



MINISTRY OF WATER SANITATION AND IRRIGATION
Kenya Water Security and Climate Resilience Project (KWSCR)
Lower Nzoia Irrigation and Development Project

**FINAL IMPLEMENTATION COMPLETION REPORT FOR
LOWER NZOIA IRRIGATION PROJECT**

FOR RESETTLEMENT ACTION PLAN (RAP) 2

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ACRONYMS

CC	Connecting Canal
ESIA	Environmental and Social Impact Assessment
FPEAK	Fresh Produce Exporters Association of Kenya
GAPs	Good Agricultural Practices
GoK	Government of Kenya
GRC	Grievance Redress Committees
GRM	Grievance Redress Mechanism
HCDA	Horticultural Crop Development Authority of Kenya
HVCs	Higher Value Crops
HWC	Head Works Canal
IASF	Irrigated Agricultural Support Fund
IFMS	Improvement of Flood Mitigation Structures
IFMS	Improvement of Flood Mitigation Structures
IMT	Irrigation Management Transfer
ISC	Implementation Support Consultant
IWUAs	Irrigation Water Users Associations
KALRO	Kenya Agricultural and Livestock Research Organization
KfW	Kreditanstalt Für Wiederaufbau
KHC	Kenya Horticultural Council
KWSCR	Kenya Water Security and Climate Resilience Project
LNIDP	Lower Nzoia Irrigation and Development Project
LNIDP	Lower Nzoia Irrigation Development Project
LNIP-I	Lower Nzoia Irrigation Project Phase 1
LRP	Livelihood Restoration Plan
LRP	Livelihood Restoration Plan
M&E	Monitoring and Evaluation
NACC	National AIDS Control Council
NGOs	Non-Governmental Organizations
NIA	National Irrigation Authority
NIA	National Irrigation Authority
NLC	National Land Commission
O&M	Operations and Maintenance
OP	Operation Policies
PAH	Project Affected Household
PMU	Project Management Unit
PrEP	Pre-exposure prophylaxis
RAP	Resettlement Action Plan
RAP	Resettlement Action Plan
RIC	RAP Implementation Consultant
SRI	Sustainable Rice Intensification

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EXECUTIVE SUMMARY

This is the completion report on the Resettlement Action Plan (RAP) implementation status for the RAP II (Nzoia Dykes Project) of the Lower Nzoia Irrigation Project Phase 1 (LNIP-I). This report has been prepared by the RAP Implementation Consultant (RIC) as part of the contractual obligation and deliverables requiring submission of RAP implementation at 100% completion of Project Affected Household (PAH) compensation and implementation of livelihood restoration activities.

The Government of Kenya (GoK), through the Kenya Water Security and Climate Resilience Project (KWSCRIP) is implementing LNP-1 i.e., as the first investment for financing under the KWSCRIP contributing to the productive use of water that serves climate resilience objectives. The project is jointly financed by the World Bank and Kreditanstalt Für Wiederaufbau (KfW). The LNP consists of Lower Nzoia Irrigation Scheme Phase 1 and the Improvement of Flood Mitigation Structures (IFMS) also known as the Nzoia Dykes Project.

Improvement of Flood Mitigation Structures

The Nzoia Flood Protection Structures entail improvement and realignment of the existing flood protection structures, which comprises of the Southern and Northern dykes (each approximately 17km on either side of Nzoia River downstream of Rwambwa Bridge towards Lake Victoria and with average height and crest width of 4m). The existing dykes along the river Nzoia downstream of Rwambwa Bridge are now beyond their design lifespan. Despite on-going efforts to effect repairs on the dykes, they have increasingly been breached with increasing frequency of flood incidences. This has led to increased socio-economic losses in the project area and exposes it not only to losses of life and livelihoods but also the government in terms of emergency response expenditure.

Table 0-1: Extents of RAP 2 Components

Affected Area	Length (Km)
Northern Dyke (Right Bank Dyke)	17.08
Southern Dyke (Left Bank Dyke)	17.09
Total	34.17

The proposed flood protection/mitigation structures will act against the frequent flood incidences and result in numerous positive impacts such as:

1. Prevention of loss of life and livelihoods
2. Prevention of destruction of public and community structures such as schools, offices, churches, etc
3. Prevention of destruction of residential and business premises
4. Reduced destruction of road networks in the area
5. Reduced expenditure by government on emergency response services
6. Facilitation of reliable agriculture
7. Attraction of more development investment into the floodplain
8. Ensuring educational calendars are not interrupted by floods
9. Promotion of transport linkages between communities to the south and to the north of the Nzoia River.

Project Location

The Lower Nzoia Irrigation Scheme Phase 1 including the flood mitigation infrastructure is located in the Busia and Siaya Counties in the western part of Kenya, which covers nearly 30% of Kenya's portion of the Lake Victoria basin's land surface. Nzoia is the largest and longest river in Western Kenya, at about 300 km in length and with a drainage area of 12,950 km². The basin lies between latitudes 00° 02' N; 01° 14' N and longitudes 33° 54' E; 35° 35' E. The river flows through the Rift Valley, Western and Nyanza provinces. With 2,593 km², the Lower Nzoia sub-catchment represents the lower 25 percent of the Nzoia Basin. The total irrigable area for the Lower Nzoia Basin has been assessed at 25,000 ha. The improved flood mitigation infrastructure is administratively located in Siaya County and Busia County and comprise of the southern and northern dykes.

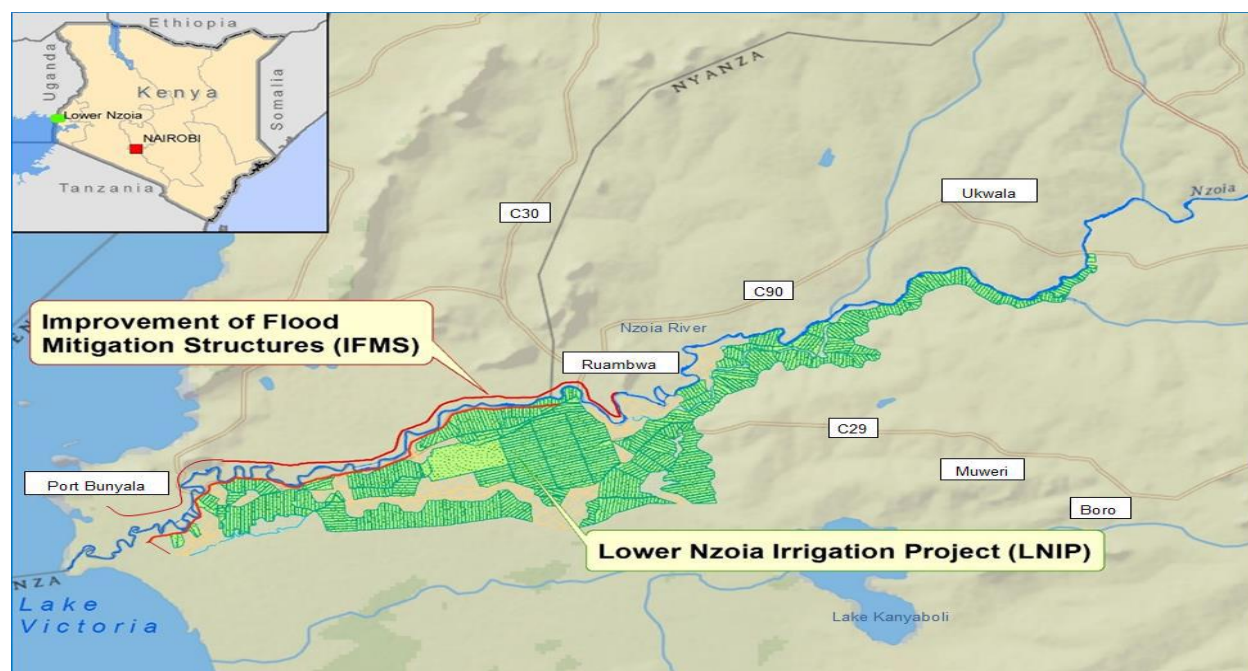


Figure 0-1: General location and development area
Source: Final RAP 2 Report for LNIP (2018)

Project Construction Activities

The activities aimed at improving the flood mitigation infrastructures were completed and they included:

1. Realigning sections of the dykes (5.2km)
2. Raising and strengthening the existing dykes (34km)
3. Providing filter drains on new and existing dykes
4. Providing a bentonite curtain along part of the dykes
5. Providing gates at specific locations along the northern dyke.
6. Providing other related structures (concrete structures, including control structures, culverts and cattle crossing ramps).

Summary of Physical and Economic Displacement Impacts Total Land Take

The total land take for the Project is **80 Ha**. The project changed the engineering design resulting to removing **345** from the original list. The current total number of affected parcels after the revised design is **739**. The parcels of affected land are being used for subsistence agriculture and as settlement areas for the PAHs who have residential structures. Displacement mainly occurred at different villages within 8 sub-locations as shown in **table 0-2** below.

Table 0-2: Affected Land Size and PAHs

Land Size	Project Component	Total Parcels	PAH
80Ha	Northern Dyke 51.2Ha	251	587
	Southern Dyke 28.8Ha	488	520
Total	80Ha	739	1,107

Table 0-3: Displacement Areas

No.	Section	County	Sub-County	Location	Sub-Location
1	Southern dyke	Siaya and Busia	Siaya and Bunyala	Khajula, Bunyala Central, Usonga	Nyadorera B, Sumba, Magombe East, Magombe West, Lugale, Mabinju, Rugunga
2	Northern dyke	Siaya and Busia	Siaya and Bunyala	Bunyala West, Bunyala East, Bunyala North, Usonga,	Nyadorera A, Ruambwa, Mudembi, Budalangi, Bulemia, Bukani and Siginga

Source: RAP 2 Report

Number of PAHs

Table 0-4: PAH Category and Impact

Section	Fully Displaced ¹	Partially Displaced ²	Economically ³ Displaced
Southern Dyke	16	31	
Northern Dyke	03	03	
Total	19	34	773

Affected Assets

The PAHs are losing: -

1. Residential structures
2. Community structures (church)
3. Trees and crops
4. Land (agricultural and residential)
5. Graves

Vulnerable Households

There are 34 vulnerable persons with the vulnerabilities mainly being:

¹ PAHs who will vacate land and structure seek new land in a different area because all land own is affected and will be acquired

² PAHs who will not completely vacate land because only a part of their land is affected, and remaining portion is suitable for resettling and rebuilding

³ PAHs who only lose land, crops, and trees and require no relocation of residential structures

1. Elderly
2. Women headed households
3. Critically ill

Resettlement Action Plan

A Resettlement Action Plan (RAP) for the Project was developed in 2013 and was approved by WB and KfW and was further updated in 2015 and 2018 respectively. The reasons for the updates were due to design review changes as well as the elapse of over 3 years since the RAP report was prepared without implementation, in essence meaning that the socio-economic baseline situation, census, and assets valued in 2013 and 2015 would certainly be different. The RAP cut-off date was set at 3rd May 2017, it was disclosed during the community consultative forums and there were no late arrivals. The final RAP report for the project was updated in 2018 and approved by the lenders and eventually split for ease of implementation into 3 separate RAP reports namely:

1. LNIP RAP 1-Head Works infrastructures (weir, connecting canal, backflow). RAP 1 has a land size of 56.6Ha, 220 affected land parcels, 239 PAHs, 29 households with affected structures, 86 affected structures, 100 households with affected trees, 3,839 affected trees for wood and fruit trees, 6 households with affected crops and 1 household with 2 graves.
2. LNIP RAP 2-Flood Protection/Mitigation Structures (dykes). RAP 2 has land size of 70.46Ha, 1,111 affected parcels, 1,225 PAHs, 132 households with affected structures, 273 affected structures, 312 households with affected tress, 12,931 affected trees for wood and fruit trees, 16 households with affected crops, 1 household with affected business, 1 affected business, 66 households with affected graves and 229 affected graves.
3. LNIP RAP 3-Primary and secondary canals. RAP 3 has a land size of 196Ha, 2,807 affected parcels, 3,229 affected households, 697 households with affected structures, 1,382 affected structures, 71 households with affected crops, 967 households with affected trees, 44,431 trees for wood and fruit trees, 49 households with affected businesses, 56 affected businesses, 181 households with affected graves and 546 affected graves,

Variation Between Approved RAP and RAP Implementation Progress Report

Disparity between the World Bank approved RAP and RAP implementation report was expected and is occasioned by the following reasons:

NLC Census Vs Project Census

The WB approved RAP census survey included all PAHs, titled or or untitled and regardless of the state of title transfer processes at the time of census.. For example, as is common practice in many African countries, the father of a homestead would allocate land to his sons without transferring the title deeds to their name. In keeping with WB OP.4.12, the WB approved RAP documented such cases as PAHs. However, National Land Commission, the entity with mandate to undertake compulsory land acquisition, when conducting its census survey, does not recognize those persons resident on father's land (without title) as landowners i.e. (PAHs). These differences underscore the variation in the number of PAHs in WB approved RAP and that of the RAP implementation progress report , a situation which is not unique to the LNIP alone but common in all Bank funded projects in Kenya. The WB approved RAP identified 1,225 PAHs while the RAP implementation report identified 1,107 PAHs. This difference is explained above.

Alignment Variation

The substantial variation from the approved RAP is occasioned by the change in alignment/design in certain sections of the project by the ISC after approval of the WB RAP. The RIC implementation progress reports are based on the most current design and informed by NLC census survey of the same.

Survey

WB approved RAP (including census) was based on certain areas of the project footprint that were unadjudicated hence not surveyed at that time. These areas include Bulimia section for example. This makes the WB approved RAP inadequate in terms of correct reflection of the PAHs affected by the project. Some of these areas have since been adjudicated and the findings of the adjudicated parcels reflects a disparity between the WB approved RAP and the RAP implementation report which is based on NLC census and informed by surveyed areas only.

Further, there are certain areas in the project footprint originally considered to be privately owned but are in fact riparian land owned by GoK. The WB approved RAP considered PAHs in such parcels as landowners whereas GoK confirmed it owns the most of the land as a result of being riparian land. This is another reason for variation.

Resettlement Action Plan Implementation Consultant

KWSCR/PMU recruited a RAP Implementation Consultant (RIC) to support the implementation of the RAP and to facilitate the participation of PAHs and host communities. The RIC's work includes (i) ensuring full stakeholder engagement process (ii) implementing livelihood restoration support for PAHs; (iii) ensure that eligible PAHs are compensated and their standard of living improved or at least restored to the pre-project levels.

Resettlement Implementation Status

Land Acquisition

All the 1,107 PAHs who constitute 100% in terms of tracking resettlement progress have had their land acquired and handed over to the contractor. The contractor was handed possession of the land after the PAHs had been fully compensated and relocated from their affected parcels.

Compensation Status

All the 739 parcels along the Dykes which constitute 100% have all been fully compensated for the loss of their assets (graves, land, trees, crops, and structures). Compensation for the loss of assets was based on valuation undertaken by National Land Commission (NLC) at full replacement cost (which includes relocation, registration and inflation) based on RAP 2 entitlement matrix. No construction activities commenced until the PAHs received compensation for the affected assets and relocated from the project area where applicable.

Table 0-5: Compensation Matrix for RAP 2

Project Component	Registration Section	Total Parcels Required	Compensated	Not Compensated
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Northern Dyke 51.2Ha	Busia/Nyadorera A, Mudembi–up to 4.600km–Northern Dyke Busia/Mudembi, Bulemia, Bukoma 4.6-17km	251	251	0
Southern Dyke 28.8Ha	Siaya/Sumba and Nyadorera B and Busia Magombe up to 10.6 km–Southern Dyke Busia/Lugare	488	488	0

Relocation Status

All the **1,107 PAHs** **19 PAHs** have been fully displaced, **34 PAHs** partially displaced, and **773 PAHs** economically displaced by the project as shown in table 0-6 below.

Table 0-7: Economically Displaced PAHs

Section	Fully Displaced	Partially Displaced	Economically Displaced
Southern Dyke	16	31	
Northern Dyke	03	03	
Total	19	34	773

Grave Relocation

There are 62 graves that have been affected by the project and which have been relocated by the PAHs through the cultural rites, traditional norms, and procedures for relocation of graves after compensation.

Livelihood Restoration Activities

There are on-going livelihood restoration activities being implemented by the Implementation Support Consultant⁴ (ISC) and RIC based on the Livelihood Restoration Plan (LRP) and these activities include land-based subsistence agriculture. Farmers are trained on financial management, provided with seedlings and are trained on agriculture enhancement activities such as production clean planting materials under Shade Net System, conventional nursery establishment, SRI technologies and production of HVCs under irrigated agriculture among others.

Provision of Access

The project design includes construction of access roads and culverts including crossing points at various points to ensure access by the PAHs to the river and other public utilities. These infrastructures have been constructed by the project as per the design.

Utilization of Compensation Funds

During the RIC routine monitoring of RAP implementation, it was established that PAHs are utilizing the compensation funds in a sound manner. This is demonstrated by the fact that all those PAHs who are physically displaced (fully or partial) have all purchased alternative land and constructed structures of greater quality in terms of size and material in a bigger piece of land.

⁴Entity engaged by KWSCR to implement agricultural enhancement component of the project. The ISC is also the supervising engineer for the construction activities.

Further consultations with the PAHs also indicate that most PAHs have either used the additional funds received to cater for needs including education, health food, investments in small and micro enterprises among others.

Grievance Redress Mechanism

RAP 2 report established a robust Grievance Redress Mechanism (GRM) which included the formation of GRM Committees at four levels; locational level, Subcounty level, County level and Project level. The RIC provided training to all the GRMCs at the local level (locational level) established and has provided support in ensuring that the GRCs document, track, manage and resolve all grievances and complaints raised by PAHs in an accessible, timely and transparent fashion. A total of **41** grievances were received and handled by the local level GRCs. These grievances included among others:

1. Succession
2. Disputed over ownership of land
3. Boundary disputes
4. Laying claim on land which was previously sold

Summary of Activities of RIC

The RAP implementation Consultant (RIC) provided support in the compensation process by undertaking the following activities to facilitate and expedite the compensation process namely:

1. Facilitating in collaboration with the PAH representatives obtaining of Kenya Revenue Authority (KRA) Personal Identification Numbers (PIN) for all PAHs who did not have this document which is a mandatory requirement and prerequisite to receiving compensation. The RIC engaged a cybercafé operator in the project area who assisted in the registration of PAHs.
2. Facilitating in collaboration with the PAH representatives opening of bank accounts for PAHs who did not have bank accounts which is a mandatory requirement and prerequisite to receiving compensation. All payments by NLC are made directly to the bank accounts of each PAH. The RIC did engage the local banks in the project areas specifically Kenya Commercial Bank (KCB) and Equity Bank, each bank set up a desk at the RIC's office where the PAHs came and opened their bank accounts.
3. Facilitating in collaboration with the PAH representatives, obtaining national IDs for PAHs who did not have the document. The RIC liaised with the local administration (chief's office) and Huduma Centre to obtain ID cards for all the PAHs who did not have the document.
4. Facilitating acquisition of title deeds (through conveyance lawyer), the RIC liaised with the conveyance lawyer who assisted PAHs who did not have title deeds to get the document.
5. The RIC in collaboration with the PAH representatives assisted the PAHs in identification of new land for relocation and monitored the construction of new residential houses for the PAHs.
6. Linking PAHs with ISC for Agricultural Enhancement Programs, the RIC linked PAHs with the ISC for agricultural training and market linkages.
7. Mobilisation of PAHs in collaboration with the PAH representatives (GRMC members) for NLC land acquisition processes. The RIC undertook door to door mobilisation by

creating awareness, sensitisation and ensuring that all the PAHs were informed in advance of the dates and venues proposed by NLC for the following activities among others:

- Inspection
- Inquiry
- Issue of Awards
- GRMCs
- Providing chairs, refreshments during NLC sessions

Challenges and Lessons Learned

The following were the challenges that were encountered in the process of ensuring efficient resettlement of the PAHs as per RAP 2.

1. Delayed payment by NLC after the completion of the NLC land acquisition process led to anxiety among the PAHs, this in turn led to delay in possession of land by the contractor which subsequently delayed the construction process and affected the construction schedule and timelines.
2. Lack of the required documentation by PAHs specifically Bank Account and KRA PIN constrained the land acquisition process.
3. Disputes among the PAHs over land ownership, boundaries and succession related grievances delayed the land acquisition process.
4. NLC bureaucracy slowed down the compensation process.
5. COVID -19 led to suspension of project activities thus affecting the project timelines.
6. A substantial number of PAHs required succession which also took time to process.
7. Delays in dispute resolution due to serious family differences e.g., agreeing on an administrator delayed awarding of compensation.

Conclusions

1. The GRCs are functional and accessible to all the PAHs.
2. Almost all grievances that were reported were resolved in an expedited manner demonstrating the effectiveness, capacity and competence of the GRCs.
3. Compensation of the PAHs has been in line with the entitlement matrix in the approved RAP other than the requirement to restore livelihoods and provide additional support to vulnerable PAHs. The RIC implemented the livelihood restoration plan which is outside of the NLC compensation process and provided targeted support to vulnerable PAHs.
4. Valuation and compensation for assets by NLC was based on replacement cost method in line with World Bank OP. 4.12, NLC Act and as outlined in the approved RAP.
5. Compensation funds were to a great extent utilized in a sound manner as demonstrated by evidence of replacement of lost assets (structures, and land purchase).
6. RIC was also informed by various households that compensation funds were used towards education, food, health among others.
7. The RAP implementation process has commenced and was supported by the KWSCR/PMU social safeguards team and ISC before the recruitment of the RIC.

I INTRODUCTION AND PROJECT DESCRIPTION

This document constitutes the progress report on the status of resettlement of Project Affected Households in the Lower Nzoia Irrigation Development Project (LNIDP) specifically for the Resettlement Action Plan II (RAP II). It describes the results of RAP implementation support including livelihood restoration activities undertaken by the RAP Implementation Consultant (RIC) on behalf of Project Management Unit (PMU) for Kenya Water Security and Climate Resilience Project (KWSCRIP) implemented by the Ministry of Water, Irrigation and Sanitation (MoWSI) and National Irrigation Authority (NIA).

I.1 Project Overview

The Lower Nzoia Project (LNP) comprising of Lower Nzoia Irrigation Project Phase 1 (LNIP-1) and Improvement of Flood Mitigation Structures (IFMS) are approved investments under the KWSCRIP. The irrigation component (LNIP I) is jointly financed by the Government of Kenya (GoK), World Bank and KfW, while the IFMS component is financed by the GoK and World Bank. The LNP covers a net irrigation area of 7,697 ha and is designed as a gravity system with an intake weir structure abstracting water for both the LNIP Phase 1 (on the southern side of the river and of net irrigation area of 4,075 ha and LNIP Phase II (on the northern side of the river and of net irrigation area of 3,622 ha.

I.2 Improved Flood Mitigation Structures Project Component

The Improved Flood Mitigation Structures (IFMS) also known as Nzoia Flood Protection Structures entail improvement and realignment of the existing flood protection structures, which comprises of two dykes, southern and northern each approximately 17 km. The existing dykes were constructed in the 1970s and the local community has since then settled within the vicinity of the dykes. The flood mitigation infrastructure works required substantive acquisition of land to enable its implementation. Key construction features of the flood mitigation infrastructures include:

1. Realigning sections of the dykes (5.2km)
2. Raising and strengthening the existing dykes (34km)
3. Providing filter drains on new and existing dykes
4. Providing a bentonite curtain along part of the dykes
5. Providing gates at specific locations along the northern dyke.
6. Providing other related structures (concrete structures, including control structures, culverts and cattle crossing ramps).

Table 1-1 and 1-2 shows the extents of the RAP II components above necessitating resettlement/ acquisition of land as well as the structures that will be constructed as part of the IFMS.

Table 1-1: Extent of RAP 2 Components

Affected Area	Size of Land	Length (Km)
Northern Dyke (Right bank Dyke)	51.2Ha	17.08
Southern Dyke (Left Bank Dyke)	28.8Ha	17.09
Total	80 Ha	34.17

Table 1-2: Flood Protection Structures

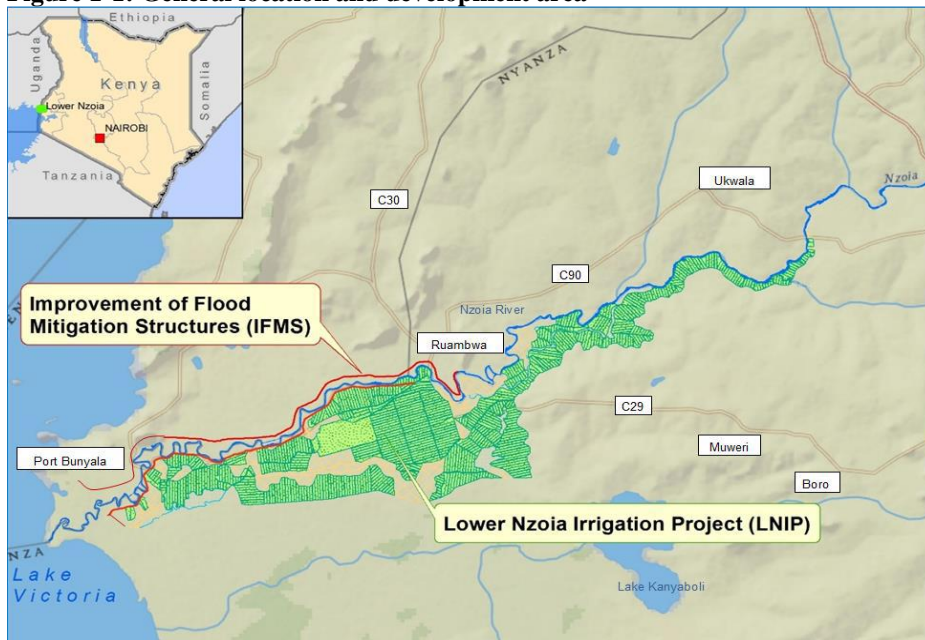
No	Structure Name	No.
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1	Maintenance Vehicle Passing Points	20
2	Vehicle Crossings	19
3	Cattle Ramps	35
4	Barriers	108
5	Survey Monitoring Points	380
6	Gated Outlet Structures	380
7	Inlet Structures (Drain in Drain)	3
8	Culverts on Drains	2
9	Gated Outlet Structures	1
10	Drop Structures	1
11	Inlet Structures (Drain in Drain)	3
12	Culverts on Access Roads	19
	Total	971

1.3 Project Location

The Improvement of Flood Mitigation Structures is in Busia and Siaya Counties in the western part of Kenya, which covers nearly 30% of Kenya’s portion of the Lake Victoria basin’s land surface. Nzoia is the largest and longest river in Western Kenya, at about 300 km in length and with a drainage area of 12,950 km². The basin lies between latitudes 00° 02’ N; 01’ 14’ N and longitudes 33° 54’ E; 35° 35’ E. The river flows through the Rift Valley, Western and Nyanza provinces. With 2,593km², the Lower Nzoia sub-catchment represents the lower 25 percent of the Nzoia Basin.

Figure 1-1: General location and development area



Source: Final RAP 2 Report for LNIP (2018)

1.4 Project Administrative Area

The project area is in two counties, it falls in eastern parts of Busia County and western parts of Siaya County. The dykes start from Ruambwa Bridge in Alego-Usonga Sub County and ends at

Bukoma for the Northern dyke and Mabinju, Mabusu for the Southern dyke both in Bunyala Sub County. The dykes encompass a total length of 34 km traversing 5 Wards, 6 locations, 12 Sub-locations and **43 villages** within the two sub counties as indicated in tables **1-3** and **1-4** below.

Table 1-3: Siaya County Project Area Administrative settings

Dyke	Sub-county	Ward	Location	Sub-locations	Villages
Southern Dyke	Alego/ Usonga	Usonga	Usonga	Sumba	1
				Nyadorera B	2
Northern Dyke		Usonga	Usonga	Nyadorera A	1
Total	1	1	1	3	4

Table 1-4: Busia County Project Area Administrative Settings

Dyke	Sub-county	Ward (Divisions)	Location	Sub-locations	Villages
Southern and Northern Dykes	Bunyala	Bunyala North	Bunyala East	Ruambwa	5
			Bunyala North	Bulemia	8
		Bunyala West	Bunyala West	Bukani	3
				Sigingia	1
		Bunyala Central	Bunyala Central	Magombe East	8
				Magombe West	5
		Bunyala South	Khajula	Lugale	4
				Rugunga	1
				Mabinju	4
Total	1	4	5	9	39

Figure 1-2: Administrative Units-RAP 2

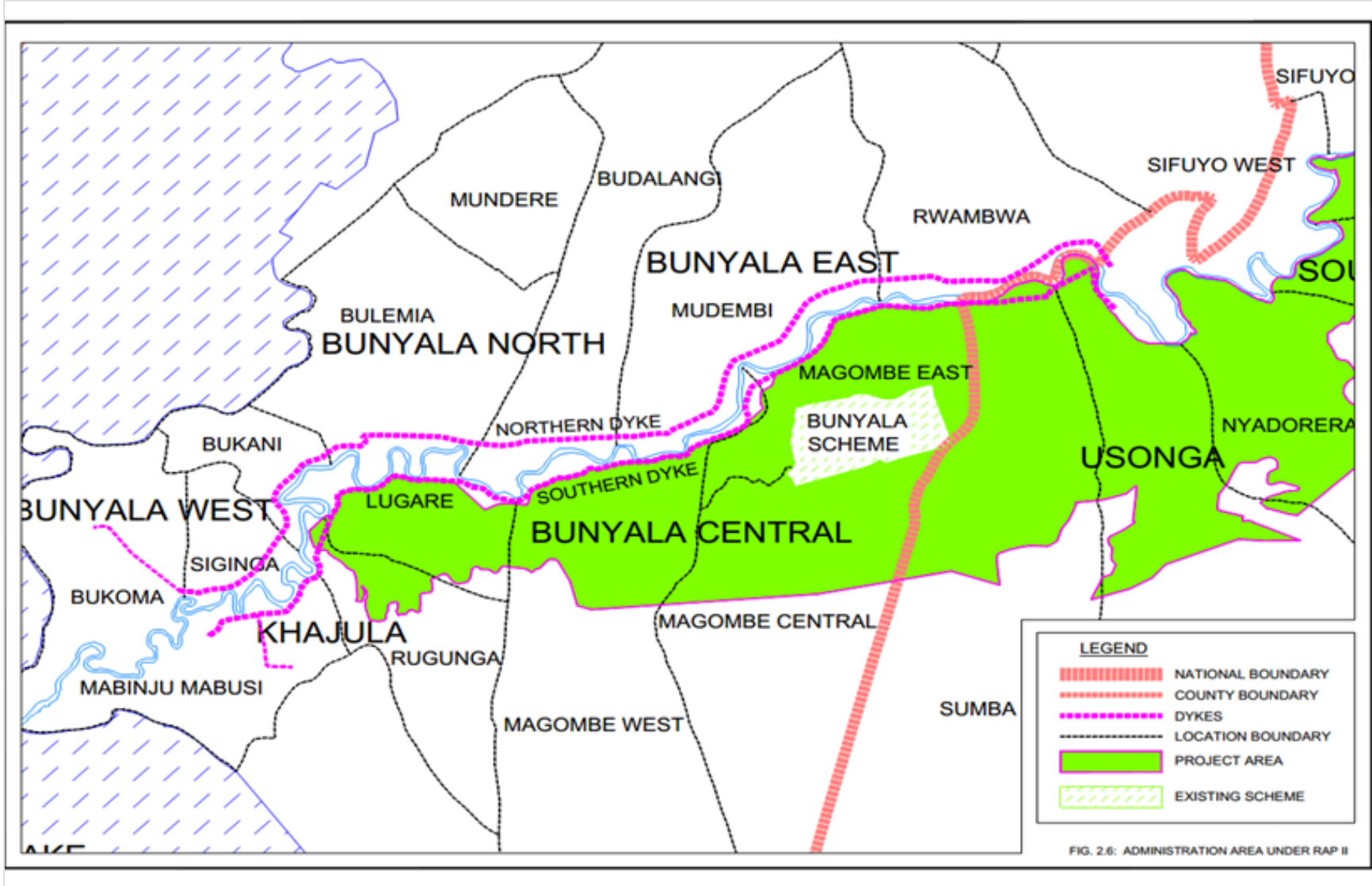


FIG. 2.6: ADMINISTRATION AREA UNDER RAP II

Source: RAP 2 report (2018)

1.5 Project Components Necessitating Land Acquisition and Resettlement

The Improved Flood Mitigation Structures works required substantive acquisition of land to enable its implementation. Key construction features of the flood mitigation infrastructures included:

1. Realigning sections of the dykes (5.2km)
2. Raising and strengthening the existing dykes (34km)
3. Providing filter drains on new and existing dykes
4. Providing a bentonite curtain along part of the dykes
5. Providing gates at specific locations along the northern dyke.
6. Providing other related structures (concrete structures, including control structures, culverts and cattle crossing ramps).

1.5.1 Displacement Impacts

A Resettlement Action Plan (RAP) for the Project was developed in 2013 and was approved by WB and further reviewed and updated in 2015 and 2018 respectively. The reasons for the updates were due to design review changes as well as the time elapse of over 3 years since the RAP report was prepared without implementation, in essence meaning that the socio-economic baseline situation, census, and assets valued in 2013 and 2015 would certainly be different. The RAP cut-off date was set at 3rd May 2017. The final RAP report for the project was updated in 2018 and approved by the lenders and eventually split into 3 separate RAP reports namely:

1. LNIP RAP 1-Headworks, connecting canal and intake weir
2. LNIP RAP 2-Flood Protection Structures (dykes)
3. LNIP RAP 3-Primary and Secondary Canals

The RAP reports were disclosed on the KWSCR and MOWSI website, World Bank's external website and hard copies distributed to the County and Sub County Government of Siaya and Busia as well as the ISC, NWHC, NIA, RIC offices.

This report covers to the current status and progress of resettlement of PAHs associated with RAP 2 only. The status and progress of resettlement of PAHs associated with RAP 1 and 3 have been prepared separately.

The project design in RAP 2 was revised resulting to exclusion of parcels that were initially earmarked for acquisition. This realignment resulted to the exclusion of a total of **345** parcels (**241** parcels in the Northern Dyke and **104** parcels in the Southern Dyke) changing the total number of parcels from **1,048** to **739**. The project deleted and degazette 345 parcels from the original gazette list. (See annex F- List of parcels that were deleted)

1.5.2 Population of Project Affected Households

The RAP 2 coverage is mainly in farmlands and areas of residential settlement. The affected property belongs to **1,107 PAHs**.

1.5.3 Displacement Impacts

The current total number of PAHs that is affected by the project after realignment is **1,107 PAHs**. No businesses or public land are affected. The parcels of affected land are used for subsistence

agriculture and private residential areas. The RAP identified the affected properties/assets which include the following: -

1. Loss of residential structures
2. Loss of community institutions (church)
3. Loss of trees and crops
4. Loss of land (agricultural and residential)
5. Loss of graves

2 RESETTLEMENT STATUS

This chapter presents the resettlement/relocation status of the Project Affected Households (PAHs) who comprise of 100% of the total number of parcels affected.

2.1 Number of Displacement PAHs

The total number of PAHs impacted by the project under RAP II was initially **1,408** according to the inspection undertaken by National Land Commission (NLC). However, the number was revised down to **1,107** PAHs after realignment and engineering design change along the Dykes which resulted to the reduction of **345** parcels (**241** from Northern Dyke and **104** from Southern Dyke) from the initial list. A total of **739** parcels which constitute 100% of the total number of parcels have been compensated for the loss of assets (graves, land, structures, crops, and trees). Compensation was cash based as this was the primary preference of the PAHs. Compensation was based on the valuation of assets (graves, structures, crops, trees, and land) undertaken by the National Land Commission (NLC). The determination of the value of affected assets was undertaken by NLC using full replacement cost method in accordance with the NLC Act 2012 and consistent with the lenders policies and guidelines.

2.2 Displacement Category

The displaced PAHs fall into three categories, the first category involves complete displacement where PAHs relocate to a different location because they have lost their land, structures, crops and graves while the second category involves partial displacement where PAHs do not lose their houses but lose a portion of their land and crops requiring them to move their agricultural activities to a different section within their land that is not affected by the project and the third is economic displacement where PAHs lose crops and graves, their land and structures are not affected. The PAHs displaced and already compensated fall into the following categories.

1. Full displacement
2. Partial displacement
3. Economic displacement

Annex E is the entitlement matrix from the approved RAP report which is in line with NLC's categorization of entitlement other than livelihood restoration entitlements including additional support to vulnerable PAHs.

2.2.1 Variation Between Approved RAP and RAP Implementation Progress Report

Disparity between the World Bank approved RAP and RAP implementation report exists, this was occasioned by the following reasons:

NLC Census Vs WB Census

The WB approved RAP census survey included all PAHs irrespective of whether they are title deed owners or whether they reside on land where the title has not (at the time of census) been transferred to them. For example, as is common practice in many African communities where the father of a homestead would allocate land to his adult sons without transferring the title deeds to their name. In keeping with WB OP.4.12, the WB approved RAP would document such a case as a PAH. However, the National Land Commission, the entity with the mandate to undertake

compulsory land acquisition, when conducting its census survey, does not recognize such persons who is a resident on his father's land (without title) as landowners i.e. (PAHs). It is for this reason, that the total number of PAHs in the WB approved RAP and findings of the RAP implementation progress report will show a variance, a situation which is not unique to the LNIP alone but common in all Bank funded projects in Kenya. The WB approved RAP identified 1,225 PAHs under RAP 2 while the RAP implementation report identified 1,107 PAHs, a difference of 118 PAHs.

Alignment Variation

The substantial variation from the approved RAP is occasioned by the change in alignment/design in certain sections of the project by the ISC after approval of the WB RAP. The RIC implementation progress reports are based on the most current design and informed by NLC census survey of the same.

Survey

WB approved RAP reports (including census) were based on certain areas of the project footprint that were unadjudicated hence not surveyed at that time. These areas include some sections in Bulimia for example. This makes the WB approved RAPs inadequate in terms of correct reflection of the PAHs affected by the project. Some of these areas have since been adjudicated and the findings of the adjudicated parcels reflects a disparity between the WB approved RAPs and the RAP implementation report which is based on NLC census and informed by the surveyed areas only.

Further, there are certain areas in the project footprint originally considered to be privately owned but are in fact riparian land which is owned by Government (GoK). The WB approved RAPs considered PAHs in such parcels as landowners whereas the it was confirmed by GoK that it is indeed GoK owned land as a result of being riparian land. This is another reason for the variation.

2.3 Summary of Physical and Economic Displacement Impacts

The total land take for the Project is **80Ha**. The number of PAHs is **1,107**. There are **4** businesses affected by this phase of the project and there is **1** church affected by the project. The affected parcels of land were being used for subsistence agriculture and as settlement areas by the PAHs who have residential structures.

Table 2-1: Affected Land Size and PAHs

Land Size	Project Component	Total Parcels	PAH
80Ha	Northern Dyke 51.2Ha	251	587
	Southern Dyke 28.8Ha	488	520
Total	80Ha	739	1,107

Table 2-2: Displacement Areas

No.	Section	County	Sub-County	Location	Sub-Location
1	Southern dyke	Siaya and Busia	Siaya and Bunyala	Khajula, Bunyala Central, Usonga	Nyadorera B, Sumba, Magombe East, Magombe West, Lugale, Mabinju, Rugunga
2	Northern dyke	Siaya and Busia	Siaya and Bunyala	Bunyala West, Bunyala East, Bunyala North, Usonga,	Nyadorera A, Ruambwa, Mudembi, Budalangi, Bulemia, Bukani and Siginga

Source: RAP 2 Report

2.3.1 Displacement Impact

Of the 739 parcels comprising of 100% of the parcels, a total of 19 PAHs have been fully displaced, 34 PAHs partially displaced and 773 PAHs economically displaced.

Table 2-3: Full and Partial Displaced PAHs

Section	Fully Displaced	Partially Displaced
Southern Dyke	16	31
Northern Dyke	03	03
Total	19	34

2.3.2 Compensation Status

All the 739 parcels who comprise 100% have all been fully compensated for the loss of their assets (land, trees, crops, and structures). Compensation for the loss of assets was based on valuation undertaken by National Land Commission (NLC) at full replacement cost. No construction activities commenced until the PAHs received compensation for their affected assets and they had relocated from the project area where applicable. There are however, some areas in Bulemia and Khajula locations occupied by PAHs that are considered riparian where the land is unadjudicated.

2.4 Fully Displaced PAHs

A total of 19 PAHs have been fully displaced along the dykes as shown in table 2-5 below.

Table 2-5: Fully Displaced PAHs

Section	Fully Displaced
Southern Dyke	16
Northern Dyke	03
Total	19

Vulnerable PAHs

Out of the 19 fully displaced PAHs, 10 are categorized as vulnerable (elderly and chronically ill). The nature of their vulnerability was typically connected to their age and illness, i.e., elderly and chronically ill.

2.5 Physical Relocation Status

2.5.1 Monetary Compensation

All the 19 fully displaced PAHs received compensation for the loss of their assets (graves, land, structures, crops, and trees) at full replacement cost based on the valuation undertaken by National Land Commission (NLC). The contractor did not possess the site for the construction until all the PAHs were fully compensated and relocated in line with the World Bank OP. 4.12 requirements.

2.5.2 Resettled in New Land

All the 19 fully displaced PAHs have resettled in new parcels of land in line with the land for land entitlement outlined in the Resettlement Action Plan (RAP) report. In terms of land size, all the 19 PAHs have purchased and settled in land that is larger than previously held.





2.5.2.1 Resettlement Location

The PAHs resettlement location is within the same sub locations, allowing them to maintain their social and cultural networks and avoiding social disruptions that often occur with physical relocating of PAHs from project areas to resettlement colonies.

2.5.2.2 Constructed Residential Houses

All the 19 fully displaced PAHs constructed new residential houses of superior quality and size compared to the residential structures occupied before relocation. This was confirmed during post-resettlement monitoring of newly relocated PAHs. **Figure 2-1** shows some of the newly reconstructed residential houses. Appendix A lists the PAHs houses affected including photographs of the new residential houses constructed following compensation.

Figure 2-1:PAHs newly constructed residential structures

BEFORE COMPENSATION	AFTER COMPENSATION
	
<p>BLOCK 1: South Ugenya/U mala/1030</p>	<p>BLOCK 1: South Ugenya/U mala/1030</p>
	
<p>BLOCK 2: Kalkada/Uradi/1295</p>	<p>BLOCK 2: Kalkada/Uradi/1295</p>

2.5.3 Continuation of Livelihoods

The RIC during post-resettlement monitoring confirmed that all the 19 PAHs who were primarily farmers (animal husbandry and crop production) have all resumed their earlier livelihood activities in their new settlements after being displaced by the project which indicates satisfactory restoration of their livelihoods. **Figure 2-2** shows the on-going agricultural activities being undertaken by the PAHs in their new settlements.

2.6 Partially Displaced PAHs

Partially displaced PAHs are those PAHs who have lost a part of their land and residential structures in that part of the land and will relocate to the portion of land that is unaffected by the project and therefore do not require to acquire new land elsewhere. A total of **34 PAHs** were partially displaced (physical and economic) by the project under RAP 2.

Table 2-4: Partially Displaced PAHs

Section	Partially Displaced
Southern Dyke	31
Northern Dyke	03
Total	34

Vulnerable PAHs

Out of the **34** partially displaced PAHs, none are vulnerable.

2.7 Physical Relocation Status

2.7.1 Monetary Compensation

All the **34** partially displaced (physically and economically) PAHs received compensation for the loss of their assets (land, structures, crops, and trees) at full replacement cost based on the valuation undertaken by National Land Commission (NLC). The contractor did not possess the site for the construction until all the PAHs were fully compensated and relocated in line with the lender's requirements.

2.7.2 Resettlement Location

This category of PAHs has resettled in their unaffected (unacquired) parcels of land and did not have to acquire (purchase) any new land but instead relocated their residential structures to sections of their unaffected land parcels. The resettlement location of these PAHs has not changed which means they retained their social and cultural networks by relocating within the same parcel of land in the same sub location.

2.7.2.1 New Residential Houses

All the **34** partially displaced PAHs in RAP 2 lost their residential structures as a result of the project constructed new residential houses of superior quality and size as compared to the residential structures occupied pre-project level. This was confirmed during regular post-resettlement monitoring. All the 34 PAHs constructed houses made of concrete walls and floors with galvanized iron sheet roofing. **Figure 2-2** shows a sample of newly constructed residential houses.



Figure 2-2: Newly Constructed Residential Houses.

2.7.3 Continuation of Livelihoods

The **34 PAHs** were primarily farmers (animal husbandry and crop production) and have all resumed/resorted to their livelihood activity in their new settlements after being displaced by the project which indicates successful restoration of their livelihoods. **Figure 2-3** shows the on-going agricultural activities being undertaken by the PAHs in their new settlements.



Figure 2-3: On-going agricultural activities being undertaken by the PAHs in their new settlements

2.8 Economically Displaced PAHs

A total of **773** PAHs represents 100% of PAHs who were displaced economically by the project under RAP 2.

Table 2-5: Economically Displaced PAHs

Section	Economically Displaced
Southern Dyke	356
Northern Dyke	417
Total	773

Source: Field Survey, 2025

2.8.1 Monetary Compensation

All the **773 PAHs** who comprise 100% of economically displaced PAHs have all been fully compensated for the loss of their assets (land, trees, crops, and structures). Compensation for the loss of assets was based on valuation undertaken by National Land Commission (NLC) at full replacement cost. No construction activities commenced until the PAHs received their due compensation for directly affected assets and they had relocated from the project area where applicable.

2.8.2 Resettlement Location

This category of PAHs did not require relocation because their physical structures (residential) were not affected by the project and did not have to acquire (purchase) any new land for farming but instead relocated their agricultural activities to sections of their unaffected land parcels.

2.8.2.1 New Residential Houses

This category of PAHs did not lose physical (residential) structures as a result of the project and did not require to construct new structures.

2.8.2.2 Continuation of Livelihoods

The PAHs were primarily farmers (animal husbandry and crop production) who resumed/resorted to this form of livelihood activity after relocating to the portion of land not affected by the project which indicates successful restoration of their livelihoods. **Figure 2-3** above shows the on-going agricultural activities being undertaken by the PAHs in their new settlements.

2.8.2.3 Grave Relocation

There are **62** graves that have been affected by the project and which have been relocated by the PAHs through the prevailing cultural rites, traditional norms, and procedures for relocation of graves after compensation.

2.9 RIC Roles

The RAP implementation Consultant (RIC) provided support to the compensation process upon being commissioned in December 2019 (prior to that time, KWSCR/PMU was undertaking RAP implementation support) by undertaking the following activities to facilitate and expedite the compensation process namely:

1. Facilitating in collaboration with the PAH representatives obtaining of Kenya Revenue Authority (KRA) Personal Identification Numbers (PIN) for all PAHs who did not have the document which is a mandatory requirement and prerequisite to receiving compensation. The RIC engaged cybercafé operators in the project area who assisted in the registration of PAHs.
2. Facilitated, in collaboration with the PAH representatives opening of bank accounts for PAHs who did not have bank accounts. Bank account is a mandatory requirement and prerequisite to receiving compensation. All payments by NLC are made directly to the bank accounts of each PAH. The RIC engaged local banks in the project area specifically Kenya Commercial Bank (KCB) and Equity Bank. The bank representatives establish desks at the RIC's office where the PAHs came and opened their bank accounts.
3. Facilitated in collaboration with the PAH representatives, obtaining of national IDs for PAHs who did not have the document. The RIC liaised with the local administration (chief's office) and Huduma Centre to assist PAHs who did not have ID cards obtain them.
4. Facilitated in the acquisition of title deeds through the conveyance lawyer, the RIC liaised with the lawyer to ensure the PAHs without title deeds got them.
5. The RIC in collaboration with the PAH representatives assisted the PAHs in identification of new land for relocation and monitored the construction of new residential houses for the PAHs.
6. RIC linked PAHs with ISC Agricultural Enhancement Programs for modern agricultural practice training and market linkages.
7. The RIC Mobilised PAHs in collaboration with the PAH representatives (GRMC members) for NLC land acquisition processes. The RIC undertook door to door mobilisation of PAHs by creating awareness and sensitisation, ensuring that all the PAHs were informed in advance of the dates and venues proposed by NLC for the following activities among others:
 - Inspection
 - Inquiry
 - Issue of Awards
 - GRMCs
 - Providing chairs, refreshments during NLC activities

2.10 Livelihood Restoration Activities

Livelihood restoration activities targeting the PAHs being implemented by the Implementation Support Consultant (ISC) and RIC based on the Livelihood Restoration Plan (LRP) developed for the project are ongoing the activities include land and non-land-based livelihood restoration activities as described below.

2.11 Non-Cash Based Livelihood Enhancement Support

All the PAHs benefited from non-cash-based livelihood restoration programs (LRP) as recommended in the RAP 2 and LRP plan for RAP 2. Non-land-based livelihood was aimed at providing skills and training to all the PAHs to enable them transition into alternative livelihoods, or scaling up of the existing non-land-based livelihoods. According to the socio-economic baseline survey undertaken by the RIC in 2020 for RAP 2, agriculture (animal husbandry and crop production) was stated as the key livelihood source for the PAHs. The RAP 2 report recommended agricultural capacity enhancement for the PAHs to enable them restore their livelihoods. The

KWSCR/PMU undertook the following activities for the 60% of the PAHs under RAP 2 as part of the livelihood restoration activities namely:

2.1.1.1 Financial Management Training

The socio-economic profile of the PAHs indicated low literacy levels where majority were either secondary school leavers or drop-outs with no additional skills. Imparting skills on financial management among the PAHs was one of the critical measures recommended in the RAP 2 to ensure wise use of the compensation money. A section of the PAHs (88) who were compensated prior to the recruitment of the RIC received financial training from the KWSCR/PMU team. The RIC provided financial Management training to the rest of the PAHs prior to receiving compensation. The training covered the following areas;

- Basic numeracy skills.
- Money management and basic household budgeting.
- Savings and strategic cash management.
- Basic literacy.

This training was geared at equipping the PAHs with basic skills to enable them manage the cash they will receive through compensation. Money management has been identified as a gap in many projects where PAPs received cash compensation without skills to handle large sums of money. This has led to wastage leaving many PAHs vulnerable. The effectiveness of the training was assessed during post resettlement monitoring and it was observed that all PAHs used the compensation money appropriately, they replaced their affected assets and crops and none were rendered vulnerable by the project.

2.1.1.2 HIV and AIDS Prevention and Care Training

HIV prevalence in Busia is 1.1 times higher than the national prevalence at 6.7%. This high prevalence factor is attributed to high levels of HIV related stigma, unequal distribution of health and testing facilities and testing commodity shortages among other factors. The project area is situated along a major fishing hub and studies have revealed a strong link between fishing hubs and HIV and AIDS prevalence. The towns and trading centers along such areas are more vulnerable and tend to have higher prevalence rates than interior towns or rural areas.

All PAHs received HIV prevention and care training which involved awareness creation, encouraging people to go for testing services and linking them to existing HIV related services such as HTC, PrEP, PEP, joining PLHIV support groups and seeking treatment where necessary. The training was conducted in collaboration with the existing national government, county structures and civil society organizations. This training was not provided by the KWSCR/PMU before the recruitment of RIC. After recruitment, the RIC provided subsequent training to the rest of the PAHs.



Figure 2-4: Financial training being conducted by the RIC

2.1.1.3 Provision of Access

The project design includes construction of access roads, culverts and crossing points at various points to ensure safe access by the PAHs to the river and other public utilities. These infrastructure was constructed by the project as per the design.

2.1.1.4 Agricultural Capacity Enhancement Program

The agricultural capacity enhancement program is a livelihood restoration activity targeting PAHs and other project beneficiaries. It is aimed at establishing and implementing Irrigated Agricultural Support Fund (IASF) and Irrigated Agriculture Value Chain Management which is part of Sub-Component 2 of the LNIDP. This sub-component is designed in such a manner that, with the assistance of the Implementation Support Consultant (ISC), linkages between PAHs (project beneficiaries) and other market participants would be established and capacity building to the farmers (who are PAHs) developed to enable them to conduct business with the private sector such as agribusiness agencies, banks, NGOs, various service providers etc.

The component 2 activities seek to increase land under crop production, increase yields by introducing extension services, better farming technologies as well as introduction of high value

crops production leading to food security and thereby directly restoring the livelihoods of the PAHs.

Under this sub-component livelihood restoration activities ensured that:

1. All PAHs received capacity building and training on irrigation practices, Sustainable Rice Intensification (SRI) technologies, Higher Value Crops (HVCs), etc.
2. All PAHs were sensitized and facilitated to initiate agricultural practices in their new settlement (in case of permanent displacement) under the LRP agricultural capacity enhancement program.
3. All PAHs were introduced to new farming technologies to encourage and promote commercial agriculture and agribusiness value chain including post-harvest handling (drying and storage).
4. All PAHs received training in marketing, value addition and understood the whole agriculture value chain.
5. All PAHs were supported in the development of farmer-market linkages
6. All PAHs were supported to access the Revolving Fund that will be established allowing farmers to access inputs and services.
7. All PAHs have free access to the post-harvest infrastructure that will be developed (cold rooms, storage facilities, rice milling, and extension of Bunyala drying floor).
8. All PAHs have free access to the irrigation and management facilities, laboratory, offices, and Resource Centre, IWUA meeting rooms and facilities for on-site training sessions.
9. All PAHs will benefit and have free access to the demonstration farms in the irrigation area established by the project and specifically receive training on adoption of Rice Intensification technologies and adaptive research for the Higher Value Crops (HVCs). This is being done in partnership with Kenya Agricultural and Livestock Research Organisation (KARLO).
10. All PAHs were supported in establishing nurseries for the proposed new crops, that could offer comparative advantages in the project area (passion fruit, banana, papaya, etc.)
11. All PAHs will benefit from free soil testing, improvement and conservation and will receive free training on management of soil pollution, soil fertility and conservation.
12. All PAHs will receive free extension services on new farming technologies
13. All PAHs will be introduced to zero grazing farming practices to replace the free-range grazing. Livestock farming though practiced at a very small scale (2.2%) may improve with zero grazing mainly because there will be intensive farming, extension services to introduce new farming technologies which may seek to promote livestock farming by producing fodder. This will increase milk production for domestic consumption and sale.
14. Fish farming will be introduced at the reservoir to be managed by the IWUA which the PAHs are members, and this will be both for consumption and sale.
15. All PAHs will receive water all year round as a result of the irrigation scheme which will increase the productivity of the land used through farming by the PAHs.

Several agricultural capacity enhancement programs have been undertaken by the ISC targeting the PAHs who are also project beneficiaries. The RIC has specifically ensured that PAHs participate in all the agricultural capacity enhancement programs by the ISC described below by informing the PAHs of the dates and venues of such trainings and ensuring that ISC target PAHs in their extension services and linkages to markets. The details related to the agricultural capacity enhancement programs offered to date by the ISC, includes the dates, venues, number of participants who are PAHs are contained in the monthly progress report on agricultural capacity enhancement programs prepared by the ISC.

The livelihood restoration activities implemented thus far and targeting the PAHs include: -

2.11.4.1 Capacity Building, Training and Extension Services

ISC has built the capacity of PAHs to produce and sell. The capacity building activities involved extension services, on-farm practical trainings, establishment of the model and SRI demonstration farms, field days, follow-ups on adoption of Good Agricultural Practises (GAP) and introduction of mechanical harvesting of rice.

2.11.4.2 Extension and Training

ISC in collaboration with KEPHIS and MOA is conducting rice seed bulking training for PAHs. The training target topics included land preparation, variety selection, seed bulking, field establishment, crop nutrition, pest, and disease management. ISC has also trained PAHs on the use of certified F1 seeds or seedlings, proper plant nutrition, timely weeding, harvesting, and postharvest techniques.



Figure 2-5: Left: Felista shows Tausi F1 kales which she has harvested for six months Right: Pamela explains to Dorvin Stockdale, Agricultural Operations Coordinator (ISC) how she preserves seeds for replanting

2.11.4.3 Establishment of Model Farm

The ISC has conducted Good Agricultural Practices (GAPs) on model farm targeting PAHs as well as other beneficiaries. Key activities included pest and disease management, application of foliar feed, transplanting of indigenous vegetables and ploughing of an area previously planted with bananas in order to provide space for planting more HVCs. In addition, the ISC also initiated the planting of herbs and spices in collaboration with KALRO at the model farm.



Figure 2-6: Various crops at the Model Farm

2.11.4.4 Establishment of SRI Demonstration Farm

ISC has led PAHs in implementing GAPs on the SRI demonstration. The GAPs under Sustainable Rice Intensification (SRI) included crop nutrition management, weed management, weed control, strategic application of water, application and rates of crop protection chemicals, and bird scaring. Farmers that had previously been trained on GAPs in rice production reported having realized high yields of about 100% increase. Farmers from the immediate farms actively participated in the implementation of these activities.



Figure 2-7: SRI performance at the demonstration farm

2.11.4.5 Training Day

ISC has held training days at the Model and SRI demonstration farms. During the training days, PAHs have been trained on the importance of using clean seed, source, lot numbers and price, characteristics of each seed variety planted at the model farm, plant spacing. The trainings were organized in collaboration with the private and the public sector players such as seed companies, agrochemical companies and county government officers from Busia and Siaya Counties.



Figure 2-8: Farmers attending Field Day at Model farm on 2nd December 2020

2.11.4.6 Follow up on the adoption of Good Agricultural Practices

ISC has made extension visits and follow-ups on the adoption of Good Agricultural Practices (GAPS) that farmers were trained on. The GAPs include use of certified F1 seeds or seedlings, crop nutrition, timely weeding, harvesting, postharvest techniques, land preparation, variety selection, seed bulking, field establishment, pumpkin maturity index, pest and disease management. The follow ups were made in blocks 4, 7, 9,10,11,12, 13 and 14, reaching out to 30 early adopters of high value crops (24 males and 6 females).

2.11.5 Marketing and Market Linkages

ISC supported farmers in block 11, 10 and 14 to produce and sell pumpkin to structured markets, during one season 30 metric tons of pumpkin were harvested sold to traders in Kikuyu and Ruiru with prices averaging from Ksh. 20 to Ksh 25. The remaining stock of pumpkin was sold to nearby local markets. Averagely, 1kg of pumpkin was sold at Ksh. 20. In addition, the ISC also enlisted 82 farmers from block 12 and 8 to grow soya bean for an off taker Zero Two Heroes, who prefers a group based contractual arrangements as opposed to working with individual farmers. In this arrangement, an input supplier, Magombe Cooperative Society was selected to provide ploughing services, whilst MAGOS farm enterprises, an input supplier from the private sector, agreed to supply crop protection chemicals and fertilizers on credit. They used a check-off payment model, which was affected by Zero Two Heroes at the point of collecting the produce from the farmers. A crop insurance facility was incorporated at the aggregation level. To actualise this process, a contract to produce and supply soya beans was signed between the farmers and Zero Two Heroes.



Figure 2-9: Oramba Farmers Group members harvesting tomatoes in Groups Demo Farm

2.11.5.1 Follow-up on formal Registration of FPMGs

ISC made follow-ups on the progress of documentation and formal registration of the FPMGs. The activity entailed verifying whether the FPMGs had put together all the documents required for formal registration. The key documents needed for the registration process include a duly signed list of members against their national identification numbers, minutes of the meeting authorizing the elected officials to undertake the registration, validated, and agreed upon group by-laws signed by the elected officials, name of the group and a registration fee of Ksh. 1,000.

2.11.5.2 Private and Public Sector Partnerships

The ISC developed new partnerships with Chemical Land and KALRO stations in Njoro, Katumani, and Muguga who donated legumes seeds, herbs, and spices seedlings for the

establishment of a demonstration site on the model farm. Further, ISC mobilized pre-production actors to collaborate in production capacity building activities and impressed upon the private sector actors to make in kind contributions to the project such as donating Agricultural inputs (seeds, fertilizers, crop protection products), and also participating in the establishment and management of the model farm, SRI and on-farm activities, as well as participating in farmer learning activities. The following actors were approached and engaged; Pannar, Pioneer, Africasia, Equity, Syngenta EA, Avepo Enterprises, Monsanto, Seedco, Baraka Fertilizers, Bayer EA, Yara Limited, Amiran, Magos Enterprises and KCB Port Victoria Branch.

2.11.6 Utilization of Compensation Funds

PAHs have utilized their compensation funds in a sound manner as demonstrated by the fact that all those PAHs who were physically displaced (fully or partial) all purchased alternative land and constructed structures of greater quality in terms of size, material and in a bigger piece of land. Consultations with the PAHs also indicate that most PAHs either used the additional funds to cater for other needs such as education, health food, investments in small and micro enterprises among others. This information can also be gathered through follow-up assessment or beneficiary feedback.

3 GRIEVANCE REDRESS MECHANISM

3.1 Grievance Redress Mechanism

The RAP 2 report on the Lower Nzoia Irrigation Project-1 established a Grievance Redress Mechanism (GRM). This mechanism made provisions to document, track, manage and resolve all grievances and complaints raised by internal or external project stakeholders in an accessible, timely and transparent fashion. The purpose of the grievance mechanism is to allow PAHs the ability to give continuous input and/or to lodge complaints against the project, and to allow for the resolution of grievances.

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3.1.1 GRC Awareness

PAHs and other stakeholders were sensitized on the existence of the GRM at the inception phase of the project through community consultation forums. The Grievance Redress Committees (GRCs) which are the first level GRM are comprised of local community members including PAPs and are easily accessible to PAHs. In addition, the RIC trained the Grievance Redress Committees (GRCs) on dispute resolution. User feedback and GRM tracking logs indicate that the use/uptake of the GRM system has been encouraging. PAHs have shown confidence in the system by reporting their grievances and showing contentment with the process.

3.1.2 Types of Grievances Received and Status

The use/uptake of the GRM system has been encouraging, PAHs have shown confidence in the system by reporting their grievances and showing contentment with the process. Most grievances are resolved, there are a few grievances that are pending, and most have been resolved at the first level. There have been different types of grievances that have been received by the GRCs relating to resettlement by the PAHs. These grievances have been channeled to the GRCs focal points, who have lodged these complaints in the grievance log and addressed them within the stipulated timelines for grievance redress as outlined in the RAP. The table below shows the grievances received and status of redress/resolution. The grievances are mainly disputes over land boundaries, ownership and succession related. The unresolved grievances were elevated to the high level for resolution as provided for in the GRM. These grievances included among others:

- Succession
- Ownership of land
- Boundary disputes

Table 3-1: Grievances and Resolutions

Grievance	Number	Resolved	Unresolved
	42	42	0

4 CONCLUSION

4.1 Challenges and Lessons Learned

The following were the challenges that were encountered in the process of ensuring efficient resettlement of the PAHs as per the RAP 2.

1. Delayed payment by NLC after the completion of the NLC land acquisition process led to anxiety among the PAHs and caused delay in possession of land by the contractor which subsequently delayed the construction process and affected the construction schedule including timelines.
2. Inadequate documentation by PAHs specifically the lack of Bank Account, KRA PIN also constrained the land acquisition process.
3. Disputes among the PAHs over land ownership, boundaries and succession related grievances delayed the land acquisition process. Some disputes were resolved while those that were not resolved the compensation money was put into a escrow account until they are resolved.
4. NLC bureaucracy slowed down the compensation process.
5. COVID 19 pandemic affected the project deliverables.
6. Unadjudicated wetland area claimed by PAHs in Bulemia and Khajula Locations led to delay in land acquisition.
7. A substantial number of PAHs required succession.
8. Delays in dispute resolution due to serious family differences e.g., agreeing on an administrator also delayed compensation.

4.2 Conclusions

1. The GRCs are functional and accessible to all the PAHs who demonstrated confidence to the process by reporting grievances.
2. Almost all grievances were been resolved in an expedited manners demonstrating the effectiveness and capacity of the GRCs.
3. Compensation of the PAHs has been in line with the entitlement matrix in the approved RAP other than the requirement to restore livelihoods and provide additional support to vulnerable PAHs. RIC has implemented the livelihood restoration plan which is outside of the NLC compensation process and provided targeted support to vulnerable PAHs.
4. Valuation and compensation for assets by NCL was based on replacement cost method in line with World Bank OP. 4.12, NLC Act and as outlined in the approved RAP.
5. Compensation funds were to a great extent utilized in a sound manner as demonstrated by evidence of replacement of lost assets (structures and land purchase).
6. RIC was also informed by various households that compensation funds were used for other purposes such as education, food, health among others.

4.3 Recommendations

1. NLC should improve on its effectiveness in terms of disbursement of PAHs compensation once the awards are completed.

5 APPENDIX

5.1 Appendix A. List of Relocated PAHs and New Structures

5.2 Appendix B. List of PAHs

5.3 Appendix C. Selected GRM Logs

5.4 Appendix D. List of Trained Participants

5.5 Appendix E. Entitlement Matrix

5.6 Appendix F. List of Deleted Parcels

5.7 Appendix G. Selected Gazette Notice

Appendix E. Entitlement Matrix

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
1.	Land	Agricultural land	Land Title Holder who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> • Remaining land portion economically viable 	<ul style="list-style-type: none"> • Cash compensation for the affected land area at full replacement cost • Sensitization/Education of PAP on alternative viable farming that can be done on remaining parcel of land. • Disturbance allowance is 15% of the land value.
			Land Title Holder who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> • Remaining land portion not economically viable 	<ul style="list-style-type: none"> • Where the portion of land affected is large rendering the remaining portion not economically viable, then the whole parcel shall be acquired and compensated at full replacement cost and the PAPs will be facilitated to acquire land in the same area at no additional costs. Further details are outlined in the footnote below • Land for land replacement will be in terms of a new parcel of land of equivalent size and productivity with a secure tenure status at an available location which is acceptable to PAPs. Transfer of the land of the land to PAPs shall be free of taxes, registration and other costs • Disturbance allowance is 15% of the land value.
		Residential land	Land Owners who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> • Land use for residence partially affected/limited loss • Remaining land viable for present use 	<ul style="list-style-type: none"> • Cash compensation for the affected land area at full replacement cost • Disturbance allowance is 15% of the land value.
			Land Owners who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> • Land use for residence severely affected • Remaining area insufficient for continued use 	<ul style="list-style-type: none"> • Where the RAP II project interferes with the homestead arrangement and the remaining land is small the whole parcel is acquired and compensated at full replacement cost and relocated on a new parcel. However where the land is big the homestead is relocated within and compensation paid for the acquired portion at full replacement cost. • Disturbance allowance is 15% of the land value. • Sensitization of affected homestead members, provision of resettlement support and jobs.
		Commercial land	Land Owners who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> • Land used for business partially affected • Reduced land for commercial activities • Reduced Commercial value of the land 	<ul style="list-style-type: none"> • Cash compensation for the affected land area at full replacement cost • Sensitization/Education of PAPs on alternative commercial use of the remaining land if not fully acquired. • Disturbance allowance is 15% of the land value

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
			Land Owners who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> Land use for business severely affected Reduced land for commercial activities Reduced Commercial value of the land 	<ul style="list-style-type: none"> Where affected land is large rendering the remaining portion not commercially viable, then the whole parcel is acquired and compensated at full replacement cost Disturbance allowance is 15% of the land value
		Grazing Land	Land Title Holder who have genuine land Title Deeds or Letters of Allotments through customary or legal acquisitions	<ul style="list-style-type: none"> Loss of land for grazing livestock 	<ul style="list-style-type: none"> Cash for Land compensation is the preferred option by most of the PAPs. Where only a small portion of land is affected cash for the affected portion only is paid Where the portion affected is large rendering the remaining portion not commercially viable, then MEWNR/NIB shall acquire and compensate for the whole parcel at full replacement cost Sensitization/Education of PAP on alternative methods of livestock keeping (keeping of high value livestock, zero grazing etc.) that can be done on remaining parcel of land if it is not fully acquired. Disturbance allowance is 15% of the land value.
		Rented Land	Tenant as recognized by customary landowner.	<ul style="list-style-type: none"> Loss of asset within the rented land. 	<ul style="list-style-type: none"> Compensation for the asset lost at market prices. Transportation cost to the new area of relocation.
2.	Structures	Residential Houses	<ul style="list-style-type: none"> PAPS who own all types of structures in the project area whether they have land title or other legal entitlement to the land or not PAPs who do not have legal rights or permission to live in the land 	<ul style="list-style-type: none"> Loss of part or whole structure especially residential houses and commercial buildings Displacement of persons living in the affected houses Loss of business premises Disruption of regular income 	<ul style="list-style-type: none"> Cash compensation for each structure to the owner whether they own the land or not. Even squatters are entitled to compensation for their building structure. Payment for the structure is for replacement cost of the structure at the current market rate. Sensitization/Education of PAP on the loss and how restoration can be achieved. Right to salvage material 3 months advance notice to vacate. This period is adequate since majority of the structures in the area are semi-permanent and can be constructed within a short period of time, e.g., one week. Disturbance allowance is 15% of the structure
3.	Loss of Regular income from Business	Income from services (Bicycle repair shade.)	Persons offering services at a fee	<ul style="list-style-type: none"> Loss of average monthly income for a period of 6 months 	<ul style="list-style-type: none"> Cash compensation of monthly income for a period of 6 months Upon payment of compensation, PAPs should be given at least three-month (3) notice to relocate from project site and the reestablishment of the business in the same locality. Sensitization/Education of PAP on alternative commercial activities and alternative location where they can re-establish their businesses. Disturbance allowance is 15% of the monthly income
		Income from Sand Harvesting	Sand harvesters in the project area	<ul style="list-style-type: none"> Loss of regular income from sand harvesting in the RAP II area due lack of access to River Nzoia 	<ul style="list-style-type: none"> Access points have been provided to ensure individuals affected have access to River Nzoia

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
4.	Trees	<ul style="list-style-type: none"> Timber, Building Material, Canopy providing shade Trees for fruits 	Owners of the trees whether they own the land or not	<ul style="list-style-type: none"> Loss of timber for furniture Loss of shade within PAP Compound Loss of building material Loss of both food and income from sale of the fruits 	<ul style="list-style-type: none"> Compensation for the trees affected by the project guided by rates of Kenya Forest Services (KFS) and considering the local market value of the trees Sensitization and Education of PAPs on restoration through replanting Disturbance allowance is 15% of the value trees
5.	Perennial Crops	<ul style="list-style-type: none"> Subsistence food for farmers Source of income when taken to the market 	Owner of the crops whether they own the land or not	<ul style="list-style-type: none"> Loss of food crop for the farmer Loss of income 	<ul style="list-style-type: none"> Compensation for damaged perennial crops as guided by the Ministry of Agriculture rates and considering the local market value of the crop as if mature Sensitization and Education of PAPs on restoration through replanting
6.	<ul style="list-style-type: none"> Community Land Government Land Land and Building, belonging to a Church, Land, Structures and Trees belonging to Government institution 	<ul style="list-style-type: none"> Public Land Religious Institutions Police Patrol base Serving the Community 	<ul style="list-style-type: none"> Community members affected by the project Government Departments whose land and Structures are affected Members of the Affected Church 	<ul style="list-style-type: none"> Loss of Government land and structures Loss of Church 	<ul style="list-style-type: none"> Cash compensation of affected land and property at full replacement cost
7	<ul style="list-style-type: none"> Sacred/Cultural Sites 	<ul style="list-style-type: none"> Graves 	<ul style="list-style-type: none"> Next of Kin of the deceased 	<ul style="list-style-type: none"> Strong bond between the living and the departed Fear of disturbing the departed lest it brings a bad omen 	<ul style="list-style-type: none"> Compensation on relocating the grave will include the following: <ul style="list-style-type: none"> Planning of the ceremony by family members and traditional leaders. Convening a traditional prayer ritual for reburial; Permit from the government to exhume the remains; Exhumation and reburial costs Food stuffs for the mourners A sum of up to (Kshs 150,000) to be compensated for relocating graves.
	<ul style="list-style-type: none"> Loss of livelihood 	<ul style="list-style-type: none"> Impact on vulnerable groups 	<ul style="list-style-type: none"> All households with vulnerable PAPs and households who will be permanently displaced. 	<ul style="list-style-type: none"> Psychological effect Not able to take care of themselves due to the status in society 	<ul style="list-style-type: none"> All vulnerable PAHs entitled to livelihood restoration support as defined in Section 12.

Definitions:

1. Full displacement means the relocation of land, shelter, and other fixed assets to a new location.
2. Partial displacement means partial loss of either land, shelter and other fixed assets. His means that the PAP does not have to relocate to a new location.