



BARTABWA WARD COMMUNITY PARTICIPATORY CLIMATE RISK ASSESSMENT REPORT



The PCRA community participants of Bartabwa Ward at AIC Bartabwa, during the Climate Risk action Planning Process

BARINGO NORTH SUB COUNTY

BARINGO COUNTY

April 2023

PRELIMINARY CHAPTER

Acknowledgement

We wish to recognize the support and invaluable contribution of the County government of Baringo under the able leadership of H.E. Hon. Benjamin Cheboi, and the donor for G-FLLoCA the world Bank.

We thank the entire team of facilitators for their immense contribution towards development of this Bartabwa Ward Community Participatory Climate Risk Assessment Report.

We sincerely thank the department of Environment and climate change of Baringo County Government for organizing the data collection process and coordinating the development of the PCRA process.

Executive summary

Bartabwa community is situated in the agro-pastoral livelihood zone of Baringo North about 70 km North of Kabarnet Town and may be accessed through Kabarnet-Kabartonjo- Kipsaraman- Bartabwa road.

The Participatory Climate Risk Assessment (PCRA) process for Bartabwa Community was opened by the local leadership of the Chief, Ward Administrator and Opinion Leaders. An overview of the Government Financing Locally-Led Climate Action Program(G-FLLoCA) , its organization Structure, Programme development Objectives, Geographical Coverage at the whole county, was introduced to the participants. The need for conducting the PCRA process at the ward level was also Highlighted.

This report herein constitutes the Bartabwa Community Climate Risk deliberations, priorities and Adaptation strategies developed through a participatory Climate Risk analyses approach as a clear and concise community view of their situations, strategies and visioning without influence or bias to any specific external entities or needs.

The Bartabwa community was engaged to ensure that they analysed their Climate risks, developed a community Climate Risk measures, formed their Climate risk management committee and enhanced their lobby and advocacy skills on resource mobilization. These deliverables were meant at entrenching ownership and sustainability of the Climate Risk measures for resilience building.

The PCRA process is a key step in aligning the county priorities and leadership into mainstreaming Climate Risk Adaptation strategies the county . This form the building blocks that will ensure that the County strategies on Climate risk Mitigation and adaptation are realised from bottom-up and in advising the County blueprint document vested in the reviewed Baringo County Integrated Development Plan (CIDP).

List of tables

- Table 1: Human Population within Bartabwa ward
- Table 2, 3: Livestock Population in Bartabwa ward
- Table 4: Natural Resources
- Table 5: Critical Facilities in Bartabwa ward
- Table 6: Social Facilities
- Table 7: Schools
- zzTable 13: Hazard ranking using pairwise ranking

Abbreviations

BCG	Baringo County Government
CIDP	County Integrated Development Plan
CP	Community Plans
DRSLP	Drought Resilience and Sustainable Livelihoods Programme
NDMA	National Drought Management Authority
PCRA	Participatory Climate Risk Assessment
WFP	World Food Programme
WV	World Vision

Table of contents

Contents

PRELIMINARY CHAPTER	2
Acknowledgement	2
Executive summary	2
List of tables	3
Abbreviations	3
Table of contents	4
CHAPTER ONE	6
Introduction	6
Objectives:	6
Background information about the (Ward Position, administrative units, poverty index Population-Male & female, size of the ward)	6
Critical Events that occurred in Bartabwa Ward:	6
MAP OF BARTABWA WARD	6
Human Population:	7
Table 1: Human Population	7
Livestock Population:	7
Table 2: Livestock Population	7
Table 3: Livestock Population	7
Agro ecological zones and Livelihood	7
Livelihoods	7
Natural resources	8
Table 4: Natural Resources	8
Critical facilities	8
Table 5: Critical Facilities	8
Health Facilities	8
Social facilities	8
Table 6: Social Facilities	8
Table 7: Schools	8
Economic /Farming	9
1.6 Telecommunication and road network	9
Transport/Communication	9
CHAPTER TWO	10
2.0 TARGETING, OBJECTIVES AND METHODOLOGIES	10
2.1 Targeting	10
2.2 General Objective	10
Specific Objectives	10

2.3 Methodologies (Methodologies and tools)	10
CHAPTER THREE	11
3.0 PARTICIPATORY CLIMATE RISK ASSESSMENT FINDINGS	11
3.1 Environmental & socio- Economic Baseline Information	11
3.1.1 Community Resource-Hazard map	11
3.3.2 Historical Trends about Climate & Non-Climate Hazards.....	12
3.3 Hazard identification, prioritization, characterisation and Analysis	13
3.3.1 Hazard identification & prioritization,	13
Table 13: Hazard Ranking.....	13
3.3.2 Hazard characterization and profiling Analysis.....	13
PROBLEM TREE/SOURCE FOURCE TREE.....	13
3.3.3 Seasonality calendar.	15
3.4 Vulnerability Assessment	16
3.4.1 Non Human Elements	16
3.4.2 Human Elements.....	18
3.5 Capacity Assessment	20
3.6 Stakeholder analysis (Venn diagram 1 and 2)	26
CHAPTER FOUR	27
4.0 WARD CLIMATE ACTION PLANNING PROCESS	27
4.1 Adaptation Strategies(Including hazards, impacts, goals-short &long term), Objectives, strategies	27
4.1 Co benefits of adaptation strategies.....	27
4.2. Ward level priorities.....	27
4.2.1. Ward Climate action Planning.....	29

CHAPTER ONE

Introduction

In June 2020, the government of Kenya launched the government Financing Locally-Led Climate Action Programme

Objectives:

The G-FLLoCA,s programme objective is to Strengthen local resilience to the impact of climate change, natural hazards The PDRA process was preceded by a planning meeting between the Chief and assistant chiefs of the targeted sub location ward administrator and Assistant County Commissioner (ACC). The PCRA process brought together a total of twenty community (20) members- Male 13 and female 7 who were selected from the various sub-locations of the ward.

Background information about the (Ward Position, administrative units, poverty index Population-Male & female, size of the ward)

Bartabwa Ward is in Baringo County, Baringo North Sub County. There are three (3) Locations in Bartabwa Ward as indicated below: Kinyach, Ngorora and Kaboskei.

There are eight (8) Sub Locations in Bartabwa Ward as indicated below;Kalabata, Kinyach, Tuluk, Kapturo, Bartabwa, Kesumet, Atiar and Terik

Critical Events that occurred in Bartabwa Ward:

- 1956 - Bartabwa primary school built
- 1961 - Heavy Floods (Elnino)
- 1963 - Kinyach primary school built
- 1965 - Major Drought - Famine
- 1980's - High school dropouts

MAP OF BARINGO NORTH SUBCOUNTRY.



Human Population:

The number of households in Bartabwa Ward is approximately seven hundred and twelve (712) translating to approximately seven thousand four hundred and ninety (7,490) people. Out of this, males are three thousand and ninety eight (3,098) while females are four thousand three hundred and ninety two (4,392). The Bartabwa community is entirely of the Tugen sub tribe.

Table 1: Human Population

Sub Location	Human Population		
	Households	Male	Female
Kinyach	315	927	2,030
Kalabata	320	978	1,984
Tuluk	307	282	292

Livestock Population:

Livestock population in Bartabwa Ward is as indicated in the table below;

Table 2: Livestock Population

Livestock Species	Population
Cattle	4,275
Goats	12,800
Sheep	3,100
Camel	0
Poultry	7,000

Table 3: Livestock Population

Sub Location	Livestock Population				
	Cattle	Goats	Sheep	Camel	Poultry
Kinyach	2,400	7,000	1,500	0	3,000
Kalabata	1,875	7,300	1,650	0	4,000
Tuluk	1,962	4,500	792	0	2,100

Agro ecological zones and Livelihood

Bartabwa lies in the arid Agro climate zone. This zone has rainfall/evapo-transpiration ratio of 15-25%. The vegetation consists of woody *Commiphora* and *Acacia* species and grasses such as *Cenchrusciliaris* and *Chloris roxburghiana*. The Ward also falls in the pastoral livelihood zone where 90% of the population depends on pastoral livestock production for survival, both for food and cash income. The remaining 10% are dependent on various livelihood activities such as bee keeping, micro irrigation and casual labour. This zone is characterized by perennial movements due to in-migration in search for pasture and browse and water from neighbouring communities. The zone constantly experiences rampant cattle rustling from neighbouring communities. The community noted that before the year 1980, the environment of Bartabwa Ward was grassy with few trees and soil erosion was minimal.

Livelihoods

Bartabwa community practices petty trade at a small scale at several trading centres as the focal business units. Some of the community youths engage in *bodaboda* business as an emerging livelihood. They link the community to reach places within the locality and external places including health facilities and markets such as Kinyach, Bartabwa

and Kalabata. Indigenous thorny acacia trees and bush cover the entire area. There is very little grass cover.

Natural resources

Table 4: Natural Resources

Sub-Location	Rivers	Springs	Boreholes	Water Pans
Kinyach	1	0	3	1
Kalabata	3	0	0	1
Tuluk	1	1	0	0

- All the rivers captured by the community are seasonal rivers except for river Kalabata which is permanent
- There exists a grazing field in Kinyach that is unutilized. The reason given by the community for why it is not being utilized is because of insecurity as a result of conflict over resources (pasture) and cattle rustling.

Critical facilities

Table 5: Critical Facilities

Sub-Location	Health Facilities	Markets	Dips
Kinyach	1	1	2
Kalabata	1	1	2
Tuluk	1	1	2

Health Facilities

- 1960-Bartabwa health center was opened. The only diseases common were skin disease and Malaria.
- 1995-Kapturo dispensary open

Social facilities

Table 6: Social Facilities

Sub-Location	Health Facilities	Schools
Kinyach	1972-Kinyach dispensary	1964-Kinyach primary but did not register for CPE
Kalabata		1972-Kalabata primary school mission 1974-Kalabata primary school handed over to GOK Bartabwa primary was the first school to be open in the division in 1956
Tuluk		1970-Chepkesin primary 1980-Tunoiwo primary school

Table 7: Schools

Sub-Location	Number primary school	Numbers of secondary schools	No. of ECDE	Churches
Kinyach	3	0		2
Kalabata	3	0		4
Tuluk	2	0		2

Economic /Farming

Farming began after 1980's where maize was grown for food, at the same time the production was not all that good, so the government supplemented them with yellow maize (relief). Then later after 1980's the white man came to Kipsaraman to introduce farming and that is when millet was grown and livestock kept.

1.6 Telecommunication and road network

Transport/Communication

Previously there was no vehicle from Bartabwa upto Kipsaraman but later in 2015 is when vehicles started moving towards bartabwa.

- There is electricity in bartabwa ward
- There is poor road network however a tarmac road is being constructed supported by national government that once completed will ease transport in the Ward

A few areas in Bartabwa Ward have access to telecommunication networks of Safaricom and airtel service providers, however most areas are not covered.



A view of the topography of Bartabwa ward, Infrastructure and the forest cover.

CHAPTER TWO

2.0 TARGETING, OBJECTIVES AND METHODOLOGIES

Bartabwa Ward mainly depends on livestock and small holder cultivation of sorghum & millet as the main livelihood strategies. Given the situation the Ward has been a victim of persistent drought coupled with other vulgarises of climate change. In the recent past the Ward has experienced frequent episodes of droughts and this situation has been made complex for some parts of the Ward due to other hazards which are resultants of drought or are reinforced by frequent episodes of droughts. Among this other reinforcing hazards that have complicated the climate risk actions of the Ward include, insecurity, poverty, human and livestock diseases.

2.1 Targeting

Bartabwa community was targeted as based on community vulnerability to drought and poverty index. Bartabwa community has experienced conflicts over resources (pasture and water) as livestock move along the route in search of pasture and water

2.2 General Objective

The general objectives of the PCRA process were to give a hands-on exposure to the community, in understanding their climate risks, and also providing solutions for mitigating and adaptation of the climate risks.

Specific Objectives

The specific objectives include:

- i. To empower the community understand their climate risks and assess their ability to manage these risks.
- ii. To use the participatory tools and processes in planning on adaptation and mitigation measures of the climate Risk.
- iii. To develop Climate action plan to support community managed these risk reduction efforts taking into account major climate generated hazards in the community.

2.3 Methodologies (Methodologies and tools)

A team of PCRA facilitators drawn from the county government departments, undertook the process with the support of Bartabwa local leaders. The team visited Bartabwa Ward and mobilized the community so as to undertake the PCRA process. The community was requested to select (20) twenty community members who were to participate in the PCRA process. To ensure the community members represented on all the aspects, the sample was carefully selected to represent all the targeted sub locations, genders, age and special groups such as people living with disabilities.

A five day meeting was convened at Bartabwa AIC Church. The participants were taken through Participatory Climate Risk assessment steps and guided and enlighten on the Baringo County Climate Change Act, 2022. The PCRA sessions begun by the community identifying the various resources in their sub locations, this was done with the aid of resource/social maps where the community participated in sketching their location boundaries and placing the specific resources identified on the map. They then identified the climate hazard that affects them and did assessments and characterization of the hazards, they later developed adaptation goals (short & Long

term of the impacts caused by the climate hazards that they experience these step accumulated to them developing adaptation strategies to deal with these hazards.

CHAPTER THREE

3.0 PARTICIPATORY CLIMATE RISK ASSESSMENT FINDINGS

3.1 Environmental & socio- Economic Baseline Information

3.1.1 Community Resource-Hazard map

The groups from each sub-location of Kalabata, Kinyach and Tuluk participated in drawing the resource map of their Bartabwa Ward as shown below; after the identification of the resources the facilitators led the communities through brainstorming sessions to identify the hazards present the in the Ward.



From the map, the community noted that small scale crop farming of sorghum, millet and maize is planted in the following areas;

- Kombei
- Tilingwo
- Kalabata and
- Along river Wanab (in Tuluk sub location) which is a permanent river

The community also noted that pastoralists have been digging wells along river tuluk. The animals being kept in Bartabwa Ward are cattle, sheep, goats and poultry, bee keeping is also an activity community members are engaged in as a livelihood strategy.

Sub-Location	Primary schools	Social amenities	Rivers	Hills
Kinyach	<ul style="list-style-type: none"> - Kinyach primary - Tilingwo primary - Chemintany primary 	<u>Health Facilities;</u> <ul style="list-style-type: none"> - Kinyach dispensary <u>Roads;</u> <ul style="list-style-type: none"> - Kinyach – Arror road - Kinyach – Koloa road - Chemintany – Tilingwo road 	<u>Rivers;</u> <ul style="list-style-type: none"> - Kinyach river - Chemintany river - Ainoptich river 	<u>Hills;</u> <ul style="list-style-type: none"> - Baitabet hill - Kibelo hill
Kalabata			Kalabata- river (permanent river)	
Tuluk	<ul style="list-style-type: none"> - Sorghum and millet are grown in this sub location 		<ul style="list-style-type: none"> - Winab river 	

3.3.2 Historical Trends about Climate & Non-Climate Hazards.

Bartabwa community elders identified the following hazards that they felt was a threat through the years 1950 to 1965

- Wild animals such as lions which used to kill their livestock
- Heavy rains that causes floods
- Drought, the worst experienced in 1965,1984,1997 and 2016 where people migrated from Bartabwa to Eldama-Ravine and those who remained fed on wild fruits

Table 8. Historical trends about Climate & Non-Climate for drought and Insecurity.

S/NO	HAZARD EVENT	WHEN	IMPACT	HOW DID THEY COPE
.				

1.	Drought	<ul style="list-style-type: none"> • 1960 • 1965 • 1984 • 1999 • 2000 • 2009 	<ul style="list-style-type: none"> • Food shortage • Loss of life • Migration • Family Separation 	<ul style="list-style-type: none"> • Eating wild fruits • Relief food • Consumption of wild honey • Hunting and gathering • Use of Wild tubers • Animal piercing for blood.
2.	Insecurity	<ul style="list-style-type: none"> • 1901 • 2011 • 1977 • 2012 • 2006 • 2007 • 2008 • 2010 	<ul style="list-style-type: none"> • Loss of life • Displacement • Diseases • Poverty • Canalization of properties 	<ul style="list-style-type: none"> • Migration • Dialogue/Peace meetings

3.3 Hazard identification, prioritization, characterisation and Analysis.

3.3.1 Hazard identification & prioritization,

Bartabwa community identified the following Hazards that currently exist within the Ward;

1. Insecurity (IN)
2. Drought (D)
3. Livestock diseases (LD)
4. Human diseases (HD)
5. Landslides (LS)

These hazards were subjected to prioritization/Ranking as indicated in the table below

Table 9: Hazard Ranking

ISSUE ID	LS	I	D	HD	LD	SCORE	RANK
Landslide (LS)		I	D	HD	LD	0	5
Insecurity (I)			D	I	I	3	2
Drought (D)				D	D	4	1
Human Diseases(HD)					HD	2	3
Livestock Diseases (LD)						1	4

Key:

- IN - Insecurity
D - Drought
LD - Livestock Diseases
HD - Human Diseases
LS - Land Slides

3.3.2 Hazard characterization and profiling Analysis.

PROBLEM TREE/SOURCE FOURCE TREE

HAZARD 1. DROUGHT

NEGATIVE EFFECTS (FRUITS)



1. Famine
2. Flooding/soil erosion
3. Insecurity
4. Human displacement
5. Spread of human/animal diseases
6. Low productivity
7. Shortage of water
8. Poverty
9. Malnutrition

CAUSES (ROOTS)

1. Shortage of rainfall
2. Deforestation
3. Cultivating along catchment areas
4. High temperature
5. Quarry/mining

HAZARD 2. INSECURITY



NEGATIVE EFFECTS (FRUITS)

1. Loss of life and properties
2. Poverty
3. Displacement of people and livestock
5. Disease outbreak
6. School dropout
7. Traumatization
8. Malnutrition
9. Poor development
10. Increased number of widows/widowers/orphans

CAUSES (ROOTS)

1. Shortage of pasture
2. Unclear boundaries
3. Cultural practices
4. Politics

5. Poverty
6. Illiteracy
7. Possession of illegal firearms

3.3.3 Seasonality calendar.

Seasonal Calendar

Seasonal calendar tool was used to show the distribution of activities and other phenomena, changes, economic activities, resources, production activities, illness/disease, migration and natural events in relation to specific months of the year and the community to understand different livelihoods vulnerability and capacity and how they can be reduced, mitigate and cope with strategies. The seasonal calendar was divided into two where the participants were divided into groups to work on different seasons in a year; bad and good year.

The findings of bad year

- People prepare land and plough from January to April but no planting because there is no rain.
- No harvest of food-millet and maize in the months therefore economic status is affected and therefore food insecurity.
- There is a lot of dust, whirl winds which carry dust and destroy temporary houses and as a result people are exposed to upper respiratory tract infections.
- No weeding during bad year because crops did not do well
- Migration of livestock in search of pasture during the month of May onwards to December and extent to the next year-April if no rains.
- No cultural event/ceremonies in November and December
- Human diseases on increase due to unavailability of water and not safe.

The findings of good year

- Land preparation, clearing and planting season in the months of January –April
- Harvesting of beans, maize and millet during the month of June-November.
- No livestock migration
- No water shortage
- Honey harvesting is done during the month of April then from August to November
- Cultural events e.g circumcision is done from November-December and wedding/Engagement ceremonies in April, August and December

Table 10. Seasonality calendar for annual Events of Bartabwa community

EVENT	J	F	M	A	M	J	J	A	S	O	N	D
Rainy season												
Land preparation												
planting												
Weeding												
harvesting												
Livestock migration												
kidding												
calving												
High milk production												
Livestock diseases												

Bee occupation												
Honey harvesting												
initiation												
Christmas												
New year												

There are situations where people did not get any harvest during the bad season, and so the government and partners could supplied relieve food and for those who were not receive relief food, burned charcoal and others moved to Kabartonjo and Kipsaraman in search of food.

The local names of the months of the year

January	Mukeiyon
february	Uwot
March	Murtich
April	Birbei
May	Kipset
June	Kiplo
July	Kiptisap
August	Melmining
September	Melnai
October	Kiptam
November	Kipsunten
December	tabach

3.4 Vulnerability Assessment

3.4.1 Non Human Elements

Table 11. Vulnerability assessment of Non Human Element.

	Livelihood resources and Assets	H1	H2	H3		
		DROUGHT	INSECURITY	HUMAN DISEASES	TOTAL	RANKING
NATURAL	1. Sceneries	2	3	0	5	4
	2. Rivers	3	3	0	6	3
	3. Minerals	0	3	0	3	5
	4. Forests	3	2	1	6	3
	5. Springs	3	2	0	5	4
	6. Fossils	1	0	0	1	6
	7. Grazing Fields	3	3	0	6	3
SOCIAL	1. Schools	3	3	2	8	2

	2. Churches	3	3	2	8	2
	3. Health centers	3	3	3	9	1
	4. Boreholes	3	3	0	6	3
	5. Dams	3	2	0	5	4
ECONOMIC/ FINANCIAL	1. Markets	3	3	2	8	2
	2. Cooperatives	3	2	1	6	3
	3. Farmer Groups	3	2	1	6	3
HUMAN	1. Casual Labour	3	3	3	9	1
	2. Good health	3	3	3	9	1
	3. Skilled Labour	3	3	3	9	1

3.4.2 Human Elements

Table 12. Capacity Assessment of Human elements

Hazard Profile	ELEMENT AT RISK		Location of element at risk Vis-à-vis the hazard			The elements at risk is in that location and exposed to hazard
			Location of elements	High	Medium	
	Human elements					
	By gender	Female /Girls Male/Boys				
	By Age	< 5 Boys	<ul style="list-style-type: none"> • Home 100% 	✓		<ul style="list-style-type: none"> • Dependency • Malnutrition • Vulnerable to diseases
		< 5 Girls	<ul style="list-style-type: none"> • Home 100% 	✓		<ul style="list-style-type: none"> • Dependency • Vulnerable to diseases • Malnutrition
		>5 <18 Boys	<ul style="list-style-type: none"> • School 60% • Hunting 10% • Home 30% 	✓ ✓	✓	<ul style="list-style-type: none"> • Dependency • Still in school • No income
		>5 <18 Girls	<ul style="list-style-type: none"> • School 60% • Home 40% 	✓	✓	<ul style="list-style-type: none"> • Still in school • Dependency • No income • Prone to early pregnancy and school drop out
		Youth 18-35 male	<ul style="list-style-type: none"> • School 20% • Home 20% • Work place 40% • Social places 20% 	✓ ✓ ✓	✓	<ul style="list-style-type: none"> • Productive • Main culprits in case of insecurity/high risk • Bread weaners
		Youth 18-35 female	<ul style="list-style-type: none"> • School 30% • Home 50% • Work place 15% • Market 5% 	✓ ✓	✓	<ul style="list-style-type: none"> • Productive • Bread weaners • High risk of pregnancy and school drop outs

				✓			
		35-60 male	<ul style="list-style-type: none"> • Home 10% • Work place 30% • Grazing field 40% • Social places 20% 	✓ ✓ ✓ ✓			<ul style="list-style-type: none"> • Productive age • Bread weaners • High risk • Vulnerable to diseases and accidents
		35-60 female	<ul style="list-style-type: none"> • Home 10% • Work place 60% • Social places 30% 	✓ ✓ ✓			<ul style="list-style-type: none"> • Productive age • Bread weaners • High risk • Vulnerable to diseases and accidents
		Elderly, male, female	<ul style="list-style-type: none"> • Work place 10% • Home 70% • Social places 20% 	✓ ✓ ✓			<ul style="list-style-type: none"> • Vulnerable • Prone to diseases • Depend on others • High risk
	Special condition	Pregnant and lactating women	<ul style="list-style-type: none"> • Work place 10% • Home 70% • Social places 20% 	✓ ✓ ✓			<ul style="list-style-type: none"> • Depend on others • Prone to diseases • High risk • Vulnerable
		Minority or disadvantaged	<ul style="list-style-type: none"> • Work place 10% • Home 70% • Social places 20% 	✓ ✓ ✓			<ul style="list-style-type: none"> • Depend on others • Prone to diseases • Vulnerable • High risk
		PLWDs	<ul style="list-style-type: none"> • Home 95% 	✓			<ul style="list-style-type: none"> • Vulnerable • Prone to diseases • Depend on others • High risk
			<ul style="list-style-type: none"> • 	✓			

3.5 Capacity Assessment

3.5.1 Non – Human Elements

Table 12. Capacity Assessment addressing Non- Human Elements

HAZARD	IMPACTS	LOCAL RESPONSES	EFFECTIVENESS	SUSTAINABILITY
1.DROUGHT	<ul style="list-style-type: none"> Loss of livestock 	<ul style="list-style-type: none"> Migration in search for pasture 	2	0
	<ul style="list-style-type: none"> Loss of human life 	<ul style="list-style-type: none"> Coping mechanism e.g. wild fruits and tubers 	1	0
	<ul style="list-style-type: none"> Malnutrition 	<ul style="list-style-type: none"> Hunting 	1	0
	<ul style="list-style-type: none"> School dropouts 	<ul style="list-style-type: none"> None 	-	-
	<ul style="list-style-type: none"> Food insecurity 	<ul style="list-style-type: none"> Coping mechanism e.g. wild fruits, tubers, hunting and gathering 	1	0
	<ul style="list-style-type: none"> Water shortage 	<ul style="list-style-type: none"> Digging of wells along the river 	2	1
	<ul style="list-style-type: none"> Disease outbreak 	<ul style="list-style-type: none"> Traditional herbs and climbing of shrines for prayers 	1	1
	<ul style="list-style-type: none"> Poor Development 	<ul style="list-style-type: none"> None 	-	-
	<ul style="list-style-type: none"> Disruption of cultural events 	<ul style="list-style-type: none"> None 	-	-
	<ul style="list-style-type: none"> Family breakages 	<ul style="list-style-type: none"> Reconciliation 	2	2
	<ul style="list-style-type: none"> Migration 	<ul style="list-style-type: none"> None 	-	-
	<ul style="list-style-type: none"> Wind erosion 	<ul style="list-style-type: none"> None 	-	-
2.INSECURITY	<ul style="list-style-type: none"> Loss of life both human and livestock 	<ul style="list-style-type: none"> Migration 	1	1
	<ul style="list-style-type: none"> Vandalization of property 	<ul style="list-style-type: none"> None 	-	-

• Displacement of human population	• None	-	-
• Loss of land	• None	-	-
• School dropouts	• Transfer to other schools	2	2
• Exposure to diseases	• None	-	-
• Malnutrition	• None	-	-
• Traumatization	• Psycho-social support	2	2
• Family breakages	• Reconciliation	2	2
• Loss of income	• None	-	-
• Delay in economic growth	• None	-	-
• Decrease of population	• None	-	-
• Increase of widows/widowers/orphans	• None	-	-
• High crime rates	• Local intervention	2	1
• Increase in poverty	• None	-	-

3.5.2 Human Elements

Table 13. Capacity Assessment addressing Human Elements.

ELEMENT AT RISK	TIME ELEMENT	CAPACITIES		
		EXISTING	REQUIRED	GAPS
INDIVIDUAL SURVIVABILITY <5 years Boys & Girls	Before hazard event	<ul style="list-style-type: none"> • Parental care • Traditional herbs 	<ul style="list-style-type: none"> • Care training for under 5 • Outreaches 	<ul style="list-style-type: none"> • Inadequate medical care for under 5
	During hazard event	<ul style="list-style-type: none"> • Parental care • Traditional herbs 	<ul style="list-style-type: none"> • Vaccination and immunization • Outreaches 	<ul style="list-style-type: none"> • Level of ignorance by parents • Inadequate supplements for feeding programs
5-18 years Boys & Girls	Before hazard event	<ul style="list-style-type: none"> • Parental care • Traditional herbs • Hunting and gathering 	<ul style="list-style-type: none"> • Require proper care • Require nutrition support 	<ul style="list-style-type: none"> • Inadequate nutrition supplements
	During hazard event	<ul style="list-style-type: none"> • Parental care • Traditional herbs • Ability to express themselves • Capability to defend themselves • Access school feeding programs 	<ul style="list-style-type: none"> • Counseling program • Awareness about the hazard • Upscale of school feeding programs 	<ul style="list-style-type: none"> • Inadequate advocacy program • Inadequate supply of food
18 -35 years Male	Before hazard event	<ul style="list-style-type: none"> • Ability to support and make decision • Ability to migrate in search for food • Ability to plan themselves • Ability to go for casual labour 	<ul style="list-style-type: none"> • Guiding and counseling • Marriage support • Program advisory on drugs 	<ul style="list-style-type: none"> • Inadequate youth empowerment programs • Drug abuse

	During hazard event	<ul style="list-style-type: none"> • Ability to hunt and gather 	<ul style="list-style-type: none"> • Request for financial support • Request for education support • Employment 	<ul style="list-style-type: none"> • Lack of employment • Inadequate network coverage • Inadequate ICT programs
18 -35 years Female	Before hazard event	<ul style="list-style-type: none"> • Ability to support and make decision • Ability to migrate in search for food • Ability to plan themselves • Ability to go for casual labour 	<ul style="list-style-type: none"> • Guiding and counselling • Marriage support • Program advisory on drugs 	<ul style="list-style-type: none"> • Inadequate youth empowerment programs • Drug abuse
	During hazard event	<ul style="list-style-type: none"> • Ability to access information 	<ul style="list-style-type: none"> • Request for financial support • Request for education support • Employment 	<ul style="list-style-type: none"> • Lack of employment • Inadequate network coverage • Inadequate ICT programs
35 – 60 years Male	Before hazard event	<ul style="list-style-type: none"> • Plan and making decision • They can use their savings • Ability to borrow 	<ul style="list-style-type: none"> • Medical care • Counselling • Job opportunities • Business opportunities 	<ul style="list-style-type: none"> • Inadequate medical services
	During hazard event	<ul style="list-style-type: none"> • Ability to search for food • Ability to migrate • Ability to defend. 	<ul style="list-style-type: none"> • Linkage of market • Financial support • Good agricultural opportunities • Requires extension officers 	<ul style="list-style-type: none"> • Inadequate financial inclusion programs • Inadequate facilities of water • Inadequate extension services/personnel
35 – 60 years Female	Before hazard event	<ul style="list-style-type: none"> • Plan and making decision • They can use their 	<ul style="list-style-type: none"> • Medical care • Counselling • Job opportunities 	<ul style="list-style-type: none"> • Inadequate medical services

		<ul style="list-style-type: none"> savings Ability to borrow 	<ul style="list-style-type: none"> Business opportunities 	
	During hazard event	<ul style="list-style-type: none"> Ability to search for food Ability to migrate 	<ul style="list-style-type: none"> Linkage of market Financial support Good agricultural opportunities Requires extension officers 	<ul style="list-style-type: none"> Inadequate financial inclusion programs Inadequate facilities of water Inadequate extension services/personnel
The Elderly	Before hazard event	<ul style="list-style-type: none"> Ability to foretell Ability to curse and bless Ability to give advice 	<ul style="list-style-type: none"> Require medical care Require clean environment Require quality water 	<ul style="list-style-type: none"> Inadequate medical support Inadequate Clean water and environment
	During hazard event	<ul style="list-style-type: none"> Access to food Access to cash transfer 	<ul style="list-style-type: none"> Require food, cloth and shelter support Require nutrition supplements Require quality water 	<ul style="list-style-type: none"> Inadequate basic needs support Inadequate nutrition supplements Inadequate water
Special conditions/Groups	<ul style="list-style-type: none"> Before hazard event 	<ul style="list-style-type: none"> Care Medical support Nutrition supplement 	<ul style="list-style-type: none"> Require medical care Require proper care Require nutrition supplements 	<ul style="list-style-type: none"> Inadequate support facilities and equipment
	During hazard event	<ul style="list-style-type: none"> Medical support Nutrition supplement 	<ul style="list-style-type: none"> Require medical care Require proper care Require nutrition supplements 	<ul style="list-style-type: none"> Inadequate support facilities and equipment
Community readiness	Before hazard event	<ul style="list-style-type: none"> Strong social cohesion Christianity Ability to access education background 	<ul style="list-style-type: none"> Post harvesting management technology Adequate water Irrigation facilities Knowledge from the extension personnel 	<ul style="list-style-type: none"> No network coverage Inadequate water Inadequate road network Inadequate extension personnel for both livestock and crops

			<ul style="list-style-type: none"> • Domestic water coverage 	
	During hazard event	<ul style="list-style-type: none"> • Ability to store food • Medial support 	<ul style="list-style-type: none"> • Agronomic research on livestock and crops • Review on administration unit • Requires medical personnel and supplies • Employment opportunities for all groups 	<ul style="list-style-type: none"> • No network coverage • Inadequate security systems • Inadequate extension personnel for both livestock and crops • Inadequate medical personnel and supplies

3.6 Stakeholder analysis (Venn diagram 1 and 2)

Stakeholders were defined as persons or entities that can be affected either positively or negatively by a project. Some of the internal stakeholders the community identified included; Chiefs, assistant chiefs, ward administrators, opinion leaders, pastors, village elders, teachers/head teachers, doctors, MCA, assistant county commissioner. External stakeholders identified included; Red cross, county and national governments, RPLRP, world vision, concern, DRSLP



CHAPTER FOUR

4.0 WARD CLIMATE ACTION PLANNING PROCESS

4.1 Adaptation Strategies (Including hazards, impacts, goals-short & long term), Objectives, strategies

4.1 Co benefits of adaptation strategies

4.2. Ward level priorities

4.2.1. Ward Climate action Planning.

GOALS	STRATEGY	ACTIVITIES	TARGET		TIME FRAME	REQUIRED RESOURCES	RESOURCE GAPS	SOURCE OF FUNDS	RESPONSIBILITY
			Location	Population					
A good and sustainable environment that will enhance food security and job creation in Bartabwa	Improved Environmental Ecosystem of Bartabwa Ward by 2023	1. Construction of Mega dams in Kaptochunand Kertabelion	All Sub-Location	2500HHs	5 YRS	12M	3M	World Bank WFp SHA BCG	Environmental department
		2. Water pan rehabilitation and Expansion	All Sub-Location	2000HHs					
		3. New water pan Construction	All Sub-Location	2200HHs					
		4. Sinking and Equipment of Boreholes	All sub-Location	3000HHs					
		5. Spring protection	All Sub-Location	1700HHs					
Improved Environmental Ecosystem of Bartabwa Ward by 2033		1. Tree Nursery Establishment	Across the 3 Locations – Kinyach, Ngorora, Kaboskei	1200HHs	5 YRS	5M	1M	World Bank WFp SHA BCG	Environmental department
		2. Establish	Atiar, Terik,	1200HHs					

		<p>Agroforestry Points/Acres as pilot projects</p> <p>3. Planting of indigenous and exotic tree species in foresting sites</p> <p>4. Establishment and Management of conservancies sites/Ecotourism</p>	<p>Bartabwa, Kesumet</p> <p>3 Locations</p>	<p>1800HHs</p> <p>1500HHs</p>					
	<p>Enhanced Income opportunity to special and organized community institutions to conserve the natural resources of Bartabwa Ward by 2033</p>	<p>1. Support bee keeping groups 2 per sub-location, 16 groups</p> <p>2. Support mangoes farmer groups, 3 groups per sub-location</p> <p>3. Expansion/support of coffee farmer groups through the cooperative societies.</p> <p>4 Cooperatives</p> <ul style="list-style-type: none"> -M -Tieson -Kinego - <p>4. Support cotton farmer groups in Kinyach sub-location through cooperative society.</p>	<p>All sub-Locations</p> <p>All Sub-Location</p> <p>Terik, Atiar, Bartabwa, Kesumet</p> <p>Kinyach</p>	<p>3000HHs</p> <p>3000HHs</p> <p>1900HHs</p> <p>300HHs</p>	<p>5 YRS</p>	<p>10M</p>	<p>3M</p>	<p>World Bank WFp SHA BCG</p>	<p>Environmental department</p>

		5. Introduce Environmental Conservation programs to Boda boda groups 2 groups	In the ward	1800HHs					
	Improved food security and nutrition through Environmental friendly technologies in Bartabwa by 2033	<ol style="list-style-type: none"> 1. Pasture establishment in Kinyach, Tuluk, Kalabata and Kapturo (50 acres per site) 2. Pilot project for --- Agriculture technology in 20 HHs per Sub-Location 3. Introduce Conservation Agriculture technology for Millet and Sorghum 	<p>Kinyach, Ngorora</p> <p>Kinyach, Ngorora, Kaboskei</p> <p>Ngorora, Kinyach, Kaboskei</p>	<p>800HHs</p> <p>60 HHs</p> <p>3000HHs</p>	5 YRS	11M	3M	World Bank WFp SHA BCG	Environmental department

BARTABWA WARD CLIMATE CHANGE PLANNING COMMITTEE

NO	NAME	ROLE	GENDER	SUBLOCATION/VILLAGE	CONTACT
1	DANIEL CHEPCHIENG	WARD ADMINSTRATOR	M	WARD	0726494672
2	JOSEPH KIPKECH	PLWD REPRESENTATIVE	M	TERIK	0717084698
3	SAMUEL RONGUNO	YOUTH REPRESENTATIVE	M	KALABATA	0704845775
4	REV:THOMAS KIPKURES	CHURCH REPRESENTATIVE	M	KAPTURO	0712906291
5	ROSELYNE CHEPCHIENG	WOMEN REPRESENTATIVE	F	TERIK	0742291752
6	RAPHAEL CHEROP	MALE REPRESENTATIVE	M	BARTABWA	0724987435
7	JUSTINE CHEBON	MARGINALISED GROUP	M	KINYACH	0715840214
8	SAMUEL .C. KIPAGAT	C.B.O REPRESENTATIVE	M	KESUMET	0728043913

ATTENDANCE LIST FOR BARTABWA WARD

S/N	NAME	IDENTITY NO	SUB-LOCATION
1	SYMON YEGON	11841111	BARTABWA
2	NOAH CHEPTIRIM	6674903	KESUMET
3	MICHAEL TALLAM	13065887	KAPTURO
4	ROSELYNE CHEPCHIENG	29359619	TERIK
5	FLORENCE KIBOGIT	21499324	KAPTURO
6	JOHN KIPSANG	20236344	ATIAR
7	NICHOLAS LUKER	12852852	KALABATA
8	ERIC CHEBET	23588970	KINYACH
9	WILSON CHELIMO	9677838	TULUK
10	RAPHAEL KILANYA	20657989	BARTABWA
11	THOMAS KIPKORIS	12850479	KAPTURO
12	JUSTINE CHEBON	30238587	KINYACH
13	HELLEN KIPTUI	26532860	KALABATA
14	HELLEN CHEROKONY	26988846	BARTABWA
15	JOHANA CHEPKUTO	22500903	TERIK
16	SAMUEL KIPAGAT	11844275	KESUMET
17	JANE KIPSANG	7812514	BARTABWA
18	SAMUEL RONGUNO	29243942	KALABATA
19	LINAH KANDAKWAN	20030089	TULUK
20	DANIEL CHEPCHIENG	20140003756	WARD ADMIN
21			