



MINISTRY OF WATER SANITATION AND IRRIGATION
KENYA WATER SECURITY AND CLIMATE RESILIENCE PROJECT



LOWER NZOIA IRRIGATION AND DEVELOPMENT PROJECT

RAP and LRP Implementation Completion Audit Report
100% of RAP and LRP Implementation Completed for RAP 1

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ACRONYMS AND ABBREVIATIONS

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 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 1 of the Lower Nzoia Irrigation Project Phase 1 (LNIP-I). This completion report has been prepared by the RAP Implementation Consultant (RIC) as part of the contractual obligation and deliverables requiring submission of RAP implementation progress at 100% completion of Project Affected Household (PAH) compensation and implementation of livelihood restoration activities and was adopted by the client.

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 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. The Government of Kenya is undertaking a program to reverse the massive water sector investment gap that is transitioning through a reform process requiring comprehensive, multi-pronged approach that addresses key infrastructure, institutional and information limitations in order to contribute towards a solid development path for the country.

Lower Nzoia Irrigation Project Phase I Component

The Lower Nzoia Irrigation Scheme Phase 1, which is located on the left bank of the Nzoia River, is considered by GoK as the first step in the development of irrigation in the lower Nzoia river basin. The overall objective was to revitalize agricultural development in the project area (notably, high value crops) and to increase food production and security, thereby enhancing nutrition and standards of living of the local community. GoK also plans to develop the right bank of the river (referred to as Phase 2) using the same intake infrastructure. Located in Siaya and Busia Counties in Western Kenya this public irrigation scheme would derive its water from the Nzoia River, which flows into Lake Victoria a very short distance downstream. The Lower Nzoia Irrigation Project Phase 1 has a net irrigable area of 4,043 ha and once fully developed will directly irrigate 4,043 hectares, half devoted to high value cash crops (perennial and seasonal fruit, as well as vegetables) and benefit approximately 20,000 people of whom about 12,600 people (2,100 households) are currently farming on land in the project area and another additional 8,000 people are expected to work on the scheme as hired labor. Another estimated 50,000 people are expected to benefit through linkages to the scheme activities and outputs. In addition, the economy of local area would be enhanced by irrigated agriculture.

The main irrigation infrastructure planned to be constructed included: 85 km of main and secondary irrigation canals and farm road network and passages. In addition, flood control facilities, including dyke construction, enhancement and other associated structures will also be constructed under the project. The irrigation component is located on the left bank (southern bank) of the Nzoia River with the intake point some 37 km upstream of Lake Victoria, while the flood protection structures (dykes) are located on both the left and right banks of Nzoia River downstream of Rwambwa bridge and referred to as the southern and northern dykes respectively.

LNIP 1 activities included:

- Construction of an intake structure (weir) and associated infrastructure to command the identified potential both at the southern and northern banks of the Nzoia River.
- Construction of conveyance, water distribution and drainage canals for the estimated 7,697 ha irrigable area on both banks of the river (Phase 1-4,075 ha on left bank and Phase 2-3,622 ha on right bank).
- Rehabilitation/modification of the Bunyala Irrigation Scheme
- Provision of agricultural support and value chain services to the project farmers
- Enhancement of institutional capacity for effective service provision and scheme management by National Irrigation Authority (NIA) and farmers' organizations
- Capacity building of NIA staff, farmers, and farmers' organizations

Project Location

The Lower Nzoia Irrigation Scheme Phase 1 including the flood mitigation infrastructure is 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 2,593km², 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.

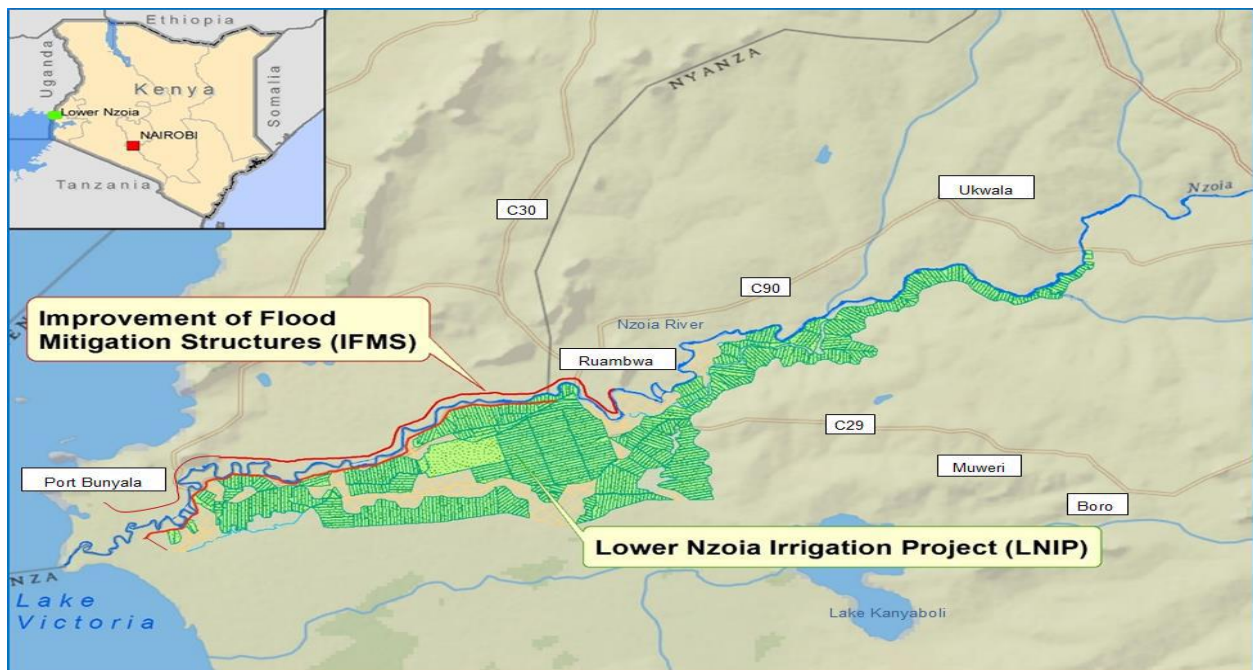


Figure 0-1: General location and development area
Source: Final RAP 1 Report for LNIP (2018)

Project Construction Activities

1. Construction of intake weir/reach of the backflow
2. Construction of connecting canal
3. Construction of head works canal
4. NIA administration offices

Summary of Physical and Economic Displacement Impacts

Total Land Take

The total land take for the Project is **57 ha**. The number of affected parcels is **158**. The parcels of affected land are being used for subsistence agriculture and as settlement areas for the PAHs with residential structures. Displacement will mainly occur at different villages within 3 sub-locations namely Ambira, Umala and Ligega.

Number of PAHs

The total number of PAHs is **170**, losing land, structures, crops, and trees as shown in **table 0-1** below. No businesses and public land or public assets have been affected by this phase of the project. **Tables 0-2, 0-3** and **0-4** show the category of displacement and PAH number by section. While the RAP report had indicated that the project area had 239 PAHs, the NLC inspection process identified 170 PAHs and this RAP implementation report is based on the NLC master-list data for RAP 1.

Table 0-1: PAH Category and Impact

Category of Impact	Number	Compensation Status
Fully ¹ Displaced	10	Compensated
Partially ² Displaced	13	Compensated
Economically ³ Displaced	147	Compensated

Table 0-2: Fully Displaced PAHs

No.	Section	# PAHs
1	Southern Backflow	6
2	Northern Backflow	1
3	Connecting Canal	0
4	Head Works Canal	0
5	NIB offices	2
Total		10

Table 0-3: Partially Displaced PAHs

No.	Section	# PAHs
1	Southern Backflow	03
2	Northern Backflow	00
3	Connecting Canal	02
4	Head Works Canal	08
Total		13

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

Table 0-4: Economically Displaced PAHs

No.	Block/Section	# PAHs
1	Southern Backflow	50
2	Northern Backflow	22
3	Connecting Canal	59
4	Head Works Canal	16
Total		147

Affected Assets

The PAHs are losing: -

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

Vulnerable Households

There were 6 vulnerable persons affected by the project and include elderly people and female-headed households with no support systems either than the affected assets. This number is a significant variation from the 98 vulnerable PAPs (63 elderly and 35 widows) that had been identified in the RAP1. The variance was occasioned by design changes and realignments of the intake and associated headwork facilities that took place after the RAP census. These realignments resulted in reducing the impact footprint by avoiding some previously defined impact footprint.

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:

Census Conducted by the NLC Vs Census Conducted by the Project

The World Bank approved RAP census survey included all PAHs, both titled and non-titled, as long as they held interest in the land within the project footprint at the time of the census. As a common practice in many African countries including the project area, the father of a homestead sometimes allocate land to sons without transferring the title deeds to their name. In keeping with WB OP4.12, the WB approved RAP documented such cases as eligible PAHs. However, National Land Commission, the entity with mandate to undertake compulsory land acquisition, when conducting its census survey, does not recognize persons residing on their father's land (without title) as landowners i.e. (PAHs). This differences in practice partly account variations in the total number of PAHs in the WB approved RAP 1 as against the number in the RAP implementation progress report. This situation which is not unique to the LNIP, but rather a common phenomenon in most Bank-funded projects in Kenya. Such PAHs were compensated for improvements on the land, with compensation for land paid to persons (fathers) duly noted on such titles. Culturally, affected matriarch or patriarch relocating from the project area do so with all their resident dependents to the new locations where they buy land with the compensation money.

Where the impacts on land did not result in any physical relocation from the parcel, the registered land owners assigned the dependents new location(s) on the remaining section of the affected land

where the dependents either built new homes with the compensation paid to them directly by NLC (where the affected structures & other developments on the affected land belonged to them) and where they continued cultivating crops.

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 Bulimia section 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 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 RAPs considered PAHs in such parcels as landowners whereas the on-going confirmation of the same by GoK is indicating that most of the land is GOK owned as a result of being riparian land. This is another reason for variation. The PAHs in these areas were compensated for improvements.

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. 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 RAPs namely:

- LNIP RAP 1-Head Works infrastructures (weir, connecting canal, backflow)
- LNIP RAP 2-Flood Protection/Mitigation Structures (dykes)
- LNIP RAP 3-Primary and secondary canals

Resettlement Implementation Status

Land Acquisition

All the PAHs who constitute 100% have had their land acquired and handed over to the contractor. The contractor was handed possession of the land only after the PAHs had been fully compensated and relocated from their affected parcels.

Compensation Status

The status of compensation for 100% of the PAHs is presented as follows. **170** PAHs who comprise 100% of the total PAHs have all been fully compensated for the loss of their assets (land, trees, crops, and structures). Only 7 PAHs out of the 170 PAHs have not been compensated due to protracted disputes (3 PAHs) and 4 absentee PAHs. The absentee PAP owns 4 parcels of land and has not been compensated because his family and friends have not been able to trace him. Improvements on the land that belonged to his relatives were compensated. 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 compensation for affected assets and relocated as applicable.

Relocation Status

All the **170 PAHs** comprising of 100% of all the PAHs, have been physically and/or economically displaced by the project out of which **23 PAHs** are physically displaced and **147 PAHs** are economically displaced as shown in **table 0-4** above and did not require relocation.

Grave Relocation

There were 12 graves that have been affected by the project and which have been relocated by the PAHs with full compliments of the necessary cultural rites, traditional norms, and procedures for relocation of graves after compensation.

Livelihood Restoration Activities

There are on-going livelihood restoration activities targeting the PAHs being implemented by the Implementation Support Consultant (ISC) and RIC based on the Livelihood Restoration Plan (LRP) that was separately developed for the project. These activities include land and non-land-based livelihood restoration activities. The land-based livelihoods include support for farmers to re-establish and/or resume crop farming combined with soft interventions such as financial literacy training, extension and agriculture enhancement and HIV/AIDs prevention training.

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

Most of the PAHs are utilizing the compensation funds effectively. Most PAHs who were physically displaced (fully or partial) have purchased alternative land and constructed structures with greater quality in terms of size, building materials used and size of land. Consultations with the PAHs also indicate that most PAHs have used the additional funds to cater for needs including education, health food, investments in small and micro enterprises among others.

Grievance Redress Mechanism

RAP 1 established a robust Grievance Redress Mechanism (GRM) which included the formation of Grievance Redress Committees (GRC) at Locational, Sub County, County, and project levels. The KWSCR/PMU provided training to all the GRCs established in dispute resolution 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 22 grievances were received from the PAHs and they were resolved there is no pending dispute.

Summary of Activities of RIC

The RAP implementation Consultant did not provide any resettlement support for this group of PAHs because by the time the RIC was contracted by the KWSCR/PMU, the PAHs had been compensated and relocated. In view of the above, the RIC instead undertook a **resettlement audit** to ascertain if:

1. PAHs were fully compensated for loss of assets
2. Fully displaced PAHs were supported in identification of alternative resettlement land

3. PAHs were benefiting from the livelihood restoration activities being implemented by the RIC
4. Contractor possessed the acquired land after compensation and relocation of the PAHs
5. Grievances by the PAHs and whether they were resolved

Conclusion

1. The total number of physically displaced PAHs is 23 while 147 PAHs are economically displaced.
2. All the PAHs have been compensated and resettled apart from 7 PAHs who have disputes and or are absentee PAHs.
3. The RIC was unable to provide RAP implementation support to PAHs in RAP 1 due to engagement post compensation and relocation of PAHs
4. The KWSCR/PMU provided RAP implementation support to the PAHs prior to engagement of the RIC
5. Provision of infrastructure to facilitate access by the PAHs to the river and other utilities have been provided in accordance with the design
6. The GRCs are functional and accessible to all the PAHs with grievances reported by PAHs
7. Almost all grievances have been resolved in an expedited manner demonstrating the effectiveness and capacity of the GRCs.
8. 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 and provided targeted support to vulnerable PAHs.
9. 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.
10. 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).
11. RIC was also informed by various households that compensation funds were used towards education, food, health among others.
12. Only 7 PAHs have not been compensated primarily because 4 are absentee PAHs and 3 are PAHs with protracted (non-reconcilable) ownership disputes. Numerous attempts have been made by the KWSCR/PMU and RIC to trace and locate these PAHs to no avail. The GRC's have also made several efforts to resolve the ownership disputes among the 3 PAHs with little effort in spite of escalation to the highest levels of grievance redress as per the RAP. These disputes are now in the courts of law.

Recommendations

1. The compensation funds for the 4 absentee PAHs who could not be traced and those with disputes are still being held by NLC. It is recommended that NLC opens an escrow account and deposit the money as required by OP. 4.12, Land Act and approved RAP 1.
2. NLC to improve on its effectiveness in terms of disbursement of PAHs compensation once the awards are completed.
3. Although most of the affected land belongs to the fathers, the affected dependents should be fully paid/compensated for any of the affected improvements on the land and when he physically relocates, he does so with all his/ her dependents who reside on the affected land to the new resettlement land and allocate the dependents equal proportions of it to what they had on the acquired land.

I INTRODUCTION AND PROJECT DESCRIPTION

This document constitutes the completion audit report on the status (as at 100%) of resettlement of Project Affected Households in the Lower Nzoia Irrigation Development Project (LNIDP) specifically for the Resettlement Action Plan 1 (RAP 1). It describes the results of RAP completion audit 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 (KWSCR) implemented by the Ministry of Water, Irrigation and Sanitation and National Irrigation Authority (NIA). This is a RAP completion audit because the RIC was onboarded post disbursement of compensation and relocation of all the PAHs.

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 KWSCR. The LNIP-1 component is jointly financed by the Government of Kenya (GoK), World Bank and KfW, while the Improved Flood Mitigation Structures (IFMS) component is financed by the GoK and World Bank. The two components of the Lower Nzoia Project are located in Siaya and Busia Counties in Western Kenya. 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. Water supply to Phase II will be via an aqueduct over the Nzoia River to the northern bank at 2.9 km from the intake.

Water supply for LNIP Phase I is mainly through open earth canals with the main canal being lined. The irrigation project aims at introducing irrigation and capacity building in order to enhance agricultural production, which is presently at very low levels in the project region. Ultimately the main objective of the project is to increase food production and food security in the region, including access to better nutrition and enhanced standards of living for the local communities. Further benefits to be drawn from this project is to provide the farmers with a diversified economy, improved access to markets, and opportunities for development of agro-based industries and commerce. The success of the project will rely on the transition from current rain-fed subsistence agriculture to commercial farming based on horticulture, while maintaining functionality of the new irrigation scheme through adequate maintenance and cost effective and efficient operation. The project is, therefore, designed with three complementary pillars or activities:

1. Construction of the irrigation and drainage infrastructure
2. Support to agricultural production and establishment of market linkages through a value chain approach
3. Support to the efficient operation of the scheme as well as to progressive transfer of responsibilities and decision making from National Irrigation Authority (NIA) to farmers organized in Irrigation Water Users Associations (IWUAs).

The project is also designed to identify and capture opportunities and establish the necessary incentives for the private sector to play a critical role in any early stage as: (i) a service/inputs provider, (ii) a regular purchaser of agricultural products, and/or (iii) an investor in the scheme, notably in facilities that may be needed for the agricultural products to be marketable. The project will therefore seek to facilitate private sector initiatives (agribusiness firms, banking system,

NGOs, associations, service providers, etc.) that would ensure project success and sustainability and serve the interest of beneficiaries. To this end, the project will provide support services and capacity building to farmers, such that they are better equipped to engage in business with the private sector. The project will also examine a concrete and adapted approach to Irrigation Management Transfer (IMT) for gradually handing over from development agencies to farmers the rights and responsibilities to operate, maintain, and manage irrigation systems.

Given the complex and multi-dimensional nature of the project as well as its challenges, NIA and farmers is receiving comprehensive and integrated support from an Implementation Support Consultant (ISC), who plays an essential role in overall project management and coordination, and deliver critical activities under the project: construction supervision, provision of advisory and training services on agricultural and irrigation aspects, construction and multidisciplinary assistance in putting in place business models as a transaction officer, etc. One of the essential roles of the ISC is to implement agricultural capacity enhancement (livelihood restoration) targeting PAHs and other beneficiaries by providing capacity building.

1.2 Beneficiaries

The LNP Scheme Phase 1 is expected to directly benefit over 20,000 people. 2,100 households representing 12,600 beneficiaries who are primarily engaged in rain-fed subsistence agriculture (mainly maize and beans) and extensive livestock rearing in the command area and an additional 8,000 people who would be needed as workers. Another estimated 50,000 people are expected to benefit through linkages to the scheme activities and outputs. In addition, the economy of local area would be enhanced by irrigated agriculture.

1.3 Project Location

The Lower Nzoia Irrigation Project Phase 1 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 infrastructure under RAP 1 are located in Siaya County, within Ugunja and Ugenya Sub Counties and specifically in Ambira, Ligega and Umala sub locations.

The RAP 1 components cover the backflow area, intake weir and the connecting head works canals over a stretch of about 8 km.

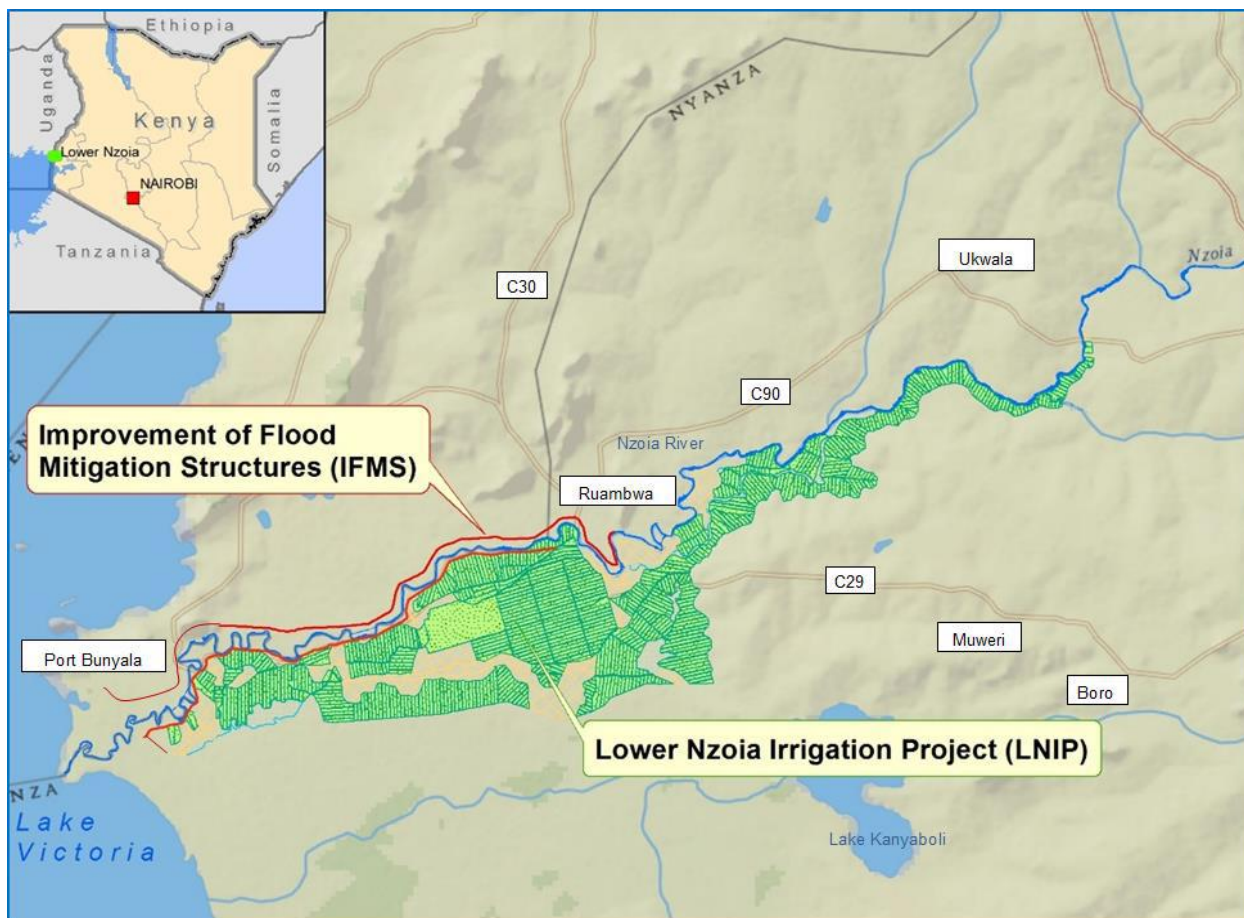


Figure 1-1: Location of LNIP and IFMS

Source: RAP I Report for LNIP (2018)

1.4 Project Administrative Area

Administratively the project area falls in western parts of Siaya County specifically in Ugunja and Ugenya Sub Counties. The 8 km project component traverses Ugunja Ward, North-East and Central Ugenya locations, Ligega, Ambira and Umala sub locations and nine villages within the sub locations. The National Irrigation Authority (NIA) new office is located in Alego/Usonga sub county, Usonga location, Nyadorera A sub location (**Figure 1-2 and Table 1-1**).

Table 1-1: Project Area Administrative settings

No.	Block / Section	County	Sub-County	Location	Sub-Location	Area (m ²)
1	SBF	Siaya	Ugunja	Central Ugenya	Ambira	177,173
2	NBF	Siaya	Ugunja	North-East Ugenya	Ligega	86,355
3	HWC & CC	Siaya	Ugunja	Central Ugenya	Umala	248,855
4	New NIA Offices	Siaya	Alego /Usonga	Usonga	Nyadorera A	53,627
Total						566,010

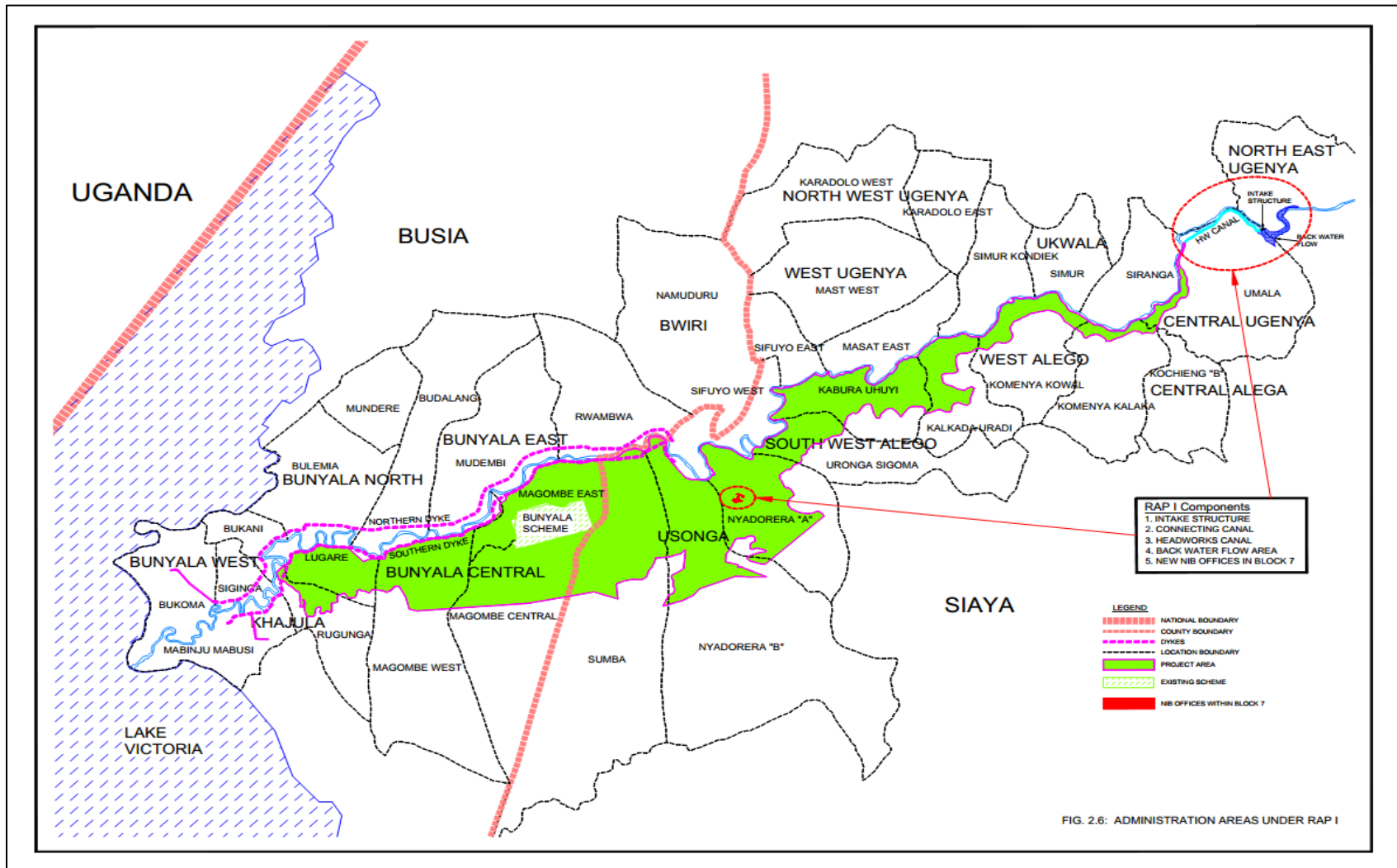


Figure 1-2: Administrative Areas-RAP 1
Source: Final RAP I Report for LNIP (2018)

1.5 Project Components

The LNIDP Phase I comprises four activities: (i) construction of irrigation and drainage infrastructure; (ii) support to agricultural production and establishment of market linkages through a value chain approach; (iii) support to the efficient operation of the infrastructure and to the progressive transfer of responsibilities and decision-making to Irrigation Water Users Associations (IWUAs); and (iv) project management.

1.5.1 Construction of Irrigation and Drainage Infrastructure

The scheme has a net irrigable area of 4,043 ha. The technology is gravity canal irrigation with furrow or basin irrigation at farmers' plot levels depending on the crops. The key features of the infrastructure are:

- Diversion weir and intake facilities to command 4,043 ha on the left bank (Phase 1) and possibly serving an additional 3,795 ha on the right bank (Phase 2)
- Spillway, and sedimentation basin for both phases and one aqueduct across the river to serve the right bank
- Network of canals (main, primary, secondary, and tertiary) and drains down to farmers' fields and flow control structures (altogether, 85 km of main and secondary canals). The length of the main canal is approximately 36.7 kilometres. It would be primarily earthen, with only approximately one-third of its length (about 12 kilometres) lined, as necessitated by soil conditions. Eleven secondary canals are proposed for a total length 47.7 kilometres. The command area of the secondary canals is 3,899 ha, with the balance of 144 ha being served by tertiary canals/water courses directly from the main canal, for a total net command area of 4,043 ha.
- Water control structures (division box, hydraulic structures)
- Farm road network and passages (down to tertiary canal level)
- Technical buildings
- Farm development, including land levelling, tertiary canal/water courses, feeder canals and on-farm drains that will be partly financed by farmers in the form of a reimbursement, together with the irrigation fee

1.5.2 Agricultural Production and Establishment of Market Linkages

This sub-component aims to support sustainable and inclusive agricultural production and marketing, including the establishment of necessary value chain arrangements. Specific activities include supporting extension services to farmers (including assisting farmers to contract with buyers), as well as improving timely access to agricultural inputs, credit, cropping and post-harvest infrastructure and equipment.

1.5.2.1 Markets and Marketing

The development of long-term and reliable market outlets, key to project success, is a specific activity supported by the project. The needed effort will vary from one crop to the other depending on a number of factors, including: volume produced, seasonality, and the existence of local/regional/national/international (including sub-regional) unmet demand. Surplus volumes of traditional cereals, pulses and tubers grown will be partly marketed locally or stored following a multi-annual household food security strategy. There is a significant deficit in rice availability at

the national level,⁴ and a high demand for national production. Under this activity, the marketing arrangements currently in place at Bunyala will be improved, together with the implementation of System of Rice Intensification (SRI) technologies to increase the profitability of this crop. The demand for fruit (fresh markets or agro-processing) is on the rise in Kenya, both as export substitute (for processed juices) and as export product (markets in Europe, in particular). However, the amount to be ultimately produced in Nzoia is significant and requires continuously reliable markets outlets, possibly through contract farming. This activity will confirm these markets outlets-through the preparation of a sound value chain feasibility study—and will examine vegetable marketing and the establishment of contacts with existing players of the value chain, as achieved in other innovative projects in Kenya and elsewhere (e.g., experience of USAID and GIZ supported projects with involvement of private sector). It is planned that this activity will specifically support the following:

- Institutional analysis of actual and potential actors of the agricultural supply and demand chains to be established, including a market analysis. This analysis will also include public actors such as the Ministry of Agriculture and its representatives, sub county level services, Kenya Agricultural and Livestock Research Organization (KALRO), and private professional unions and associations such as Horticultural Crop Development Authority of Kenya (HCDA), Fresh Produce Exporters Association of Kenya (FPEAK), and Kenya Horticultural Council (KHC).
- Setting up and financial support to sustainable and inclusive value chain arrangements, including facilitating contractual arrangements with private sector on the supply and demand side of agricultural production
- Setting up a multi-year agricultural development plan
- Setting up, in collaboration with the local authorities, a strategy to ease job creation, notably during peak labor demand periods
- Extension services to farmers and introducing improved agricultural techniques, such as SRI for rice
- Establishment of a nursery for improved seedlings for new crops
- Demonstration farms
- Construction of a resource centre that will serve for on-site training sessions
- Establishment of a revolving fund allowing farmers to access inputs and services from the first season onwards
- Training sessions
- Post-harvest infrastructure (cold rooms, extension of Bunyala drying floor, and processing plant for a third of the passion fruit harvest).

1.5.2.2 Efficient Scheme Operation and Progressive Transfer of Responsibilities to IWUAs

The objective of this activity is to enhance the management efficiency and financial sustainability of the irrigation scheme, in line with Kenya's policy and legal provisions on irrigated agriculture that emphasize Irrigation Management Transfer (IMT) from government to organized farmers. This involves the following tasks: (i) forming, developing and strengthening the capacity of irrigation water user associations (IWUAs) to carry out necessary operations and maintenance

⁴ About 400,000 tons of rice are consumed in Kenya annually, of which about 12.5 per cent is met from local production, the rest being imported mainly from Egypt and Asian countries (KIPPRA, 2011).

(O&M) and cost recovery functions that would be transferred to them from NIB; (ii) developing, testing in the scheme (notably during the full two years of operation), monitoring and evaluating adapted tools and processes; (iii) if found feasible, testing and adapting to the case of Lower Nzoia Irrigation Scheme Phase 1 business models that are alternative to the progressive transfer from NIA to IWUAs. The specific activities include the following:

- Establishment of a detailed inclusive road map for IMT including during construction phase
- Study and establishment of an overall efficient and transparent governance structure for the scheme, including on issues such as approach to setting water fees, achieving mutual accountability between IWUAs and NIB, equity, and considerations of longer-term issues
- Establishment of tailored operational, maintenance, monitoring and evaluation (including performance indicators) and administrative manuals that will serve during the first two years of operation (years 6 and 7) and beyond.
- Assistance on plot reconfiguration processes as needed, as a result of the construction of tertiary level and feeder canals, with regards in particular to issues related to effective use of irrigation water
- Continuous and progressive capacity building of farmers to allow them carry out all technical and administrative functions necessary for adequate operation and maintenance of their sphere of responsibility in the scheme, from field to secondary canal level irrigation (scheduling and water application methods, crop management and watering regime, O&M planning, scheduling and costing, maintenance of structures and equipment, record keeping and accounting, fee charging and collection, participatory M&E);
- Continuous and progressive capacity building of NIA staff as needed, including for them to assist farmers
- Monitoring of performance indicators (initially by an implementation support consultant with progressive transfer to other actors with the consultant's assistance: NIA staff, IWUAs)
- Study of alternative business model for Nzoia, in connection with agribusiness firms potentially interested in providing technical advice on some aspects of irrigated agriculture; assistance in setting up such models if found feasible

A progressive transfer of irrigation management to farmers will be supported under the project, as follows: The Nzoia scheme will be functionally divided into 14 irrigation blocks that are defined by the 14 secondary canals as hydraulic units. These blocks will be managed by one IWUA each. The 14 IWUAs will be combined in an Apex IWUA. The blocks are further subdivided into lines/feeders at the tertiary level, managed by water user groups (WUGs). Once irrigation starts, it is envisaged that NIA will initially manage the scheme and water distribution down to the secondary canal level. From the start, farmers organized in IWUAs will take responsibility for O&M of the tertiary canals and below, including irrigation fee collection and allocation. At the beginning, NIA will provide: (i) management, operation and maintenance services; (ii) formation and capacity building of IWUAs and cooperatives, and (iii) targeted support to irrigated agriculture and marketing. Farmers would be liable for water charges based on the budgeted estimated total O&M cost incurred by NIA but would pay a portion of them only (to be determined). In addition to the progressive IMT, alternative business models for Lower Nzoia Irrigation Scheme will be explored. Such alternative business models that involve private operators should by their nature protect and enhance farmers' interests.

1.6 RAP I Components

The project components under RAP 1 include: -

1. Construction of intake weir including backflow area upstream of the intake weir
2. Construction of Connecting Canal (CC)
3. Construction of Head Works Canal (HWC) up to the sand trap/head works regulator.

Key features under this sub-component include:

Construction of a 60m long and 4m high intake structure (weir) and associated infrastructure on the Nzoia River, 4km upstream of the Nzoia bridge to command the identified potential irrigation areas on the southern and northern banks of the Nzoia River.

Table 1-2 shows the extents of the RAP I components necessitating acquisition of land.

Table 1-2: Extent of RAP I Components

Affected Area	Length (Km)
Intake weir/reach of the backflow	5
Connecting canal	0.145
Head works canal	2.78
Total length (reach and canals)	7.925

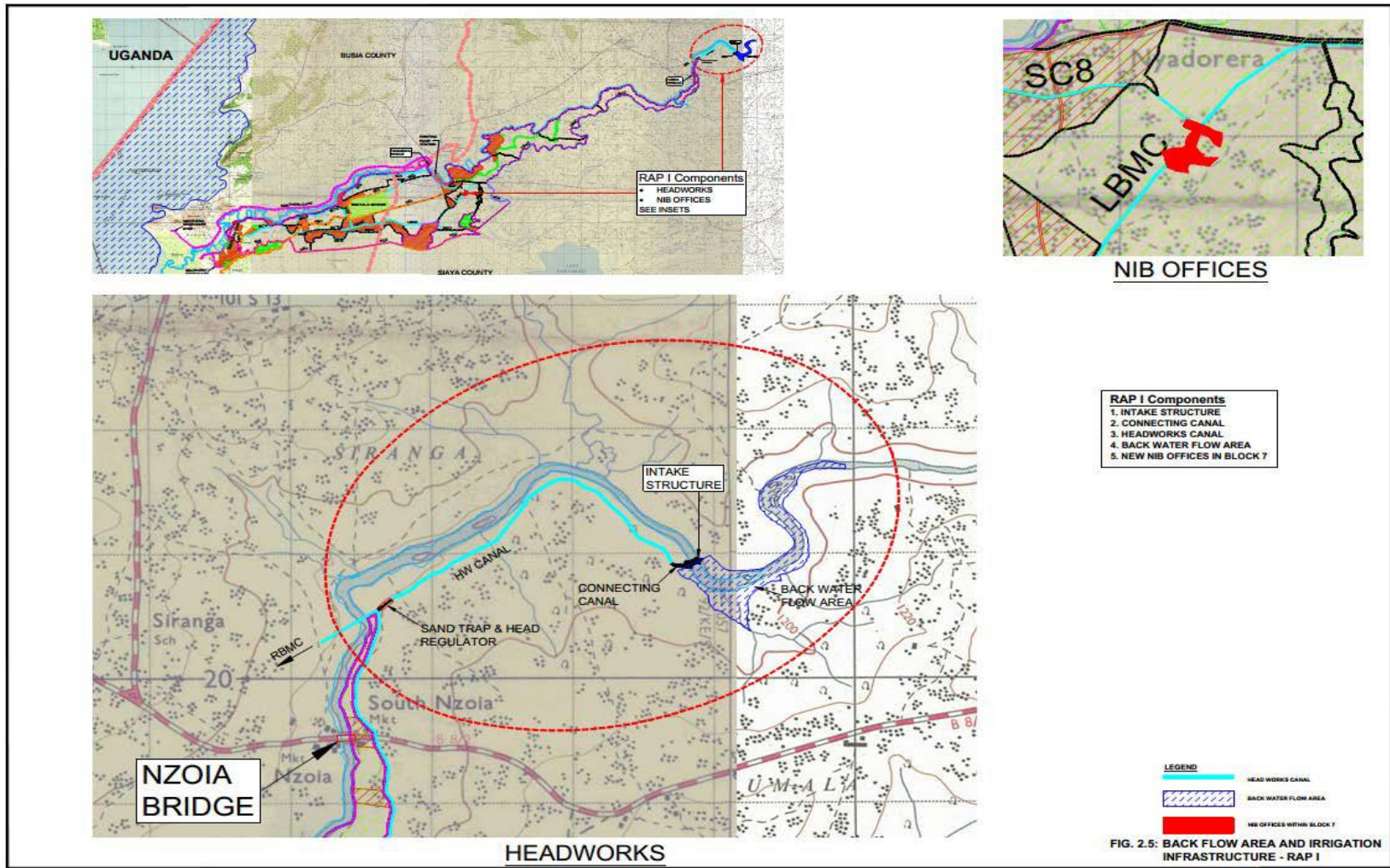


Figure 1-3: RAP 1 Project Infrastructure Components
Source: RAP 1 report (2018)

1.7 Displacement Impacts

A Resettlement Action Plan (RAP) for the Project was developed in 2013 and was approved by WB and KfW Development Bank 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 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 website for KWSCRIP and MOWSI, 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 appertains to the status and progress of resettlement of PAHs associated with RAP 1 only. The status and progress of resettlement of PAHs associated with RAP 2 and 3 have been prepared separately.

1.8 RAP I Footprint

LNIDP-1 RAP 1 includes the following infrastructures: -

1. Intake weir including backflow area upstream of the intake weir
2. Connecting Canal (CC)
3. Head Works Canal (HWC) up to the sand trap/head works regulator.
4. NIB office area

1.8.1 Project Affected Areas

1.8.1.1 Affected Land Area – Lower Nzoia Irrigation Project (RAP I Area)

The affected land area under RAP I is 566,010 m² or 57 ha (142 acres) as shown in **Table 1-3**

Table 1-3: Affected Land Area

No.	Section	County	Sub-County	Location	Sub-Location	Area (m ²)
1	SBF	Siaya	Ugunja	Central Ugenya	Ambira	177,173
2	NBF	Siaya	Ugunja	North-East Ugenya	Ligega	86,355
3	HWC & CC	Siaya	Ugunja	Central Ugenya	Umala	248,855
4	New NIB Offices	Siaya	Alego/Usonga	Usonga	Nyadorera A	53,627
Total						566,010

NB: NBF= Northern Backflow SBF= Southern Backflow HWC= Headworks Canal CC= Connecting Canal

1.8.1.2 Population of Project Affected Persons

The RAP 1 report indicated that there were 239 property owners in the project area however, the NLC process identified 170 PAHs. The reason for the variance is described in section 2.2.1.

1.8.1.3 Displacement Impacts

A total of **170 PAHs** will be affected by the project (**23** households losing residential structures and land, while **147** losing trees, crops, and land). No businesses or public land are affected. The parcels of affected land are being used for subsistence agriculture and private residential areas.

2 RESETTLEMENT STATUS OF DISPLACED PROJECT AFFECTED HOUSEHOLDS

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

2.1 Number of Displaced PAHs

There are a total of **170** PAHs who are impacted by this project phase and have been compensated for the loss of assets (land, structures, crops, graves, and trees). Compensation has been cash based which was the primary preference of the PAHs. Compensation was based on the valuation of assets (graves, crops, trees, and land) undertaken by the National Land Commission (NLC). The determination of the value of affected assets was undertaken by NLC using the 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 two 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.

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

Annex C 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 was expected and is 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 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 would document such cases as a PAH. 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). It is for this reason, that the total number of PAHs in 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.

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 Bulimia section 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 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 RAPs considered PAHs in such parcels as landowners whereas the on-going confirmation of the same by GoK is indicating that most of the land is GOK owned as a result of being riparian land. This is another reason for variation.

2.3 Fully Displaced PAHs

A total of **10 PAHs** were fully displaced by the LNIP project components which include:

- Southern backflow
- Northern backflow
- Connecting canal and headworks canal

Table 2-1: Fully Displaced PAHs

No.	Section	No. Displaced PAHs	No. of Vulnerable PAHs
1	Southern Backflow	8	1
2	Northern Backflow	1	0
3	Connecting Canal	0	0
4	Head Works Canal	1	0
Total		10	1

2.4 Vulnerable PAHs

Out of the 10 fully displaced PAHs, 6 is vulnerable. The level of vulnerability is old age. The elderly PAP (male) did not purchase land because they had ancestral land elsewhere where he resettled, build a house and is continuing with farming activities.

2.5 Physical Relocation Status

2.5.1 Monetary Compensation

All the 10 fully displaced 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 lenders' requirements.

2.5.2 Resettled in New Land

All the 10 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, 6 PAHs out of the 10 PAHs have purchased and settled in land of larger than previously held land, 1 PAH purchased land of similar size and 3 PAHs purchased land of smaller size compared to previously held land as shown in **Table 2-2**.

Table 2-2: Size of land purchased by PAHs

	Name	Size of Old Parcel (Ha)	Size of New Parcel (Ha)
1	Margaret Awino	0.4855	0.40
2	Charles Oduor	0.1491	0.16
3	James Juma	0.0845	0.26
4	Raphael Onyango Omondi	0.0845	0.17
5	Amos Otieno	0.188	0.19
6	Benard Otekra	0.056	0.05
7	John Owuor Ochieng	0.08	0.80
8	Charles Onyango Obote	8.71	0.12
9	Consolata Aluoch Owino	0.23	0.42
10	Vitalis Agaya	0.04	0.50

2.5.2.1 Resettlement Location

The PAHs were originally settled in the sub locations of Ligege, Umala, and Ambira. Their resettlement location is within the same sub locations, indicating that the PAHs have maintained their social and cultural networks by relocating within the project area.

2.5.2.2 Constructed Residential Houses

All the 10 PAHs have constructed new residential houses of superior quality and size as compared to the residential structures occupied pre-project. Out of the 10 PAHs, 9 PAHs constructed houses made of concrete and floors with galvanized iron sheet roofing. Only 1 PAH constructed a mud walled house. **Figure 2-1** shows a sample of the newly constructed residential houses by the PAHs. **Appendix 1** lists the PAHs houses affected including photographs of the new residential houses constructed following compensation.



Figure 2-1: PAHs newly constructed residential structures

2.5.2.3 Continuation of Livelihoods

The 10 PAHs were primarily farmers (animal husbandry and crop production) and have all resumed/resorted to this form of livelihood activity in their new settlements after being displaced by the project which indicates successful restoration of their livelihoods. **Figure 2-2** shows the on-going agricultural activities being undertaken by the PAHs in their new settlements.



Figure 2-2: PAHs livelihood activities (agriculture) in newly acquired land

2.5.2.4 Unrestricted Access to River Nzoia

All the PAHs currently have unrestricted access to the river Nzoia and continue to derive pre-project benefits from the river. There is no PAHs with restricted access as a result of the project infrastructure including distance to the Nzoia River from their new resettlement area. All the 10 PAHs relocated within a distance of no more than 856m (the furthest PAHs) from the Nzoia River and in effect continue to benefit from the river with little or no challenge of accessing the river or travelling longer distances to get to the Nzoia River.

2.6 Partially Displaced PAHs

Partially displaced PAHs are those PAHs who will lose a part of their land and residential structures in that part of the land and will relocate to the portion of land unaffected by the project

and therefore do not require to acquire new land elsewhere. A total of **13** PAHs have been partially displaced by the LNIP project under RAP 1 as shown in **table 2-3** below.

Table 2-3: Partially Displaced PAHs

No.	Block/Section	No. of Partially Displaced PAHs	No. of Partially Displaced Vulnerable PAHs
1	Southern Backflow	03	0
2	Northern Backflow	00	0
3	Connecting Canal	02	0
4	Head Works Canal	08	0
Total		13	0

2.6.1 Vulnerable PAHs

Out of the 13 totally displaced PAHs none are vulnerable.

2.7 Physical Relocation Status

2.7.1 Monetary Compensation

All the **13** partially displaced PAHs received compensation for the loss of their assets (land, structures, crops, and trees) at full replacement cost based on the valuation undertaken by NLC. The contractor did not possess the site for the construction until all the PAHs were fully compensated and relocated in line with the lenders requirements.

2.7.1.1 Resettlement Location

This category of PAHs have resettled in their unaffected (un-acquired) parcels of land and did not have to acquire (purchase) any new land and instead relocated their residential structures to sections of their unaffected land parcels. Their resettlement location is within the same sub locations, indicating that the PAHs have maintained their social and cultural networks by relocating within the project area.

2.7.1.2 New Residential Houses

All the 13 partially displaced PAHs in RAP 1 losing residential structures as a result of the project have constructed new residential houses of superior quality and size as compared to the residential structures occupied pre-project level. All the PAHs constructed houses made of superior quality with majority having concrete walls and floors with galvanized iron sheet roofing as shown in **figures 2-3** below.

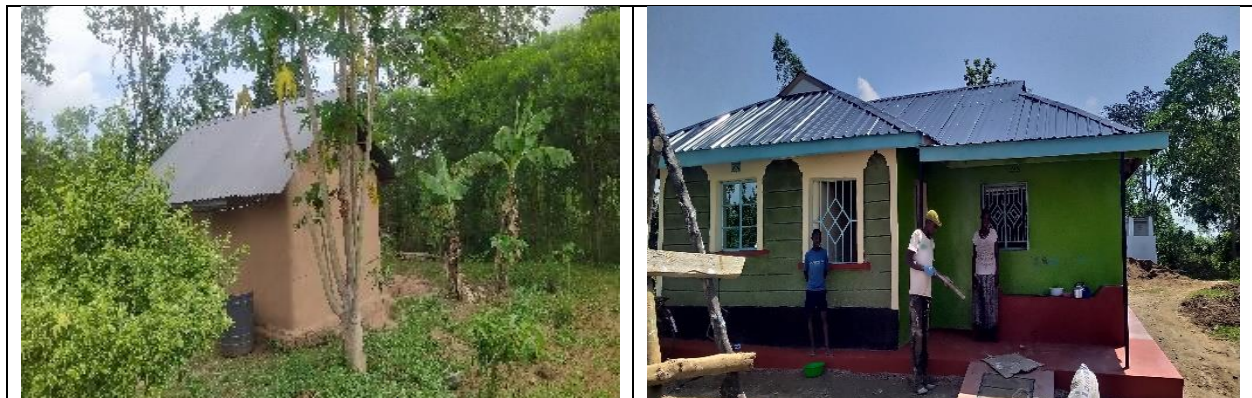




Figure 2-3: PAHs newly constructed residential structures

2.7.1.3 Continuation of Livelihoods

The 13 PAHs were primarily farmers practicing animal husbandry and crop production and have all resumed/resorted to this form of livelihood activity in their new settlements after being displaced by the project which indicates successful restoration of their livelihoods.

2.8 Economically Displaced PAHs

A total of **147** PAHs representing of the total PAHs have been displaced economically by the LNIP project under RAP 1.

2.8.1 Monetary Compensation

140 PAHs out of the **147 PAHs** have received compensation for the loss of their assets (land, crops, and trees) at full replacement cost based on the valuation undertaken by National Land Commission (NLC). Only 7 PAHs have not been compensated due to protracted disputes (3 PAHs) and 4 absentee PAHs. One absentee PAP owns 4 parcels of land and has not received compensation because his family and friends have not been able to trace him, however all improvements (that belonged to his relatives) on the parcels were compensated for. Once he is traced/contacted, NLC will pay compensation for the 4 parcels. The contractor did not possess the site for the construction until all the PAHs were fully compensated and relocated in line with the lenders' requirements.

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.

2.8.3 Continuation of Livelihoods

The PAHs were primarily farmers (animal husbandry and crop production) and have all resumed/resorted to this form of livelihood activity after being fully and partially displaced by the project which indicates successful restoration of their livelihoods. In addition to continuation of livelihood activities, the PAHs and livestock have access to the river through bridges and a road constructed along the canal.

2.8.3.1 Grave Relocation

There are 12 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.

2.9 RIC Roles and Activities

The RAP implementation Consultant did not provide any resettlement support for this group of PAHs because by the time the RIC was contracted by the KWSCR/PMU, the PAHs had been compensated and relocated. In view of the above, the RIC instead undertook a **resettlement audit** to ascertain if:

1. All the PAHs were fully compensated for loss of assets
2. Displaced PAHs had relocated and continued with their livelihoods
3. PAHs were benefiting from the livelihood restoration activities being implemented by the RIC
4. Contractor possessed the acquired land after compensation and relocation of the PAHs
5. Grievances by the PAHs and whether they were resolved
6. Grievance Redress Committees were established, trained, and functioning effectively

2.10 Livelihood Restoration Activities

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

2.11 Non-Cash Based Livelihood Restoration Programs

Non-land-based livelihood was aimed at providing skills and training to all the PAHs in order to transition into alternative livelihoods, or the scaling up of existing non-land-based livelihoods. According to the socio-economic baseline survey undertaken by the RIC in 2019 for RAP 1, agriculture (animal husbandry and crop production) is the key livelihood source of the PAHs. The RAP 1 report recommended agricultural capacity enhancement for the PAHs in order to restore their livelihoods. The KWSCR/PMU undertook the following activities for the 100% of the PAHs under RAP 1 as part of the livelihood restoration activities namely:

2.11.1 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 1 report to ensure wise use of the compensation money. However, financial management training was not provided by the RIC to the 170 PAHs prior to receipt of compensation funds because by the time the RIC entered in contract with KWSCR, these 170 PAHs had already been compensated and relocated to new areas. KWSCR/PMU provided financial management training for the PAHs.

2.11.2 HIV and AIDS Prevention and Care Training

Siaya County, where the project is located has a high HIV prevalence rate ranking the county amongst the five highest burdened in the country. The HIV prevalence among the general

population in Siaya is 24.8% for people aged 15 years and above (NACC). Busia County has a population of 825,836 comprising of 398, 648 (48%) males and 472,188 (52%) females. 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. 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 go for testing services and linking them to existing HIV related services such as HTC, PrEP, PEP and joining of 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. KWSCR/PMU provided the training for the PAHs.

2.1.1.3 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.

2.1.1.4 Agricultural Capacity Enhancement Program

The agricultural capacity enhancement program which is a livelihood restoration activity targeting PAHs and beneficiaries is aimed at establishing and implementing of 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, linkages between PAHs (project beneficiaries) and other market participants would be built and capacity building to the farmers (who are PAHs) developed to enable them to do business with the private sector (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 and this will lead to food security and thereby directly restoring the livelihoods of the PAHs.

Under this sub-component livelihood restoration activities would ensure that:

1. All PAHs receive capacity building and training on irrigation practices, Sustainable Rice Intensification (SRI) technologies, Higher Value Crops (HVCs), etc.
2. All PAHs are sensitized and facilitated to initiate agricultural practices in the new settlement (in case of permanent displacement) under the LRP agricultural capacity enhancement program.
3. All PAHs are 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 receive training in marketing, value addition and understand the whole agriculture value chain.
5. All PAHs to supported in the development of farmer-market linkages

6. All PAHs to access the Revolving Fund that will be established allowing farmers to access inputs and services.
7. All PAHs to 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 to 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 to benefit and have free access 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 shall be done in partnership with Kenya Agricultural and Livestock Research Organisation (KARLO).
10. All PAHs to be supported in establishment of nurseries for the proposed new crops, that could offer comparative advantages in the project area (passion fruit, banana, papaya, etc.)
11. All PAHs to 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 to receive free extension services on new farming technologies
13. All PAHs to 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 the 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 to be introduced at the reservoir to be managed by the IWUA which the PAHs are members, and this will be for consumption and sale.
15. All PAHs to 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. These 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.

2.11.4.3 Establishment of Model Farm

The ISC has conducted Good Agricultural Practices (GAPs) on the 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. The ISC has also initiated the planting of herbs and spices in collaboration with KALRO at the model farm.



Figure 2-4: 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 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 2-5: 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 training days were organized in collaboration with the private and the public sector players (seed companies, agrochemical companies and county government officers from Busia and Siaya Counties).



Figure 2-6: Farmers attending Field Day at Model farm

2.11.4.6 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.

2.11.4.7 Private and Public Sector Partnerships

The ISC has developed new partnerships with Chemical Land and KALRO 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 a kind contribution to the project i.e., give Agricultural inputs (seeds, fertilizers, crop protection products), and also participate in the establishment and management of the model farm, SRI and on-farm activities as well as participate in farmer learning activities. The following actors were reached and engaged; Pannar, Pioneer, Africasia, KCB, Equity, Syngenta EA, Avepo Enterprises, Monsanto, Seedco, Baraka Fertilizers, Bayer EA, Yara Limited, Amiran, Magos Enterprises and KCB Port Victoria Branch.

2.11.4.8 Utilization of Compensation Funds

PAHs are utilizing the compensation funds in a sound manner as 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. Consultations with the PAHs also indicate that most PAHs have either used the additional funds to cater for needs including education, health food, investments in small and micro enterprises among others.

3 GRIEVANCE REDRESS MECHANISM

The RAP 1 report pertaining to the Lower Nzoia Irrigation Project-1 has already established a Grievance Redress Mechanism (GRM). This mechanism has 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.

3.1 GRM Objectives

The purpose of the grievance mechanism is to allow stakeholders the ability to give continuous input and/or to lodge complaints against the project, and to allow for the resolution of grievances. The specific objectives of the grievance procedure include to:

- Provide PAHs with an avenue for raising concern or complaints, whether verbally or in writing.
- Provide appropriate and mutually acceptable redress to complaints.
- Verify that complainants are satisfied with outcomes of redress actions.
- Consistently document grievances and track resolution timelines.
- Avoid the need for stakeholders to resort to judicial proceedings.

3.2 GRC Awareness

PAHs and other stakeholders were sensitized on the existence of the GRM at the inception phase of the project. 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. 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.

3.2.1 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. 22 grievances were registered, 15 have been resolved while 7 are pending. Among the 7 grievances, 4 are absentee PAHs while 3 are protracted family disputes. There are different types of grievances that have been received by the GRCs relating to resettlement by the PAHs, ownership disputes, succession issues related to choose of administrators, sons not disclosing compensation monies to their old parents, misuse of compensation monies among others. These grievances were channeled to the GRCs focal points, 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.

Figure 3-1: Grievance and Resolution received and resolved

Grievance	Number	Resolution Status
Ownership	10	3 unresolved
Boundary disputes	8	Resolved
Succession	0	Resolved
Absentee PAHs	4	Unresolved

4 CONCLUSION

4.1 Challenges

Based on the consultations that RIC held with KWSCR/PMU and the PAHs including the GRCs, the following are the conclusions that can be drawn from the RAP 1 compensation, resettlement, and livelihood restoration activities. The following were the challenges that were encountered in the process of ensuring efficient resettlement of the PAHs as per the RAP 1.

1. Delayed payment by NLC after the completion of the NLC land acquisition process led to anxiety among the PAHs and delayed to possession of land by the contractor which subsequently delayed the construction process and affected the construction schedule and 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. More delays were caused by serious family differences e.g. agreeing on an administrator. The more time families took to litigate these disputes, the more the time required to engage, value and pay compensation.
4. The operating procedures of the NLC tend to track slowly with implicating delays on the compensation process and access to land for construction activities.
5. COVID 19 pandemic affected the project deliverables including the land acquisition process. At the peak of the COVID pandemic, the land acquisition team could not travel nor organize meetings with stakeholders and project-affected households, resulting in significant lost of time.

4.2 Conclusion

1. The total number of physically displaced PAHs is 23 while 147 PAHs are economically displaced.
2. All the PAHs have been compensated and resettled apart from 7 PAHs who have disputes and or are absentee PAHs.
3. The RIC was unable to provide RAP implementation support to PAHs in RAP 1 due to engagement post compensation and relocation of PAHs
4. The KWSCR/PMU provided RAP implementation support to the PAHs prior to engagement of the RIC
5. Provision of infrastructure to facilitate access by the PAHs to the river and other utilities have been provided in accordance with the design
6. The GRCs are functional and accessible to all the PAHs with grievances reported by PAHs
7. Almost all grievances have been resolved in an expedited manners demonstrating the effectiveness and capacity of the GRCs.
8. 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 and provided targeted support to vulnerable PAHs.
9. 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.
10. 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).

11. RIC was also informed by various households that compensation funds were used towards education, food, health among others.
12. Only 7 PAHs have not been compensated primarily because 4 are absentee PAHs and 3 are PAHs with protracted (non-reconcilable) ownership disputes. Numerous attempts have been made by the KWSCR/PMU and RIC to trace and locate these PAHs to no avail. The GRC's have also made several efforts to resolve the ownership disputes among the 3 PAHs with little effort in spite of escalation to the highest levels of grievance redress as per the RAP. These disputes are now in the courts of law.

4.3 Recommendations

1. The compensation funds for the 4 absentee PAHs who could not be traced and those with disputes are still being held by NLC. It is recommended that NLC opens an escrow account and deposit the money as required by OP. 4.12, Land Act and approved RAP 1.
2. NLC to improve on its effectiveness in terms of disbursement of PAHs compensation once the awards are completed.

5 ANNEX

Appendix A. List of Relocated PAHs and New Structures

Appendix B. List of PAHs

Appendix C. Entitlement Matrix

Appendix D. RAP I Relocation and Resettlement Status Report

Annex C. 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 if it is not fully acquired. • Disturbance allowance equivalent to 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 is 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 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 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 land to PAPs shall be free of taxes, registration, and other costs. • Disturbance allowance.
		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 used for residence partially affected/ limited loss. • Remaining land viable for present use 	<ul style="list-style-type: none"> • Cash compensation for land 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	<ul style="list-style-type: none"> • Land used for residence severely affected. • Remaining area insufficient for continued use. 	<ul style="list-style-type: none"> • Where the project interferes with the homestead arrangement and the remaining land is small the whole parcel is acquired and whole homestead relocated on a new parcel. However, where the land is big the homestead is relocated within, and

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
			customary or legal acquisitions		<p>compensation paid for the acquired portion at full replacement cost.</p> <ul style="list-style-type: none"> • Sensitization of affected homestead members, provision of resettlement support and jobs. • Disturbance allowance is 15% of the land value.
		Rented land	Tenant as recognized by customary land owner.	<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.
		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 therefore affecting livelihood. 	<ul style="list-style-type: none"> • 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.
2.	Structures	Residential Houses,	<p>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</p> <p>PAPs who do not have legal rights or permission to live in the land</p>	<ul style="list-style-type: none"> • Loss of part or the whole structure especially residential houses. • Displacement of persons living in the affected houses. 	<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. • Disturbance allowance is 15% of the structure. • 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.
3.	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 trees. • Sensitization and Education of PAPs on restoration through replanting • Disturbance allowance is 15% of the value of trees

No.	Types Of Loss	Property Type/Use	Entitled Person	Type of Impact	Restorative Compensation
4.	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
5	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 <p>A sum of up to (Kshs 150,000) to be compensated for relocating graves.</p>
6	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.