of methods to collect information and procedures applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.
Purpose of the data	This corresponds to the W+ Health formula
Comments	NA

Indicator	L - Negative health impact as a result of the project
Data unit	Challenges encountered in using health services
Description	L - Negative health impact as a result of the project
Source of data	Survey
Description of methods to collect information and procedures applied	Data was collected using ODK application. Women beneficiaries and non-beneficiaries were interviewed individually. Surveys were conducted by trained

	enumerators and were conducted during 6 days from 15 to 21 October 2022.
Purpose of the data	This corresponds to the W+ Health formula
Comments	NA

Monitoring Plan

Results Chain	**OUTCOME**	**INDICATORS**
Immediate Outcome	Improved sexual and reproductive health, as well as enhanced family planning knowledge	Large proportion of beneficiaries has access to health services Large proportion of beneficiaries has access to essential medicines for STIs
Intermediate Outcome	Men (husbands) support their partners to access family planning knowledge / information/services	Large proportion of beneficiaries report support from their partners to access health services
End outcome	Women demonstrate confidence in accessing family planning and STI information/ services	Large proportion of women are accompanied by their male partners in accessing health services

Do No Harm Indicators

Indicators	Women participating in project did not face emotional or physical violence from their male partners / husbands
Question (s)	• Did the project cause any conflict between you and your partner?

3.2.2. W+ Results

Results

W+ Domain	*Health*
Indicator	Improved health status of women
Description	There has been a 16% improvement in health status from baseline conditions
Situation	Some project beneficiaries (36%) reported facing challenges such as abnormal bleeding, headaches, and dizziness while using family planning and contraceptive methods. Additionally, 48% of those reporting challenges, emphasized the time constraints between household chores and attending sexual and reproductive health education. Finally, discussions from focus group revealed that male resistance to family planning is a major challenge for women to freely access such information and services
Prospects	For more women to 'freely' access family planning and HIV prevention services, it is critical that men are targeted for inclusion in project interventions to generate their support.

Summary Analysis of Results

Current Performance

Wildlife works in collaboration with the public health services is supporting the efforts of third-party partners to provide improved family planning as well as sexual and reproductive health education to women within the community.

Calculation of percentage of change *Sample size*

The sample size for the survey was 130, which included 81 beneficiaries and 49 non – beneficiaries.

Sampling frame

Sample size was calculated in compliance with the general guidance on sampling by UNFCCC/CCNUCC for project activities and program of activities (version- 02.0). [2]

Table 5: *Sampling detail for health domain*

Population size		1068	
Assumed proportion		50%	
Level of acceptable error		10%	
Level of Confidence		90%	
Required Sample Size (Treatment area)		65	
Final sample size collected	**Treatment**	**Control**	**Total**
	81	49	130

Calculation of Health W+

In order to calculate the percentage of change in health score from baseline conditions, the average health score for beneficiaries was calculated and compared to that of non-beneficiaries, and divided by baseline value (health score of non-beneficiaries in this case)

The health score is given in the following table 4.

Table 6: *Health score of beneficiary and non-beneficiary households*

Household type	n	Average composite score	Std Dev
Beneficiaries	81	15.86	3.3
Non beneficiaries	49	13.71	5.3

The results depict that the composite health score for beneficiary households is 15.86 compared to 13.71 for non-beneficiary households. The health score of the beneficiary households is higher by 2.15 points.

Table 5 below details the average score of the beneficiary and non-beneficiary households.

Table 7 : *W+ calculation sheet for Health Scores*

User	Calculation	Description
Wc,p	1068	Total beneficiaries
TTsu (Beneficiary)	15.86	Average health score for beneficiary households
TTsnu (NON-Beneficiary)	13.71	Average health score for non-beneficiary households

[2] *http://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf*

The formula used for calculating W + is as follows:

Percentage change in health score = [(Average health score for beneficiary Households - Average health score for non- beneficiary households)/Average health score of non-beneficiary Households]*100

W+ Health = Percentage change *Total beneficiaries

Table 8: *Calculation of W+ health domain*

Change in health score(Beneficiaries health composite score -Non Beneficiaries health composite score	2.15
Percentage Change compared to non-users (User score- Non User score)/Non user score	16%
Total beneficiaries (Wc,p)	1068
Total W+ units for Health Domain (1068 * 16= 17 088)	**17, 088**

3.3. INCOME DOMAIN

3.3.1. Data and parameters

Data and Parameters Available

Data / Parameter	Number of women beneficiaries
Data unit	Wc.p
Qualitative data	*NA*
Description	Number of women benefiting from Hadithi sales support
Source of data	Project records
Justification of choice of data or description of measurement methods and procedures applied	The sample size parameters are as follows: • Population size = 1506 • Assumed proportion 50% • Level of acceptable error = 10% • Level of significance= 90% • Required sample size = 66 (Treatment) and Control =33 Two sets of surveys were applied: Beneficiaries of the Hadithi craft support, and non -Beneficiaries to serve as a control population.
Purpose of the data	The purpose pf the data was to establish the income and savings by Beneficiaries of the Hadithi craft by comparing it to non-Beneficiaries
Comments	*NA*

Data and Parameters Monitored

Indicator	Income
Data unit(s)	Increase in income generated by marketing sisal weaved basket (Hadithi sales)
Description	Established by comparing income and assets survey results of Beneficiaries with that of non-Beneficiaries, calibrated on a per person basis
Source of data	Survey
Description of methods to collect information and procedures to be applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.

Purpose of the data	This corresponds to the income/assets formula
Comments	NA

Indicator	Savings
Data unit(s)	Average funds saved per month
Description	Established by comparing savings of Beneficiaries versus baseline (non-Beneficiaries) and calibrated on a per person basis
Source of data	Survey
Description of methods to collect information and procedures to be applied	Enumerators were trained and employed to apply the surveys. Data was collected using the ODK collect application. At the end of each day, enumerators submitted their results.
Purpose of the data	This corresponds to the income/assets formula
Comments	NA

Monitoring Plan

Results Chain	**OUTCOME**	**INDICATORS**
Immediate Outcome	Increased incomes	Large proportion of women perceived that their income and savings have increased
Intermediate Outcome	Increased assets	Handicrafts sales provided opportunities for women to generate additional income and assets.
End outcomes	Increased decision making by women Men supporting women	Increased decision making by women over purchase of household and other large item purchases Men assuming larger role / responsibilities in 'care' work within households

Do No Harm indicators

Indicators	Women participating in project did not have to invest their own resources to participate in the project
Question (s)	• Did the project cause you to sell your assets to participate in the project?

3.3.2. W+ Results for Income Domain

Results

W+ Domain	Income and Assets
Indicator	Increase in income and assets from sales of handicrafts facilitated by Hadithi Sales groups.
Description	Income and assets increased by 12.5% from baseline conditions.
Situation	A large number of beneficiaries (78%) reported facing challenges participating in the project. From those reporting challenges: 52% reported time investment required is not proportionate to income through sales 19 % reported having to sell assets to purchase raw material 27% reported they 'missed' other income generating opportunities such as working on production by participating in basket production
Prospects	To ensure that existing handcraft production offers a more significant return on their time investments, it is necessary to consider: • diversification of markets • Regular and scheduled visits by buyer (s). • Improving access to raw materials for women producers.

Summary Analysis of Results

Current Performance

The Hadithi project was introduced in Kasigau to support the conservation of the environment by providing alternative livelihoods through income generating activities for women. Approximately 1506 women benefited from this project by improving their skills and facilitating the handicrafts market.

Calculation of the percent of change

Sample size

The sample size for the survey was 120, which included 81 beneficiaries, and 39 non-Beneficiaries. Interviewee samples were from the villages of Kasigau, Mackinnon, Marungu, Mwachabo, Mwatate and Sagalla.

Sampling frame

Sample size was calculated in compliance with the general guidance on sampling by UNFCCC/CCNUCC for project activities and program of activities (version- 02.0). [3]

***Table 9**: Sampling detail for income domain*

Population size		1506	
Assumed proportion		50%	
Level of acceptable error		10%	
Level of Confidence		90%	
Required Sample Size (Treatment area)		66	
Final sample size collected	**Treatment**	**Control**	**Total**
	81	39	120

Calculation of W+ Income and assets

The total increase in income and assets for women benefiting from Hadithi sales is calculated by comparing the increase in their income/assets with those of non-Beneficiaries.

Table below shows the monthly income of the beneficiaries and non-beneficiaries households. The average income of the beneficiaries 4056, is slightly higher than that of non-beneficiaries, 3870 Kenya shilling per month.

***Table 10:** Average income of Hadithi supported beneficiaries and non- beneficiaries households*

Household Type	**n**	**Monthly average Income per month (Kenya Shilling)**	**Std Dev**
Beneficiaries	81	4056	2681
Non Beneficiaries	39	3870	2414
Total	**120**	**3995**	**2588**

Increase in income is equal to 4056 Kenya Shilling - 3870 Kenya Shilling = 186 Kenya Shilling

[3] *http://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf*

Final W+ Calculation of Percent of Change

In order to calculate the percent change of income increase from baseline we calculated the average income gained by Beneficiaries compared to that of non-Beneficiaries women and then divide it by baseline value.

The percentage of change of income which is calculated by

[(Income of beneficiaries - Income of non-beneficiaries) / Income of non-beneficiaries]*100

For monthly savings, 152 Kenya Shillings more were saved by the beneficiaries compared to non-beneficiary households.

The percentage of change of savings which is calculated by [(Savings of beneficiaries - Savings of non-beneficiaries) / savings of non-beneficiaries)]*100.

The percentage change of savings of the beneficiary households compared to that of non-beneficiary households is 20%.

Table 11: *Average savings per month by household type*

Household type	n	Average savings per month (Kenya Shilling)	Std Dev
User	71	900	2264
Non User	32	748	670
Total	**103**	**853**	**1913**

W+ Income and assets = Percentage change *Total beneficiaries

The table below details the calculation of the percentage change for income and assets:

Table 12*: W+ calculation for income and assets domain*

Income change (User income -Non User income)	186
Percentage Change of income from baseline (User income- Non User income)/Non user income	5%
Savings change User savings -Non User savings)	152
Percentage Change of savings from baseline (User savings- Non User savings)/Non user savings	20%
Average percentage change from income and savings	12.5%
Total beneficiaries (Wc,p)	1506
Total W+ units (=1506*12.5)	**18,825**

3.4. KNOWLEDGE DOMAIN

3.4.1. Data and parameters

Data and parameters available

Knowledge Domain has identified three specific variables and sub-variables within each variable that would be useful in measuring the non-academic outcomes attributable to training and or learning event (s).

• A: refers to a particular reasoning level attained as a result of undergoing the training course, and measured through a self- confidence rating.

• B: refers to behavioral changes that result from the application of the knowledge gained

• C: refers to women's ability to contend with challenges that result from existing gender asymmetries. These could manifest in socio cultural norms and practices that inhibit self-confidence, or gender roles and responsibilities that produce time poverty and limited mobility, access to resources and services

Data / Parameter	Total number of women beneficiaries
Data unit	WL
Qualitative data	*NA*
Description	Number of women beneficiaries of the project is 75
Source of data	Survey
Justification of choice of data or description of measurement methods and procedures applied	The sample size parameters are as follows: • Population size : 75 • Assumed proportion: 50% • Level of acceptable error : 10% • Level of significance: 90% • Required sample size : 36 (Treatment) • Considered sample : 73 Two sets of surveys were applied: beneficiaries of project training interventions (55) , and to non - beneficiaries (18) to serve as a control population
Purpose of the data	The purpose of the data was to establish the changes in knowledge of beneficiaries by comparing it to non-beneficiaries.
Comments	NA

Data and Parameters Monitored

Indicator	A - Reasoning level
Data unit	*Level of confidence*
Description	Education / Knowledge retention from training inputs/interventions
Source of data	Survey
Description of methods to collect information and procedures applied	Enumerators were trained and employed to apply the surveys. While conducting the surveys, the enumerators were closely supervised through visits or phone calls by the survey supervisors. Additionally, at the end of each day, enumerators submitted their results and their data was screened by survey supervisors.
Purpose of the data	This corresponds to the Education and Knowledge formula
Comments	NA

Indicator	B : Changes in behavior
Data unit	*Knowledge application*
Qualitative data	NA
Description	Behavioral changes as a result of the training interventions
Source of data	Survey
Description of methods to collect information and procedures applied	Enumerators were trained and employed to apply the surveys. While conducting the surveys, the enumerators were closely supervised through visits or phone calls by the survey supervisors. Additionally, at the end of each day, enumerators submitted their results and their data was screened by survey supervisors.
Purpose of the data	This corresponds to the Education and Knowledge formula
Comments	NA

Indicator	Challenges
Data unit	Ability of women to mitigate socio-cultural challenges
Qualitative data	NA

Description	Challenges women faced in the application of the education/knowledge
Description of methods to collect information and procedures applied	Enumerators were trained and employed to apply the surveys. While conducting the surveys, the enumerators were closely supervised through visits or phone calls by the survey supervisors. Additionally, at the end of each day, enumerators submitted their results and their data was screened by survey supervisors.
Purpose of the data	This corresponds to the Education and Knowledge formula
Comments	NA

Data and parameters Monitored (Same as above)

There were no changes in the data and parameters available and those that were eventually monitored.

Monitoring plan

Results Chain	OUTCOME	INDICATORS
Immediate Outcome	Increased knowledge and skills	Large proportion of beneficiaries can explain with high level of confidence the eco farming practices, eco charcoal production, tailoring techniques and green house technologies
Intermediate Outcome	Application of acquired knowledge and skills acquired	Beneficiaries can explain the benefits of applying the new skills they have gained
End outcome	Increased decision making	Women make independent decisions over household and other large item purchases

Do No Harm Indicators

Indicators	• Participation in training does not lead to loss of other opportunities as a result of time investment

Question (s)	• Did the time you invested in the training program lead to loss of other potential opportunities that you could have accessed during the same time?

3.4.2. W+ results for Knowledge Domain

Results

W+ Domain	*Knowledge and Education*
Indicator	Retained and applied knowledge and skills acquired from trainings facilitated by Wildlife Works
Description	The Knowledge score improved by 93% from baseline conditions
Situation	Among the challenges cited by the beneficiaries of the training was the inability to apply their acquired knowledge: with 47% reporting a lack of resources; 9% report that family actively discourage participation in assuming any public role due to time consideration
Prospects	A majority of beneficiaries report the need for additional knowledge/skills and resources. These include: knowledge on all stages of tailoring; • access to resources and inputs to produce eco charcoal • access to extension knowledge/services to manage crop infestations in the greenhouse more effectively.

Summary Analysis of Results

- **Current performance**

The project supported 75 women in providing knowledge and information on eco-charcoal, greenhouses, eco-friendly framing and tailoring. The main benefits include increased agricultural production against climate change, alternative ways to income generation such as eco charcoal production, tailoring.

Calculation of the percent of change

Sample size

The sample size for the survey was 73 of which 55 are beneficiaries and 18 non beneficiaries

Sampling frame

Sample size was calculated in compliance with the general guidance on sampling by UNFCCC/CCNUCC for project activities and program of activities (version- 02.0). [4]
The sample size was 73 of which 55 beneficiaries and 18 non beneficiaries.

Table 13: *Sampling detail for Knowledge domain*

Population size		75	
Assumed proportion		50%	
Level of acceptable error		10%	
Level of Confidence		90%	
Required Sample Size (Treatment area)		36	
Final sample size collected	**Treatment**	**Control**	**Total**
	55	18	73

Calculation of W+ Knowledge

For the W+ knowledge calculation, Knowledge, Behavior and challenge scores are variables considered. The percent change is calculated by comparing average knowledge score for beneficiaries to that of non-beneficiaries.

Table 14*: Average knowledge score of the Beneficiary and non-Beneficiary households*

Household type	n	Average composite score of knowledge	Std Dev
Beneficiary	55	34.0	8.20
Non Beneficiary	18	17.61	4.42

The results depict that the composite knowledge score for beneficiary households is 34 compared to 17.61 for non-beneficiary households. The knowledge score of the beneficiary households is higher by 16.39 points.

Table below details the average score of the beneficiary and non-beneficiary households.

[4] *http://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf*

***Table 15**: W+ calculation sheet for Health Scores*

User	Calculation	Description
Wc,p	75	Total beneficiaries
TTsu (Beneficiary)	34.0	Average knowledge score for beneficiary households
TTsnu (NON-Beneficiary)	17.61	Average knowledge score for non-beneficiary households

The formula used for calculating W + is as follows:

Percentage change in knowledge score = [(Average knowledge score for beneficiary Households - Average knowledge score for non- beneficiary households)/Average knowledge score of non-beneficiary Households]*100

W+ Knowledge = Percentage change *Total beneficiaries

***Table 16**: Calculation of W+ knowledge domain*

Change of knowledge score(User Knowledge composite score - Non User composite knowledge score)	16.39
Percentage Change compared to non-users (User score- Non User score)/Non user score	93%
Total beneficiaries (Wc,p)	75
Total W+ units (75 * 93= 6975)	**6975**

4. APPENDIX

TIME DOMAIN: DETAILED ANALYSIS OF FINDINGS

Survey locations

The table below shows the locations for the surveys. Within each location, there are different villages in which beneficiaries and non-beneficiaries were identified for the surveys.

***Table 17**: Distribution of women surveyed by site*

Site	Non Beneficiaries	Beneficiaries	Total
Kasigau	2	39	41
Mackinnon	11	21	32
Marungu	7		7
Mwachabo	2		2
Mwatate	19	7	26
Sagalla	5	14	19
Total	**46**	**81**	**127**

Source of drinking water

The majority of project beneficiaries (90%) have access to water source (s) that are supplied through pipes, and strategically located for easy access. By comparison, a large number of non-beneficiaries (67%) continue to access water from community constructed sources that are not strategically located resulting in some households having to spend considerable time in water collection activities.

Non-beneficiaries that do not have access to community constructed sources spend even more time collecting water from traditional sources such as rivers, springs and wells, while also risking infections from water borne diseases.

***Table 18:** Sources of drinking water*

	Non-Beneficiary		Beneficiary		Total	
Water source	**Number**	**%**	**Number**	**%**	**Number**	**%**
Piped water supply	31	67%	73	90%	104	82%
Borehole	8	17%	2	2%	10	8%
Rock catchment	1	2%	4	5%	5	4%
Water pans (collection)		0%	1	1%	1	1%
River	1	2%		0%	1	1%
Spring water	1	2%		0%	1	1%
Wells	3	7%		0%	3	2%
Others	1	2%	1	1%	2	2%
Total	**46**	100%	**81**	100%	**127**	100%

Time spent in water collection

The difference in time spent on water collection between beneficiaries and non-beneficiaries is 51 minutes a day.

Table 19: *Time spent in water collection for drinking and cleaning in a day*

Respondent type	Mean	Std. Dev.	Frequency
Beneficiaries	158,3	266,4	81
Non- Beneficiaries	209,2	314,0	46
Total	176,7	284,4	127

The daily time spent on water collection by beneficiaries is 243 minutes, while non-beneficiaries spent 343 minutes on the same daily activity. As a result of the project intervention, beneficiaries save almost 100 minutes when compared to non-beneficiaries for the same activity.

Table 20: *Average two- way time spent in minutes to collect water for drinking and cleaning.*

Respondent type	**Average two way time in minutes per day**		
	n	Mean	Std. Dev.
Beneficiaries	81	243.1	359.2
Non-Benificiaries	46	342.5	575.6

***Benefits for the women* from water access**

The majority of the beneficiaries (78%) reported that water project has had positive impacts on their health. Women have more time to spend on helping children with school work, are able to focus on income generating opportunities and spend time on leisure and social activities.

Table 19: *Benefits of easier access to clean water*

	User	
	No	**%**
Enhanced health	53	78%
Improved children's education due to added parental attention from saved time	42	62%
Improved cleanliness/hygiene	37	54%
Increased income due to reallocation of saved time into income generating activities	32	47%
Others	31	46%
Total	68	100%

Reallocation of time saved and the gendered implications

An important indicator of social change in addressing existing gender asymmetries is tracking how time saved from a project intervention is reallocated. For instance, the majority of beneficiaries (72%) reported time savings allocated to income generating activities. A similarly large percentage of beneficiaries (66%) reported time reallocation to cleaning the home. By contrast, a smaller percentage of beneficiaries reported time reallocation to recreational or leisure activities (22%).

Table 21: *Use of saved time*

	User	
	No	**%**
Helping children with their studies	22	32%
Working in the field	14	21%
Cleaning house	45	66%
Income generating activities	49	72%
Social activities	26	38%
Recreational activities	15	22%
Others	28	41%
Total	68	100%

The use of saved time to existing productive and care work of women has the real potential for exacerbating the disproportionate work burden that women already assume, and add to their existing time poverty.

Challenges and problems encountered by beneficiaries

A large percentage (94%) of beneficiaries reported problems such as occasional non availability of water, damage to the taps, and a smaller percentage reported problems with the quality of water and having to spend time while queuing for the water at the source

Table 21 : *Did you encounter any problems or challenges?*

	User	
	Number	**%**
Yes	76	94%
No	5	6%
Total	81	100%

Out of the 94 % beneficiaries who responded that they have faced problems, the non availability of water during summer and the damage of the tap are their main challenges

Table 22: *What type of problems/challenges did you face?*

	Beneficiaries (76)	
	No	%
Damage of the tap	22	29%
Low quality of the water from the tap	5	7%
Occasional non- availability of water	29	38%
Others (see below)	13	17%
Time spent on queuing for water	7	9%

In more informal focus group discussions, women beneficiaries elaborated on the challenges in more detail. Some of the key challenges in access was differential proximity to the water source, hence requiring more time by those who were further away due to having to wait in longer queues to collect water.

Some beneficiaries reported not being able to afford the cost of water on a regular basis, and therefore having to resort to water collection from springs or wells nearby, thus risking infections from untreated water, while also spending more time in collection.

The provision of rock catchments, water pans and gutters were reported to be very useful, but largely in the rainy season only. The layout of pipelines has also contributed to perceived notions of 'inclusion' of those household located near the pipelines, and 'exclusion' of others who are located a greater distance away.

The provision of water tanks has been largely positive. However, water tanks are constantly exposed to potential elephant damage, and the fencing measures have proved to be of little deterrence to elephant attacks. Discussants pointed to absence of redress mechanisms, a fact that is underscored by the high costs of water tanks.

- **Do No Harm Assessment**

There was no harm encountered by any of the beneficiaries as a result of their engagement with the project.

4.1. HEALTH DOMAIN: DETAILED ANALYSIS OF FINDINGS

Survey Locations.
Surveys for control group and project beneficiaries were conducted in the following locations:

Table 22: *Geographical distribution of respondents*

	Non beneficiaries	Beneficiaries	Total
Kasigau	9	2	11
Mackinnon	4	1	5
Marungu	9	78	87
Mwachabo	2		2
Mwatate	22		22
Sagalla	3		3
Total	**49**	**81**	**130**

Project Results

- **Health improvement**

Of the total 33 % of beneficiaries feel an improvement of their general health these last years. For both beneficiaries and non-beneficiaries, large proportion of each of them stated that their health status remain the same.

Table 23: *Health status of the respondents compared to last year*

	Beneficiaries		Non beneficiaries	
	Number	**%**	**Number**	**%**
Improved	27	33%	13	27%
Remained same	45	56%	22	45%
Worsened	9	11%	14	29%
Total	**81**	100%	**49**	100%

- **Access to adequate health services and awareness of modern contraception**

The table below give the number of beneficiaries and non-beneficiaries who reported that they have adequate access to health services and are aware of modern contraception

Table 24: *Access to health services and awareness of modern contraception*

	Beneficiaries		Non beneficiaries	
	Number	**%**	**Number**	**%**
Health services	55	67,9	25	51
Essential medicine	30	37.0	22	44.9
Contraceptive pills	21	25.9	11	22.4
IUD	36	44.4	26	53.1
Contraceptive injection	12	14.8	8	16.3
Vaginal methods	60	74.1	31	63.3
Condom	56	69.1	19	38.8
Female sterilization,	71	87.7	44	89.8
Male sterilization	75	92.6	47	95.9

- **Use of modern contraception**

For the beneficiaries, 44% of them said that their sexual partner use the modern method of contraception. Large proportion of them (86%) feels that their family planning needs are satisfied even if some of them has to hide from their partner in following the family planning. They let the midwives keep their notebook in the health center.

Table 25: *Use of modern contraception by partners*

	Beneficiaries		Non beneficiaries		Total	
	Number	**%**	**Number**	**%**	**Number**	**%**
Yes	36	44%	14	29%	50	38%
No	22	27%	14	29%	36	28%
Not applicable	23	28%	21	43%	44	34%
Total	**81**	100%	**49**	100%	**130**	100%

- **HIV test**

Among the respondents and for those who are willing to say the results of their test, very few of them has HIV and STI positive results. Compared to non-beneficiaries, more beneficiaries have been already tested for HIV.

Table 26: *Percentage of respondents who did HIV test*

	Beneficiaries		Non beneficiaries		Total	
	Number	**%**	**Number**	**%**	**Number**	**%**
Yes	79	98%	35	71%	114	88%
No	2	2%	14	29%	16	12%
TOTAL	**81**	**100%**	**49**	**100%**	**130**	**100%**

- **Challenges**

Challenges are related to the 'openness' through which beneficiaries can access and use improved family planning and contraceptive methods, without some form or retribution' from male partners. According to the table below, many of them reported that they are free to use these modern methods.

Table 27: *Beneficiaries who are free to use improved family planning and contraceptive methods.*

	Beneficiaries	
	Number	**%**
Family planning methods	57	70%
Contraceptive methods	56	69%
TOTAL	**81**	**100%**

Beneficiaries were also asked if they feel that they spend time in participating in sexual and reproductive health education. Less than 50% said they spent more time

	Beneficiaries	
	Number	**%**
Yes	39	48%
No	42	52%
TOTAL	**81**	**100%**

Some of the beneficiaries (36%) complain about having health problems as side effects of using improved family planning methods such as headache, dizziness, abnormal bleeding.

Table 28: *Health problems in applying improved family planning methods*

	Beneficiaries	
	Number	**%**
Yes	29	36%
No	52	64%
TOTAL	**81**	**100%**

Women using modern family planning methods did not face any emotional maltreatment or physical abuse from their partner.

	Beneficiaries	
	Number	**%**
Yes	1	1%
No	80	99%
TOTAL	**81**	**100%**

During focus group discussions, some beneficiaries participating in awareness raising campaigns for family planning and HIV prevention and treatment highlighted the low involvement/participation of men in the campaigns as the main challenge, especially for family planning. Women accessing information and services to family planning services and HIV prevention and treatment often do so without assent from their husbands. Men are resistant to family planning methods as the number of offspring is so closely linked to ideas of masculinities.

Additionally, there is resistance to accessing HIV prevention or treatment due to the social stigma associated with the disease. The stigmatization of HIV affects women disproportionately, as they are not supported to seek treatment by their partners / husbands, and their consequent poor health in turn, severely constrains their livelihood generating ability. As a result, food insecurity and stigmatization of HIV are closely interrelated.

- **Do No Harm Assessment**

There was no harm encountered by any beneficiaries as a result of their engagement with the project.

4.2. INCOME DOMAIN: DETAILED ANALYSIS OF FINDINGS

Survey Locations

Surveys for control group and project beneficiaries were conducted in the following locations

Table 29: *Demographics of the respondents in income domain*

	Beneficiaries (81)		Non Beneficiaries (39)		Total (120)	
	Number	%	Number	%	Number	%
Kasigau	36	44%		0%	36	30%
Mackinnon		0%	3	8%	3	3%
Marungu	16	20%	21	54%	37	31%
Mwachabo	27	33%	4	10%	31	26%
Mwatate	1	1%	8	21%	9	8%
Sagalla	1	1%	3	8%	4	3%
Total	81	100%	39	100%	120	100%

- ***Primary source of income***

The primary sources of income for beneficiaries differs from that of non-beneficiaries. Over 71% of the non-Beneficiaries reported their primary source of income as agriculture (38%) and non agricultural labor (33%), while Beneficiaries (62%) generate their income from informal business such as small restaurants/easteries and basket weaving.

Table 30: *Sources of income*

	Non Beneficiaries (39)		Beneficiaries (81)		Total (120)	
Profession	Number	%	Number	%	Number	%
Agriculture	15	38%	19	23%	34	28%
Non-agricultural labour	13	33%	8	10%	21	18%
Business/professional	8	21%	13	16%	21	18%
Home-based of informal business	4	10%	50	62%	54	45%
Remittances	3	8%	2	2%	5	4%
Selling other goods	9	23%	9	11%	18	15%
Others	8	21%	21	26%	29	24%

More than 90% of women Beneficiaries confirmed that their income increased last year and in the past years due to handicraft sales.

From the 90% Beneficiaries who reported increases in income, 55% of the respondents said the increase was significant, while only 18% said it was minimal.

Table 31: *Perception of increased income*

		%
Significant amount	40	55%
Minimal amount	13	18%
Some	20	27%
TOTAL	73	100%

The analysis shows that income generated from selling handicrafts provided opportunities for women to generate additional income and assets. For 83% of the women Beneficiaries, the additional income is used for purchasing household goods and 65% of them stated that additional income is invested in the education of their children.

Table 32: *Use of additional income*

	Beneficiariess	
	No	%
Purchase assets	12	15%
Re-invest in income-generation/business	14	17%
Education	53	65%
Household goods	67	83%
Technology/communication	1	1%
Entertainment or Recreation	1	1%
Others	13	16%

- ***Increase in assets***

With the income generated by the handicrafts sales, 72 % of beneficiaries (58/81) stated an increase in savings /assets.

Table 33: *Increased assets/savings*

	Beneficiaries (#58)	
	No	%
Land	1	2%
House	6	10%
Materials	34	59%
Financial savings	42	72%
Leadership/ networking and social status	14	24%

- ***Use of additional income***

According to the surveys , additional income earned through selling crafts was used for purchasing assets , growing business, promoting children's education, paying for households goods and technology communication and spending for recreational activities .

Table 34: *Ranking of the spending from additional income*

Level	Purchase of assets		income-generation /business		Education		Household goods		Technology communication		Entertainment or Recreation	
1 (Lowest)	21	26%	19	23%	8	10%	5	6%	27	33%	56	69%
2	26	32%	30	37%	11	14%	7	9%	27	33%	21	26%
3	17	21%	18	22%	20	25%	18	22%	16	20%	3	4%
4	7	9%	10	12%	19	23%	21	26%	5	6%	1	1%
5 (Highest)	10	12%	4	5%	23	28%	30	37%	6	7%		0%
TOTAL	81	100%	81	100%	81	100%	81	100%	81	100%	81	100%

Additional income and savings has also generated some moderate to small benefits in the areas of enhanced decision making, income equality in the household, growing existing businesses,

Level	Greater household decision making	Greater community decision making	Greater income equality in household	Growing the business	Extratime for income-generating activities	Enhanced Health	Well being
1 (Lowest)	10%	19%	7%	19%	6%	9%	5%
2	20%	23%	26%	33%	30%	11%	14%
3	25%	35%	37%	21%	33%	43%	28%
4	28%	17%	15%	16%	21%	15%	27%
5 (Highest)	17%	6%	15%	11%	10%	22%	26%
TOTAL	100%	100%	100%	100%	100%	100%	100%

- ***Challenges***

Table 22: Did you encounter any problems or challenges?

	No	%
Yes	63	78%
No	18	22%
Total	81	100%

Table 23: *What type of problems/challenges did you face?*

	Beneficiaries (63)			
	Yes		No	
	Number	%	**Number**	%
Did the time needed to participate in project prevent you from participating in other income-generating activities or employment?	**17**	27%	46	73%
Did you have to invest too much time building the income or assets you gained from the project?	**33**	52%	30	48%
Has the income gap between women and men increased?	**29**	46%	34	54%
Have you had to sell assets (jewelry, livestock etc) in order to pay for aspects of the project?	**12**	19%	51	81%
Has increase in income or assets led to any physical or emotional abuse, social sanctions, violence, or marital troubles?	**1**	2%	62	98%

In focus group discussions, beneficiaries participating in the Hadithi sales group outlined the key challenges as follows:

- Limited profits from sales
- Lack of alternative markets for their crafts
- The price of their product is not consistent with the rising costs of raw materials
- Price determination by the buyer has limited their ability to negotiate more 'realistic' prices for their goods
- The time inputs required for production of goods is not sufficiently reflected in the pricing structure, with some beneficiaries reporting physical health problems as a result of long hours of sitting during production.
- The absence of alternative markets to sell their products was cited as a key challenge for craft producers

- **Do no harm assessment**

There was no harm encountered by any of the beneficiaries as a result of their engagement with the project.

4.3. KNOWLEDGE DOMAIN: DETAILED ANALYSIS OF FINDINGS

Distribution of the respondents

Surveys for control group and project beneficiaries were carried in different locations

Table 24: *Geographical distribution of respondents*

	Beneficiaries		Non Beneficiaries		Total	
	Number	%	Number	%	Number	%
Kasigau	9	16%	2	11%	11	15%
Mackinnon	5	9%		0%	5	7%
Marungu	13	24%	7	39%	20	27%
Mwachabo	17	31%	4	22%	21	29%
Mwatate	5	9%	5	28%	10	14%
Sagalla	6	11%		0%	6	8%
Total	**55**	100%	**18**	100%	**73**	100%

Proportionally to the number of beneficiaries for each training, the sample size is given below.

Table 25: *Number of beneficiaries and non-beneficiaries for each training*

	Beneficiaries		Non beneficiaries	
	Number	%	Number	%
Ecofarming	42	76%	13	24%
Eco charcoal	28	51%	27	49%
Tailoring	9	16%	46	84%
Organic greenhouse	32	58%	23	42%

Knowledge

There is a relatively high levels of confidence in the ability of participants to recall the learnings from the trainings. However, the challenge remains in their inability to practically apply their newly acquired knowledge due in large part to the unavailability of resources. There are also socio-cultural norms and practices that discourage women from actively participating in applying their knowledge.

Recall and comprehension

A large percentage of organic farming training beneficiaries (72%) are confident in their ability to explain and describe the benefits of the organic greenhouse. Only 56 % of beneficiaries for tailoring can explain the benefits as their knowledge is limited to specific stages of the production process. ,For eco farming and eco charcoal production, 64 % of beneficiaries of these training are highly confident in explaining the benefits of applying these technologies.

Table 26: *Levels of confidence in knowledge recall and comprehension*

	Ecofarming (42)		Eco charcoal (28)		Tailoring (9)		Organic greenhouse (32)	
Recall								
Confident	27	64%	18	64%	5	56%	21	66%
Not Confident			1	4%			1	3%
Somewhat Confident	15	36%	19	68%	4	44%	10	31%
Application								
Confident	25	60%	15	54%	4	44%	18	56%
Not Confident			2	7%	1	11%	1	3%
Somewhat Confident	17	40%	11	39%	4	44%	13	41%
Perform								
Confident			15	54%	5	56%	18	56%
Not Confident			4	14%	2	22%	1	3%
Somewhat Confident			9	32%	2	22%	13	41%
Explain benefits								
Confident	27	64%	18	64%	5	56%	23	72%
Not Confident			2	7%	2	22%	1	3%
Somewhat Confident	15	36%	8	29%	2	22%	8	25%
Can train others								
Confident	30	71%	14	50%	5	56%	23	72%
Not Confident	2	5%	5	18%	4	44%	1	3%
Somewhat Confident	10	24%	9	32%			8	25%

Behavioral change

Behavioral change is measured through the sharing of knowledge that is gained from the training interventions. Knowledge gained in eco-friendly farming and eco charcoal production was shared mainly with family member, friends, neighbors and other community members.

Table 27: *Sharing of knowledge*

	Eco friendly farming (42)		Eco charcoal (28)	
	Number	%	Number	%
Family	36	86%	23	82%
Neighbors	35	83%	16	57%
Friends	26	62%	21	75%
Community members	17	40%	3	11%
Other business owners	0	0%	1	4%
Others	0	0%	0	0%
None	2	5%	3	11%

Knowledge application

Knowledge application is about using the skills in a practical context. Less than half (47%) of the beneficiaries applied the knowledge they gained from the training. Knowledge on eco-friendly farming and tailoring is more easily applied by the beneficiaries as these technologies did not require too much material inputs from the beneficiaries compared to eco charcoal production.

Table 28: *Percentage of beneficiaries applying the knowledge*

	Beneficiaries	Beneficiaries who applied	
	Number	Number	%
Eco-friendly farming	42	21	50%
Eco-charcoal	28	1	4%
Tailoring	9	5	56%

Challenges

Key challenges to apply the knowledge acquired as stated by the beneficiaries are lack of resources, mainly financial resources to buy the materials and inputs needed to put in practice the technologies

	Lack of support from family		Discouragement by family		Conflicting interests		Lack of resources	
	Number	%	Number	%	Number	%	Number	%
Highly Challenging	5	9%	2	4%	0	0%	26	47%
Moderately Challenging	1	2%	1	2%	10	18%	11	20%
Least Challenging	49	89%	52	95%	45	82%	18	33%

Results of focus groups discussion:

Focus group discussants identified the challenges associated with applying the knowledge generated through training interventions. While training beneficiaries expressed high degrees of confidence and interest in their ability to applying the skills learned in the training interventions, the absence of application opportunities was the key hinderance. More specifically, the following training interventions and the related challenges to their application are detailed below:

Eco-charcoal:

- Participants are keenly aware of deforestation and its negative consequences. They emphasized their interest in putting the training into practice, but due to a lack of financial resources/income sources, they are unable to purchase materials they need to produce eco-charcoal.

Greenhouses:

- Beneficiaries have a good understanding of what is taught in the training, but they cannot put it into practice in their villages because of the lack of water and lack of financial resources to buy the raw materials they need to apply their knowledge. In one particular case, women members of a group-managed greenhouse had little understanding or knowledge of pest control measures or extension services they could call upon to address plant infestations in the green house.

Eco-friendly farming

- Even though the participants have a good understanding of the training, the problem between human-wildlife is a major challenge to put the knowledge into practice. Elephants destroy crops, and though beneficiaries acknowledge the importance of wildlife protections, they also emphasized their need for mechanisms to protect/redress against crop damage.

Tailoring:

- The training was perceived as being too short, and therefore, not sufficient to apply in a context outside the Wildlife Works factories. Training beneficiaries highlighted their interest for more training that would provide skills in all areas/stages of product development.

- **Do no harm assessment**

There was no harm encountered by any of the beneficiaries as a result of their engagement with the project.